

KeM.Tech - KSF

CA 400 GL

MODEL

CA- 400 - GL
UPTER design

SAFETY

To maintain the operation safety, make sure read and understand this instruction book BEFORE operating this equipment.

KEMTECH
Chemin Louis Hubert 2
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EC Declaration of Conformity



According to the following EU Directives:

- Machinery Directive: 2006/42/ECLow Voltage Directive: 2006/95/EC
- Electromagnetic Compatibility Directive: 2004/108/EC

We, Kou Sheng Feng Co., Ltd.

Add: No. 36, Chi Shi Rd., Pai Dong Le, Tongshiao, Miaole 357, Taiwan, R.O.C. Tel: +886-37-791993 Fax: +886-37-793877 declare that the machines mentioned hereafter:

Super Lifter Model No.(s) : CA-400 Serial No. : 1001~1020

©Functions : They are designed and manufactured to be used for heavy load lifting.

They are designed and manufactured in compliance with the essential health and safety requirements of the Machinery Directive, Low Voltage Directive and Electromagnetic Compatibility Directive, and are based on the following European harmonized standards:

- EN 1494:2000+A1:2008, Mobile or movable jacks and associated lifting equipment
- EN ISO 12100-1:2003+A1:2009, Safety of machinery Basic concepts, general principles for design Part 1: Basic terminology, methodology
- EN ISO 12100-2:2003+A1:2009, Safety of machinery Basic concepts, general principles for design Part 2: Technical principles
- EN ISO 14121-1:2007, Safety of machinery Risk assessment Part 1: Principles
- ISO/TR 14121-2:2007, Safety of machinery Risk assessment Part 2: Practical guidance examples of methods
- EN 60204-32:2008, Safety of machinery Electrical equipment of machines Part 32: Requirements for hoisting machines
- EN 55011:2007, Electromagnetic compatibility Industrial, scientific and medical (ISM) radio-frequency equipment- Radio disturbance characteristics- Limits and methods of measurement
- EN 61000-4-2:2009, Electrostatic discharge (ESD)
- EN 61000-4-4:2004, Electrical fast transient/burst requirements (EFT/Burst)
- EN 61000-4-6:2009, Immunity to conducted disturbances, induced by radio-frequency fields (CS)

Representative:

Hulang Yu Ta / R&D Manager

Place / Date

Miaole, Taiwan / Nov. 08, 2011.

"Original instructions"



WARNING SYMBOL

To maintain the operation safety of this machine, the user shall read the included cautions in this manual very carefully to make sure of your personal safety, and to protect the equipment itself from damage. The cautions in the equipment will be indicated by the safety marks. The individual safety marks are as the follows.

	SYMBOL	WARNING	
1.	Danger of High Voltage	Electric Shock Danger.	
2.	Danger of Belt Drive	Danger of limbs and/or clothing drawn into the machine. Do not touch this area during operation of the machine.	
3.	Don't Touch In operation	Warning for Danger of Hand Injury. Do not touch this area during operation of the machine.	
4.	Emergency Stop Push Button	Emergency Stop Push Button. When the danger occurs, press this button. The machine will stop immediately.	

Please check your machine for these warning symbols and ensure they are kept visible and clearly readable.

Failure to follow the instructions and safety precautions could result in serious equipment damage, serious personal injury and/or death.

If the warning symbols have been damaged or have come off the machine, ensure they are replaced immediately.



If there is any condition of taking off or damage, assure to change it at once.

Qualified Personnel

Only the qualified personnel is allowed to install and use this equipment. The qualified personnel is authorized to move, install and operate the machinery according to the setup Safety Practice and Standard.

Correct Usage

This equipment only can be used by the methods described in the Specification List of this index. This equipment can be operated correctly and safely only under the careful and right operation and maintenance.

Responsibility Statement

In order to agree with the Hardware and Software explained in this manual, we have verified the content of this manual carefully, but, it is not possible to understand all the differences. Thus, we cannot guarantee to meet with the standards for all of them. Meanwhile, the information in this manual, we will examine it periodically and add continuously and verify the necessary information. Any suggestion to improve it will be very much welcome.



We are very appreciated for your adopting CA of Portable Lifter. Our company is the team insisted in High Quality and Excellent Technology to manufacture all types of professional equipment to help the customers to create high profits and high quality products.

CA Portable Lift is the professional equipments to install, position and lifting:

.Iron Racks

.Air Coolers

.Electric Curly Doors
.Pipe Equipment of Freezing

.Air Conditioners .Indoor Machinery .Water Freezers .Large Screen

.Single Gun .Water and Electricity Equipment

.Double-Gun or Tuiple-Gun Projectors .Overhead TV equipment

.High Up Cameras .Lighting

.Housewares . **GLAZING purpose**

- 1.Telescoping Mast: constructed from heat treated, extruded aluminum, compact, safety, strength and reliability.
- 2.Set-Up without tools: The LEGS can be release or fold out in seconds.
- 3. Telescoping legs: Versatile and infinitely adjustable, available use in uneven ground, for example, stairway.
- 4. Electric remote control with variable speed switch, it can be used in soft start.
- 5. Energency Stop Button: press the button for stop raising or lowering.
- 6. Automatic Overload Breaker is equipped to prevent of over weight loading.
- 7.Level: equip with the Level inside the cylinder to ensure the proper set up.
- 8.CA-400 equipped with swivel/lock with break caster, make it easy to move to next work position.
- 9.Platform: Special design for install the window type of Air-conditioner. Detaches form the mast.
- 10. The compact design make it easily for one person to carry it form job to job.
- 11. Special design can let you working close to the wall.



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1. PRECAUTIONS & WARNING

HAZARDS



This instruction book shall be put in an easily accessible location for all users.

FAILURE TO OBEY THE INSTRUCTIONS AND SAFETY RULES MAY RESULT IN DEATH, SERIOUS INJURY AND PROPERTY DAMAGE.

- 1. DO NOT use this equipment to life people or as a ladder or step.
- 2. DO NOT stand under or allow person to stand under the Portable Lifter while it's raising or raised.
- 3. DO NOT use Portable Lifter with a worn, frayed, kinked or damaged steel cable.
- 4. Always keep the Portable Lifter away from the high voltage electrical wires.
- 5. DO NOT move the Portable Lifter while it's in the raised position.
- 6. DO NOT use the Portable Lifter on a moving surface or vehicle.
- 7. DO NOT exceed Portable Lifter's load capacity.
- 8. MAINTAIN a minimum safe distance of 4 meters between the Portable Lifter and people.
- 9. DO NOT touch the machine if it comes in contact with electrical wires.
- 10. Use of incorrect power supply will reduce efficiency and cause abnormal operations and damage to the machine.
- 11. Do not grab the electric power supply cable or steel cable when in use.
- 12. Keep hands away from the Portable Lifter's folding legs and other potential pinching point.



- 13. DO NOT lower the load unless the area below is clear of personnel and obstructions.
- 14. DO NOT place ladder or scaffolding against any part of this unit.
- 15. No untrained or unauthorized personnel to operate the machine. Proper training and instruction is needed to maintain safe operations.
- 16. DO NOT disassemble and part of this unit. Contact distributor for assistance.
- 17. DO NOT use or operate the Portable Lifter for operations outsides of recommended specifications in this instruction book.
- 18. USE only approved tools on this machine. Use of tools not approved may damage the Portable Lifter and cause danger.
- 19. PRESS the EMERGENCY STOP BUTTON and TURN OFF the power supply if problems occur during operation. Stop using the machine immediately and contact an authorised repairer.

DANGEROUS WORKING SURROUNDINGS HAZARDS

- 1.DO NOT operate Portable Lifter in rain, damp surroundings or on wet ground, because of the risk of electric shock.
- 2.DO NOT operate close to pertroleum products, gas or oil as operation of the motor may cause an explosion. Prevent grease building inside the motor to prevent the motor burning.
- 3.DO NOT cover the motor's air vent as this is essential for cooling of the motor to avoid electric shock. Do Not insert any metal objects into the vent while motor running.



- 4.Keep the work space and surroundings clean and tidy. Working in dirty or dark surroundings could cause an accident.
- 5. DO NOT operate the machine on any unsteady surface. The machine must be kept steady and balanced when in use.
- 6. DO NOT operate the machine in strong or gusty winds.
- 7. If the loading objects are over-weight or large, it will reduce the balance of the machine, just as the machine operating under the strong winds. Thus, if the measurement is too large, must keep the load staying in the center of Platform.
- 8. Prior to use, check the work area for drop-offs, holes, bumps, debris, unstable or slippery surfaces or other possible hazardous conditions.

INCORRECT USAGE OF ELECTRIC CABLE HAZARDS

- 1. DO NOT grab the electric cable, or pull out it from a power point while the motor is operating. This will avoid short circuiting the motor.
- 2. Keep the electric cable away from sharp or hot object.
- 3. If the electric cable is damaged, please stop using it immediately. Have the cable repaired or replaced before operating the Portable Lifter again.

CHECKING BEFORE RAISING

- 1. Ensure the legs are fixed fastened.
- 2. Ensure Portable Lifter is in a safety work area.
- 3. Ensure the load object is put in the center of Platform.



- The Portable Lifter is equipped with Level Device.
 Checking if it's in the condition of leveling before raising.
- 5. Ensure the steel cable is
 - A): not worn or frayed.
 - B): not derailed and not caught in obstructions.
 - C): not hooked by abnormal objects causing unusual friction or possibility of derailing.
- 6. Ensure the manual handle IS NOT installed in the manual shaft.
- 7. Ensure the power supply is correct voltage before connecting the machine.
- 8. Check the work area for overhead obstructions or other possible hazards.

2. TRANSPORTING THE PORTABLE LIFTER

- 1.The export delivery of the Portable Lifters are used the strong packing and put into the standard carton, and then adopt the proper transportation way to deliver to the appointed place.
- 2.Do not throwing the machine heavily or put the heavy objects on the machine while transport. When piling up, please go ahead according to the indicated piling numbers marked in carton.
- 3.If this machine will not be operated promptly, please keep it in the proper storage place. As for the storage condition, please refer to the paragraph of Storage in this manual.

3. STORAGE

1. Storage temperature: -5° C - 45° C.

Humidity control: 90% within non-dewing



- 2. The Portable Lifter should be stored on a flat surface. DO NOT place heavy objects on it. If stacking, please handle it according to the instructions on the outer carton.
- 3. The Portable Lifter must be stored in an area with no vibration or risk of the machine being knocked or damaged.
- 4. All spare parts should be stored with the unit.
- 5. Children should not have access to the area where the Portable Lifter is stored.
- 6. Limited Time for Storage: During delivery of the Portable Lifter is carefully protected. To avoid the metal rusting or any parts defected during transportation or storage, we suggest the unit should only be stored for up to one year prior to use. If it planned to be stored for longer than one year special treatments should be undertaken.

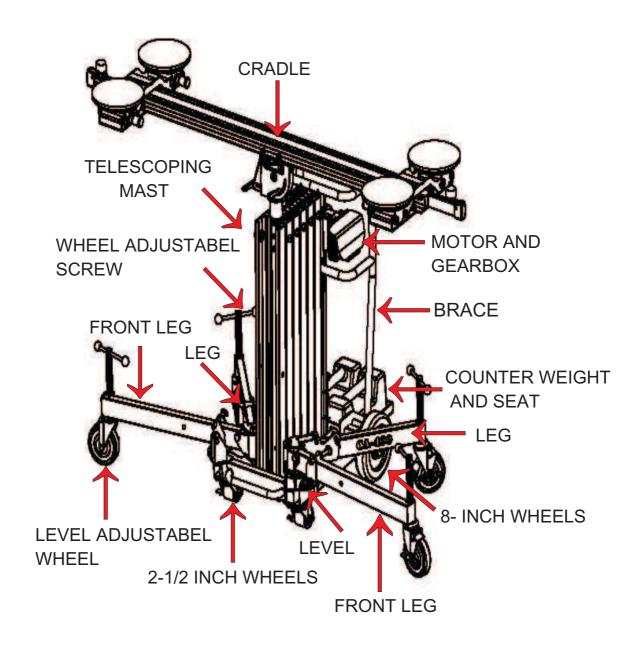
4.CHECK

A strict machinery function test and quality control are undertaken prior to delivery of the Portable Lifter. Upon receipt please check according to the following procedures.

- 1. Checking if the model No. is correct. Checking the name plate, model number and motor specification are correct.
- 2. Checking if any damage has occurred during transportation.
- 3. Check all necessary tools have been included.
- 4. Put all the spare parts in safe place.
- 5. Record the results of the working of check.

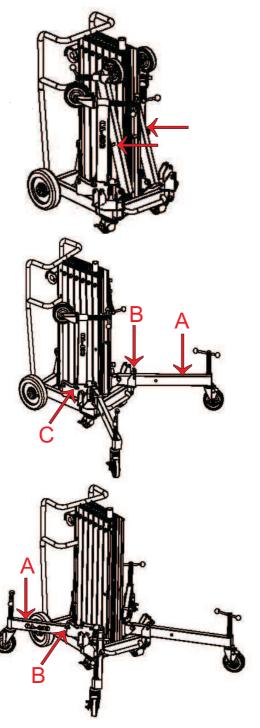


5. LEGEND





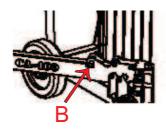
6. SET UP



1. Take out the pin

- 2. A. Put down front legs
 - B. Put in the pin
 - C.Take out the pin

A. Put down legs
 B. Put in the pin
 (MUST PUT IN B)

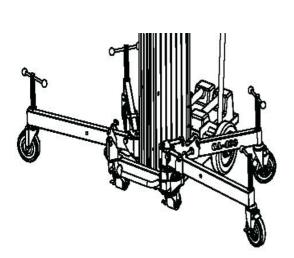


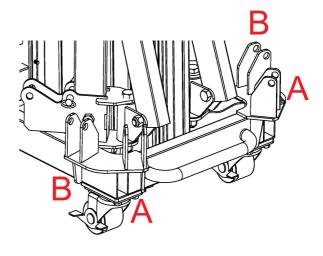


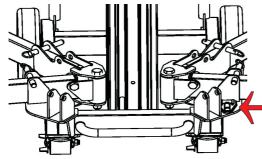
4. Counter weight and seat are needed when put front legs in B

WARNING!

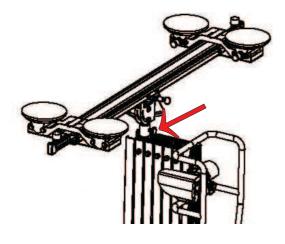
MAKE SURE SET IT IN LEVEL STATUS.







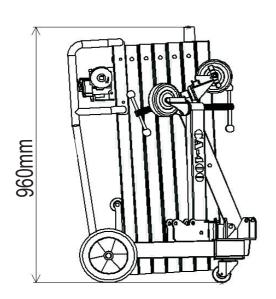
5. Model CA-400 equipped with the LEVEL, make sure the machine is set up in level status.

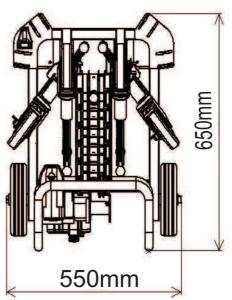


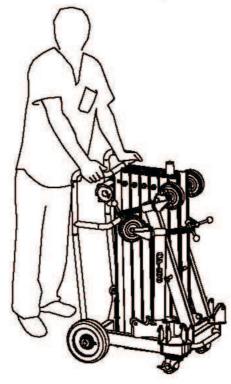
6. Put the Platform on and tighten the screw below to secure it.



7. STORE DIMENSION

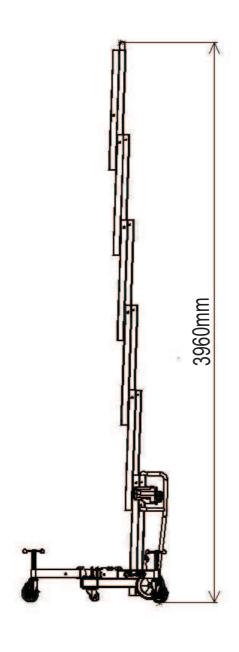


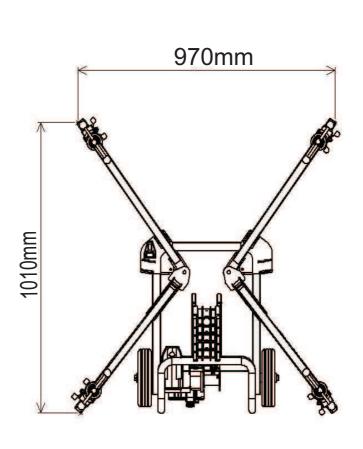






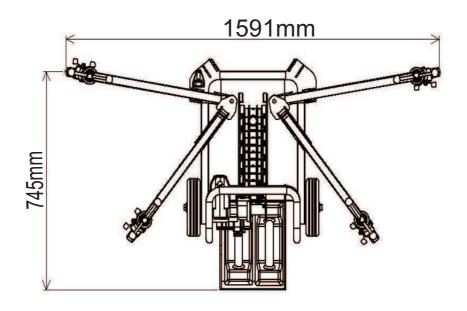
8.OPERATING DIMENSION 1



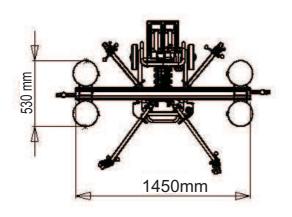


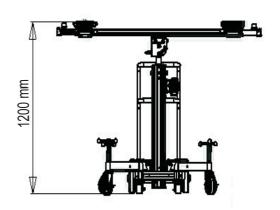


9. OPERATING DIMENSION 2



10.CRADLE DIMENSION







11. Pre-operation Inspection

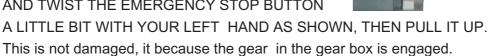
- 1. Check before operation
 - 1-1 Before plugging, please make sure the voltage is right.
 - 1-2 BEFORE RAISING, PLEASE MAKE SURE THE ATTACHED MANUAL HANDLE IS NOT SET IN MANUAL SHAFT.
 - 1-3 BEFORE RAISING, PLEASE MAKE SURE EMERGENCY STOP BUTTON IS COMPLETELY PULLED UP AS SHOWN, IF NOT, THE MOTOR IS RUNNING BUT THE MAST CAN NOT BE RAISING, JUST LIKE OPERATE IN MANUALLY.



YES!! RIGHT!!

EMERGENCY STOP BUTTON IS COMPLETELY PULLED UP

1-4 IF EMERGENCY STOP BUTTON CAN NOT BE PULLED UP, YOU MAY PRESS THE TRIGGER OF THE SWITCH BOX SLIGHTLY AS SOFT START WITH YOUR RIGHT HAND, AND TWIST THE EMERGENCY STOP BUTTON

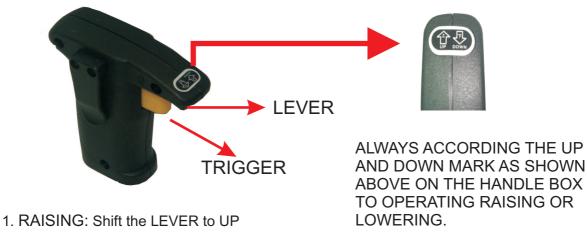


2. Function Test

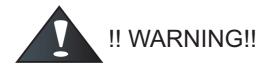
- 2-1 The function of Motor is normal or not.
- 2-2 The function of raising and lowering is normal or not.
- 2-3 If Feet is equipped with telescopic, (MODEL CA-400), test it is normal or not.



12. RAISING AND LOWERING



- mark side of the switch box and press the TRIGGER to raising.
- LOWERING: Shift the LEVER to DOWN mark side of the switch box and press the TRIGGER to lowering.
- 3. The switch is variable speed control, press TRIGGER slightly can be soft start. Press TRIGGER deeper for raising or lowering faster.





AFTER FULL LOWERING, MAKE SURE TO SHIFT THE LEVER TO UP MARKED OF THE HANDLE BOX BEFORE RAISING. If you did not shift the LEVER to UP marked but still operating raise, will occur sound of "Da, Da, Da" which Anti-Revise device stop raising. Follow the Mark of UP-DOWN sign for operating.



!! IMPORTANT !!





YES!! RIGHT!!

NO!! WRONG!!

THE AUTOMATIC OVERLOAD BREAKER STARTED IS SOUND LIKE "DA. DA. DA", AND THE PORTABLE LIFTER WILL STOP RAISING AT ONCE EVEN THE MACHINE IS NOT REACH THE TOP.

In this situation, check the LEVER at first. If the LEVER is not at the UP side position, shift it to the UP side and the machine will lowering. After lowered, keep the LEVER at the UP side, and operating raising once again. Or you can use manually to operate it lowering as well.

IT'S VERY IMPORTANT TO MAKE SURE IF THE LEVER IS SHIFTED TO THE UP SIDE BEFORE RAISING.



13. EMERGENCY STOP BUTTON, MANUALLY



 When the unexpect situation is happening, press the emergency stop button, the machine will stop raising or lowering immediately.



 Manually: Mounted the manual handle on and rotate it raising or lowering.
 WARNING!!
 When operation in manual, operator must be squatting below the basic height of Portable Lifter.



3. Pull the Emergency Stop Button up to operating in electrically.

IF EMERGENCY STOP BUTTON CAN NOT BE PULLED UP, YOU MAY PRESS THE TRIGGER OF THE SWITCH BOX SLIGHTLY AS SOFT START WITH YOUR RIGHT HAND, AND TWIST THE EMERGENCY STOP BUTTON A LITTLE BIT WITH YOUR LEFT HAND AS SHOWN, THEN PULL IT UP.

This is not damaged, it because the gear in the gear box is engaged.



14. USE OF GLAZING INSTALLATION - CA 400

Pre-operation Inspection

- 1. The glass surface is reserved for clean, bearing no traces of oil or grease.
- 2. The lever screw head orientation support should be checked before each use.
- 3. The screw on the vacuum suction cups must be checked before each use.
- 4. Check that the cables are in perfect condition

Set up

- 1. Placed the CA400 Lifter opening for glazing.
- 2. Operate the brakes on all 4 wheels.
- 3. Install the glass in a horizontal centered position on the cradle.
- Operate each of the vacuum suction cups (see especially section "Using vacuum suction cups")

Raising the glass

The operator IS NOT ALLOW standing or working under the glass cradle at anytime, to do that may cause serious injury.

- 1. Raising the glass to desired height position, and place the glass into a base shoe by using the function of the soft speed control from the switch.
- 2. Once the glass pane been placed into the desired base shoe, release the vacuum suction cups to release the glass.



Using the vacuum suction cups

- Never use cups with rubber disc is damaged.
- Do not attempt to detach the vacuum suction cup with sharp objects or tools, this might damage the vacuum suction cups.
- Never exceed the prescribed load
- Never expose the rubber discs for a long time in the sun, they quickly lose their elasticity.
 - 1. For the establishment of the vacuum suction cups, the press hard on the surface to be sucked.
 - 2. Press the button on the pump. Each time you press the vacuum, so the bond increases. After 6-8 pressures the plunger should be pressed into the handle so that the locking ring on the red button is no longer visible. This indicates that the maximum power of membership / range is reached. If more than 6-8 pressures were necessary, it should be checked immediately as the glass surface and also the cups.
 - 3. If during the use of the red security should again be visible due to a loosening of the vacuum, it is necessary to immediately press the plunger again.
 - 4. To detach the suction cup, make sure the load to be lifted is assured. Unzip the suction cup maintaining pressure on the handle of air until the suction cups detach easily from the surface.

Safety Instruction for using suction cup

- 1. Before each use, make sure the suction pad is smooth, clean, undamaged and without any cracks.
- 2. Clean suction pads regularly with spirit or other non-aggressive cleaners.
- 3. Do not use any sharp objects to loosen the suction cups from the surface as this will damage the suction pad.



- 4. Make sure the surface / object to be lifted is of non-porous material. In addition, the surface must be clean, dry and free of oils and grease. On rough or porous surfaces, the holding capacity decreases or is non-existent.
- 5. Always test the function of the suction cup prior to its use. Examine handle for dents or cracks. Examine rubber pads for excessive glaze, cuts or roughness.
- 6. Suction cup should only be sued for lifting, carrying and holding objects for a short period of time. However, in the case of long periods of attachment, check suction cup regularly to ensure firm adhesion. If grip dose not feel sufficiently firm, reapply suction cup.
- 7. Do not place the cup face against surfaces which could damage the sealing edges.
- 8. Avoid conditions that could cause the cup to slip or to disengage prematurely, such as: contaminants, cuts or scratches in the cup face or mounting surface.
- 9. Do not allow anything to interfere with free movement of the plunger while the cup is attached.
- 10.Do not touch the release tabs or the valve release lever while lifting.
- 11.Do not use solvents, gasoline or other harsh chemicals to clean the cup.

Because these safety instructions may not take into account the specific conditions of each type use, the user must check before each use, if the suction device is suitable for this type of development work. Characteristics not specified in our catalog, documentation or manuals are not guaranteed. Any warranty or liability is thus excluded. We disclaim any responsibility in case of non-compliance safety above.



Maintenance of suction

- 1. Always keep rubber pads clean and free of oil or grease. Clean suction pads regularly with spirit or other non-aggressive cleaners.
- 2. Do not expose rubber pads to sunlight over extended period of time to preserve their elasticity.
- 3. If the hand cup dose not function normally, the cup face may be dirty or the cup may require service.

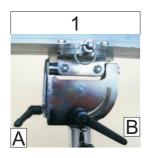
To achieve maximum safety when operating the machine, ALWAYS comply constantly with the following rules:

- 1. Only the qualified personnel is allowed to install and use this equipment for glazing.
- 2. Before each use make sure the functionality of suckers. Pay particular attention to the rubber disc, it should be smooth, without defects and should not be cracked.
- 3. The vacuum suction device should be used only for short periods of elevation. Where the periods of use extended regularly check the adhesion of the suction cup. If you do not grip seems more satisfactory, put it back into place.
- 4. Do not move loads over people and do not use the cradle as a support for persons.
- 5. Only use the vacuum suction cups on smooth surfaces and clean, dry, without traces of oil or grease.
- 6. The cups and especially rubber discs should be kept clean and free of oil or grease.
- 7. Before each use, check the rubber disc relative to any restrictions on functionality due a reduced elasticity due to age, wear, improper maintenance, storage, etc..
- 8. Hard rubber or damaged with reduced carrying capacity must be replaced.



How to use the rotating head of cradle

Understand the function of the glass substrate and before each use

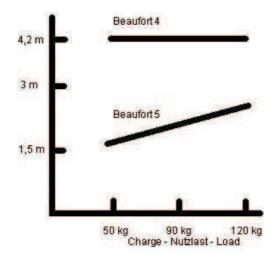






- 1. Put the glass cradle on the base and lock the levers as the photo 1.
- 2. Place the glass on the vacuum suction cups (see instruction page 20-23).
- 3. Loosen carefully the lever (A) and tilt the cradle as photo 2. Do not tighten the lever (A).
- 4. Loosen carefully lever (B) for tilt the cradle as photo 3 to the desire position and tight the lever (B).
- 5. Once all the desire position is set, raising the glass softly.

Used in windy





15. ORDINARY EXAMINATION

No.	POSITION	ITEMS	TOOLS	RESULT	RESOLUTION
1.	Telescoping Mast	Lubrication	1. Check the mast is Lubricated or not. 2. Brush, Normal Engine Oil	Because of the usage of machine, it will be covered with dust or dirt. So, to avoid the Stuck of cylinder and can not raising. Machine must be kept in proper lubrication.	Grease Engine oil on the cylinder by brush
2.	Steel Cable	Tearing or frayed.	Check Steel Wire has been Torn off or other abnormal condition or not.	Steel Cable been tearing or frayed.	

1. When The Spare Part is out of order

When you find there is the abnormal condition happened to the Portable Lifter, or the spare part is broken and wish it to be replaced, you Must contact the manufacturer to repair it. Do not purchase the spare Part and replace it by yourselves.

2. Consulting Service

If you have any problems of operation and disorder about Portable Lifter, please contact the distributor. Our professional personnel will be of service to you.

3. Handling of Discarding

If the Portable Lifter is damaged to be total disruption, please hand over this machine to the professional Recycling Institution to handle it.

4. Tool Usage

Tools equipped in the machine : one piece of Manual Handle.

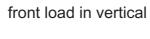


16. APPENDIX

Specification	Model	CA-400	
Vol	tage	110V Or 220V	
Cui	rrent	110V-8A , 220V-4A	
MAX	Platform	150KG	
Capacity	Glass Crandle Front load (Slant) Front load (Vertical) Right/Left Side(Vertical)	120KG 100KG 60KG	
	Body	66KG	
Weight	Platform Glass Crandle	5.3KG 21 KG	
Height	Basic Height	96CM	
lioigiii	Lifting Height	396CM	
Length-	Store	55 x 65CM	
Width	Operating	101 x 97CM	

Load capacity with Glass cradle in different position

front load slant



Right/Left side load in vertical

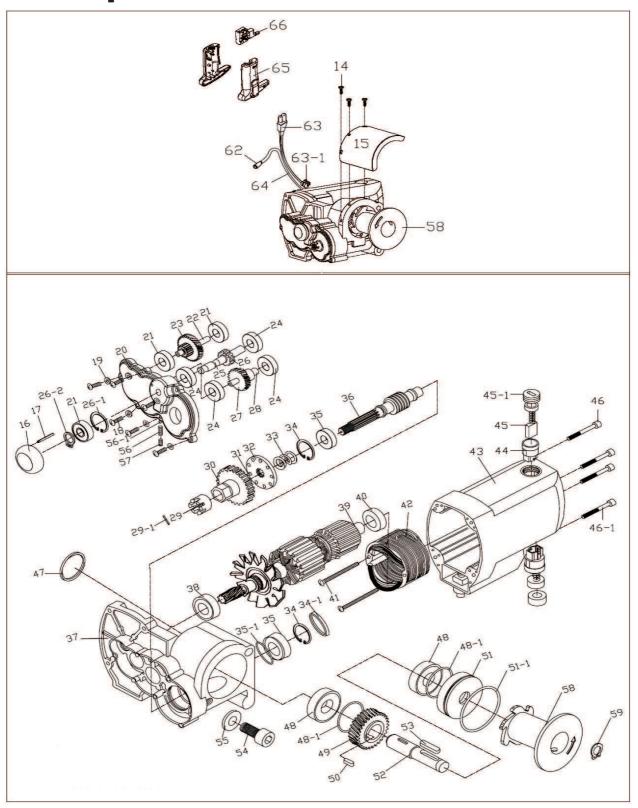






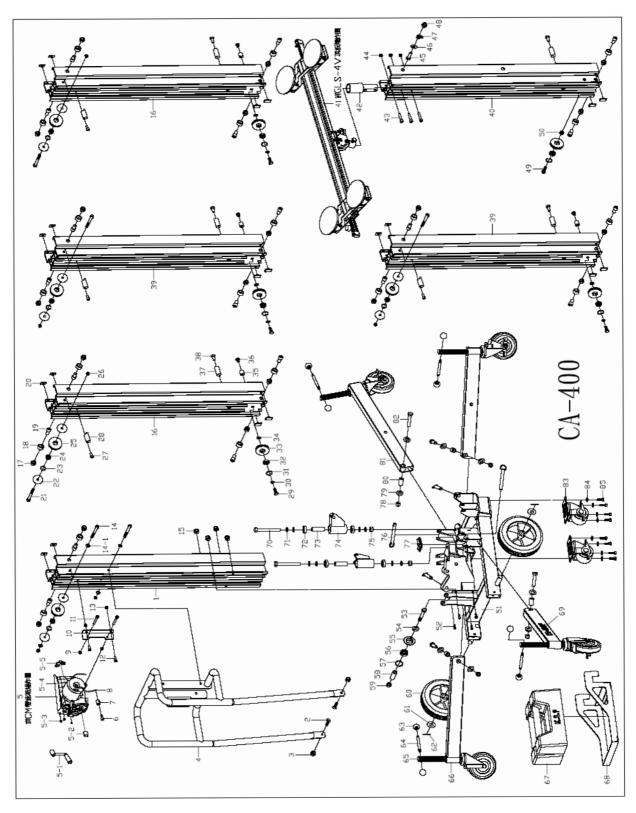


17. Explode View of Motor and Gearbox





18.Explode View of CA-400





19.Explode View of CRADLE

