



## Reference Manual of Motorized Projector Lift

The product adopts the asynchronous motor with slowdown & Electro-magnetic brake, and cross scissor shaped design with electronic position-fixing. It possesses the characteristics including attractive appearance, smooth & quiet moving, locating with precision, comprehensive functions, convenient installation, simple operation & high capacity. It's rich in controlling seams that can connect the "CRESTRON, AMX" directly to control the machines by central control or single control. It is widely used for projector engineering, TV & Video conferencing systems, large-conferencing system and so on.

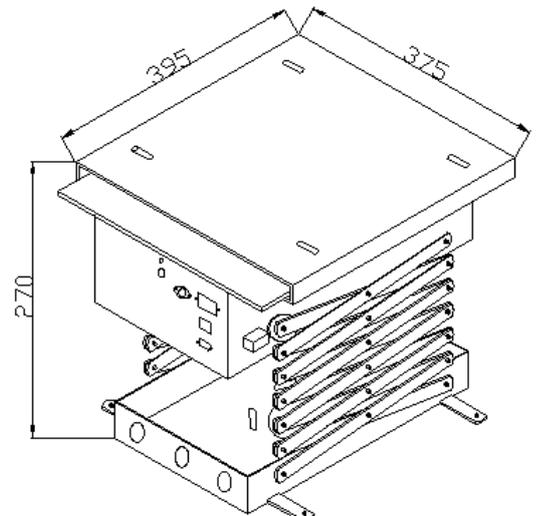
### Features :

1. Orientation Nicety: Tolerance of orintation is limited within 1mm.
2. Low Noise: Noise within 50 decibels.
3. Central controled panel: It's easily to be controled and connected "CRESTRON、AMX" to control the machines by central control.
4. Exterior Design: Unique & attractive appearance
5. High loading capacity: It can load heavier projectors than the congeneric products and owns high safety factor .

### Technique Parameter

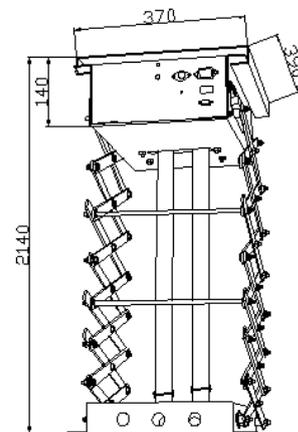
#### Projector Lift A160

1. Model:A160
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:25W
4. Dimension: 390×370×270mm (L×W×H)
5. Loading Capacity: 25KG
6. Travel Length:150cm
7. Bottom Panel Dimension:50cm×50cm
8. Deadweight(including bottom panel): 33.5KG



#### Projector Lift A200

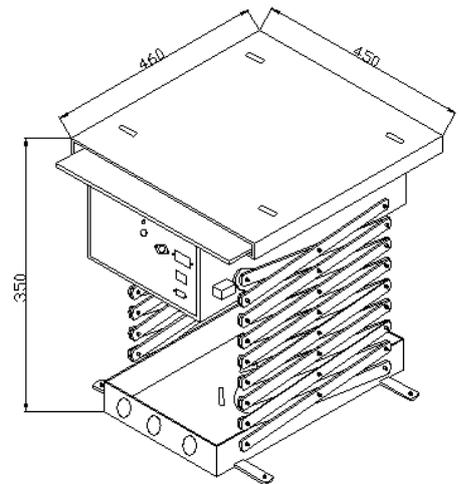
1. Model:A200
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:25W
4. Dimension: 390×370×320mm (L×W×H)
5. Loading Capacity: 25KG
6. Travel Length:200cm
7. Bottom Panel Dimension:50cm×50cm
8. Deadweight(including bottom panel): 40KG





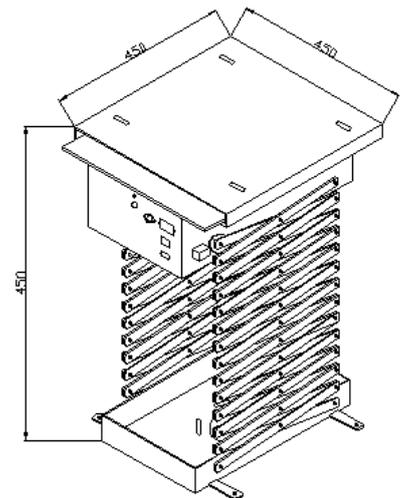
## Projector Lift A260

1. Model:A260
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:25W
4. Dimension: 450×460×350mm (L×W×H)
5. Loading Capacity: 30KG
6. Travel Length:250cm
7. Bottom Panel Dimension:55cm×55cm
8. Deadweight(including bottom panel): 40KG



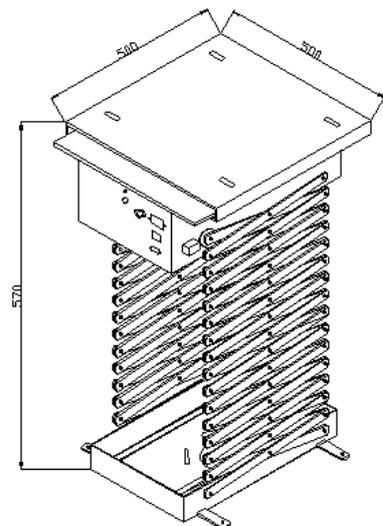
## Projector Lift A360

1. Model:A360
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:25W
4. Dimension: 450×450×450mm (L×W×H)
5. Loading Capacity: 40KG
6. Travel Length:320cm
7. Bottom Panel Dimension:55cm×55cm
8. Deadweight(including bottom panel): 40KG



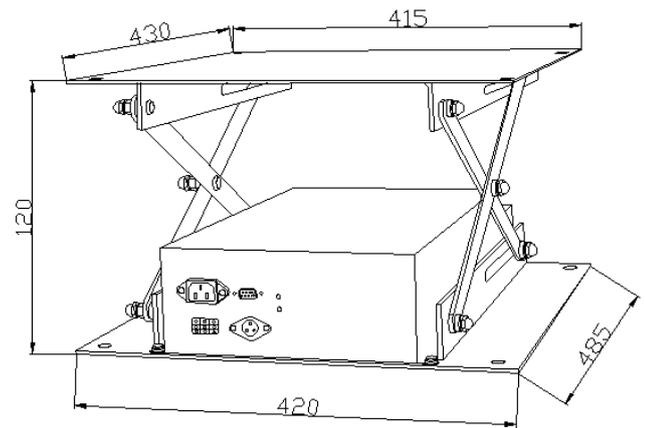
## Projector Lift A560

1. Model:A560
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:40W
4. Dimension: 500×500×570mm (L×W×H)
5. Loading Capacity: 50KG
6. Travel Length:500cm
7. Bottom Panel Dimension:60cm×60cm
8. Deadweight(including bottom panel): 40KG



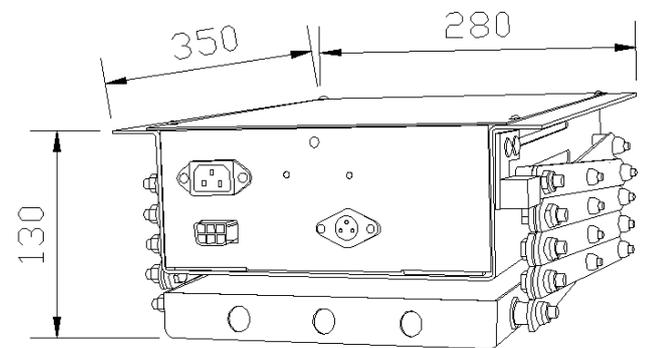
### Projector Lift C-11 (can rise up)

1. Model:C-11
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:25W
4. Dimension: 550×315×427mm (L×W×H)
5. Panel Dimension: 580 x 450 x 3mm
6. Loading Capacity: 10KG



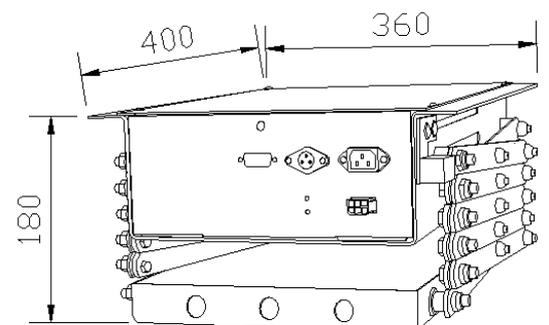
### Projector Lift C100 (Extra-thin)

1. Model: C100
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:15W
4. Dimension: 350×280×130mm (L×W×H)
5. Bottom Panel Dimension: 50cm x 50cm
6. Loading Capacity: 20KG
7. Travel Length:100cm



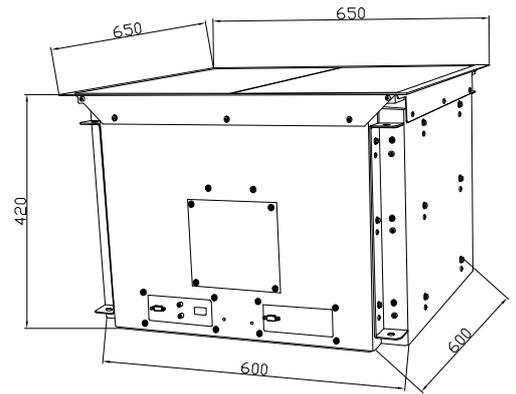
### Projector Lift C160 (Extra-thin)

1. Model: C160
2. Voltage:220V 50HZ or 110V 60HZ
3. Power:15W
4. Dimension: 400×360×180mm (L×W×H)
5. Bottom Panel Dimension: 50cm x 50cm
6. Loading Capacity: 22KG
7. Travel Length:150cm



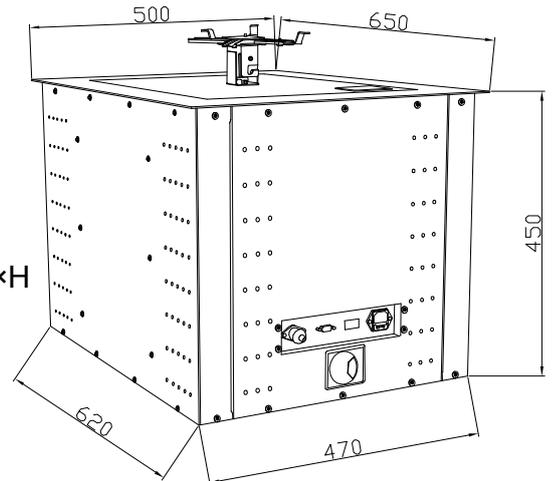
## Projector Lift B200 (Box Type)

1. Model: B200
2. Voltage: AC220 50 HZ or AC110V 50HZ
3. Power: 40W
4. External Size: 650 mm×650 mm×440 mm L×W×H
5. Space inside: 460mm×460mm×290mm L×W×H
6. Loading Capacity: 15kg



## Projector Lift B300 (Box Type)

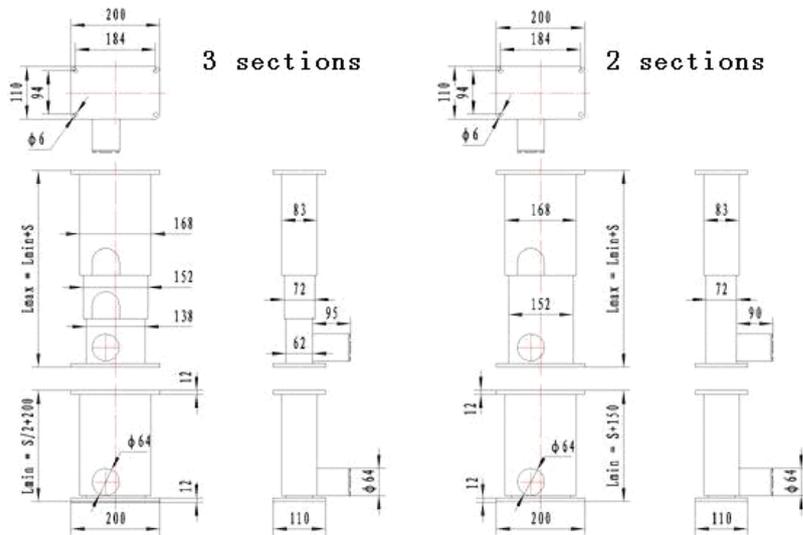
1. Model: B300
2. Voltage: AC220 50 HZ or AC110V 50HZ
3. Power: 25W
4. External Size: UP: 650 mm×500 mm×450 mm L×W×H  
DOWN: 620 mm×470 mm
5. Space inside: 480mm×350mm×220mm L×W×H
6. Loading Capacity: 12kg



## Bamboo Shaped Projector Lift

- Safety Certification: CE/EMC+LVD  
Input Voltage: 24VDC  
Max Loading: 2000/1200N  
Speed: 3mm/s(6000N) 13mm/s(2000N)  
Standard Travel Length: (100、150)  
Working Frequency: S2-10min  
Switch: Inside the pipe  
Working Temperature: -26°C~65°C  
Protection Rank: IP43  
Safety Certification: CE/EMC+LV





## Bamboo Shaped Projector Lift II

Input Voltage: 24VDC

Max Loading: 2000/1200N

Speed: 3mm/s (2000N) 13mm/s (1200N)

Standard Travel Length: (100, 150)

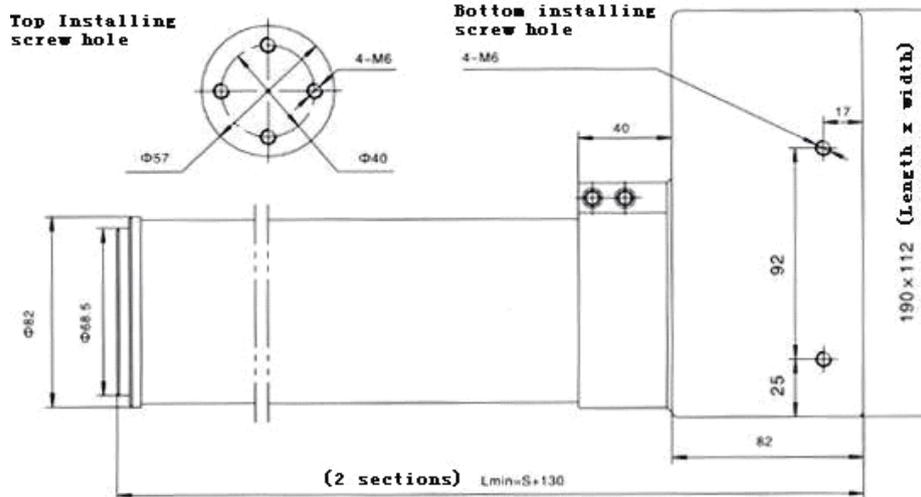
Minimum installing distance: 400mm (Given)

Switch: Inside the pipe

Working Temperature: -26°C ~ 65°C

Protection Rank: IP43

Safety Certification: CE/EMC+LVD





### **Environment Requirement:**

- \*Temperature from -10°C to 40°C inside the room.
- \*No corrosive gas
- \*Do not use the machine in the organic impregnant aerosol and do not use in the flammable & explosive environment.
- \*Avoid strong shock and collision.

### **CAUTION:**

- 1, In order to avoid the steel string loosening, do not push the lift upward; Try to make the barycenter of the suspended substance be at the centerline of the projector lift, or else the projector will incline.
- 2, Do not operate the lift with over loading; Do not put your hand inside the scissor shaped lift to avoid clipping & hurting your hand and so on.
- 3, Use the power voltage 220V±5% or 110V±5% ( Customized projector lift is an exception), overhigh power voltage will burn and damage the motor. This projector Lift adopts 0.5A blown tube, do not change the blown tube with a larger capacity. If you come across any malfunction that can't be fixed, please consult our technique department. The users can't tear or move the blown tube, or else we are not responsible for maintenance.

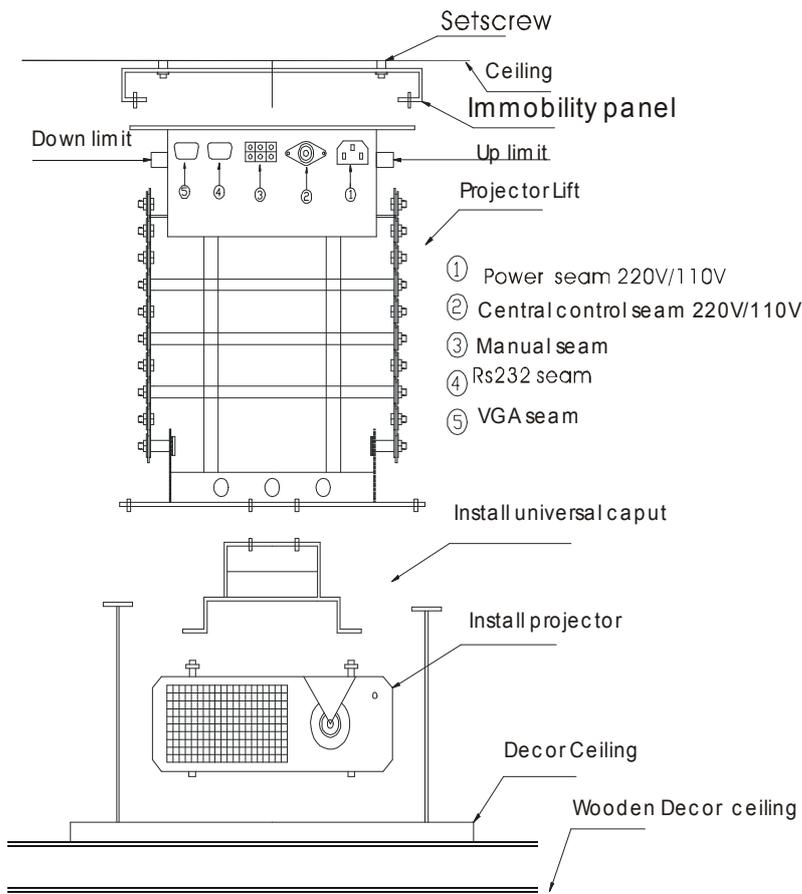
### **Installation Instruction**

A160 Ceiling opening	size:480x480mm
A200 Ceiling opening	size:480x480mm
A260 Ceiling opening	size:530x530mm
A360 Ceiling opening	size:530x530mm
A560 Ceiling opening	size:580x580mm
C100 Ceiling opening	size:480x480mm
C160 Ceiling opening	size:480x480mm
B200 Ceiling opening	size:620x620mm
B300 Ceiling opening	size:480x630mm

### **Requirement of installation environment:**

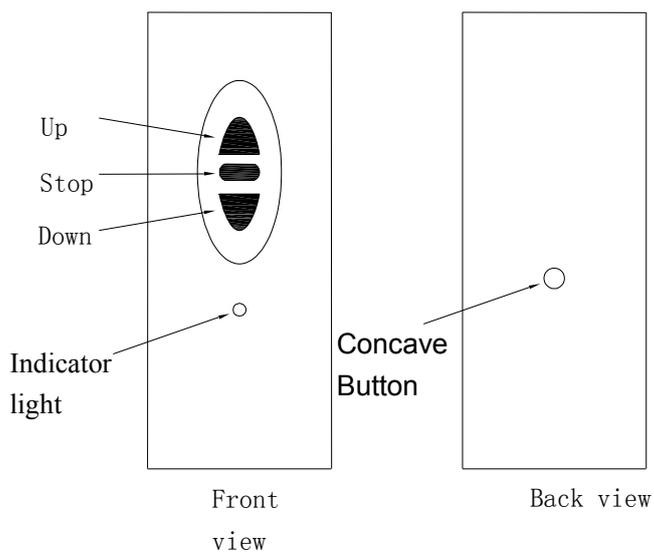
- 1, There must be proper space (the thickness of the Projector Lift+the thickness of the projector+10cm) and there is no sundries blocking off the space.
- 2, The opening size of the ceiling is a little larger than the size of the base decorative panel of the projector lift.
- 3, We suggest preparing a checking hole for future maintenance.
- 4, When installing the projector lift, do not stand under the lift. Do not put things under the lift which might be hit by the lift.

### **INSTALLING DRAWING:**



## 7,Control Instruction

### Remote control mode





## RS232 Control mode

### 1,Cable connecting Mode:

Use 232 cross cable (2-3-5 vs 3-2-5) to connect the projector lift and Central control RS232 Serial port;Connect the projector lift to the power supply.

### 2,RS-232 serial port settings:

Baud rate	2400
Data Length	8
Parity check	N
Stop bit	1

### 3,Login code:

There is no code when the lift leaves the factory,it must study a code first then the RS232 control can be used.The studying methods are as follows:

- A, Set up the above settings according to the RS232 serial port.
- B, Connect the cables according to the above connection method.
- C, Input the hex code(study code) in the port control software.Eg: FF 10 11 01 AA (01 means the machine is defined as No 01,if there are many machines which can be defined 02,03,ect accordingly. But if many machines study the same code,it means many machines are defined as a group,can lift up & down together.)
- D, Press the Function Button on the faceplate of the projector Lift----(Red or Green small round button) for about 1 second,the indicator light on the faceplate will flicker slowly. Release your hand and send the code in the controlling software of the serial port ,the indicator light will receive the code and stop flickering.In this condition,the code login successfully.

### 4, Control Code

When the codes are logged in,the machine can be controled by 232 code. The control codes are as follows:

FF 10 11 01 DD.....(repeat 5 times)	UP
FF 10 11 01 EE.....( repeat 5 times)	DOWN
FF 10 11 01 CC.....( repeat 5 times)	STOP

### 8,Remote control style ( This control style is only suitable for projector lifts with electronic orientation)

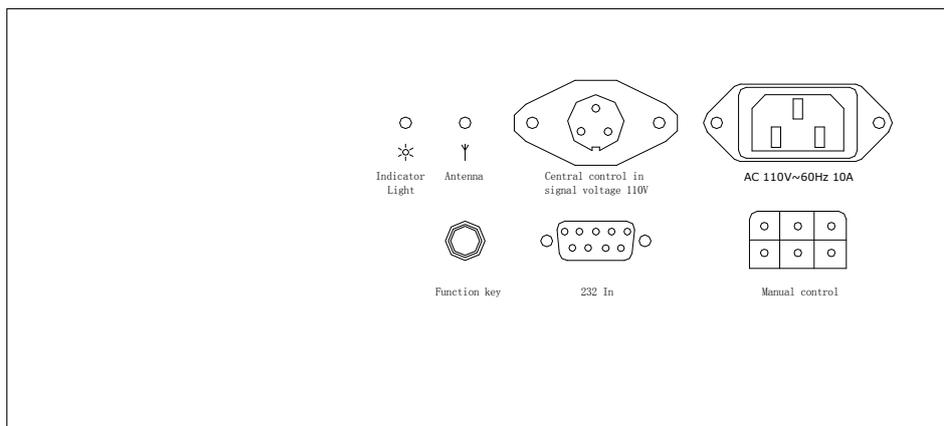
- 1,Make sure that the motorized projector lift is installed properly and connected to the power.
- 2,Press the concave button on the back of remote control for about two seconds, then release it.
- 3,Press the “down” button on the remote control, the motorized lift will move down; Press the “stop” button when the lift reaches your desired position

which is memoried for its lowest position by itself

4,After Repeating the second step , then press “up” button on the remote control, the motorized lift will move up; Press the “stop” button when the lift reaches your desired position which is memoried for its highest position by itself

5.If changing the “up” and “down” positions, just repeat the second, third and fourth steps.

## 9.Instruction of seams on the plate



Antenna: Remote control receives the antenna.

Function Key : Used for Remote control input code or 232 controlling equipment.

232 Seam: Used for 232 controlling equipment if necessary.

Manual Control Seam: non-source signal input,used for connecting manual control switch.It can also be used for non-source central control seam

Central Control:Strong power controls the seam signal voltage 220V or 110V.

### Note:

1,The installation must be firm. The bottom of the lift should be at the horizontal with the ceiling. Any obvious incline is not allowed.When install the power cable,please use the good quality insulating jacket. The area of the copper wire can not be smaller than 1.5mm<sup>2</sup>, The color of ground wire can not be the same as the color of power cable. The area of the cross section is not smaller than the copper wire 1.5mm<sup>2</sup>.The quality of the ground wire should be good and the resistance is not big than 4Ω. After using the projector, the light bulb must be shut off first,then turn off the power of the projector.After the heat fully dispersed,the projector lift can be rised up and close the door on the bottom of the box,in this way it can avoid overheat in the box and can protect projector and other equipments. When you debug or use the machine, do not



operate the lift up and down too much. When shift the up to down, there must be 3 seconds' interval. Let the motor stop completely and then start operation. The motor owns the protection function of overheat automatically. When the temperature of the motor is too high, the power will be cut off automatically and the lift stops running. When the temperature automatically becomes lower, the power will reconnect automatically. The machine will work normally.

2, Please avoid installing the machine at the damp and high temperature places.

The temperature of the assembling is from  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , the relative humid is not more than 95%, Please avoid corrosive gas or dust. Don't press other wires when installing the lift.

3, Power: AC220V $\pm$ 5% 50HZ 40W or AC110V $\pm$ 5% 60HZ

4, When the projector lift is connected to the power, press the function button, if it can't run up & down, please check if the blown tube is connected to the power or burnt off. If it is burnt off, please change a new blown tube with 0.5A, then use it again. If it still doesn't work, please check if a short circuit occurred. If the malfunction is eliminated, please use it again. Do not change the blown tube with too high current.

## **Malfunctions Elimination**

When the projector lift doesn't work, please inspect it by yourself. In order to avoid getting an electric shock, check if the ground cable protection is reliable.

A, Unresponsive

a) Check if the power line is connected and if there is electricity and if the voltage is normal. If there is no electricity please check the power supply circuitry.

b) If the voltage is normal, make sure that the power lines are fixed firmly by the buttons. Check if the connection wire of the motor is loose, the fuse is blown or not. Check the switch lines on the upper & lower terminals loose or not.

c) When the lifting bracket is at the up terminal and the up terminal traveling switch is pressed, the lift is not able to go up; when the lifting bracket is at the down terminal and down terminal traveling switch is pressed, the lift bracket is not able to go down. Both of the above phenomenon are normal.

B, Press UP & DOWN buttons but it doesn't move at all and it makes the weak quiver sounds.

Please check whether the power capacitor is punctured or not and whether the short circuit or the line connection falls off or the circuit is broken. The motor will be overheated at this time. The power supply should be cut off immediately to avoid burning the motor. Then check if the capacitor opens circuit or punctured.

C, When press UP or Down button, the lift doesn't move and there are big noises in the box, please check as follows:

1, Check if the cloth belt or steel string loose or break.

2, Check if the wheel and the track are not in the proper places.



3,check the screws between the wheel and the bearing loose or not, so that the bearing can't rotate with the wheel, which lead to the travel of the four tracks not in phase.

PS:

Lengths & Travel length for Normal Bamboo Types Projector Lift		
Types	Travel length (mm)	retractile Length(mm)
1m 2 square shafts	425	575
1.5m 2 square shafts	675	825
1.8m 2 square shafts	825	975
1m 3 square shafts	533	467
1.5m 3 square shafts	866	634
1.8m 3 square shafts	1066	734
1m 2 square shafts	435	565
1.5m 2 round shafts	685	815
1.8m 2 round shafts	835	965
1m 3 round shafts	503	495
1.5m 3 round shafts	836	664
1.8m 3 round shafts	1036	764
Calculating Formula	Travel length(s)	Unit(mm)
2 square shafts	$l_{min}=s+150$	$l_{max}=l_{min}+s$
3 square shafts	$l_{min}=s/2+200$	$l_{max}=l_{min}+s$
2 round shafts	$l_{min}=s+130$	$l_{max}=l_{min}+s$
3 round shafts	$l_{min}=s/2+245$	$l_{max}=l_{min}+s$