

## INSTRUCTION MANUAL

### Recessed-Ceiling Motorised Projector Lift

Applicable Model

GRPL 1000

GRPL 1600

GRPL 1600L

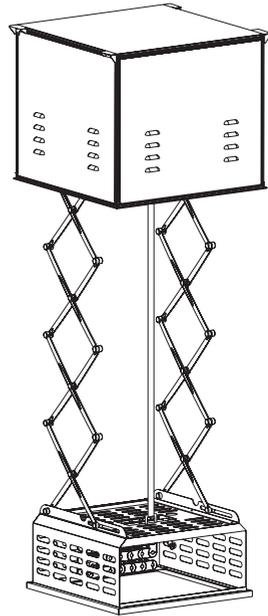
GRPL 2700

GRPL 2700L

GRPL 4600L

#### Please read BEFORE installation:

Thank you for purchasing this product.  
Please read this instruction manual carefully  
to ensure this projector lift is suitable for  
your installation environment.



### Caution



**WARNING:** This product should only be installed by a qualified technician. Please review the manual carefully to ensure proper installation and to avoid injury. The ceiling must have a minimum load bearing to suit the Projector Lift.



**CAUTION**  
For Projector  
Lift assembly  
only.



**NO DISMANTLING**  
Please do not  
dismantle the  
mounting bracket  
accessories.



# CAUTION

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**WARNING:** To avoid electric shock or fire do not install the projector lift in wet places.

1. Please read these instructions carefully before installation to avoid damage to the product caused by inappropriate installation or operation.
2. Please keep the projector lift away from hot sources, such as radiators and heaters, fireplaces, loudspeakers or similar devices.
3. Plugging in only with ground wire is acceptable.
4. Only accessories from authorised suppliers are acceptable.
5. Please unplug the power during lightning and rain or when the product is not in use for long periods of time.
6. Please do not attempt repairs yourself – repair work should only be done by a professional agent.
7. Please use the approved power lead (three-core power lead) provided.
8. Please use the rating (voltage, amps) power lead (three-core power lead).
9. Electrical socket should be installed in a convenient position. If an accident occurs during operation, please disconnect power by removing the power plug.
10. The ceiling or wall used for installation must be secure – the load-bearing requirement must be 4 times that of the Projector Lift to prevent it from falling.

## Caution



### WARNING

To prevent injuries caused by electric shock, do not remove the cover or any parts. Users should not check any internal parts. Please contact an authorized professional repairman to address any problems.



### CAUTION

Be aware of non-insulated voltage of spare parts to prevent danger from electric shock.



### NOTE

Please operate only according to this instruction manual.

# ACCESSORIES

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- M4 Hexagonal Adjuster (1pc)



- M5, M4, M3 × 20mm Screws (each 4 pcs )



- Rubber Washer 5 x 10mm (4pcs)



- Controller (1pc)



- Battery (1 set)
- Power Socket
- Instruction Manual

## OPTIONAL ACCESSORIES

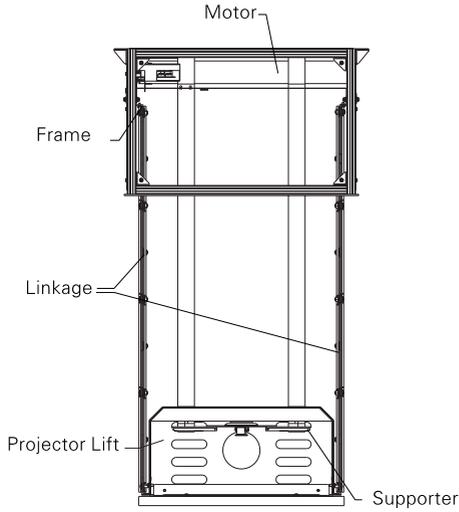
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- Wall-Switch (1pc)

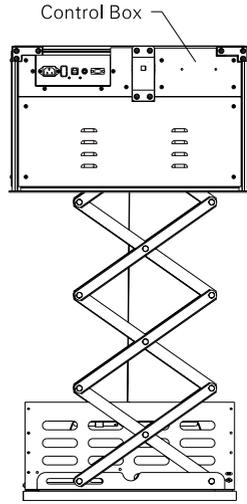


- Multi-Media Box (1pc)

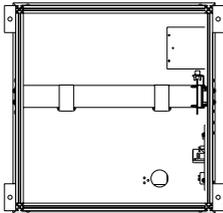
# CONSTRUCTION OF PROJECTOR LIFT



Front View



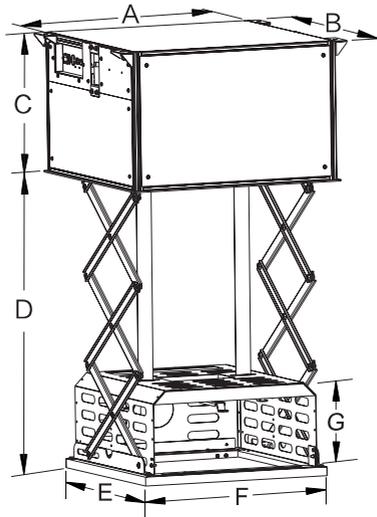
Side View



Top View

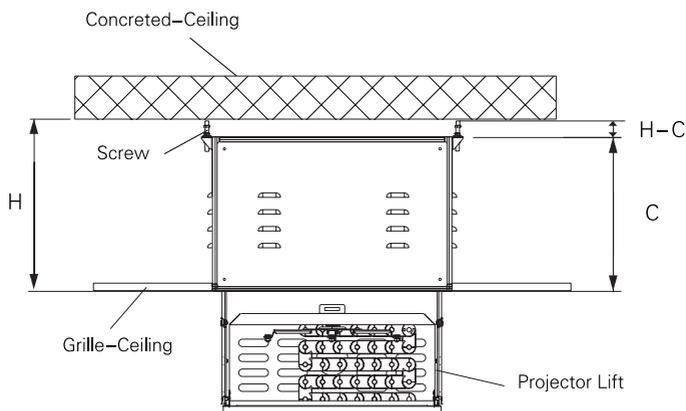
# SPECIFICATIONS

MODEL	SIZE (mm)						
	A	B	C	D	E	F	G
GRPL 1000	600	550	345	0-930	483	483	200
GRPL 1600	704	670	600	0-1600	586	586	250
GRPL 1600L	704	770	600	0-1600	686	586	270
GRPL 2700	704	670	685	0-2700	586	586	250
GRPL 2700L	704	770	685	0-2700	686	586	270
GRPL 4600L	800	765	800	0-4600	686	686	270



# INSTALLATION

- This projector lift needs to be recessed into the ceiling, and this instruction shows the grille-ceiling as an example.
- For convenience and safety, please install the projector lift according to your individual requirements.
- The projector lift needs to be recessed at the best viewing angle in order to improve the image. Take out all the parts from the packaging and refer to the accessories guideline to ensure you have all parts.



## GRILLE-CEILING MOUNT

1. Choose a position according to the required space, then remove the required section of ceiling (figure 1). Please measure the distance  $H$  between roof and ceiling surface correctly (figure 2)

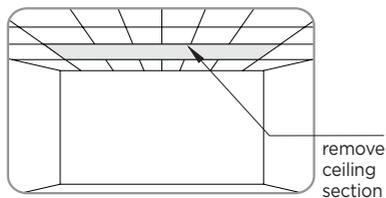


figure 1

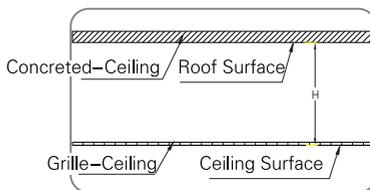


figure 2

2. Ensure the mounting distances M and N are measured (refer to figure 3). Install the brackets to the roof via the screws (figure 4).

**NOTE:** Due to product updates, sizes and specifications are subject to change at any time.

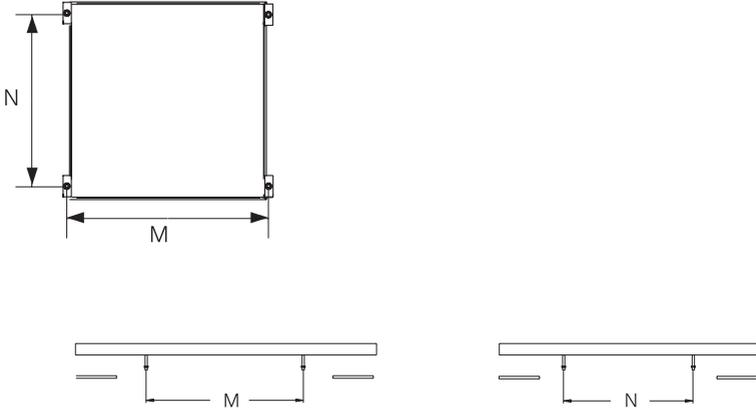


figure 3

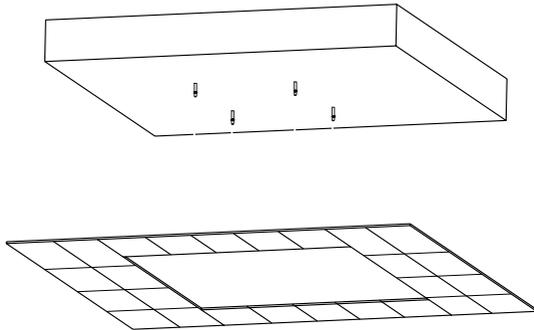


figure 4

3. Figure 5 - install the projector lift and fasten. The projector's low frame must align with the ceiling:

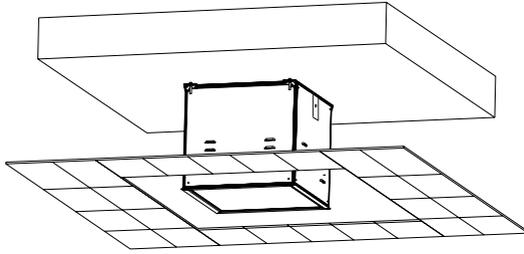


figure 5

4. Figure 6 - check the alignment of the projector lift:

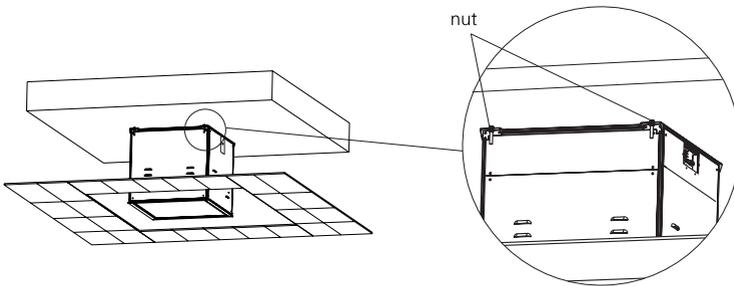


figure 6

5. Figure 7 - connect the power cord and signal cord (see Circuit wiring diagram Figure 8 over the page)

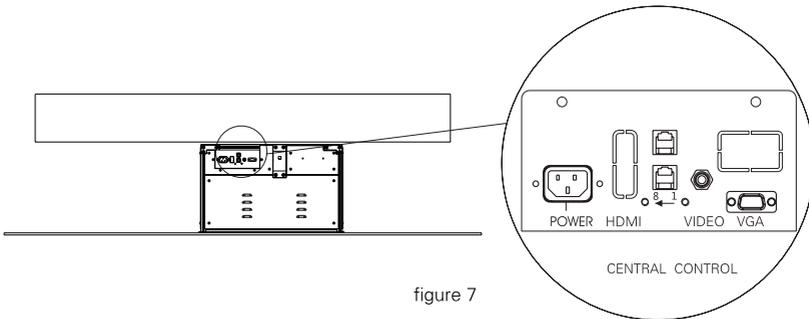


figure 7

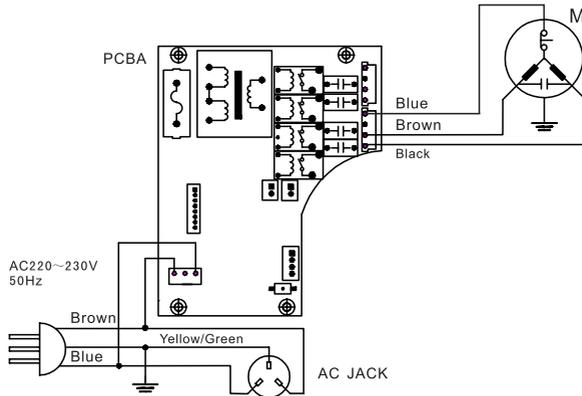


figure 8

- Figure 9 - cut the ceiling board (Step 1) to a suitable size which will maintain the gap after retraction of the projector lift

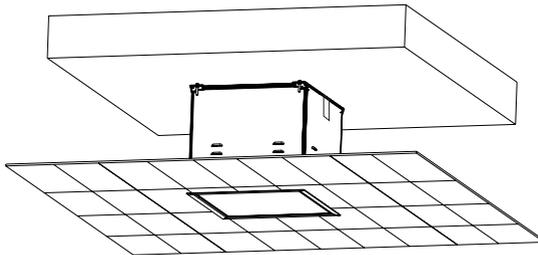


figure 9

- Please read the “Remote Electric Positioning” for controlling the projector lift. After the adjustment, ensure the height of the projector lift can satisfy your requirement after extending. Then, ensure the bottom of projector lift aligns with the ceiling after retracting.

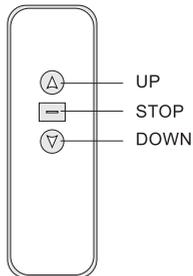
**NOTE:** the projector lift should only be controlled by people fully conversant with the lift’s operation.

# INSTRUCTIONS

## 1. Remote controller instruction

Button instruction for controller

- Press “UP”, projector goes up
- Press “STOP”, projector stops
- Press “DOWN”, projector goes down



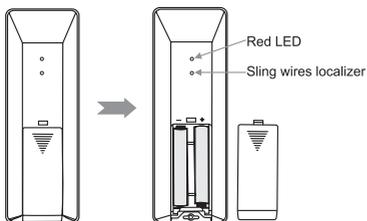
Front View

### Remote controller guideline:

- Work temperature: -20°to 70°
- Batteries: 1.5V x 2pcs, model: AAA.
- Take out batteries if the controller will not be used for a long time.
- Please change the batteries when signal is weak.

### Installation for controller batteries:

- Please replace the batteries when the signal of controller is weak
- Push out the battery cover on the back of controller
- Install the batteries as guide arrow
- Reinstall the battery cover



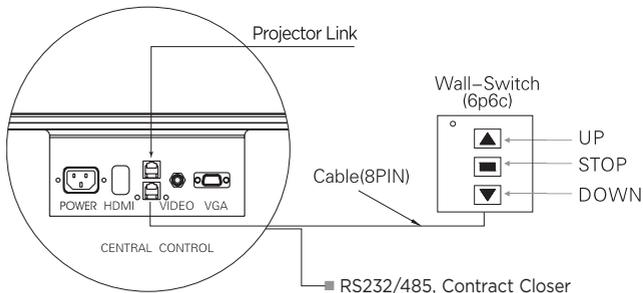
Back View

**⚠ CAUTION:** Install the batteries correctly

### Wall-Switch Function:

Please follow the signs and symbols on the wall-switch.

\*Optional extra.



## Central Control Instruction

### Emitter Function

1	Common	Brown
2	N/A	White/Brown
3	N/A	Orange
4	Extend	White/Blue
5	Retract	Blue
6	Stop	White/Orange
7	RS232 Input B	Green
8	RS232 Input A	White/Green

## Central Control Format Agreement

### 1. Communications Agreement Setting:

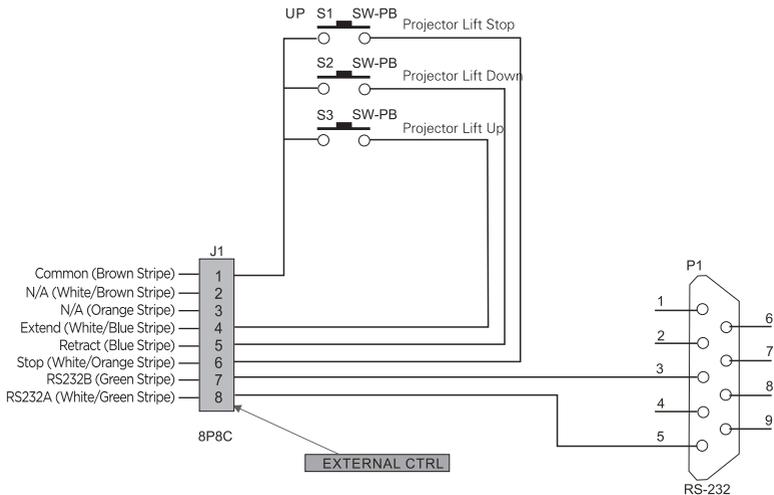
data bits: 8 bits / start bits: 1 bit / stop bit: 1bit / baud ratio: 2400

2. Directive for retracting: 0xFF 0xEE 0xEE 0xEE 0xC9

3. Directive for stopping: 0xFF 0xEE 0xEE 0xEE 0xCC

4. Directive for extending: 0xFF 0xEE 0xEE 0xEE 0xE9

232 setting: 2400, n, 8, 1 a continuous data sends two times, each time interval of 200ms.



# GRANDVIEW PROJECTOR LIFT RS485 SETTING ADDRESS

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## 1. RS-485, RS-232 input

Continuous data send twice, each time with an interval of 200ms  
3 bytes of studying address directive are custom setting address directive  
Central Control Format Agreement

### 1. Communication Agreement Setting

Data Bits: 8 bits  
Start Bits: 1 bit  
Stop Bits: 1 bit  
Baud Ratio: 2400

Common directives are in chip of projector lift and can not be changed

- 2. Directive for retracting:        0xFF 0xEE 0xEE 0xEE 0xC9
- 3. Directive for stopping:        0xFF 0xEE 0xEE 0xEE 0xCC
- 4. Directive for extending:       0xFF 0xEE 0xEE 0xEE 0xE9
- 5. Studying address directive:   0xFF 0xXX 0xXX 0xXX 0xAA

## 2. Directive Composing Instruction:

0xFF is only bit; 0x stands for hexadecimal system; FF is effective bit; a directive is composed by 5 bits.

Studying directive 0xFF 0xXX 0xXX 0xXX 0xAA

0xFF and 0xAA can not be changed, but 0xXX 0xXX 0xXX can be changed to any 16 hex data, which stand for address bit

The changed working directive

- 1. Directive for retracting:       0xFF 0xEE 0xEE 0xEE 0xC9
- 2. Directive for stopping:        0xFF 0xEE 0xEE 0xEE 0xCC
- 3. Directive for extending:       0xFF 0xEE 0xEE 0xEE 0xE9
- 4. Studying address directive:   0xFF 0xXX 0xXX 0xXX 0xAA

Example: The studying directive is 0xFF 0x10 0x11 0x12 0xAA which can be changed to:

- 5. Directive for retracting:       0xFF 0xEE 0xEE 0xEE 0xC9
- 6. Directive for stopping:        0xFF 0xEE 0xEE 0xEE 0xCC
- 7. Directive for extending:       0xFF 0xEE 0xEE 0xEE 0xE9
- 8. Studying address directive:   0xFF 0xXX 0xXX 0xXX 0xAA

## 3. Studying Directive and Operation

After connecting power, studying status will operate within the first 10 seconds. The studying directive is 0xFF 0xXX 0xXX 0xXX 0xAA. The screen can be used normally after study is completed, but the projector lift cannot be used normally after the address bit has changed, so that one port can be used to control many projector lifts.

Example: There are projector lift A and B with RS-485 port - if need to control these two projector lifts synchronously that the directive 0xFF 0xEE 0xEE 0xDD will be sent out from the port. If need to control these two projector lifts in different movement, such as projector lift A goes down and projector lift B goes up, common directive cannot be used and separated by address bit at this time.

Connect the power for projector lift A, and send out directive 0xFF 0x10 0x11 0x12 0xAA. At the same time, the address of projector lift A is 0x10 0x11 0x12. Entering the operating address of projector lift A can control this projector lift.

- Directive for retracting: 0xFF 0x10 0x11 0x12 0xC9
- Directive for stopping: 0xFF 0x10 0x11 0x12 0xCC
- Directive for extending: 0xFF 0x10 0x11 0x12 0xE9

Complete the studying in projector lift A, and then disconnect the power for projector lift A. Please operate the projector lift B in the same way and change the address to 0xAA 0xAA 0xAA. Entering the operating address of projector B can control this projector lift.

- Directive for retracting: 0xFF 0xA0 0xAA 0xAA 0xC9
- Directive for stopping: 0xFF 0xA0 0xAA 0xAA 0xCC
- Directive for extending: 0xFF 0xA0 0xAA 0xAA 0xE9

This studying is one address bit for a long time until next address bit change to update. After studying address bit, the common directive is still effective, so the address bit cannot be 0xEE 0xEE 0xEE.

### Attachment 1

Compare 16 hexadecimal system and 10 hexadecimal system.

16 hexadecimal system	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
10 hexadecimal system	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16

### 4. Remote Controller Instruction

There is a matching function between the controller and projector lift, then the controller needs to be programmed – follow these steps:

1. The projector lift is at load position. After connecting the power, within 5 seconds please press the UP button and STOP button simultaneously for 5 seconds, then release.
2. Press the DOWN button to check whether the programming works.
3. If the programming fails, please repeat steps 1 and 2.

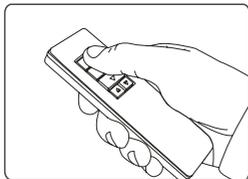


figure 10

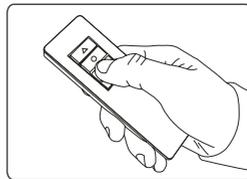


figure 11

## PROJECTOR LIFT POSITIONING FUNCTION

There are 2 solutions to position the projector lift: upper/lower limitation and remote localizer. **NOTE:** Changing these limits will void warranty.

**!** **NOTE:** Do not change the factory pre-settings for any emergency, please operate according to the following instructions if necessary.

### 1. Remote limit setting adjustment (Soft Limits)

- a. When the projector lift installation has been completed, turn on the power to the lifter. Confirm the lifter is operational.
- b. To set the lower limit (show position), turn over the remote control and locate the limit setting button. Press this button using a small pin or paperclip for 3 seconds and release (red LED will light up). Then press the down button on the front of the remote. Then the lifter is at the correct show position press stop. Turn over the remote again and press the limit setting button, the red LED will go out and the new limit is set.

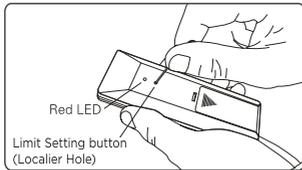


figure 16

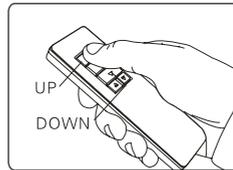


figure 17

- c. To set the upper limit (closed position), turn over the remote control and locate the limit setting button. Press this button using a small pin or paperclip for 3 seconds and release (red LED will light up). Then press the up button on the front of the remote. Then the lifter is at the correct closed position press stop. Turn over the remote again and press the limit setting button, the red LED will go out and the new limit is set.

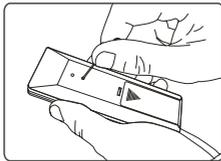


figure 18

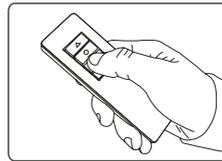


figure 18

**!** **NOTE:** For ensuring the security of positioning function, the effective setting period of electric positioning should be 60 seconds, after which it will return to the normal situation. If the setting fails within 60 seconds, please repeat the following steps: to press the setting button - LED light will turn off; press the setting button again - LED light will turn on. With this process the resetting function will begin.

### 2. Upper/Lower Limitation Adjustment (Hard Limits)

Upper limitation and lower limitation are preset in the factory. The upper limitation should be a little higher than ceiling height. Lower limitation is showed as numerical value D in the specification table (the upper/lower limitation for sling wire should be regulated by professional people or dealers. Improper regulation carries safety risks). (See figures 12 & 13 on page 14)

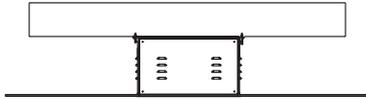


figure 12

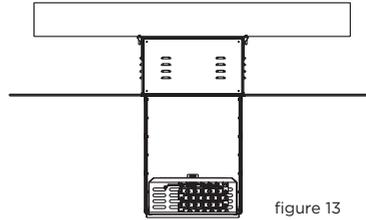


figure 13

**!** **NOTE:** the following operation should only be undertaken by people fully conversant with the lift's operation:

- a. For upper limitation adjustment, pull out the knob and adjust using the allen key provided. A clockwise adjustment will retract the projector lift (decreasing distance between casing and installation point) and a counter-clockwise adjustment will extend the projector lift (increasing distance between casing and installation point).
- b. For lower limitation adjustment, pull out the knob and adjust using the allen key provided. A clockwise adjustment will extend the projector lift (increasing distance between casing and installation point) and a counter-clockwise adjustment will retract the projector lift (decreasing distance between casing and installation point).

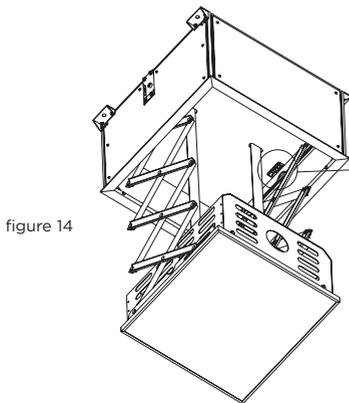


figure 14

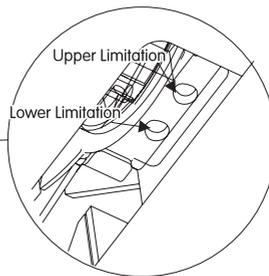
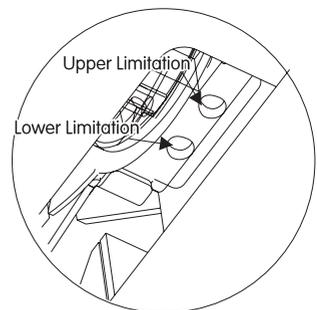


figure 15

## MOTOR POSITIONING

Do not roll and retract the projector lift continuously over 4 minutes at a time to avoid overheating. If the motor overheats, wait 30 minutes for cooling. No lubrication is needed for the motor, the drop and retract limit of the projector lift has been prepositioned to an optimal configuration before delivery. In order to avoid motor damage, please consult your local dealer or a professional technician when a new position setting is needed.

Use the M4 allen-key for adjusting the upper and lower limitations of the projector lift, but the distance cannot be more than value D in the specification table.



# IMPORTANT SAFETY INFORMATION

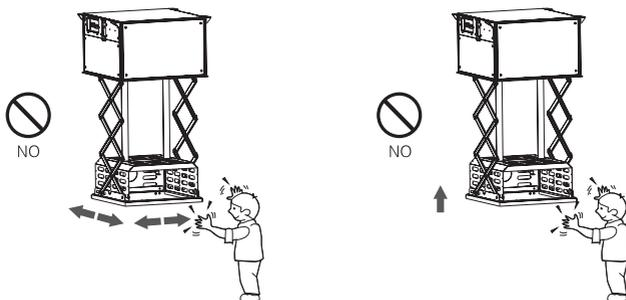
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Please take note of the following important information for installation and use.

## SAFETY HANDLING

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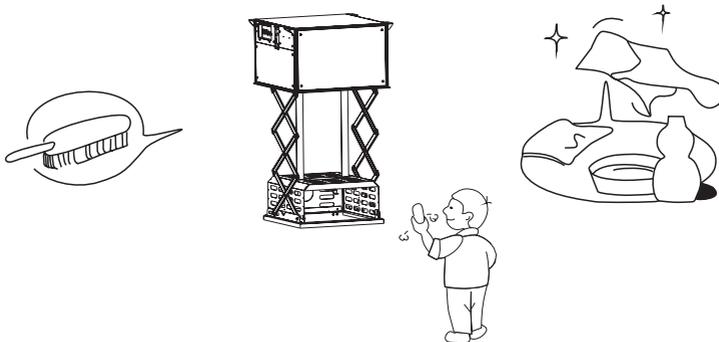
**!** CAUTION: Please do not shake OR manually lift the projector lift



## MAINTENANCE & CLEANING

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Please clean the projector lift with diluted mild detergent, then dry using a soft cloth. Use a soft brush to clean gaps.



## LOCATION

### CAUTIONS:

- Please keep away from hot surfaces, dusty and dirty areas, high temperature and high humidity.
- Do not expose the projector to high wind or high-powered indoor fans.
- Do not dismantle



## REPAIRS

Please do not dismantle the screws of the projector lift. Should this product require repaired, please contact our company or dealers.



## TROUBLESHOOTING

The Grandview Projector Lift can be used for years, with most problems being resolved inexpensively. If problems occur, please refer to list below for some common solutions. If problems continue, contact an authorized agent of Grandview or call the following service number: 1800 685 487

	Reason	Solution
Projector Lift does not respond to any operation	Battery has not been installed correctly or is flat	Check that the batteries are installed correctly - refer to the manual. If flat, replace batteries.
	Power disconnection	Check that the power is connected - refer to the manual.

## THREE-YEAR WARRANTY

Grandview provides a three-year warranty for projector lifts. The warranty includes replacement of spare parts where problems occur during correct operation.

Not included in the warranty are operating the projector lift incorrectly or uninstalling of the projector lift by a non-qualified person.

**NOTE:** You should contact Grandview or an appointed service centre for repairs.





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