




Users' Manual



DS series Projector Motorized Lift





Safety precautions:

- Please read this “safety precautions” carefully before using the projector lifts to ensure of the correct and safety using way.
- The warnings protect the human and property’s safe.
- The following signs indicated what level of the danger and damage you will be suffer if not comply the “safety precautions”

	DANGER	DANGER indicate the incorrect operation will cause the serious accident.
	WARNING	WARNING indicate the incorrect operation will cause the serious accident.
	CAUTION	CAUTION indicate the incorrect operation will cause the serious accident.

	Prohibited	Prohibited operation。
	Compulsory	Compulsory operation。




	Disassembly Prohibited	Disassembly is Prohibited.
	Remove Power plug	Remove Power plug.



DANGER







CAUTION

<p>Must install the lift comply with this manual strictly. Replace the spare parts by other factories is prohibited. Please don't amend or modify the electric board or change the components without our factory 's permission ,or it will cause the motor accident or control failure, lead to the wire breaking ,ceiling damage, projector falling etc.</p>	 Compulsory	<p>Please don't use it under the condition of high temperature, wet and dirty . Don't use the wireless in the high interference.</p>	 Prohibited
		<p>Try not to use an unstable power supply, to make sure the voltage is stable when using the auxiliary power.</p>	 Prohibited



WARNING

<p>Over load capacity is prohibited. Don't make it up and down frequently to prevent fire the motor.</p>	 Prohibited	<p>Please don't disassembled the lift without permission, it should be maintained and amended by professional worker. And can't the instruction of the lift.</p>	 Disassembly Prohibited
<p>Please don't install or adjust the lift without the professional worker .</p>	 Prohibited	<p>Please cut off the power when across the accident.</p>	 Remove Power plug

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Introduction: Features:

- Adopt the latest micro-computer control system ,intelligent and stable;
- Double power breakdown protection equipped with the audible alarm, Make the damage to the lowest by the accident;
- Multiple control methods combined various center control;
- Easy to adjust the running distance of the lift, stop position accurately. High position accuracy up to 1 mm;
- Originate the machine without demounting when installation or adjustment. Easy to maintain;
- Reasonable instruction with the high quality material, handsome Exterior.

Introduction: Parameter:

- Voltage 220V~
 - Frequency 50/60Hz
 - Peak load current 0.15A
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- Continuous Power 0.8 watts
- Maximum Power 25 watts
- Maximum Length 1M/1.5M/
- Lift capacity ≤10Kg
- Maximum noise ≤50dB
- Lift Speed 0.9~1.8m/min

Parameter	DS SERIES	
	DS210-R	DS215-R
Exterior dimension(mm)	285X266*115	285X266*142
Decoration board size(mm)	500X500	500X500
Distance between holes in installation board(mm)	245X400	245X400
Mini height between the real ceiling and the fake ceiling(mm)	415	445
Installation board size(mm)	265X (115+115)	265X (115+115)
Max size for the projector(mm)	400X380X200	400X380X200

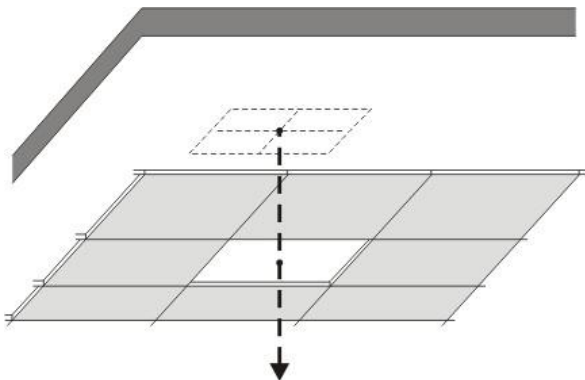
Distance (mm)	1000	1500
Load capacity (kg)	10	10
N.W (kg)	14	15
Power (W)	20	20
Rated voltage AC (V)	220V	220V
R/C	W	W
Electric stop position	W	W

Installation requirements:

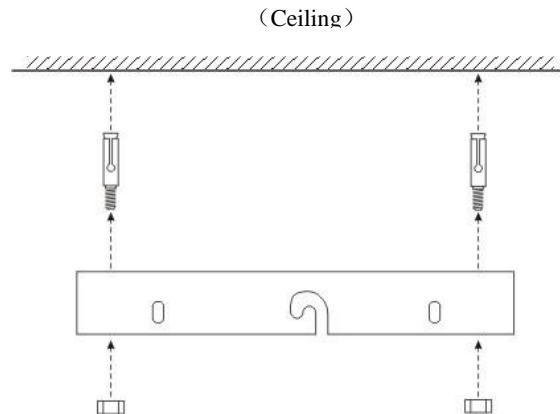
- The height between the cement ceiling and fake ceiling must more than: projector height+ universal head height +projector height. Except special circumstance.
- Suggested ceiling open size: 600mmX600mm (Base on the projector size)
- The open hole suggested set out at the distance of 100-200mm away from projector ,Open size:500*400mm

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- There are four screw holes (13mm*58mm) in the top panel of the lift, use the anchoring screw ($\phi 8\text{mm} \sim \phi 10\text{mm}$), Fixing the lift to the cement ceiling. Confirm the install poison of the cement ceiling, and make holes in the ceiling based on the screws. The anchoring screw must be set deeply into the ceiling to ensure the enough load capacity. Install avoid the warm equipment, for example the steam pipe, warm-air pipe.
 - The power equipment must have a 5A circuit breaker. The copper cable cross-sectional area of the power must not less than 1.5mm. It should have a good ground cable, the resistance must not bigger than 4 Ω .
 - Use the CAT-5 as the extend control wire.

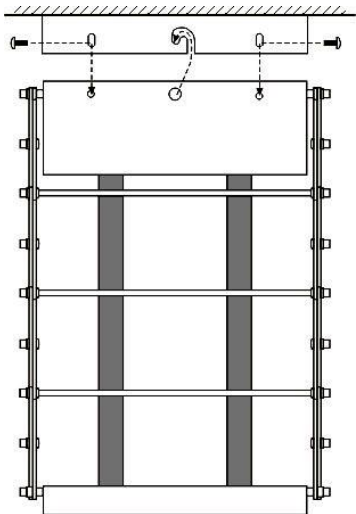
Installation step:



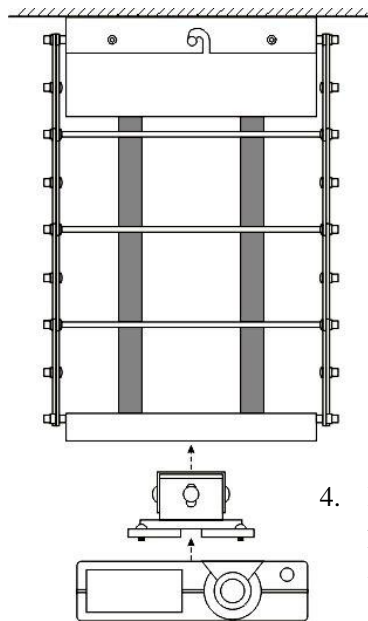
1. Open a hole on the fake ceiling according to the size of the decoration board (50X50cm). Then use 4 pcs M8×12 expansion bolts to fix the installation board on the cement ceiling.



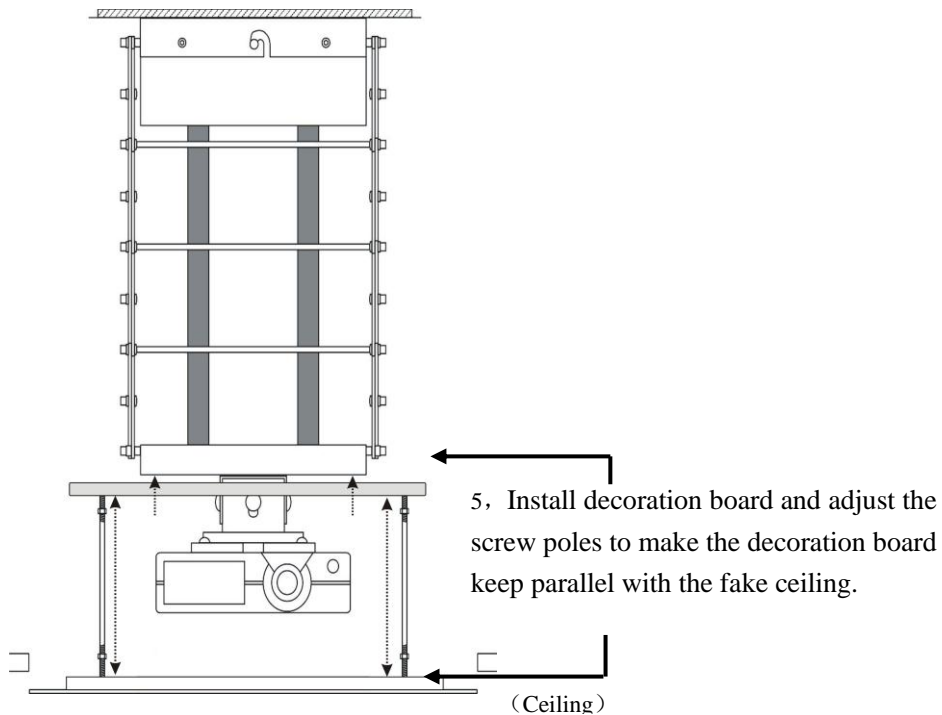
2. Insert the lift into the installation board, and use four pcs bolts (M6*12) to fix them.

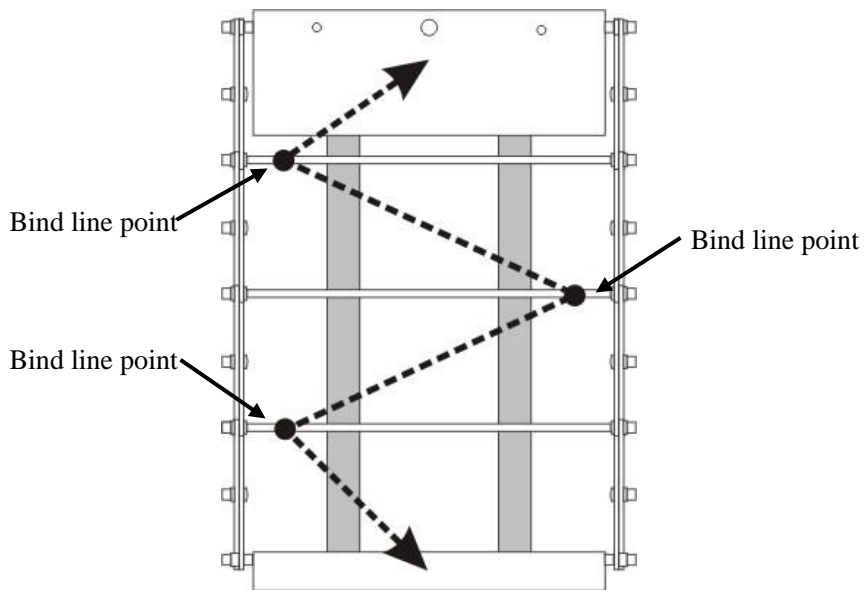


3. Insert the lift into the installation board, and use four pcs bolts (M6*12) to fix them.



4. Install the universal head and claws to fix the projector.





(Before binding the wires, please have the lift down to the projector working position)

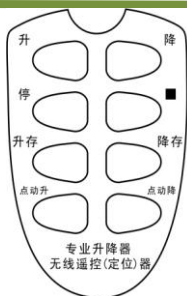
Stop position setting step:

Projection position setting :

Press the eight key remote controller key 8, The lift will move down to the general projection position, relax the key 8, and press 8 (down) or key 7 (up) lightly to adjust the right projection position. Press key 6 till hear the beep sound project, it means the down position setting successful.

Backing position setting:

Press the key 7 on remote controller key, The projector will move up to the ceiling, relax the key 7, and press 8 (down) or key 7 (up) lightly to adjust the right backing position, Press key 5 till hear the beep sound, it means the up position setting successful.



Eight -key remote controller
for projector set up



Three-key remote
control for end user

Key instruction:

Key name	Action	Lift
1 升 (Up)/2 降 (Down)	Touch control	The projector move up or down to the right projection area.
4 停 (Stop)	Touch control	Stop the projection at any place.
5 升存 (Up saved) / 6 降存 (Down saved)	Long time press	Save the position.
7 点动升 (Up)/8(Down) 点动降	Touch control	Adjust the position
7 点动升/8 点动降	Long time press	Touch the key, the lift will keep moving until releasing.

Troubleshooting

Please call us for permission of customers' self service on the projector lifts if the newly installed or used products break down. Otherwise, unauthorized service will render the warranty void. Check the grounded protection to make sure of security in avoidance of electric shock accident.

- After the lift power on, if press the operation button but the lift does not go upward or downward, please check it as following steps:
 1. check to confirm whether the fuse be burned broken, if yes, please replace it with new 2A fuse.
 2. check to confirm whether the power wires be connected well, and whether the power in good status.
 - Thoroughly no response, no movement at all stop operation for over 15 minutes then restart, to find out whether the lift is in the overheated status.
 1. Check and confirm whether the power wire end is live, and whether the voltage is OK. If it is not live please check whether the power circuit is OK.
 2. If the power wire and end are OK, please check whether the connection between the wires and the engine are loose and disconnected, and whether the fuse be burned broken, and whether the wire connection of the upwards stopping switch and downwards stopping switch are loosed and disconnected.
 3. If need to disassemble the the lift for repairing, please lie down the lift, draw the lift apart (in level), then use screwdriver to open the top cover and take the repair.
 - The lift do not move when press neither the upwards button or the downwards button, but can hear the weak shocking sound.
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Please check whether the capacitor be hit through, or short circuit, and whether the wire connection is loosed and broken. At the meaning time, the engine will be overheated, you should shut down the power immediately to avoid the engine being burned, and then to check whether the capacitor is OK.

- Can hear weak shocking sound when the lift runs upwards and reaches the up end.

Please check whether the upwards stopping position switch is OK.

- when the lift moves downwards and reaches the down end, the engine does not stop working but keeps rotating, and make the lift be up again. Please check whether the downward stopping position switch is OK.

- The lift do not move when press neither the upward or downward button, but it makes big noise.

1. please check whether the transmission gear is blocked by other object, or broke.
2. check whether the teeth of the gears do not meet each other.

- The lift is not in balance or joggle when it move upwards or downwards.

1. please check whether the rolling belts are rolled neatly and orderly on the rolling axis.
2. please check whether the 2 pcs of rolling belts are in the same force density.
3. please check whether the connecting screws between the crossing scissors are loose or disconnected.

Communication:

RS232 communication :9 pin female,2pin send “TX”, 3pin receive ”RX”,
5pin “Gnd”

- Serial communication format:
- RS232 format; 9600baud rate,8 digital, 1 stop position ,No verify.
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No.	Instruction	Instruction code
1	Down	CA 20 ID 21 01 02 AC
2	Up	CA 20 ID 21 01 01 AC
3	Stop	CA 20 ID 21 01 00 AC
4	Turn on the projector	CA 20 ID 20 01 00 AC
5	Turn off the projector	CA 20 ID 20 01 01 AC
6	Set ID instruction	CA 20 FE CC 04 00 10 01 ID AC
Right receiving feedback format		CA 90 FF A6

Fault receiving feedback format	CA 80 FF B6
ID setting level:	00 – C0
Broadcast ID:	F0

(Need to restart the machine after setting the ID.)