

Grandview®

Instruction Manual for Skyshow Series Motorized Screen

Grandview®



Model: SK - Mlxx

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Caution

Warnings: Please prevent screen from wet place to avoid electric or fire dangerous.

1. Please read carefully with this instructions before installation to avoid damage to product causing by inappropriate installation or operation.
2. Please keep the screen away from hot sources, such as radiator, heating machine, fireplace, loudspeaker or other relative device.
3. Only Plug with ground wire is acceptable.
4. Only accessories from authorized supplier is acceptable.
5. Please unplug the power wire when lighting and raining or not use with a long time.
6. Please handle the repair work to the professional agent.
7. Please prevent screen from water as well as putting stuff with water (such as vase) on the screen.
8. As soon as the plug of the screen is connected to the power source, the screen is connecting with electricity.
9. Please use the approved power line (three-core power line)/ device interface/power plug.
10. Please use the rating (voltage, amps) power line (three-core power line) / device interface/power plug. If have any questions about power line/ device interface/power plug, please contact the professional people.
11. After installation, please locate a power device in order to disconnect power or connect the power plug to electrical socket. This electrical socket should be installed to a convenient position. If the accident occurs during operation, please disconnect power or take out the power plug.
12. The ceiling or wall used for fixture installation must be secure enough; load-bearing requirement must be 4 times of the screen to prevent the screens from falling.

**Warnings**

To prevent from electric dangerous, please don't remove the end cap. There is no need for users to check the parts inside, please handle the problems to professional repairman.



Please notice the non-insulated voltage of the spare parts to prevent from electric dangerous.



Please operate according to the user manual with the screen.

Questions & Answers

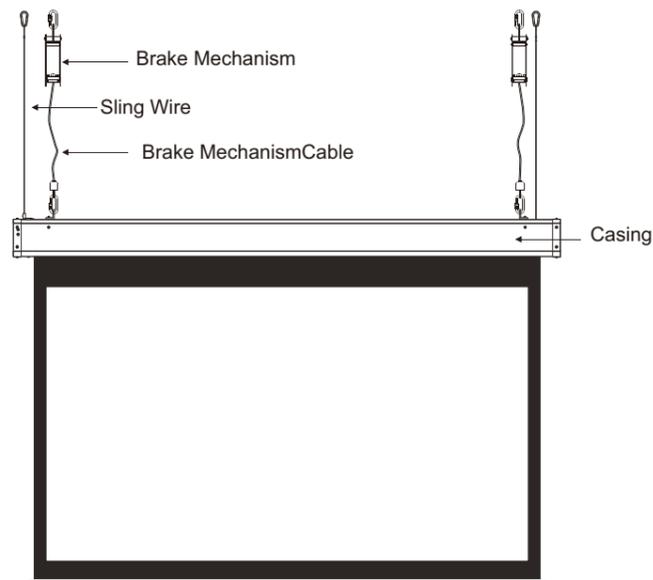
Fabrics of Grandview motorized screen can be used for years, most problems are cost by simple incidents. If problem occurs, please find the list below for some common solutions. If problems keep on, please contact authorized agent of Grandview or call service number: (8620)34806166

1. Can not be used after installation completely.

Reasons	Solutions
No power or wrong installation of batteries in controller.	Please check about the batteries as instruction manual.
Power line disconnection	Please connect the power line as instruction manual.
Sling Wheel is blocked	Return the sling wheel by hands.

2. The casing can drop, but can not rise.

Reasons	Solutions
Secure Positioning Executive Piece is blocked	Return the Secure Positioning Executive Piece by hands



Caution

1. Safety

- Please ensure whether the operating voltage is the same as local voltage. If the voltage adapter is required, please contact the professional agent.
- If any liquid or solid fall into the casing, please disconnect power and contact the professional agent.
- If the screen is not being used for an extended period of time, please disconnect electricity.
- Take out the power plug by hand.
- Wall power socket needs to be installed at a convenient position.
- As soon as the plug of the screen is connected to the power source, the screen is connecting with electricity.
- Do not put the hands into casing.

2. Lighting

- Do not stay the screen under lighting or sunlight to achieve the best viewing image.
- Recommend using spotlight in viewing process, and magnesium light is not recommended.
- The windows facing to screen need to be blocked by opaque curtain.
- Using the screen in the room without reflective materials.

3. Cleaning and Maintenance

After cleaning, please disconnect power.

(1). Casing Clean

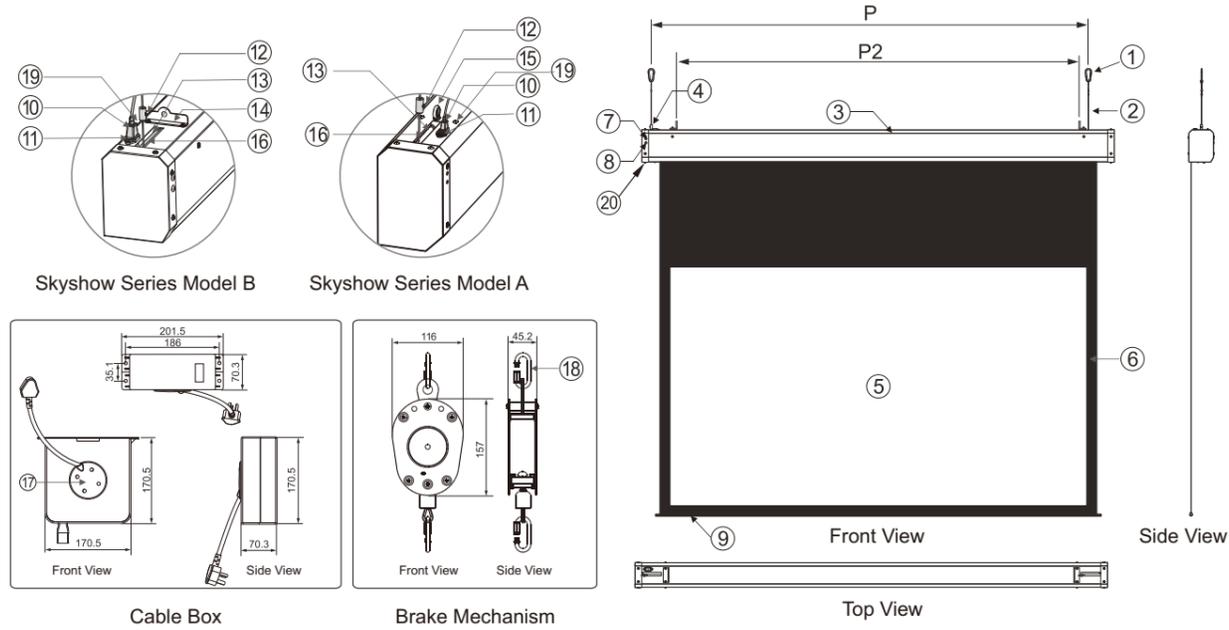
- Please use the soft dry-cloth to clean the casing. Please remove the stubborn stains with Neutral detergent, and then use the soft-cloth to clean.
- The excess using of rubber or vinyl resin products will damage the appearance of casing.

(2). Fabric Clean

- The damages of appearance of screen will influence the viewing image, please note the following:
 - ① Do not touch the screen by hands.
 - ② Please do not mark the screen surface
 - ③ Do not shave the screen by finger or edge tool to avoid the crack or scratch.
 - ④ Do not clean the screen with alcohol, benzene or thinner.
- Retract the screen after using.
- Please retract the screen without any insects, dust and foreign bodies.

SkyShow series is a perfect solution for installation in venues with high ceiling or pillarsthat range from 5m to 8m.

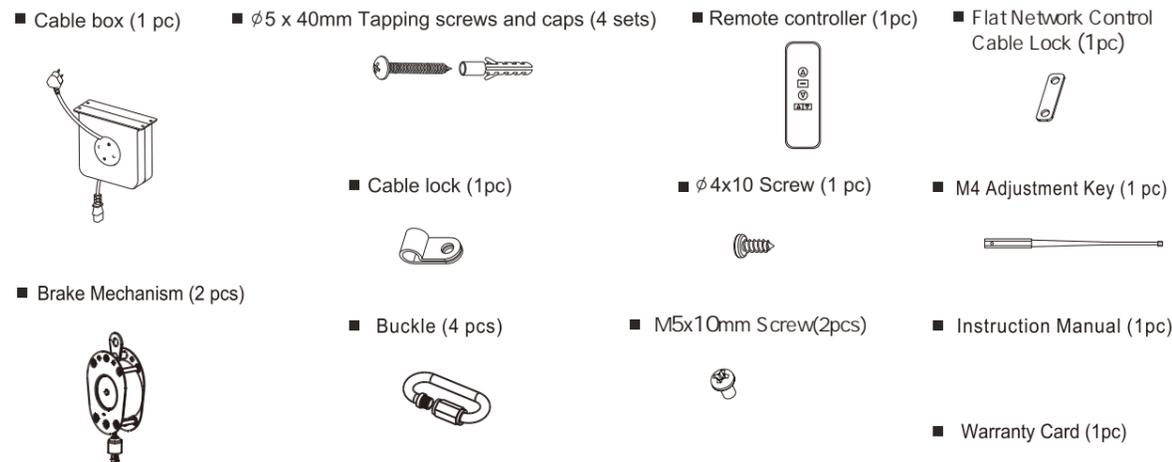
Description



Screen parts

①	Hook	⑧	Extending Limitation	⑭	Hanging Piece for Brake Mechanism (seriesB)
②	Sling Wire	⑨	Low Bar	⑮	Hanging Hook for Brake Mechanism (series A)
③	Casing	⑩	Cable Box Plug	⑯	Secure Positioning Executive Piece
④	Secure Positioning Piece	⑪	Socket	⑰	Cable Box Socket
⑤	Screen Fabric	⑫	Positioning Screw	⑱	Buckle
⑥	Black Border	⑬	Carriage Wheel	⑲	Central Control Interface
⑦	Retracting Limitation			⑳	LED

Accessories

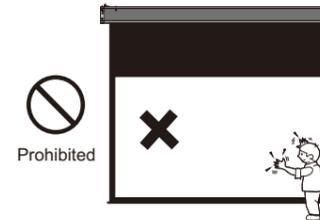


Caution Illustration

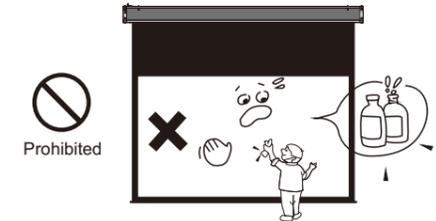
The surface of screen is processed to achieve good performance of the reflector. Any damage of surface will influence projection effects so please use this product in right way.

Caution

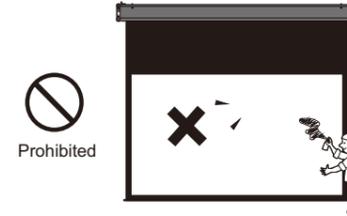
● Please do not shake the screen by hand.



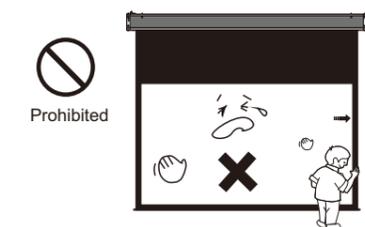
● Please do not use any cloth with water, volatile oil and corrosive cleaning agents to clean the screen, because they will make the surface metamorphism and paint off.



● Please do not make any marks on screen surface.



● Please do not pull the screen strongly that it will cause the risk of damage.

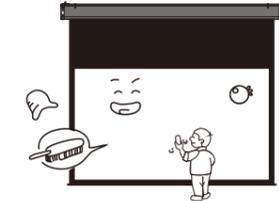


Maintenance

● Any stains on the casing, please use dry-cloth to clean softly. If too serious, please use soft-cloth with water-diluted neutral detergent to clean.

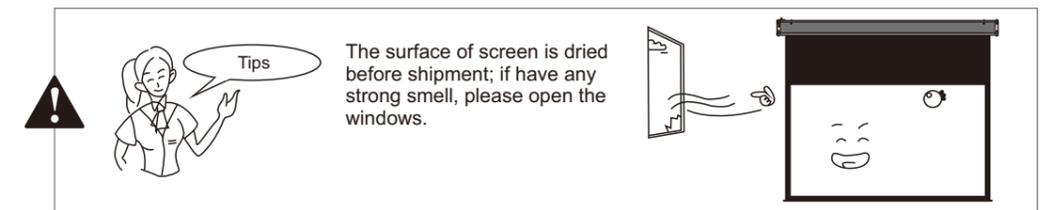


● Please use a brush to clean the dust of screen surface softly.



Location Caution

● Please keep the screen far away from sunshine,dust and wet. Avoid using the screen in strong wind.



Caution

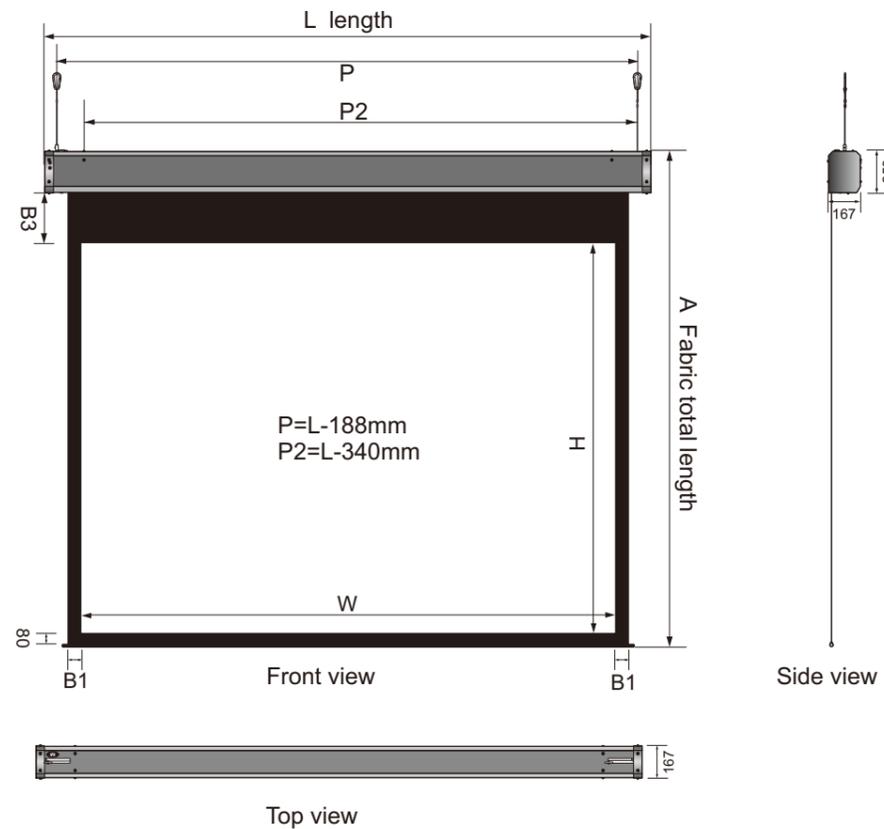
● Please contact your local dealer for repairing and replacing. Please contact us if you have any questions. Avoid taking apart the fixture yourself.



Model A Series Data

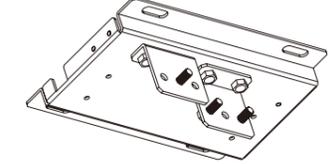
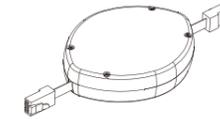
Format	Model	Size (in)	Viewing area		L (mm)	A (mm)	B1(mm)	B3(mm)	Net weight (Kg)
			W (mm)	H (mm)					
4:3	SK-M150	150"	3048	2286	3405	2819	80	200	
	SK-M180	180"	3620	2715	3977	3248	80	200	
	SK-M200	200"	4020	3015	4377	3548	80	200	
	SK-M240	240"	4878	3660	5235	4193	80	200	
16:9	SK-M150	150"	3320	1867	3677	2400	80	200	
	SK-M180	180"	3984	2240	4341	2773	80	200	

Remarks: Casing length will change upon different screen sizes, above specifications are subject to change without informing. (The tolerance for L is 3mm.)

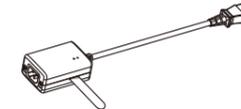


Optional Accessories

- Ethernet Cable Box
- Multimedia Cable Box
- Wall Switch
- Ceiling Installation Part



- Synchro Power Relay



Installation Instruction

Take out all the parts from the packaging and follow the accessories guideline to ensure you have all parts, and then follow the operations to install (Please follow model B series installation, which is the same as model A).

1. Fix the rings (not accessories) on the ceiling according to the distance P1 between two hooks (note: make sure each of rings can endure at least 100Kg to avoid falling down) (figure 1).

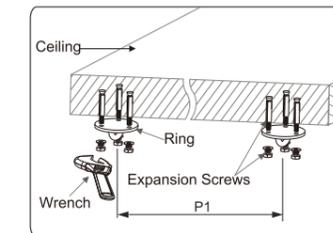


Figure 1

2. Fix the rings (not accessories) on the ceiling according to the distance P2 between two hanging pieces of brake mechanism (note: make sure each of rings can endure at least 200Kg to avoid falling down) (figure 2).

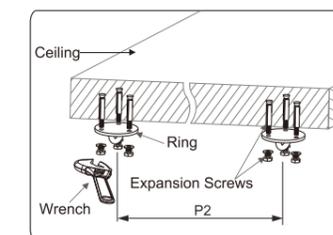


Figure 2

3.To hang the hooks on the rings (note: do not operate after pull out the cable from cable box) (figure 3-4).

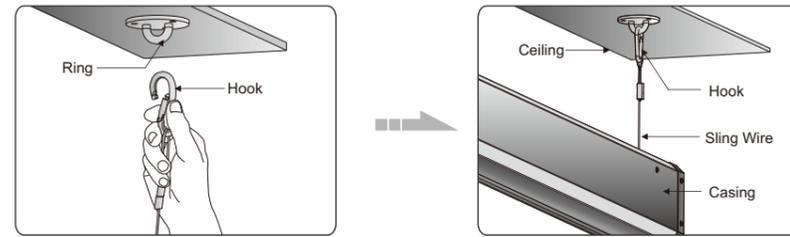


Figure 3

Figure 4

4. Hook the buckles of brake mechanism on the rings, and then fasten the buckles (figure 5-6)

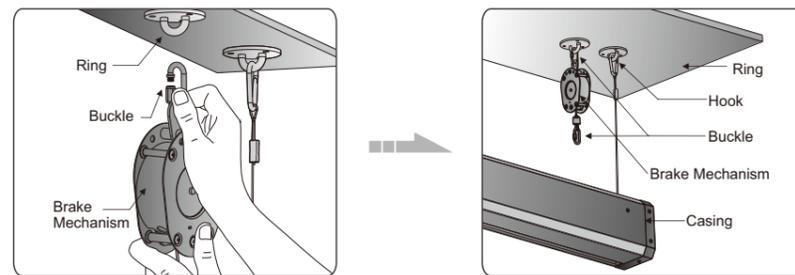


Figure 5

Figure 6

5. Hook the low buckles of brake mechanism on the hanging pieces, and then fasten the buckles (figure 7-8)

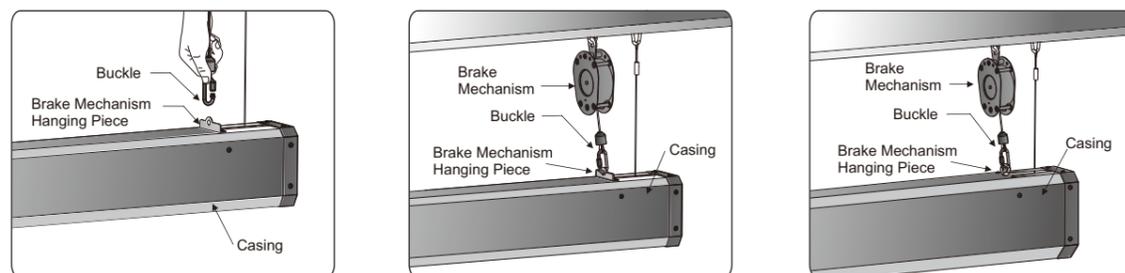


Figure 7

Figure 8

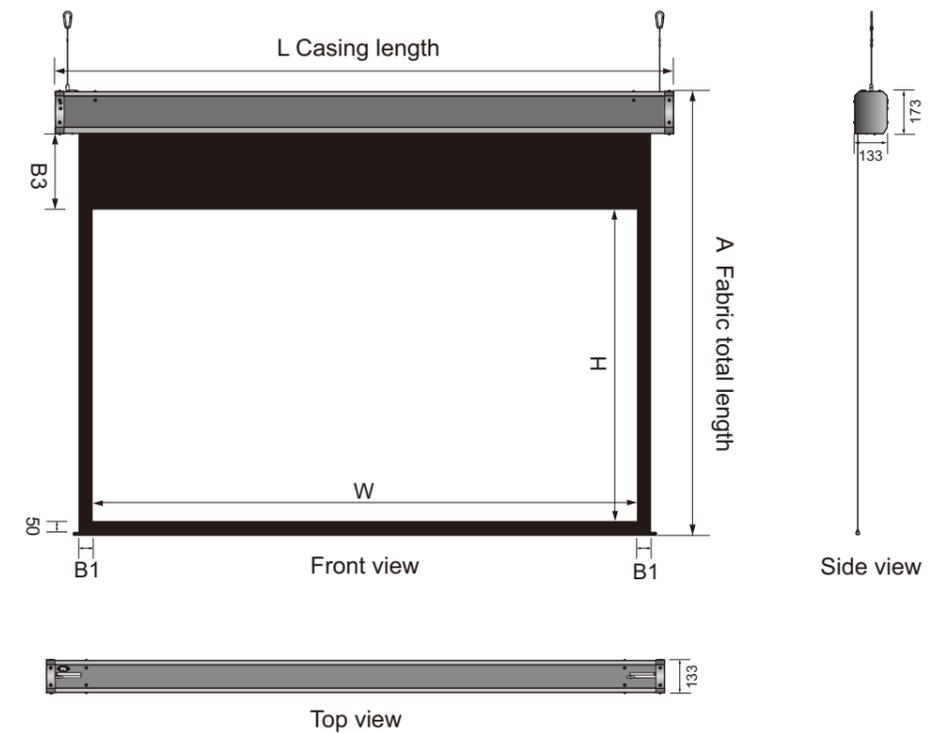
Figure 9

Specification

Model B Series Data

Format	Model	Size (in)	Viewing area		L (mm)	A (mm)	B1(mm)	B3(mm)	Net weight (Kg)
			W (mm)	H (mm)					
1:1	SK-M60	60"	1520	1520	1767	1970	25	200	24.7
	SK-M70	70"	1780	1780	2030	2230	23	200	29.0
	SK-M84	84"	2030	2030	2327	2480	50	200	33.5
	SK-M96	96"	2338	2338	2635	2788	50	200	38.8
	SK-M100	100"	2540	2540	2837	2990	50	200	42.9
4:3	SK-M100	100"	2030	1520	2327	1970	50	200	34.3
	SK-M120	120"	2338	1755	2635	2205	50	200	38.7
	SK-M150	150"	3048	2286	3345	2736	50	200	50.2
16:9	SK-M77	77"	1710	958	2007	1408	50	200	28.1
	SK-M80	80"	1771	996	2068	1446	50	200	29.1
	SK-M92	92"	2030	1145	2327	1595	50	200	33.4
	SK-M100	100"	2214	1245	2511	1695	50	200	36.3
	SK-M106	106"	2338	1320	2635	1770	50	200	38.3
	SK-M120	120"	2656	1494	2953	1944	50	200	43.7
	SK-M136	136"	3048	1715	3345	2165	50	200	50.1

Remarks: Casing length will change upon different screen sizes, above specifications are subject to change without informing. (The tolerance for L is 3mm.)



Optional

1. Multimedia cable box; 5M automatic retracting.

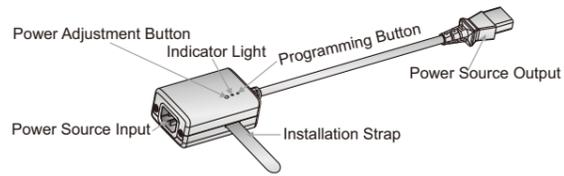
Only use for the products which have this joint and the products can work with the multimedia cable to connect computer or central control. And they can be controlled by RS-232, RS-485 and trigger.



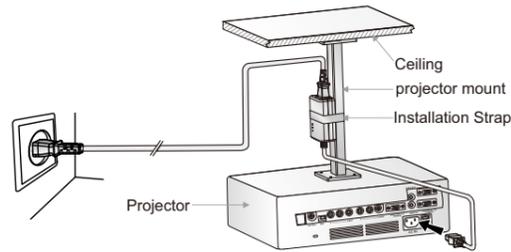
Multimedia Cable Box

2. Synchro Power Relay

Connect the projector with Synchro Power Relay, and then the screen can be controlled by projector.



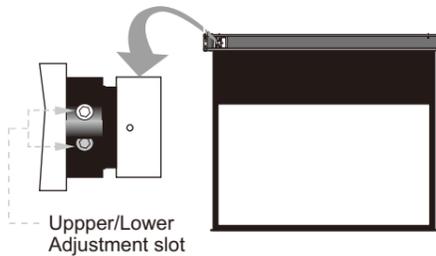
Synchro Power Relay



5. Screen Adjustment

Motor Positioning

Don't roll out and retract the screen continuously over 4 minutes in a time to avoid overheating. If the motor overheats, keep 30 minutes for heat elimination. No lubrication using for the motor, the drop and retract limit of the screen has been preposition to an optimal configuration before delivery. In order to avoid motor damage, please ask the local dealer or professional for consultation when a new position setting is needed.



"Screen Extending" adjustment

Adjust after the screen fabric is dropping completely:

- (1) To adjust the position of the viewing area when the screen is falling down, first of all please insert the adjuster in the slot, the viewing area will rise up about 40mm if turning the adjuster for a circle anticlockwise.

Note: Only when pressing "UP" button and operating for few seconds, that you can observe the differences after position adjustment distinctly; then press "DOWN" button you can easily see the difference of the position of the screen.

- (2) If over-adjusting, anticlockwise adjustment can regulate the screen retraction. Adjustment is only after the screen is completely dropped and up or down control is not in use.

⚠ Please operate carefully to avoid motor and screen damage by over-retraction.

"Screen Retracting" adjustment

Only for your information: turn off the positioning switch.

(Note: the adjustment is extremely dangerous, please ask our technician for assistance without fail to prevent destroying the screen or guarantee invalidation.)

"The Note"strongly suggests users not adjust the retraction limit privately; all the screens are preset before delivery which satisfies most of the users' demand.

Description as follow is only restricted to few situations:

- (1) Insert the adjuster in the adjusting slot (in the place where is nearest to the rear of the screen), when the screen fabric is retracted to the casing, adjust the motor anchor point. The screen can be positioned at where 40mm away from the casing if turning the adjuster for a circle deasil.

Note: Only when pressing "DOWN" button and operating for few seconds, that you can observe the differences after position adjustment distinctly; then press "UP" button you can easily see the difference of the position of the screen.

To avoid damage, please do not operate the screen before the first step.

- (2) Turn the Motor Adjusting Slot anticlockwise for one circle, the screen will be positioned at where 40mm away from the casing.

⚠ Please operate carefully to avoid motor and screen damage by over-retraction.

6. Drill 4 holes on the ceiling, and then select 5x40mm tapping screws to fasten the cable box on the ceiling. (Recommendation: cable box must be installed above the power input of screen) (figure 10-11).

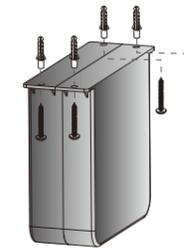


Figure 10

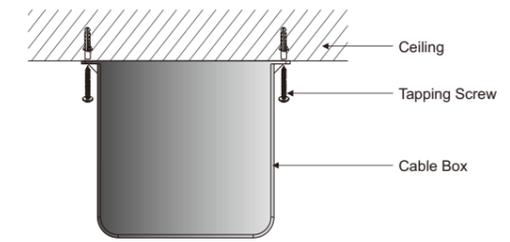


Figure 11

7. The screen includes two parts of cable; there are cable box and main cable. Firstly, please insert the plug into socket (figure 12-13).

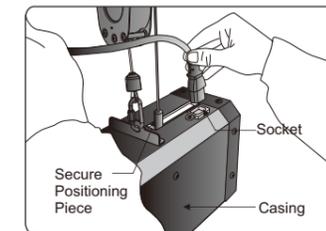


Figure 12

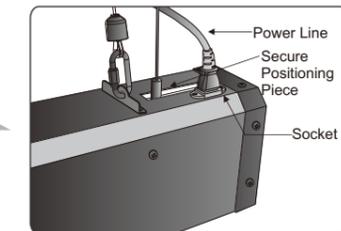


Figure 13

8. Loop the cable with cable lock, and then fasten it onto the casing top via 4x10mm screw (note: separate the cable and power to avoid the damages of power line).

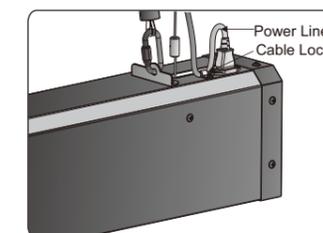


Figure 14

9. Insert the plug from main cable into the socket on the cable box (figure 15-16).

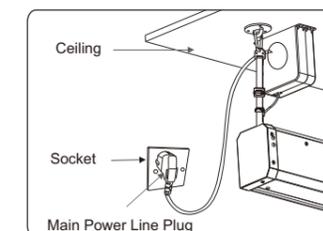


Figure 16

Recessed Mount

The screen can be installed on the ceiling, with the reference to the above-mentioned steps 1-9 (figure 17).

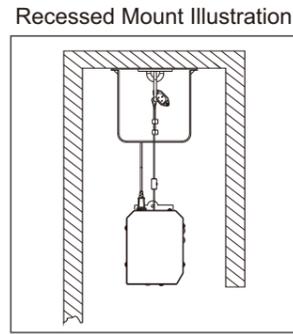


Figure 17

c. To press the localizer hole at the back of the remote controller with one small pin or equivalence for about 3 seconds and then release, then press Down button for sling wire to the desired position and stop, the screen is already reset for its extend limit (figure 28-29).

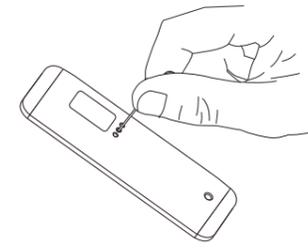


Figure 28

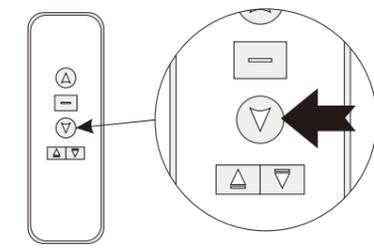


Figure 29

Notice: for ensuring the security of positioning function, the distance between the upper limitation and secure positioning mechanism must be 10cm. The effective setting period of electric positioning should be 60 seconds, after 60 seconds will return to normal situation. If the setting fails within 60 seconds, please repeat as following step: to press the setting button, then LED light will turn off; press the setting button again, then LED light will turn on. In this movement, the resetting function will begin.

(3). Upper Limitation Secure Positioning

For the safety, there is also Secure Positioning Piece besides the Remote Localizer.

a. Casing upper limitation uses the touching switch, consists of secure positioning piece system. (Refer to description). You just need to loose the screw on the position piece and then fasten again after moving it to the desired position (figure 30).

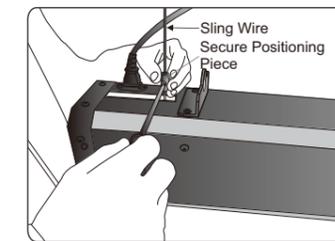


Figure 30

Remark: the position of positioning piece needs to be set according to the screen of electric positioning at highest upper limitation.

b. When the casing retracts to a certain height and reach the secure positioning piece, the touching switch would be off by being pressed by secure positioning piece onto the secure positioning executive piece. The casing will not rise any more but can only lower down. (Recommendation: cable box must be installed above the power input of screen) (figure 10-11).

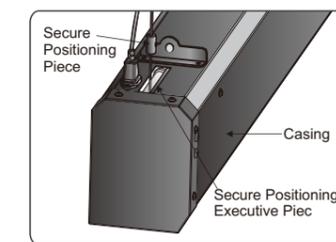


Figure 31

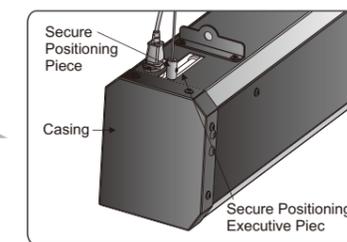


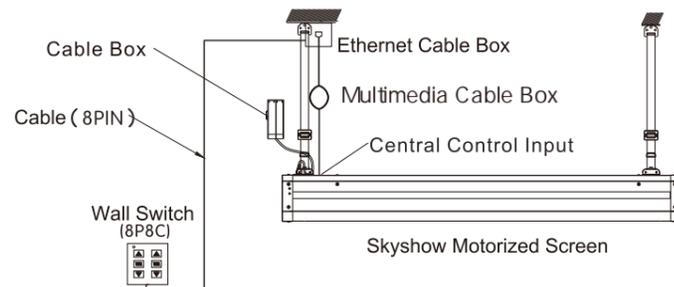
Figure 32

Product Instruction

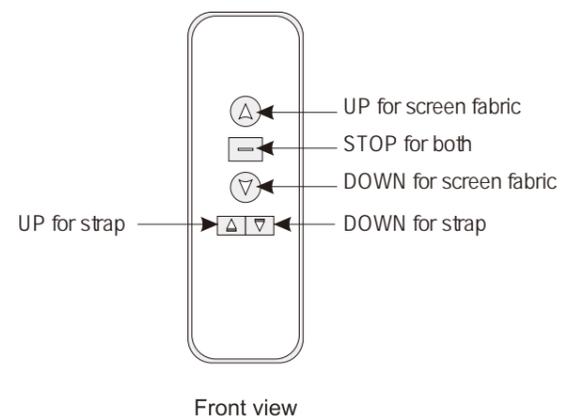
1. Wall Switch Instruction

Please use the wall switch following the marking and symbols on switch.

Note: please fix the cable box on the ceiling, and please ensure the cable box, retractor and central control input are at the same level.



Wall Switch Wiring Description



2. Remote controller instruction

Remote controller instruction:

1. To retract screen, press "UP for screen fabric".
2. To stop sling wires or screen fabric, press "STOP for both".
3. To lower down screen, press "DOWN for screen fabric".
4. To retract sling wires, press "UP for strap".
5. To lower down sling wires, press "DOWN for strap".

4. Positioning Instruction

There are totally 3 solutions to position the screen, upper/lower limitation hole for sling wires, remote localizer and position piece.

(1). Upper/Lower Limitation Adjustment for Sling Wires

Upper limitation and lower limitation are set from factory, the upper limitation should be at 30cm which is the distance between the screen and installation position (figure 22), and the lower limitation should be at 495cm which is the distance between the screen and installation position (figure 23) (upper/lower limitation hole for sling wires must be regulated by professional or dealers, please do not regulate yourself. Improper regulation will cause the risk of damages).

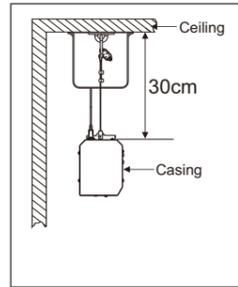


Figure 22

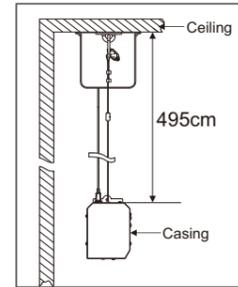


Figure 23

- Upper limitation adjusting. Take off the knob from the hole and use the provided allen key to adjust (figure 24). A clockwise adjustment will retract the screen (The distance between the screen and installation position will decrease) and a counter-clockwise adjustment will extend the screen (The distance between the screen and installation position will increase).
- Lower limitation adjusting. Take off the knob from the hole and use the provided allen key to adjust (figure 25). A clockwise adjustment will extend the screen (The distance between the screen and installation position will increase) and a counter-clockwise adjustment will retract the screen (The distance between the screen and installation position will decrease).

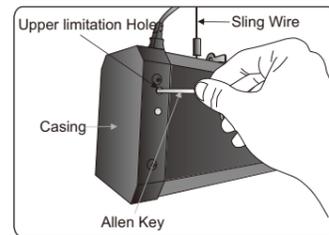


Figure 24

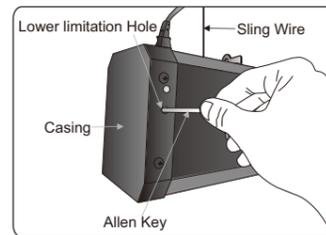


Figure 25

Remark: default setting should be kept. If it is special solution, the remote localizer is recommended.

(2). Remote Localizer

- When the screen is at loading situation, you can adjust the upper/lower limitation via the remote controller. (Retract position is larger than 30cm to the installation position, extend position is smaller than 495cm installation position).
- To press the localizer hole at the back of the remote controller with one small pin or equivalence for about 3 seconds and then release, then press Up button for sling wire to the desired position and stop, the screen is already reset for its retract limit (figure 26-27).

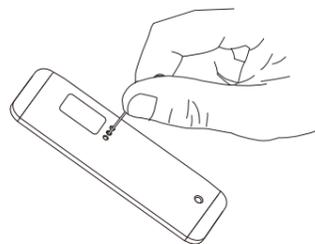


Figure 26

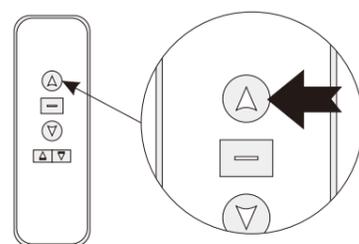
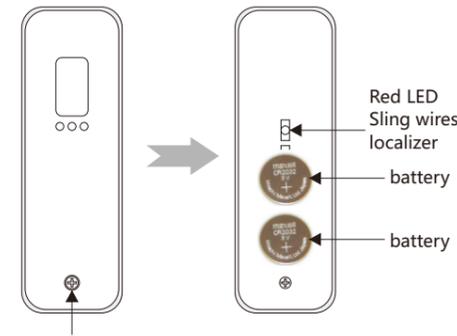
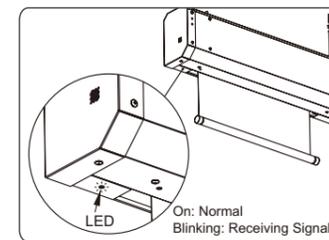


Figure 27



Back view



Cautions:

- The minimum distance between Controller and Receiver: 50cm
- Workable within 8m in horizontal direction from the Receiver to the Controller
- Do not cover the Controller's launching port while operation
- Strictly ban operation in wet or high temperature environment.
- Replacing batteries when the signal is faint or no signal.
- Batteries for the Controller: 2 units CR2032 button cells.

Batteries Installation Instruction:

When the signal of the Controller is faint, please replace the batteries as follow steps:

- Reverse Controller to the back, push down as the arrow mark to open the cover.
- Install two cells of battery and set the direction of positive and negative electrode just like the chart shows.
- Close the battery cover.

LED Indication Light

Under the casing on the left side, the LED light can indicate the status of the screen.

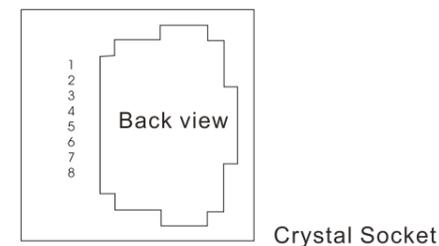
When the light is on, it means the power supply is normal.

When the light is blinking, it means the screen is receiving signals.

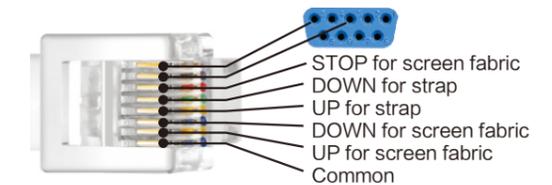
3. Central Control Instruction

Emitter Function:

1	Slightly press the common line.	5	Screen goes down completely.
2	Slightly press the switch for retracting the screen.	6	Stop
3	Slightly press the switch for extending the screen.	7	Rs232 Input B
4	Screen goes up completely.	8	Rs232 Input A



Crystal Socket



Multi-function Control Diagram

Central Control Format Agreement

1) Communication Agreement Setting:

data bits: 8 bits, start bits: 1 bit, stop bits: 1 bit, Baud Ratio: 2400.

2) Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xDD

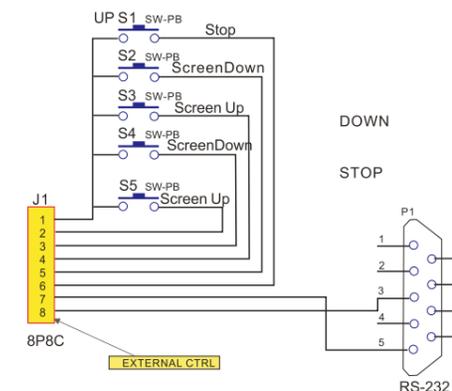
3) Directive for stopping the screen: 0xFF 0xEE 0xEE 0xEE 0xCC

4) Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xEE

5) Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xC9

6) Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xE9

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



RS485 Custom Setting Address:

1、RS-485, RS-232 input

A continuous data sends two times, each time interval of 200 ms.

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 screen and can not be changed.

2)Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xDD

3)Directive for stopping the screen: 0xFF 0xEE 0xEE 0xEE 0xCC

4)Directive for extending the screen: 0xFF 0xEE 0xEE 0xEE 0xEE

5)Directive for retracting the screen: 0xFF 0xEE 0xEE 0xEE 0xC9

6)Directive for extending the screen: 0xFF 0xEE 0xEE 0xEE 0xE9

7)Studying address directive: 0xFF 0XX 0XX 0XX 0AA

Directive Composing Instruction:

0xFF is only bit; 0x stands for 16 hexadecimal system; FF is effective bit; a directive is composed by 5 bits.

Studying directive 0xFF 0XX 0XX 0XX 0AA

0xFF and 0AA can not be changed, but 0XX 0XX 0XX can be changed to any 16 hex data, which stand for address bit.

The changed working directive

1) Directive for retracting the screen: 0xFF 0XX 0XX 0XX 0xDD

2) Directive for stopping the screen: 0xFF 0XX 0XX 0XX 0xCC

3) Directive for extending the screen: 0xFF 0XX 0XX 0XX 0xEE

4) Directive for retracting the screen: 0xFF 0XX 0XX 0XX 0xC9

5) Directive for extending the screen: 0xFF 0XX 0XX 0XX 0xE9

6) Studying address directive: 0xFF 0XX 0XX 0XX 0AA

Example: the studying directive is 0xFF 0x10 0x11 0x12 0AA which can be changed to:

7) Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xDD

8) Directive for stopping the screen: 0xFF 0x10 0x11 0x12 0xCC

9) Directive for extending the screen: 0xFF 0x10 0x11 0x12 0xEE

10) Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xC9

11) Directive for extending the screen: 0xFF 0x10 0x11 0x12 0xE9

12) Studying address directive: 0xFF 0x10 0x11 0x12 0AA

Studying Directive and Operation

After connecting power, studying status will operate within the first 10 seconds. The studying directive is 0xFF 0XX 0XX 0XX 0AA. The screen can be used normally after study completed, but the screen can not be used normally after the address bit changed, so that one port can be used to control many screens.

Example:

Screen A and screen B with RS-485 port, if need to control these two screens synchronously that the directive 0xFF 0xEE 0xEE 0xEE 0xDD will be sent out from the port. If need to control these two screens in different movement, such as screen A goes down and screen B goes up, common directive can not be used and separated by address bit at this time.

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

Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xDD

Directive for stopping the screen: 0xFF 0x10 0x11 0x12 0xCC

Directive for extending the screen: 0xFF 0x10 0x11 0x12 0xEE

Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xC9

Directive for extending the screen: 0xFF 0x10 0x11 0x12 0xE9

Completed the studying in screen A, and then disconnect the power in screen A. Please operate the screen B in same way and change the address to 0AA 0AA 0AA. Entering the operating address of screen B can control the screen.

Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xDD

Directive for stopping the screen: 0xFF 0x10 0x11 0x12 0xCC

Directive for extending the screen: 0xFF 0x10 0x11 0x12 0xEE

Directive for retracting the screen: 0xFF 0x10 0x11 0x12 0xC9

Directive for extending the screen: 0xFF 0x10 0x11 0x12 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 can not be 0xEE 0xEE 0xEE.

Attachment 1

Compare 16 hexadecimal system to 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

2.Load Mechanism

There is a load mechanism in the screen, assuring screen to work only after being properly installed. When hanging the screen on the rings, screen gravity would turn the wheel via sling wires, which connects the load switch automatically (figure 18-19).

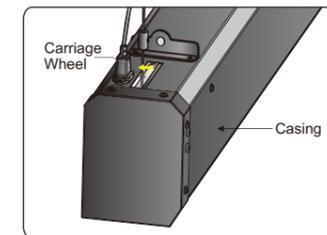


Figure 18

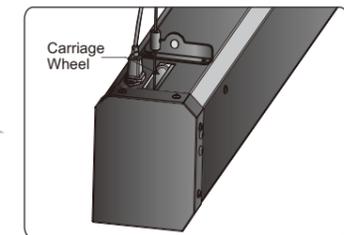


Figure 19

3. Remote Controller Instruction

There is matching function between controller and screen, and then controller needs to be programmed before using.

- (1). The screen is at situation of load. After connecting the power within 5 seconds, please press UP button and STOP button simultaneously for 5 seconds then release.
- (2). Press the DOWN button to ensure whether the programming works?
- (3). If the programming fails, please repeat step 2 and 3.

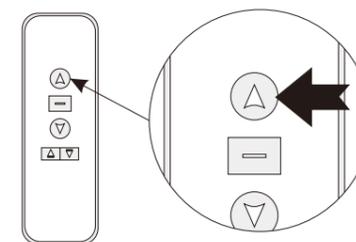


Figure 20

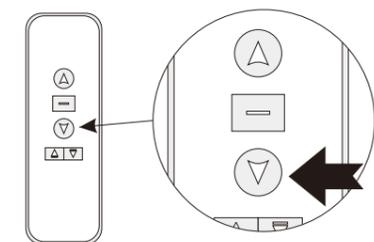


Figure 21