



## Instruction Manual for Sapphire Remote controlled Tab Tensioned Electric Projection Screens

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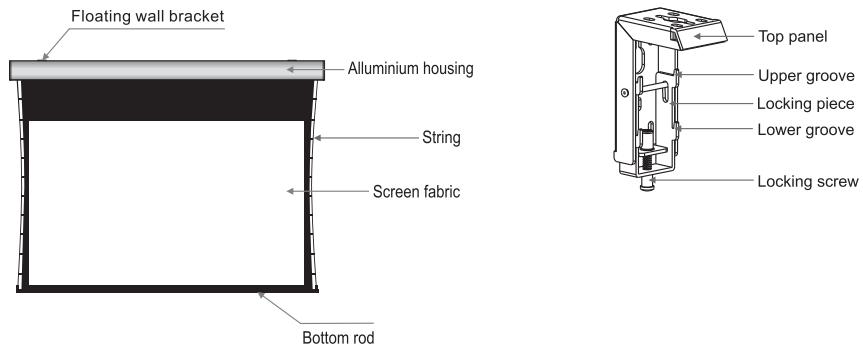
### Technical Assistance

If you need help with installing this screen please visit  
[www.sapphireav.com](http://www.sapphireav.com)

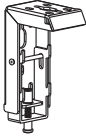






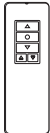


Thank you for purchasing a sapphire projection screen.  
Before use, please read instructions carefully. After installation, store instructions for future reference.

## Description



## Accessories

- Floating wall bracket (2pcs) 
- $\phi 5 \times 40\text{mm}$  Tapping screw & cap (8sets) 
- Allen key (1pc) 
- M5 x10 Screw (6pcs) 
- Trigger line ( 1pc ) 
- Ceiling hanger (2pcs) 
- External IR Receiver (1pc) 
- Remote Controller (1pc) 
- Instruction manual (1pc)

### Motorized Screen Power Specifications

| Voltage        | Frequency | Watts   | Application                            |
|----------------|-----------|---------|--|
| 230V/120V/100V | 50Hz/60Hz | 90W/80W | Applies to motorized screen up to 120" |

## How to adjust tension situation of the string

If the string is loose which is caused by bump on transportation or faulty operation (Figure 33), please rotate the String Adjustment Knob clockwise to make string tensional (Figure 34). If the string is over-tensional, please press the String Releasing Button and then rotate the String Adjustment Knob counter-clockwise to suitable tensional situation (Figure 35).

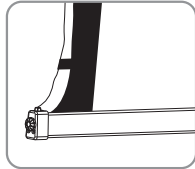


Figure 33

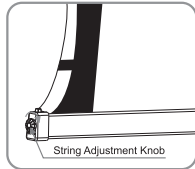


Figure 34

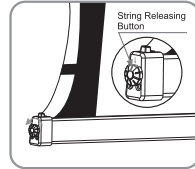








Figure 35

## Warnings

- The ceiling or wall used for fixture installation must be secure to prevent the screens from falling.
- While installing electrical motors, please hire professionals or your local dealer to ensure safety. A misconnection may lead to fire or leaks.
- Make sure the Fixing screw be fastened when using the wall bracket, to avoid any damage.
- Keep all infrared wireless products away from fluorescent lighting as it may cause malfunctions.
- Please read the following as any damage to the screen surface will affect the quality of the picture:
  - 1.Avoid contact or touching the screen surface as it may cause scratches or tears.
  - 2.Do not write or draw on the surface.
  - 3.Clean the screen with a soft cloth and lukewarm water. Do not use any detergent or cleaning products.
- Roll up the screen after every use. Ensure that the screen is level when installing; do not pull on the sides or fold the screen.
- To prevent unnecessary damage, the operating and maintenance of the screen should be done by adults.

|  |  |
|--|--|
|  Ignoring the safety warnings may lead to injuries and/or damaging the product.   |  Fixtures should be installed in a secure place to avoid accidents or the screen falling.                         |
|  Do not connect any electrical attachments or remote controls.  |  Roll up the screen after every use. Leaving it hanging for a long period of time may cause the fabric to loosen. |
|  Please contact your local dealer for repairs or maintenance. Please contact our company if you have any further questions. Avoid taking apart the fixtures yourself. Loose parts may cause the screen to fall. |  Refrain from hanging anything on the screen as it may cause the screen to fall.                                  |

Do not take apart and replace with unknown parts. If there are any problems, please contact your local dealer. Product specifications are subject to change.

## Installation

Take out all the parts from the package and following the accessories guideline ensure all the parts are there. There are three different types of installation available for this product: wall mount, ceiling mount or ceiling hang. Depending on the installation environment, the floating mounting brackets can be installed at various points for your convenience. However, the ideal position for the mounting brackets is closer to the endcap as this will reduce vibration and noise.

### Wall and Ceiling Mount Installation

- 1.According to the surface of installation, choose the appropriate screws needed for mounting (regular screws for wood surfaces, tapping screws for concrete surfaces)
- 2.Mount the brackets onto the surface, ensuring it is level (tip: draw a erasable level line when mounting the brackets). See below for picture description (figure 1):

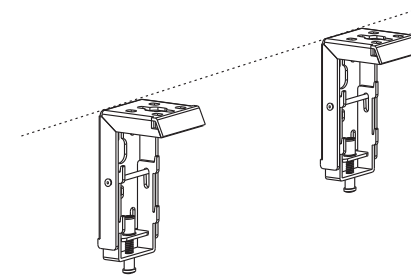


Figure 1

### Installation Steps:

- 1.Wood wall and ceiling installation: Drill in the  $\phi 5 \times 40$  screws through the appropriate holes in the bracket (figure 2-3)
- 2.Drywall and ceiling installation: Install the anchors and drill in the  $\phi 5 \times 40$  screws into the appropriate bracket holes (figure 4-5)

Wood wall installation

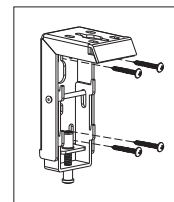


Figure 2

Wood ceiling installation

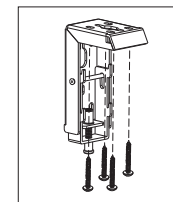


Figure 3

Concrete wall installation

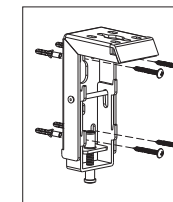


Figure 4

Concrete ceiling installation

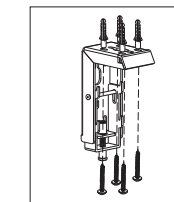


Figure 5

3. Loosen the locking screw to lower the locking piece down all the way (figure 6-7)

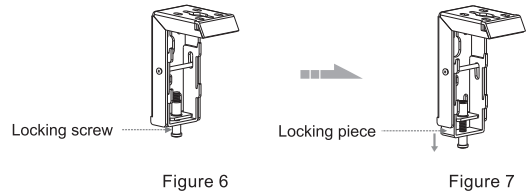


Figure 6

Figure 7

4. When mounting the screen onto the floating mounting brackets, ensure the grooves on the screen casing match up with the upper and lower grooves on the brackets. Simply slide in, and bracket's grooves will hold the casing in place. Horizontal adjustments can still be made (figure 8-10).

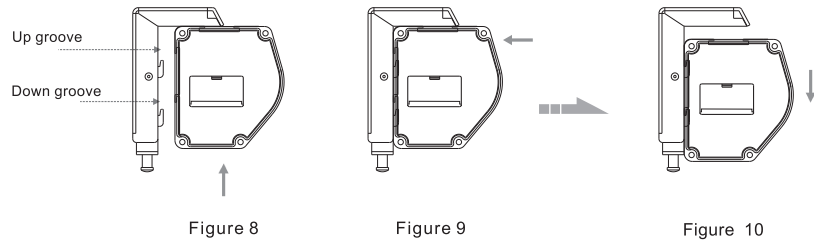


Figure 8

Figure 9

Figure 10

5. To lock the screen in place, close and tighten the locking screw on the mounting brackets. This will keep the screen casing locked firmly in place (figure 11-12).

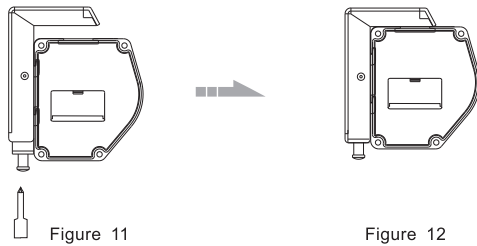


Figure 11

Figure 12

## Other Control Options Description

### 1. FM to IR control description:

When you insert the Wireless Synchro Converter Receiver into the EXTR slot of the control panel, you can use a FM wireless remote control device. (figure 26). The Intelligent Synchro Power Supply Control Adaptor (for all projectors) combined with the wireless 12V trigger (for all projectors with a trigger output) can control the screen together. (figure 27-28)

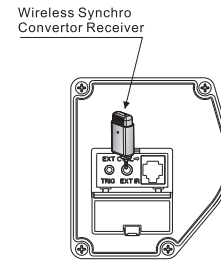


Figure 26

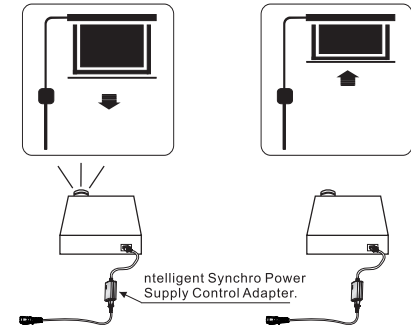


Figure 27

Figure 28

### 2. External Wall Switch

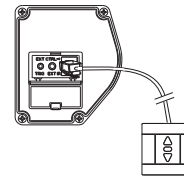


Figure 29

Manual control for screen up/stop/down.

### 3. External Intelligent Wall Switch Connection

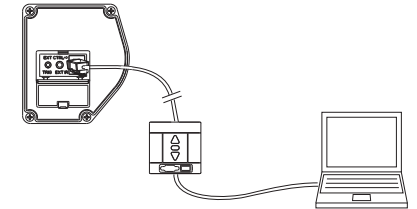


Figure 30

1. Control for screen up/stop/down when connected to the control panel interface of the screen.
2. Control for screen up/stop/down when connected to the computer's RS232 or USB interface.

To avoid overheating the motor, do not continuously lower and retract the screen for over 4 minutes. If the motor does overheat, it will need 2 minutes to cool down. The motor does not need any lubricants or oils. The drop and retract limit of the screen is adjustable but is factory preset to an optimal configuration. Please ask your local dealer or professional to adjust the settings and to avoid damaging the motor.

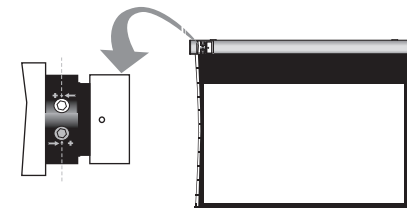


Figure 31

### Automatic Trigger Control Description

1. Insert one end of the trigger wire into the trigger jack located on the left side of the screen casing's end cap labeled "TRIG". (figure 22). Insert the other end into the 12V output.
2. When the projector is powered on, the screen will lower automatically. When the projector is powered off, the screen will retract automatically.

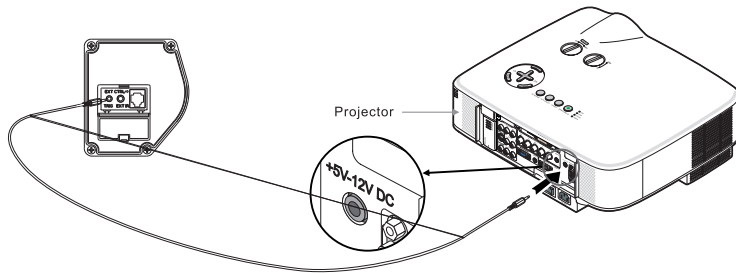


Figure 22

### External Controls Description (Central Control or R232, Grandview Wall Switch)

Insert one end of the signal cord into the computer output jack located on the left side of the screen casing's end cap and the other end of the signal cord to the central control jack, RS232 or Grandview wall switch. (figure 23-24). You can then control the screen via central control or computer.

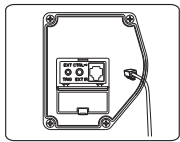


Figure 23

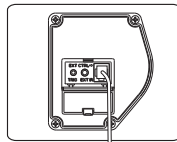


Figure 24

### Infrared (IR) Remote Control Description

1. In order for the IR remote control to work, please ensure there is nothing covering the built-in sensor on the screen casing.

For installations where the built-in sensor on the screen casing will be covered, use the external IR receiver (provided) and insert it into the external IR slot on the screen casing's left end cap. Ensure the external IR receiver head is in a position where it can receive the remote control signal.

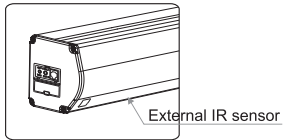


Figure 23

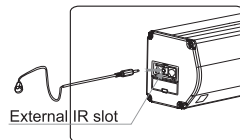


Figure 24

### Ceiling Hang Installation

Choose tapping screws with hangers (or other screws with hangers, not provided) according to your ceiling material. 5 x 40mm for wood ceilings and tapping screws for concrete ceilings are recommended.

1. Drill two identical holes with an electrical drill and ensure it is horizontal with the Wall. Fasten hangers (not provided) into the ceiling (figure 13).

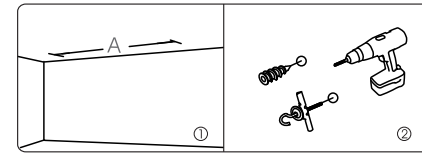


Figure 13

2. Use the M5 x 10 screws provided in the accessory package to fix the ceiling hanger into the wall bracket. Ensure the tightening screws on the wall bracket are tightened and secure. (figure 14-15)

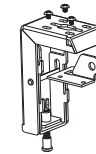


Figure 14

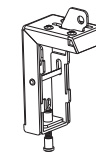


Figure 15

3. After inserting the ceiling hanger, ensure the grooves on the case housing match up with the mounting bracket. To secure the case housing into the brackets, tighten the locking screws. (figure 16-17)

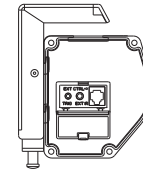


Figure 16

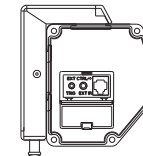


Figure 17

4. After completing steps 2 and 3, check to see whether the wall bracket is securely fixed onto the housing of the screen before hanging. Hang screen as shown below. (figure 18)

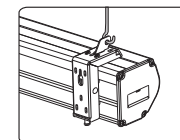
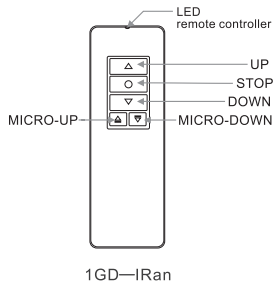


Figure 18

## Remote Control Instruction

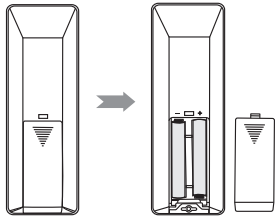


### Controller button instruction

- 1.To raise screen press "UP".
- 2.To hold screen at desired position press "STOP".
- 3.To lower screen press "DOWN".
- 4.To raise the screen in smaller increments press "Micro-Up"
- 5.To lower the screen in smaller increments press "Micro-Down"

### Please Note:

- 1.The shortest distance between receiver and controller is 0.5 meter.
- 2.The remote control will work within 8 meters from the receiver and within a 30 degree radius from the center of the receiver.
- 3.The remote control will not work if the receiver is covered
- 4.Keep the remote control away from high temperature and high humidity areas.
- 5.The batteries will need to be changed when the signal is weak.
- 6.If the remote control is not being used for an extended period of time, please remove the battery.
- 7.Only use batteries intended for the remote control unit.



### Battery Installation:

1. On the back of the remote control, push down to open the cover as shown in the picture.
2. Put the battery in according to the correct cathode and anode.
3. Close the cover.

### Functions

Press down and open the end cap lid to access the control interface. When not in use, close the lid to conceal the control interface.



Figure 18

## Operating Instructions

### Connecting to an external power source:

- 1.Remove the glued on cloth on the bottom rod to ensure the rod is free from the casing.
- 2.Switch on the power. (with the appropriate voltage)

### How to use the Manual/Remote Control Switch Button (Figure 20-21)

This motorized screen has 4 types of control options: infrared (IR) remote control, manual control, triggered control, and external control (central control or RS232/USB).

### Other Control Options (optional)

- 1.Convert the infrared control to a FM wireless control using the Wireless Synchro Converter Receiver.
- 2.Control using the Intelligent Synchro Power Supply Control Adaptor for inline control with the projector. Please refer to specific manual instructions if options A and B are paired.

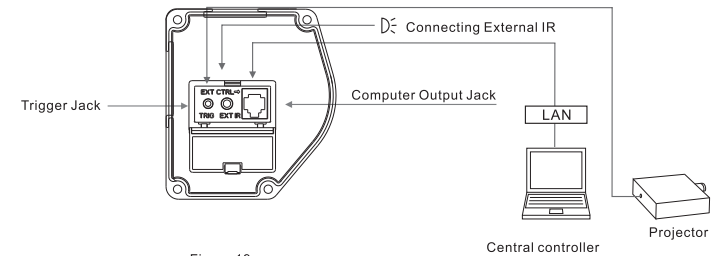


Figure 19

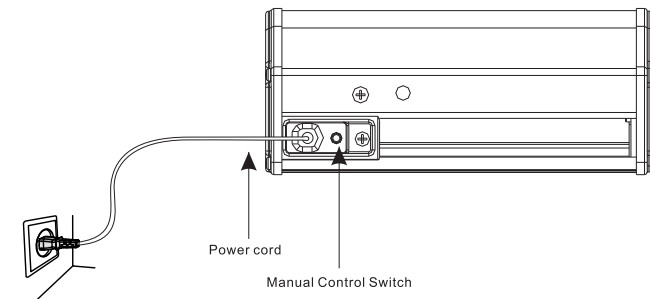


Figure 20

Switch control follows this priority: Down-Stop-Up-Stop-Down