



ELITE SCREENS

Electric Wall/Ceiling Projection Screen

Starling Tab-Tension 2 Series

**For: CineWhite (Matte White) and
CineGrey 5D® (Ambient Light Rejecting) models**

User's Guide

Important Safety & Warning Precautions

Make sure to read this user's guide and follow the procedures below.

Caution: The screen's Black Top Drop is already set to its maximum drop distance. There is **NO** extra Black Top Drop in the roller. Please be aware of this as it will void your warranty with Elite Screens. Unapproved changes or modifications (except for cutting the power cord for hardwire installations) to this unit are prohibited and will void your warranty. For more information, please contact our Technical Support Dept. at (877) 511-1211 Ext. 604.

- Please retain this user's guide for future reference.
- To avoid damaging the unit, do not use with any unauthorized accessories not recommended by the manufacturer.
- Handle the unit carefully during transportation to avoid any damages.
- To ensure safe and reliable operation, direct connection to a properly grounded power source is advised.
- The power outlet supplying power to the unit should be close to the unit and easily accessible.
- Do not install the unit on uneven or inclined surfaces.
- Do not put heavy objects on the power cord and position it properly to avoid creating a trip obstacle.
- Never overload the power cord to prevent an electric shock or fire due to a loose contact or a short circuit.
- There are not user serviceable parts in this unit. Do not attempt to disassemble this unit by yourself. No one except authorized technicians can open and make repairs to this unit.
- Make sure the power source this unit is connected to has a continuous power flow.
- If there is need to use an extension cord, make sure the cord has an equal rating as the appliance to avoid overheat.
- Do not handle the power plug when your hands are wet or your feet are in contact with water.

Do not use this unit under the following circumstances.

- Disconnect the power cord under the conditions of heavy rain, wind, thunder or lightning.
- Avoid direct Sunshine, rain shower and moisture.
- Keep away from fire sources and high temperature to prevent this device from overheating.
- Cut off the power supply first before transportation or maintenance.
- Fully disconnect from the power supply when the unit is not in use for a long period of time, as should be done with any other electric household appliance.
- To avoid possible injury and/or an electric shock, do not attempt to use the screen if there is obvious damage or if there are any evident broken parts.

Pre-Installation

1. Carefully unpack the screen.
2. Always handle the screen in a leveled position on a clean surface.
3. In order to protect the screen from exposure to stains, keep the screen out of contact with foreign particles such as dust, sawdust, and/or liquids.

Installation Warning

Due to various installation environments, the instructions provided in this user's guide are for reference only. Please consult a professional installation company for further installation and safety advice. The installer must ensure that proper mounting hardware is used to provide adequate strength suitable for the installation. Elite Screens is not liable for any faulty installations.

Individual modifications to this product are prohibited and will void the manufacturer warranty. Please contact Elite Screens Customer Service for any questions.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that the interference will not occur on a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

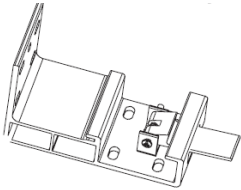
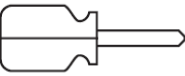
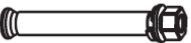



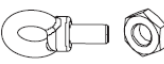
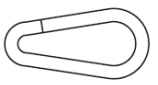
- ✓ **Reorient or relocate the receiving antenna of the device that may be causing the interference.**
- ✓ **Increase the separation between the screen and the device's receiver.**
- ✓ **Connect the equipment into a different power outlet other than the device.**

Note

Regardless of the mounting method, the screen should be securely supported so that the vibration or pulling on the viewing surface will not cause the casing to become loose or fall. The installer must ensure that the fasteners used are of adequate strength and suitable for the installation location.

Hardware Parts List for the Starling Tab-Tension 2 Series

Please make sure all parts listed below are included before proceeding with the installation.

<p>A. Pair of BracketS x1</p> 	<p>B. Screwdriver x 1</p> 	<p>C. Steel Expansion Concrete Anchor x 8</p> 	<p>D. Plastic expansion dry-wall anchor x 8</p> 
<p>E. ST5x40 Self-drilling screws x 8</p> 	<p>F. Steel Expansion Concrete Anchor Hook x 2</p> 	<p>G. M6x16 screw x 2 M6 nut x 2</p> 	<p>H. Spring Snap Link x 2</p> 

Notice to Installer:

Please use the following installation instructions to obtain superior optical performance from the CineGrey 5D® Angular Reflective ALR (Ambient Light Rejecting) Screen.

Make sure to follow these instructions in order for the CineGrey 5D® to perform correctly.

- Angular-Reflective material is not compatible with ultra/short-throw projectors
- Minimum lens throw ratio 1.5x image width
- Ambient light must not come from the same direction as the projector

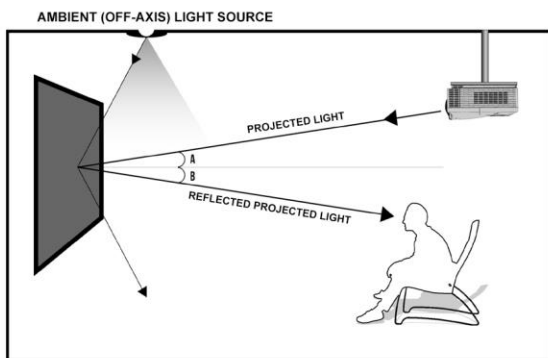
Since angular-reflective means that the projected image will reflect at the mirror-opposite angle, it is important to position the projector so that the viewer will get the best possible image.

Step 1: Establish the general “eye level” of the viewers

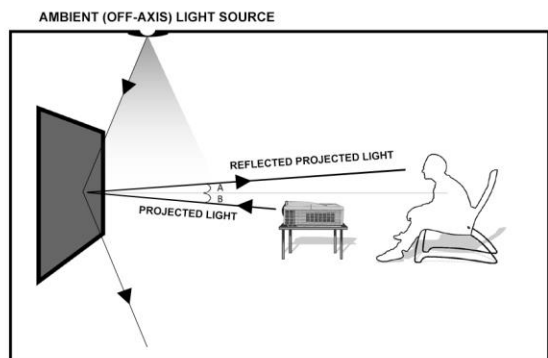
Step 2: Set the appropriate projection level

Correct Installation Examples

Projector Ceiling Installation: Make sure the projector (*light in*) is angled (A) to reflect (B) at the mirror-opposite angle (*light out*) to align with the viewer’s eye level.

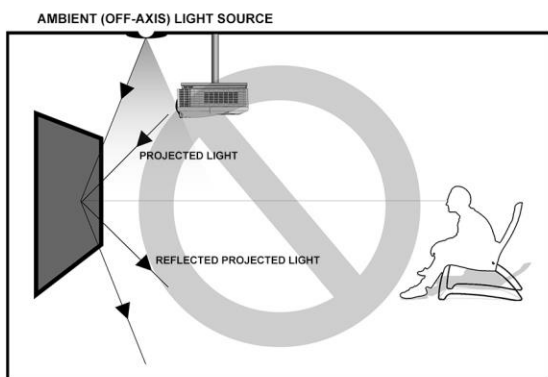


Projector Table Top: Make sure the projector (*light in*) is angled (A) to reflect (B) at the mirror-opposite angle (*light out*) to align with the viewer’s eye level.

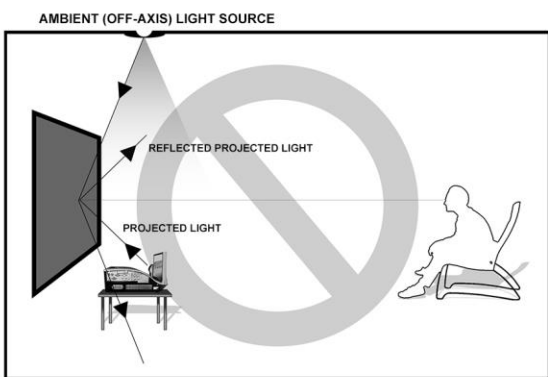


Incorrect Installation Examples

Ceiling Mounted Short-throw Projector



Tabletop Ultra-Short throw Projector

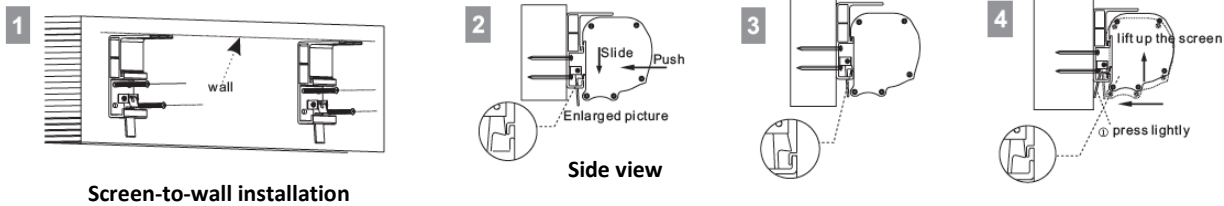


Note: Improper installation will result in light loss and produce a dark image. This is due to the projector’s light reflecting in the wrong direction.

Images are not up to scale and are for illustration purposes only.

A. Wall Mount

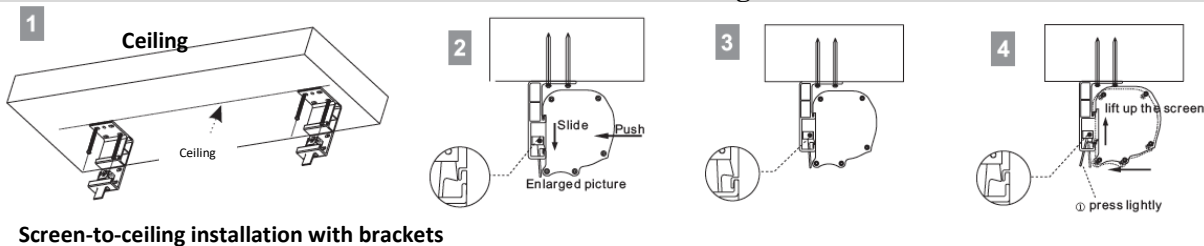
I. Flush mount



1. Determine where the screen will be installed. Then, measure and mark the distance between the top and bottom screw holes from each bracket.
2. Drill a hole on all marked areas and install the brackets on the wall with the screws. Lift the screen up leveled with the brackets, slide the screen in the bracket grooves and push until you hear a “click” sound insuring the screen is secure.
3. To remove the screen, hold the screen’s case and press both bracket plates at the same time, then lift the screen.

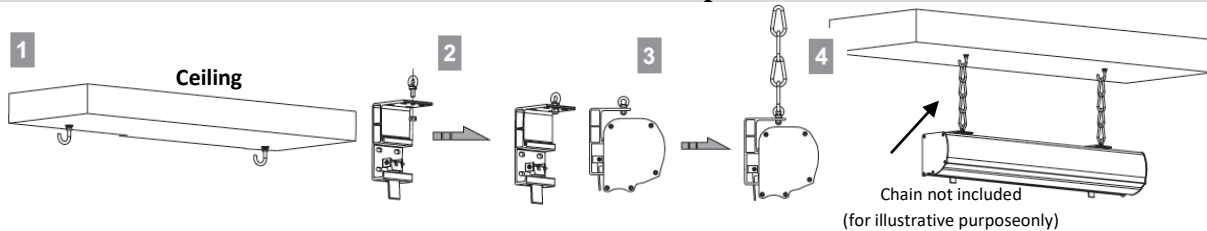
B. Ceiling Mount

I. Flush ceiling mount



1. Determine where the screen will be installed. Then, measure and mark the distance between the screwholes from each bracket.
2. Drill a hole on all marked areas and install the brackets on the wall with the screws. Lift the screen up leveled with the brackets, slide the screen in the bracket grooves and push until you hear a “click” sound indicating the screen is secure.
3. To remove the screen, hold the screen’s case and press both bracket plates at the same time, then lift the screen.

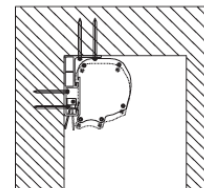
II. Suspended







1. Measure and mark the distance between the expansion anchor hooks and drill a hole and install them to the ceiling.
2. Attach the ring to the bracket and secure it with the M6 nut.
3. Hang the screen from the anchor hook or attach the spring snap link to the ring and anchor hook.
4. For high ceiling installation, a chain or steel wire can be used (not included)

C. Hidden Mount

1. Refer to the installation procedures for wall mount or ceiling mount for instructions.



Standard Accesories for Starling Tab-Tension 2 Series

A. RF remote	B. IR remote	C. Extended IR sensor	D. 5-12 volt tigger
			

Operation

Electric current: The screen operates on AC110V at 60hz (US/Canada/Mexico only)

Caution: The screen's motor is equipped with a thermal heat protector which will cause the motor to stop running and prevent overheating if it is in continuous use for more than four minutes. When this occurs, please allow the motor to cool down and use again after 15 minutes.

1. Plug the screen's power cord to a power outlet.
2. Once the screen has power you'll be able to control it with the Infared or Radio Frequency remote.

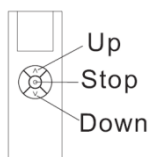
Control System

The *Starling Tab-Tension 2 Series* has **Infrared** and **Radio Frequency** receivers. You can control the screen's **UP/STOP/DOWN** positions utilizing either the IR (Infrared) or RF (Radio Frequency) remotes.

1. **IR remote control:** The IR remote control requires line-of-sight to the IR sensor. Make sure to point the IR remote directly to the **extended IR sensor** (see step 3 for installation).

- Note:* a. The IR remote has a range of 15 feet.
b. The IR sensor must not be covered or blocked.

2. **RF remote control:** The RF remote does not require line-of-sight and can be used up to 50ft.



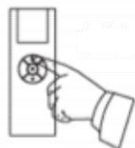
Press the **Down** button to Drop the screen

Press the **Stop** button to Stop the screen

Press the **UP** button to Retract the screen

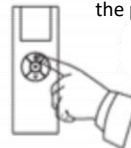
How to program your RF remote to your screen

Press and hold the UP button for more than 3 seconds.



Plug the screen's power cable into a power outlet.

Stop pressing the UP button upon hearing a beeping sound. This indicates you are in the programming mode.



Press the UP button

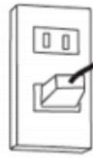
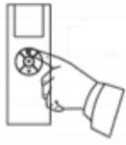
The receiver will beep three times to confirm the programming.



RF remote is ready to be used.

How to deprogram the RF remote and delete the code

Press and hold the UP button for more than 3 seconds.



Plug the screen's power cable into a power outlet.



Stop pressing the UP button upon hearing a beeping sound. This indicates you are in the programming mode.



Press the DOWN button

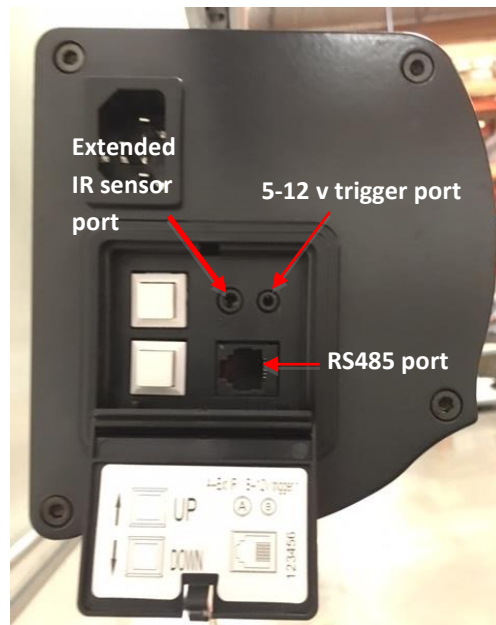


The receiver will beep three times.

Code has been deleted and RF remote is no longer operational

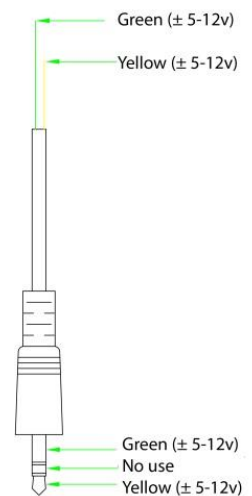
3. Extended IR sensor: Plug the extended IR sensor into the port located on the left side of the screen's end cap. (see below image for precise port location)

Note: Cover will need to be opened to expose inputs

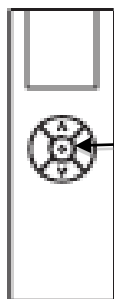


4. 5-12 volt trigger: Connect the mini jack plug end to the 5-12 volt trigger port (see image above) and the other end to your projector's output port to synchronize the projector's power cycle to your screen. Connection to the projector's trigger port is not included. Refer to the diagram below for wiring instructions. Contact your projector's manufacturer for proper 5-12 volt trigger cable information.

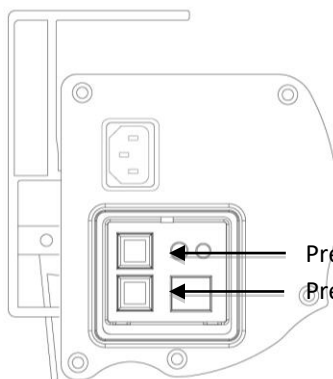
The screen should automatically DROP when the projector is turned ON and RETRACT when the projector is turned OFF. You can test the operation using a 9-volt battery.



5. UP/DOWN manual control buttons (located on left side end cap)



Press the STOP button first on the remote prior to using the manual control buttons.



Press and hold the UP button to retract the screen
Press and hold the Down button to deploy the screen

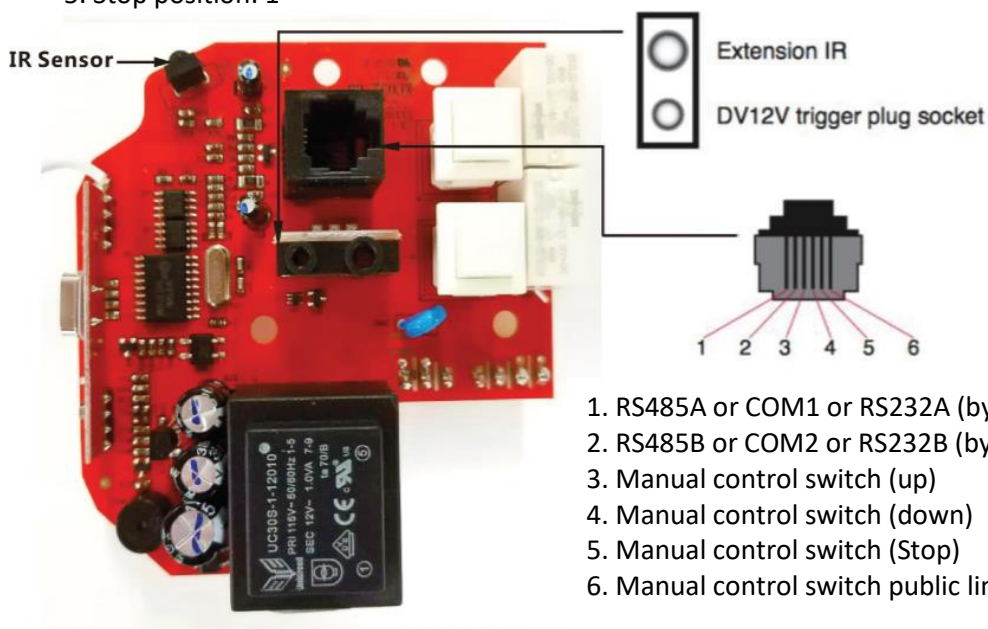
6. RS485 Diagram

A. RS485 Part Setting

1. Baud rate: 2400
2. Data length: 8
3. Parity: N
4. Start position: 1
5. Stop position: 1

B. Control Code

1. Instructions for (up): 0xFF 0xAA 0xEE 0xEE 0xDD
2. Instructions for (stop): 0xFF 0xAA 0xEE 0xEE 0xCC
3. Instructions for (down): 0xFF 0xAA 0xEE 0xEE 0xEE



1. RS485A or COM1 or RS232A (by converter)
2. RS485B or COM2 or RS232B (by converter)
3. Manual control switch (up)
4. Manual control switch (down)
5. Manual control switch (Stop)
6. Manual control switch public line

For a local Elite Screens contact or Technical Support, please visit www.elitescreens.com