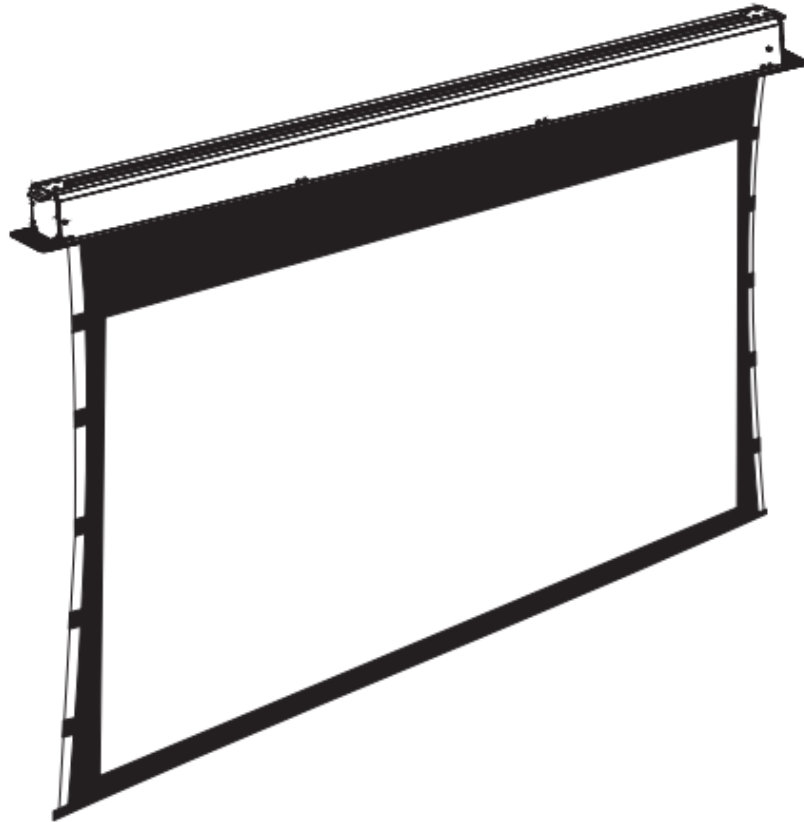


# cirruscreens

## Harbour 2



### **INSTALLATION MANUAL**

In Ceiling Tab Tensioned Projection Screen

#### **IMPORTANT: BEFORE YOU BEGIN**

- To avoid staining or scratching the screen, wash your hands and clean the work area before starting.
- Do not use knives or sharp objects to open the packing boxes.
- To avoid a serious fire hazard, DO NOT install the screen over an electrical outlet or switch.

# 1. Important Safety Precautions and Warnings

**Warning:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

1. Read and follow all instructions and warnings in this manual. Keep for future reference.
2. Do not use this apparatus near water.
3. Clean the screen housing only with dry microfiber cloth ONLY.
4. Do not block any ventilation openings. Install according to manufacturer's instructions.
5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
6. Do not override the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades- one wider than the other. A grounding type of plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
7. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles and the point where it exits from the apparatus
8. Only use attachments/accessories specified by the manufacturer.
9. Unplug this apparatus during lightning storms or when unused for long periods of time.
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been spilled or objects have fallen any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
11. Do not expose this equipment to dripping or splashing; ensure that no object filled with liquids, such as vases, are placed on or near the equipment.
12. To completely disconnect this equipment from the AC mains, disconnect the power supply cord plug from the AC receptacle.



**Before you unpack the projection screen, read the entire manual to become familiar with the steps involved for installation and operation. Cirrus Screens recommends that you get a qualified installation professional to perform these steps. Cirrus Screens is not responsible for any damage or injury that occurs from incorrect installation or operation.**

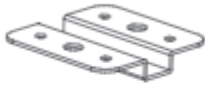
**If there are any problems please contact your authorized Cirrus Screens dealer.**

**Make Note of your Serial Number:** \_\_\_\_\_

## 2. Packaging Contents



1x Projection Screen



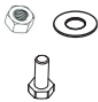
Ceiling Brackets(2)



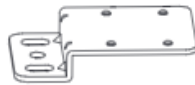
M6 Concrete/Wood  
Ceiling Bolts (10)



M6 Mounting  
Anchors (10)



Mounting Bracket  
Hardware (8 each)



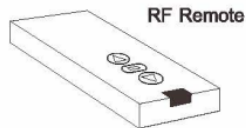
Housing Z Brackets  
(2)



External IR Receiver  
18" Cable (1)  
\*Not Applicable in all models



RJ12 Control  
Cable 5m (1)



RF Remote



1 Meter M10  
Threaded Rod (2)



End Caps (2)

## 3. Pre- Installation

Before installing the projection screen, review this section thoroughly to be sure that no additional work is needed to prepare the job for mounting and controlling the screen.

### 3.1. Required for Installation

Have an assistant help with installation to prevent damage or injury. The following tools will be needed to complete the installation:

- Electric or Cordless Drill
- Level
- Pencil
- Screwdriver
- Ladder
- Hacksaw

### 3.2. Unpacking the Projection Screen

As you unpack the projection screen:

- Remove all accessories from the box before discarding any packaging. Use the Package Contents section to verify that everything has been removed.
- After the screen is removed from the package, please check for transport screws which may be present holding the batten bar to the casing. Be sure to remove the screws holding the bottom rail of the screen in the housing.

### 3.3 Powering the Screen

Operating Voltage: 120 Volts AC

Amperage: .97 Amps

The screen has a nine-foot power cable permanently attached to the left side of the screen as seen from the viewing area. Install or locate a receptacle close enough to plug the screen in prior to installation.

### 3.4. Control Method

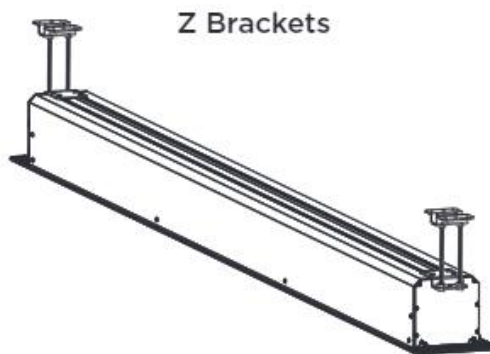
Cirrus Screens can be controlled via Manual button, IR remote, wireless 12-volt trigger, RF remote, or RS232. Complete instructions for each method are described in the Control Setup section. Decide on the method that will be used before installation begins to avoid any issues with control later. Pre-wire any cables from projectors or control systems prior to closing the walls or ceiling.

## 4. Installation



**Important! Screen cannot be removed from housing.** Before installation, ensure that the ceiling structure is capable of supporting the weight of the screen. Screen weights are listed in section, "7. Assembled Weights" on page 13.

### 4.1. Mounting Z Brackets:

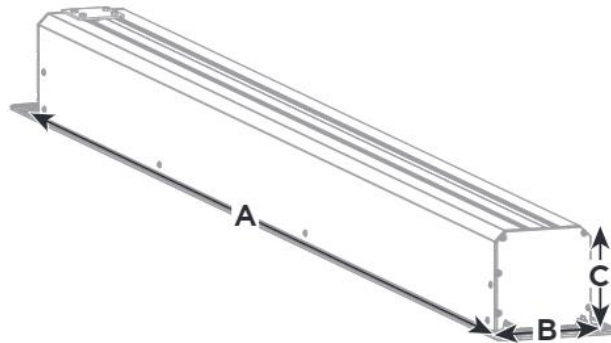


**Z Brackets** - Used for all installations with new or existing permanent ceilings and when there is no access above the screen housing such as an attic or a crawl space.

## 4.2. Preparing the Ceiling Opening

### Screen housing Cut-out:

Use the chart below to determine the opening size for the housing, then cut the ceiling surface.

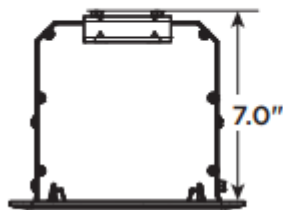


Type Size	Length A	Width B
CS-110	121.5"	5"
CS-120	130.25"	5"
CS-135	143.25"	5"

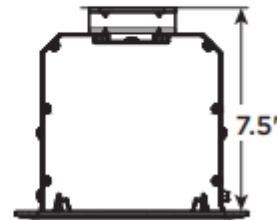
### Height Clearance (C):

Dimensions measured from bottom of ceiling surface to top of screen housing including height of mounting bracket and hardware.

Z Bracket Down/Flat Bracket

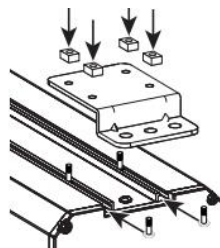


Z Bracket Up



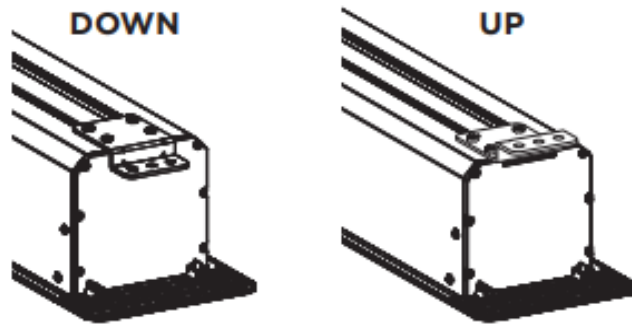
## 4.3. Install the Mounting Brackets

The mounting brackets are secured using hardware that slots into the rails on top of the housing. Slide the bolts into the rail, position the brackets over the bolts, and tighten the nuts onto the bolts.



## Z Bracket Installation:

Point the brackets **DOWN** for threaded rod/suspended mounting or **UP** for direct ceiling mounting. If the brackets are installed facing **UP**, position the bend in the bracket flush with the edge of the screen housing.



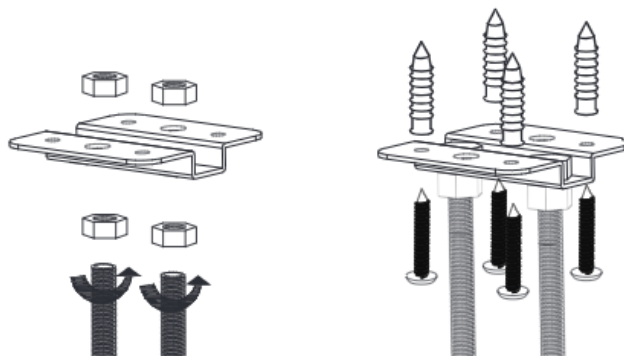
### 4.4. Install the Suspension Brackets/Hardware

This step may be skipped if threaded rod is **NOT** being used to suspend the screen.



**Important!** The hardware used to mount the screen **MUST** be able to support the full weight of the installed assembly.

Assemble the threaded rod hanging assembly, then fasten the brackets to the ceiling. Use the included screws and anchors for wood or masonry mounting, or supply your own hardware rated for other ceiling surfaces. Use 2 pieces of threaded rod per side.

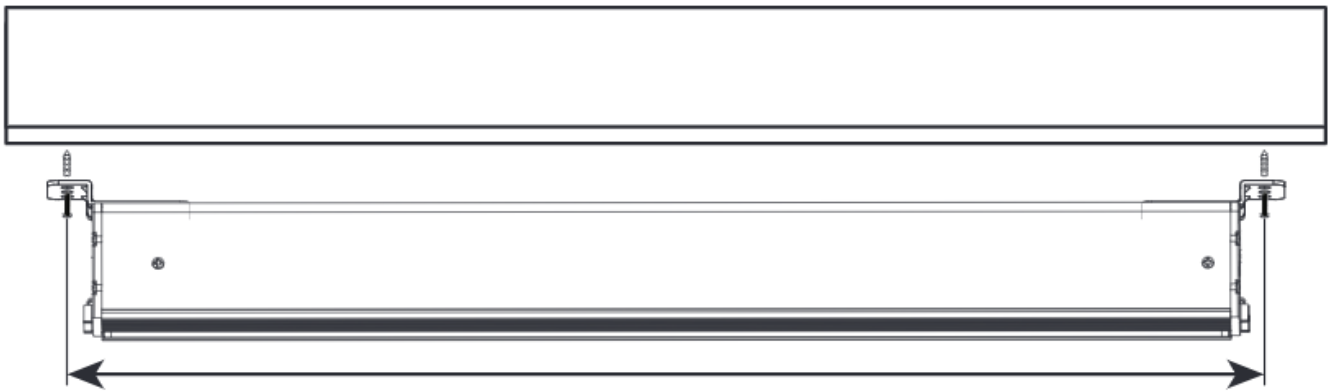


## 4.5. Hang the Screen Housing

Mark the ceiling for the fasteners. Have assistants hold the screen in position, then fasten the assembly to the ceiling. Use the included screws and anchors for wood or masonry mounting, or supply your own hardware rated for other ceiling surfaces.

### Wood Joist Hanging:

Mark the ceiling for the fasteners using the chart below. Have assistants hold the screen in position, then fasten the assembly to the ceiling. Use the included screws and anchors for wood or masonry mounting, or supply your own hardware rated for other ceiling surfaces.



1. Position and mount the attached power junction box. Do not kink the flexible conduit during installation.

**NOTE:** Install the screen so the junction box is installed on the left side of the housing.

2. Open the junction box and connect the branch wiring circuit conductors using approved wire nuts or connectors.

Color	Purpose
Black	To 120V AC Line
White	Neutral
Green	Ground

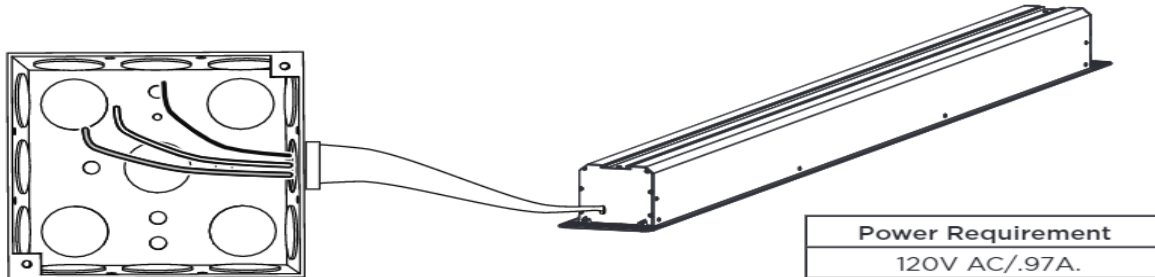
## 4.6. Connect Power Wiring



**Warning!** To avoid serious injury or death, power off electricity to the branch power circuit at the breaker before connecting the screen wiring. High voltage electricity can damage the screen and cause permanent injury or death!



**Important!** The electrical wiring should be installed in accordance with local and national electrical codes. Only a licensed electrician should complete the work. All work should be approved by a licensed inspector.



## 5. Control Setup

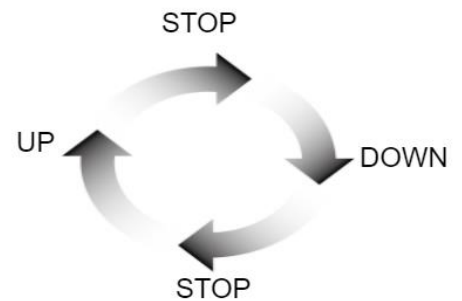
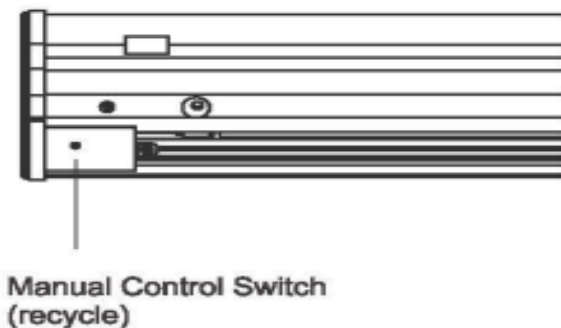
### RF Control:

The RF remote works within 30 meters from the screen. Certain construction materials could negatively affect this range.

### Manual Control:

In order to manually bring the screen UP, DOWN and to STOP it, you can click the manual control switch which works on a continuous cycle.

### Manual Control





## Wireless 12 Volt DC Trigger:

Screens may be lowered or raised by wireless 12-volt trigger signal sent from other equipment like a projector. The wireless 12-volt trigger operates by sending a RF signal to the screen when the projector turns on. The screen will lower and remain lowered until the projector is turned off and the voltage drops to 0 volts. Other methods maybe used with 12-volt trigger. However, the screen will remain lowered for use if voltage ids present on the trigger while an attempt is made to close the screen.

**Important!** The projection screen still requires external AC power for operation. The 12-volt trigger connection will NOT power the screen. Plug the AC power cord into a suitable outlet supplying 120-volt AC.

It is also important to note that you may have to change the batteries in the 12-volt trigger (**CR2430 batteries**), if the battery does not have enough voltage left in it then the 12-volt trigger will not be able to get the screen to go back up until batteries are replaced.

## RS232 Serial Control

The screen can be controlled via RS232 serial to perform the functions UP, DOWN, and STOP by connecting to pins 1 and 2 on the EXT CTRL RJ12 input. This is a one-way communication, so no status is available back to the automation controller.

### Controller Port Configuration:

Baud rate: 2400

Data Bit: 8 bits

Initial Bit: 1

Parity: None

Stop Bit: 1

## EXT CTRL RJ12 Pins:

RS232 control uses pin 1 for Ground (GND), and 2 Data Receive (RXD) on the EXT CTRL RJ12 jack.

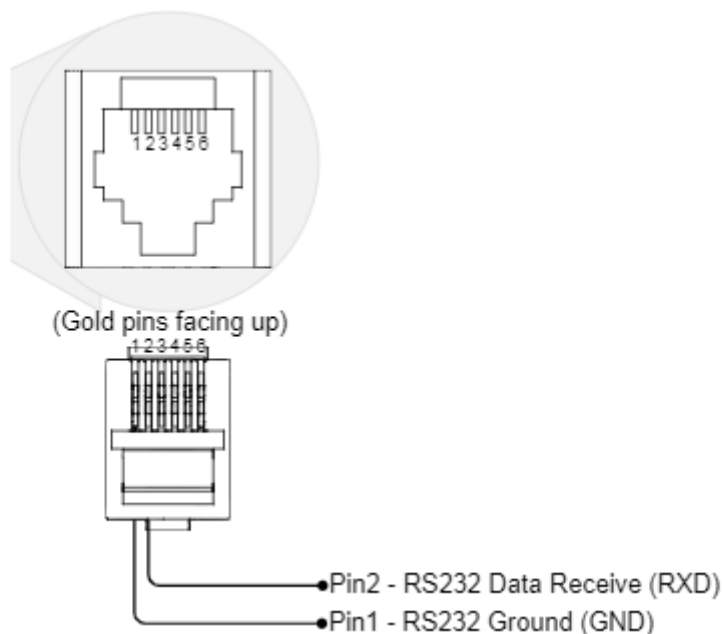


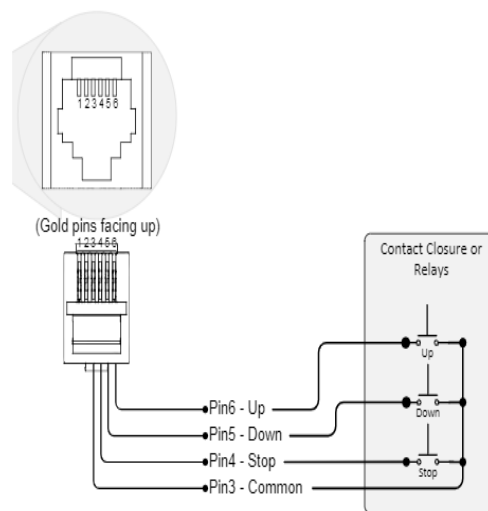
Table 1 RS232 Command Structure

OUTPUT	HEX VALUE
UP	0xFF, 0xEE, 0xEE, 0xEE, 0xDD
DOWN	0xFF, 0xEE, 0xEE, 0xEE, 0xEE
STOP	0xFF, 0xEE, 0xEE, 0xEE, 0xCC

## Contact Closure and Relay Control

The Cirrus Screens motorized screen may also be controlled via contact closure or relay control.

1. Run a Cat5e/6 cable from the control system processor location to the projection screen.
2. Cut the RJ12 cable and leave about 12" of cable attached to the connector.
3. Terminate conductors in the Cat5e/6 to the desired pins of the RJ12 connector as shown in the diagram below. Insulate the ends of the unused RJ12 conductors to prevent short circuits.
4. Terminate the same conductors to the appropriate wires on the RS232 port or contact/relay connection of the control system processor.



## 6. Cleaning the Projection Screen

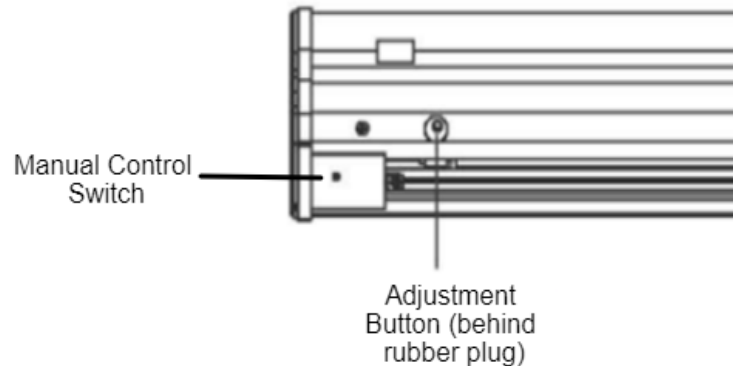
Cirrus Screens are designed to provide many years of trouble-free use. After the screen is installed and adjusted, no further maintenance is required for the operation of the screen, unless the viewing surface gets dirty. Follow these guidelines to clean any marks or residue from the viewing surface:

- Do not clean the screen case with water
- Wash the case with a mild organic cleaner diluted with water and ensure to clean the entire screen not just one spot.
- Use a dry Microfiber cloth to clean dust and dirt from the housing and screen on regular occasions.

## 7. Adjusting Screen Length Limits:

We only recommend the experienced AV installer to undertake below procedures:

**Important!** There are two buttons used to program the remote control and set limits. The limit setting button is inside the screen case under the rubber plug. The small plastic button visible on the outside of the case is the manual control switch. It is used to program the RF remote and RF 12v trigger.



### Deployed Limit:

- Ensure that the screen is in the CLOSED setting.
- Stand in reach of the screens adjustment button while holding the RF remote.
- Press the DOWN button on the RF remote, when the screen goes down to the desired position, press the adjustment button.
- Press the adjustment button repeatedly until the screen reaches the desired position.
- Press the UP button on the RF remote to save the settings.

### Retracted Limit:

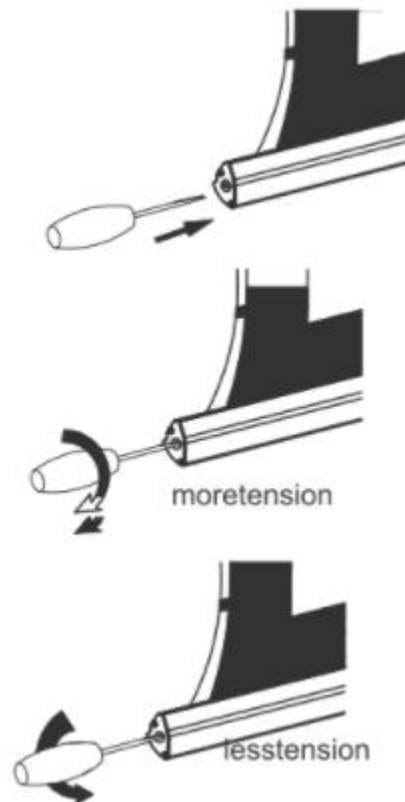
- Ensure that the screen is in the OPENED setting.
- Stand in reach of the screens adjustment button while holding the RF remote.
- Press the UP button on the RF remote, when the screen goes up to the desired position press the adjustment button.
- Press the adjustment button repeatedly until the screen reaches the desired position.
- Press the DOWN button on the RF remote to save the settings.

**CAUTION:** to avoid the bottom bar from going too far into the casing, please follow the above procedures with strict accordance.

## 8. String Tension Adjustment:

If the sides of the screen appear wavy or bent, the tab tension setting must be adjusted. Use a screwdriver to adjust the tension on either side of the screen until both sides are even and flat.

- To tighten, turn the screwdriver clockwise
- To loosen, turn the screwdriver counter-clockwise.

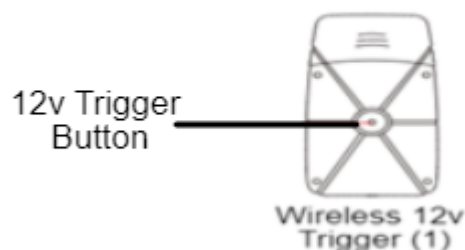


## 9. Programming Remotes:

**Important!** There are two buttons used to program the remote control and set limits. The limit setting button is inside the screen case under the rubber plug. The small plastic button visible on the outside of the case is the manual control switch. It is used to program the RF remote and RF 12v trigger.

In order to pair the RF remote and/or wireless 12v trigger please follow these steps:

1. Press the manual control switch to deploy the screen about 8 inches and press again to stop. (this step is only to see the movement of the screen in the next step).
2. Press and hold the manual button for about 5 seconds. The screen will move once. Release the button and the screen will be ready to code the remote.
3. Press and hold the UP button on the remote or the button on the 12v trigger with a paper clip. The screen will move up or down to show the code has been paired successfully. Release the UP button.
4. Test the functionality of the UP/DOWN/STOP buttons to ensure proper pairing has taken place.
5. If the UP button or 12v trigger button is not pressed within 8 seconds in step 3 then the code pairing will be cancelled, and you must begin again.



**If it still is not working then you will need to clear the CB memory first, then code pair the RF remote (the same for the 12v trigger if you were to use that)**

1. Press the manual button to deploy the screen about 8 inches and press again to stop. (this step is only to see the movement of the screen in the next step).
2. Press and hold the Manual button until the screen moves twice and release.
3. Press the manual button one more time and release.

After the above procedure, the memory of the PCB board will be cleared. Meanwhile the RF emitter and wireless 12v trigger will no longer react with the screen. You must now follow the procedures to pair the RF transmitter and Wireless trigger to the screen to resume normal operation.

**If it still is not working, then there may be other reasons:**

- Check to ensure the 12v trigger output on the component you are using is functioning.
- Check to ensure the batteries in both the RF remote and 12v trigger are new.

## 10. Troubleshooting

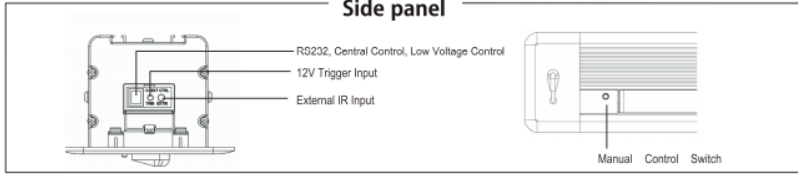
Since Cirrus Screens are designed for function trouble-free that will last for years of enjoyment. Most problems that occur are due to simple issues. If you have trouble, please check the list of simple fixes below. If the problem persists, please contact your authorized dealer.

<b>Issues:</b>	<b>Solution:</b>
<b>Screen does not react to any control</b>	<ul style="list-style-type: none"> <li>• Power cable to the film screen is incorrectly connected or plugged into an outlet that does have power.</li> <li>• Check connections and verify power on the outlet.</li> <li>• Check control method selected (IR or low voltage) and try an alternate method.</li> </ul>
<b>Screen goes lower than desired or does not retract far enough</b>	<ul style="list-style-type: none"> <li>• Adjust the up and down limit as described.</li> </ul>
<b>RF does not work</b>	<ul style="list-style-type: none"> <li>• Check the batteries in the RF remote that you are using.</li> <li>• Ensure that you are within range of the remote being used. The factory remote will work at a distance of up to 8m/30m in most situations.</li> </ul>

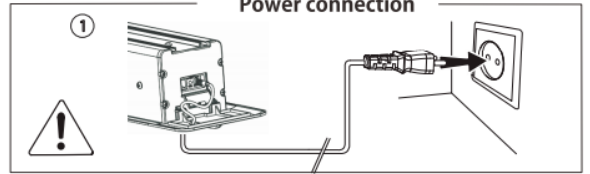
### Other Troubleshooting Tips:

- The screen is built with a thermal overload protection for the motor. If the screen stops moving up/down, then the protection circuit may have kicked in. This can happen when programming the screen and it is moved up/down several times within a few minutes. This will reset after approximately 10 minutes.
- If the manual button is used to program screen limits, then you may have inadvertently reprogrammed the 12v trigger or RF remote. Make sure to use the switch **under the rubber plug** to set the limits on the screen.
- If the screen moves by itself, it maybe in programming mode. Please make sure the Manual control button is not jammed and moves freely.

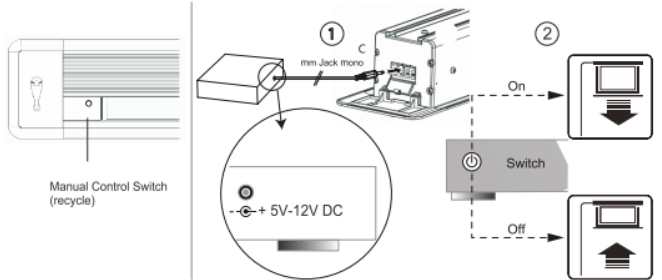
### Side panel



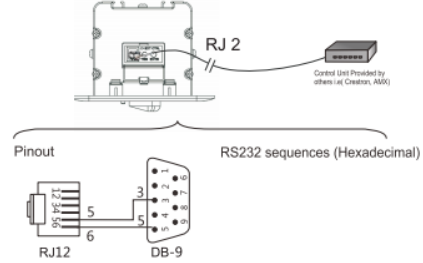
### Power connection



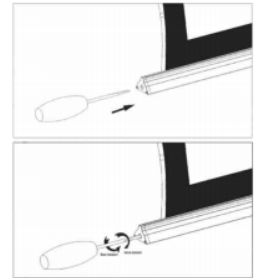
### Automatic control (Trigger) Control methods



### External control (RS232)



### Tab Tension String Adjustment



### IR/RF remote

