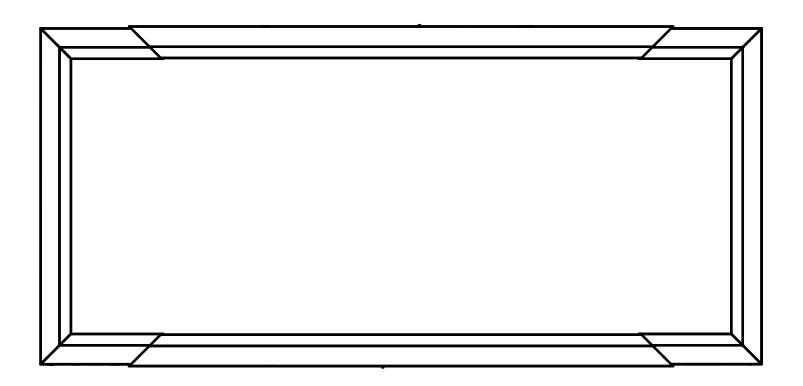
Transformer®

Owner's Manual









LIMITED ONE YEAR WARRANTY ON SCREEN INNOVATIONS PRODUCTS

Screen Innovations warrants its products, to the original purchaser only, to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase by the original purchaser provided they are properly operated according to Screen Innovations' instructions and are not damaged due to improper handling or treatment after shipment from the factory.

This warranty does not apply to equipment showing evidence of misuse, abuse, or accidental damage, or which has been tampered with or repaired by a person other than authorized Screen Innovations personnel.

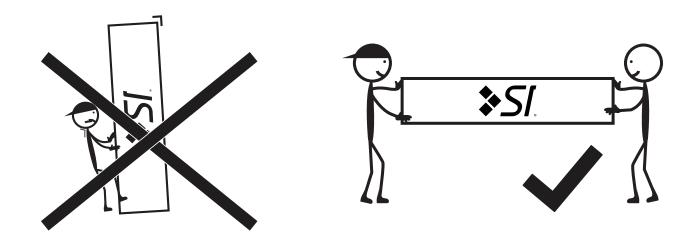
Screen Innovations' sole obligation under this warranty shall be to repair or to replace (at Screen Innovations' option) the defective part of the merchandise. Returns for service should be made to your Screen Innovations' dealer. If it is necessary for the dealer to return the screen or part to Screen Innovations, transportation expenses to and from Screen Innovations are payable by the purchaser and Screen Innovations is not responsible for damage in shipment. To protect yourself against damage or loss in transit, insure the product and prepay all transportation expenses.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES AS TO FITNESS FOR USE AND MERCHANT ABILITY. Any implied warranties of fitness for use, or merchantability, that may be mandated by statute or rule of law are limited to the one (1) year warranty period. This warranty gives you specific legal rights, and you may also have other rights, which vary from state-to-state. NO LIABILITY IS ASSUMED FOR EXPENSES OR DAMAGES RESULTING FROM INTERRUPTION IN OPERATION OF EQUIPMENT, OR FOR INCIDENTAL, DIRECT, OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

In the event that there is a defect in materials or workmanship of a Screen Innovations product, you may contact our Sales Partners at 9715-B Burnet Road Suite 400, Austin, TX 78758, (512) 832-6939.

IMPORTANT: THIS WARRANTY SHALL NOT BE VALID AND SCREEN INNOVATIONS SHALL NOT BE BOUND BY THIS WARRANTY IF THE PRODUCT IS NOT OPERATED IN ACCORDANCE WITH SCREEN INNOVATIONS' WRITTEN INSTRUCTIONS.

Keep your sales receipt to prove the date of purchase and your original ownership.



Installation requires 3 or more people. Bend knees when lifting.

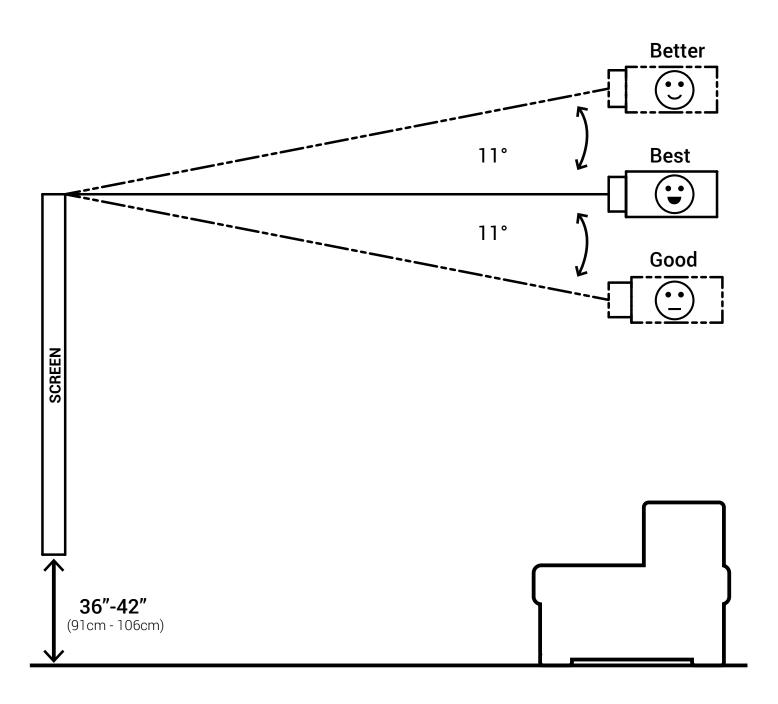


512-832-69399715-B Burnet Road Suite 400, Austin,TX 78758 screeninnovations.com

TABLE OF CONTENTS

TRANSFORMER

PROJECTOR PLACEMENT	
BEFORE PROCEEDING	6
PARTS LIST	7
SPARE PARTS	7
PREPARE THE INSTALLATION LOCATION	9
MOUNT THE FRAME	11
CONNECT THE LEFT AND RIGHT ELECTRONICS	16
3RD PARTY CONTROLS CONNECTIONS	18
POWER	19
ATTACH SCREEN MATERIAL	21
ATTACH THE TRIM	27
IR CONTROL	33
LOW VOLTAGE TRIGGERS (OPTIONAL)	36
RS232 SERIAL CONTROL (OPTIONAL)	37
LED CONTROL	38
SCRENI MATERIAL CLEANING INSTRUCTIONS	40





CAUTION: READ THE INSTRUCTIONS IN THEIR ENTIRETY BEFORE PROCEEDING. ACTIONS CONTRARY TO THE INSTRUCTIONS INVALIDATE THE WARRANTY AND MAY RESULT IN SERIOUS DAMAGE AND/OR INJURY.

INSTALLER:

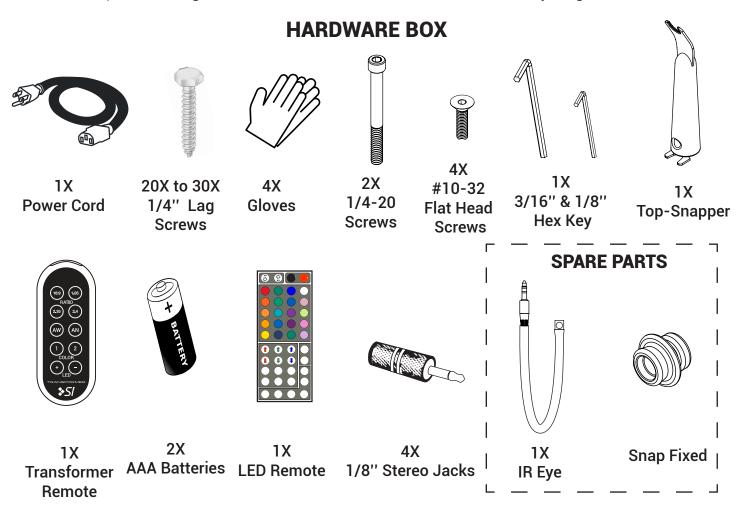
- The wall used for fixture installation must be able to support 500 lbs or more. Failure to properly secure the screen may result in injury and/or damage.
- Electrical work should be performed using appropriate electrical codes and regulation, by a licensed electrical professional.
- Before running cables in walls or ceilings see controls section on pages 36 and 37 for control cable requirements.
- Before removing the screen from the box, check for damage and to make sure all parts are included.
- Do not use any sharp blades when opening the screen packaging. Open by hand.
- Do not pull on the sides, crease, or fold the screen. The screen material is very delicate.
- Care in mounting and correct operation will result in long and satisfactory service from the SI screen.
- The screen should be level when installed. Always use a carpenter's level.
- Nothing should be fastened to any part of the screen assembly.

NOTE: The screen has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

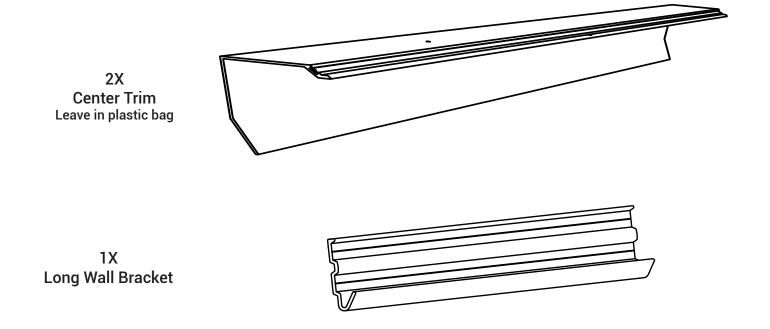
END USER:

- To prevent damage, the operating and maintenance of the screen should be performed by experienced professionals.
- This is a finished product. Do not write or draw on the surface.
- Do not put anything near right or left sides of the screen that would come in contact or impede the normal operation of the screen when opened.
- Damage to the screen can result if an object prevents the screen from fully opening
- The resting position for the screen is in the fully open 2.4:1 position. The screen will return to the this position if it does not recieve a signal for 8 hours or when the on/off trigger goes to a low voltage.

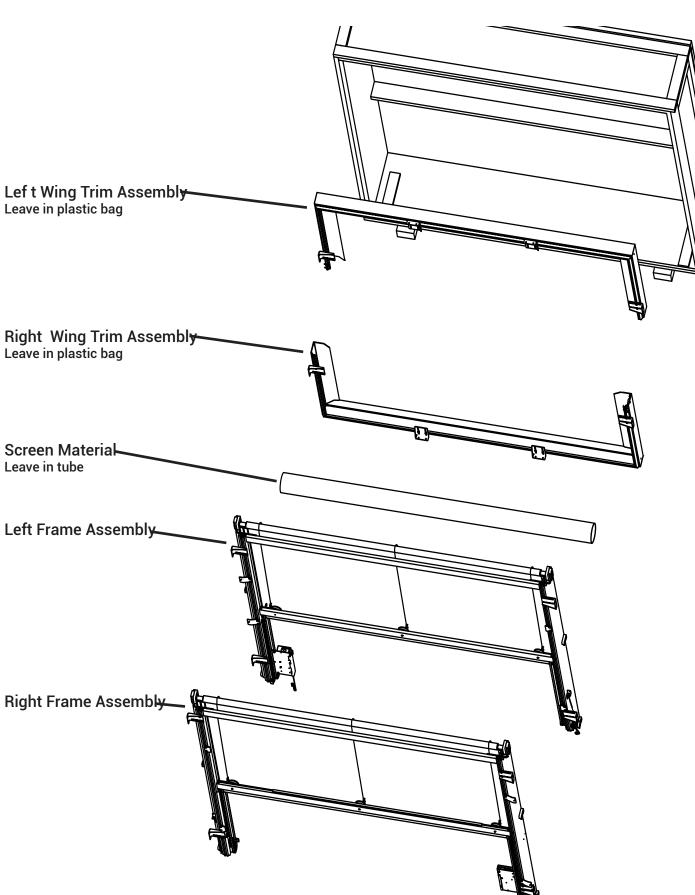
NOTE: Unpack the long cardboard box first and check to make sure everything listed is included.



CENTER TRIM BOX







PREPARE THE INSTALLATION LOCATION

TRANSFORMER

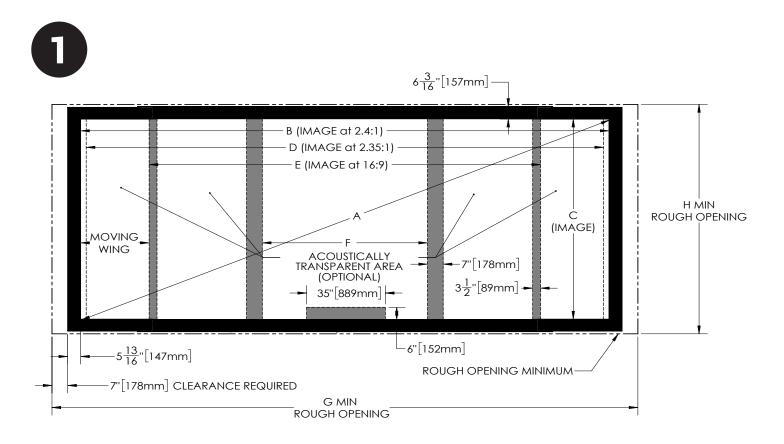


2+

INSTALLATION REQUIRES TWO OR MORE PEOPLE. PLEASE USE SAFE LIFTING AND RIGGING TECHNIQUES.



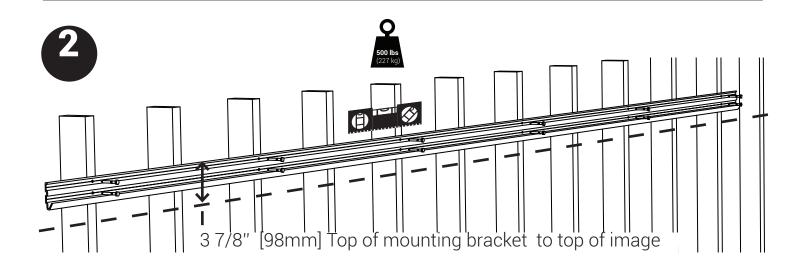
THE RESTING POSITION FOR THE SCREEN IS IN THE FULLY OPEN 2.4:1 POSITION. THE SCREEN WILL RETURN TO THE THIS POSITION IF IT DOES NOT RECIEVE A SIGNAL FOR 8 HOURS OR WHEN THE ON/OFF TRIGGER GOES TO A LOW VOLTAGE. PLAN THE INSTALLATION LOCATION ACCORDINGLY.

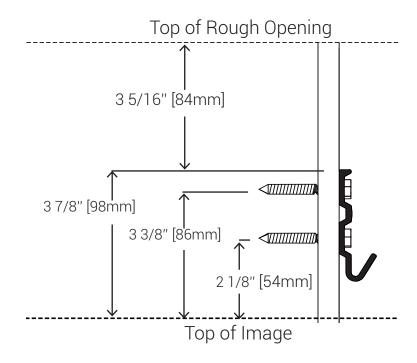


Refer to the signed approval drawing submitted with the order to make sure the installation location has the required minimum rough opening dimensions available.



SCREEN WEIGHS UP TO 500 LBS. MAKE SURE TO USE APPROPRIATE ANCHORS TO SAFELY SECURE WEIGHT OF SCREEN.



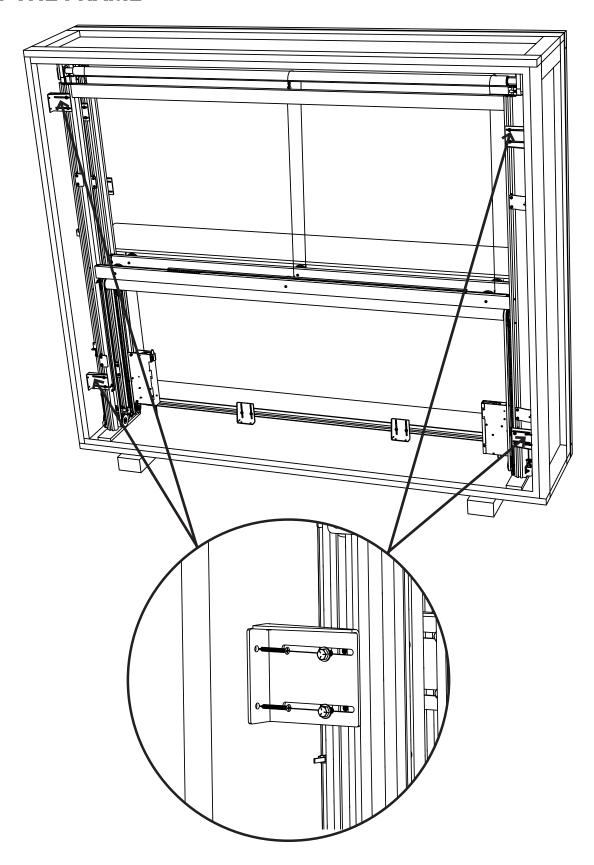


Center the mounting bracket about the desired viewing area. Mark stud locations on the mounting bracket. Then using the notch in the bracket for veritcal positioning and marked locations for horizontal positioning; drill clearance holes in the mounting bracket. Make sure the bracket is level and at the correct height; then secure the bracket to structural supports as shown above.

MOUNT THE FRAME

TRANSFORMER





Remove the shipping brackets from the crate and the fist frame half.

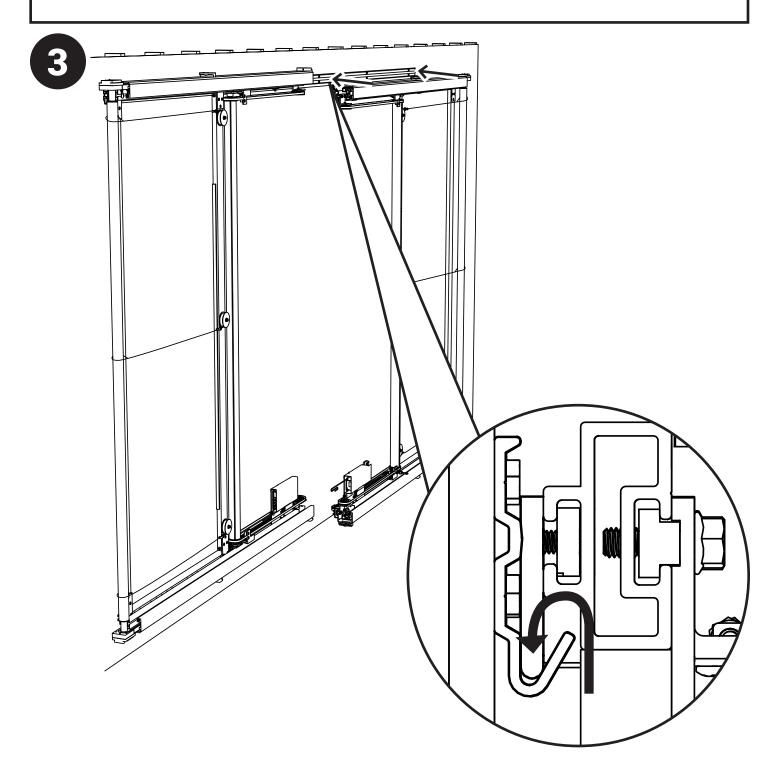


2+ INSTALLATION REQUIRES TWO OR MORE PEOPLE. PLEASE USE SAFE LIFTING AND RIGGING TECHNIQUES.

Lift left frame half up onto the left end of the long wall bracket and make sure the brackets on the frame are in the lip on the wall bracket as shown.

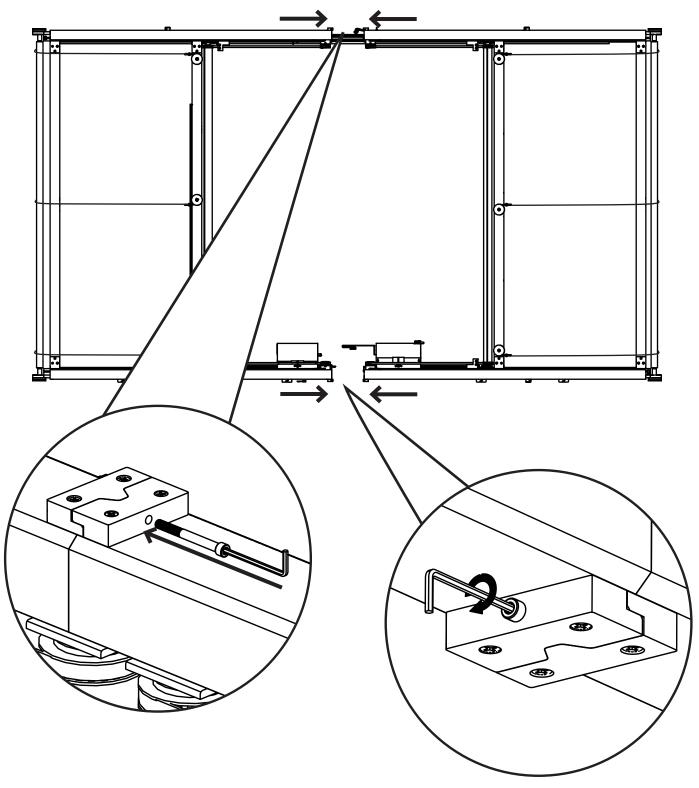


2+ INSTALLATION REQUIRES TWO OR MORE PEOPLE. PLEASE USE SAFE LIFTING AND RIGGING TECHNIQUES.



Remove the right frame from the crate. Then lift up onto the right end of the long wall bracket and make sure the brackets on the frame are in the lip on the wall bracket as shown.

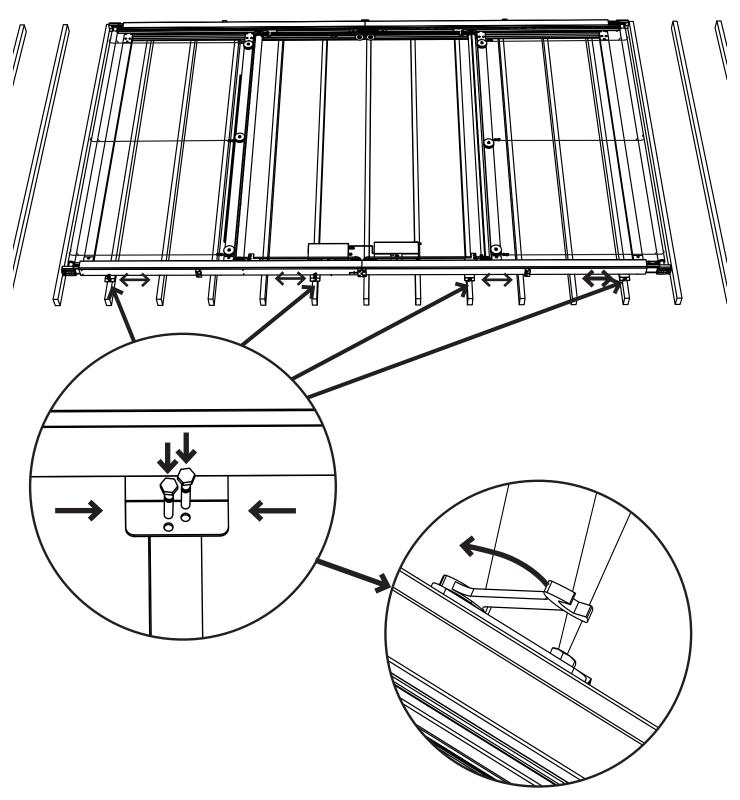




Push the frame halves together then secure with the $1/4-20 \times 2 \cdot 1/2$ " Screws.

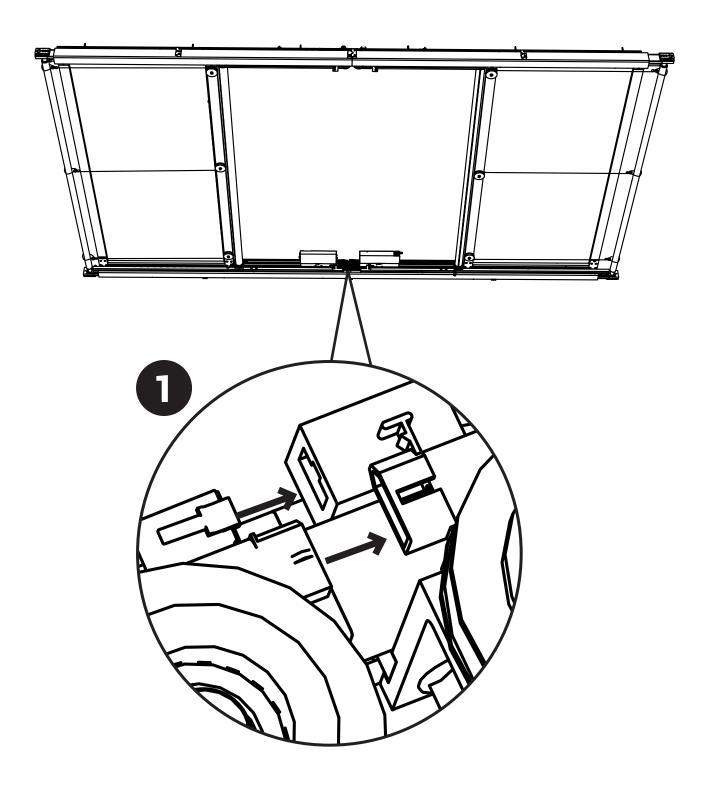
MOUNT THE FRAME





Slide the lower mounting brackets left or right such that the holes align with a stud or structural support. Then secure to the stud with appropriate fasteners. Then tighten the screws on the back of the lower mounting brackets to lock in place.

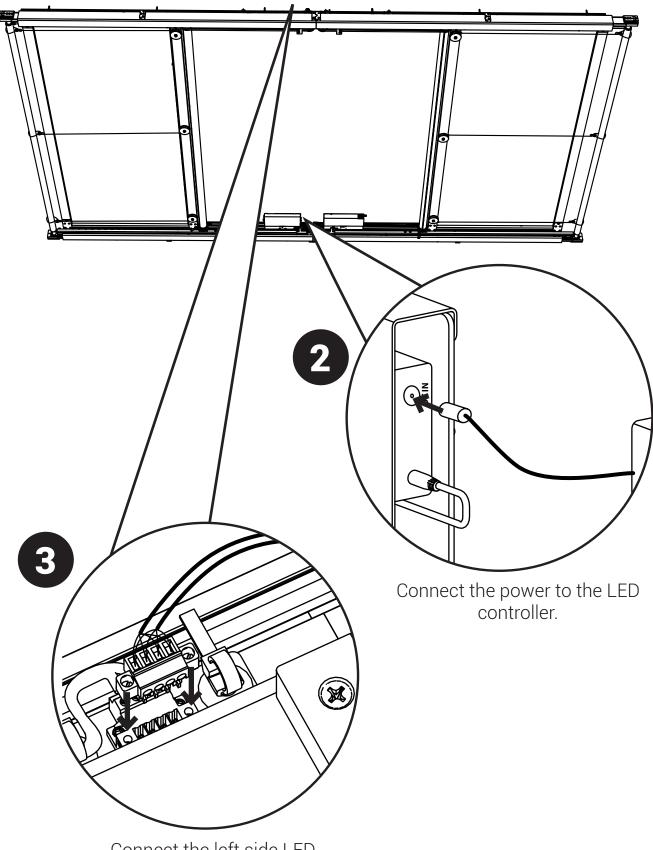
CONNECT THE LEFT AND RIGHT ELECTRONICS



Connect the left and right sides electronically by connecting the left half controls and power to the right half controls and power at the bottom middle of the assembly as shown above.

CONNECT THE LEFT AND RIGHT ELECTRONICS

TRANSFORMER



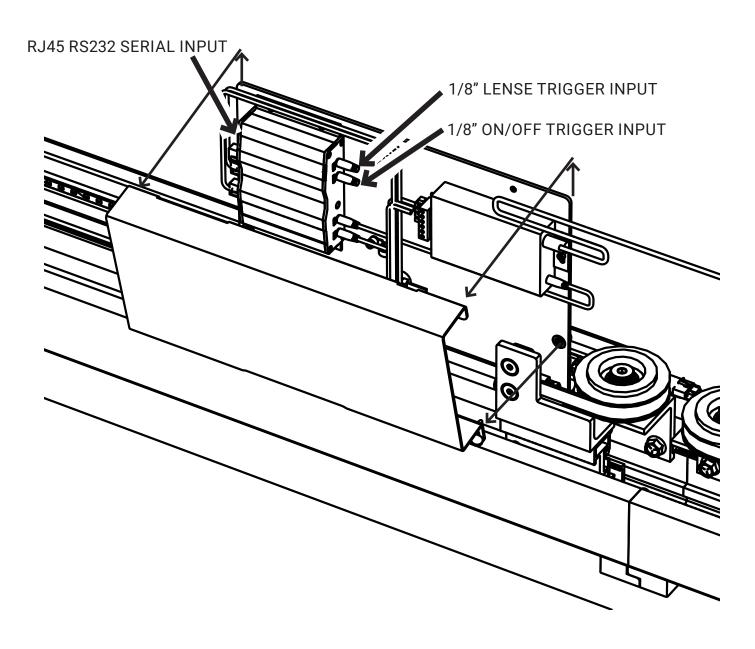
Connect the left side LED wiring to the right side LED wiring.

3RD PARTY CONTROLS CONNECTIONS



ONLY REMOVE THE CONTROLS COVER IF USING THE SERIAL PORT, LENSE TRIGGER, OR PROJECTOR TRIGGER. IF ONLY THE IR REMOTE WILL BE USED THEN THIS STEP IS NOT NECESARRY.





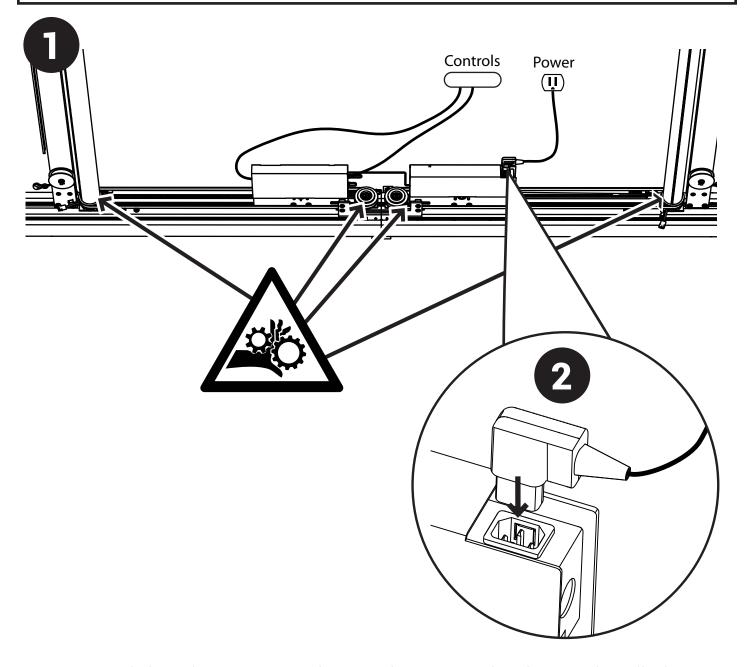
Remove the cover on left side tray to get access to the serial port or trigger inputs. See page 36 for details about the different 3rd party control options.



TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH THE APPROPRIATE ELECTRICAL CODES AND REGULATIONS BY A LICENSED ELECTRICAL PROFESSIONAL. DO NOT CONNECT POWER WITH THE CIRCUIT BREAKER ON.



SCREEN WILL OPEN WHEN POWER IS TURNED ON. MAKE SURE THAT ALL BODY PARTS, TOOLS, AND WIRES ARE CLEAR OF ALL MOVING PARTS.

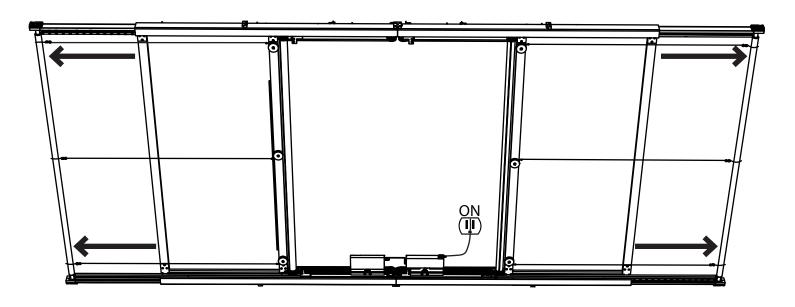


Once controls have been connected; return the cover and make sure that all wires are clear of the belt area. Then connect the IEC power cord to the right side electronics tray.



SCREEN WILL OPEN WHEN POWER IS TURNED ON. MAKE SURE THAT ALL BODY PARTS, TOOLS, AND WIRES ARE CLEAR OF ALL MOVING PARTS.

3



Connect power to the circuit and let the screen open to it's fully open position.

ATTACH SCREEN MATERIAL

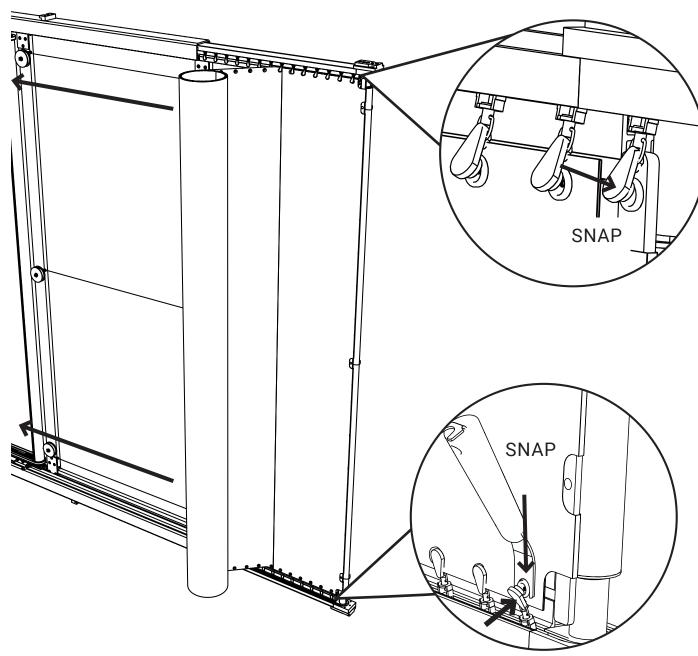




WEAR GLOVES TO PREVENT DAMAGING THE SCREEN MATERIAL



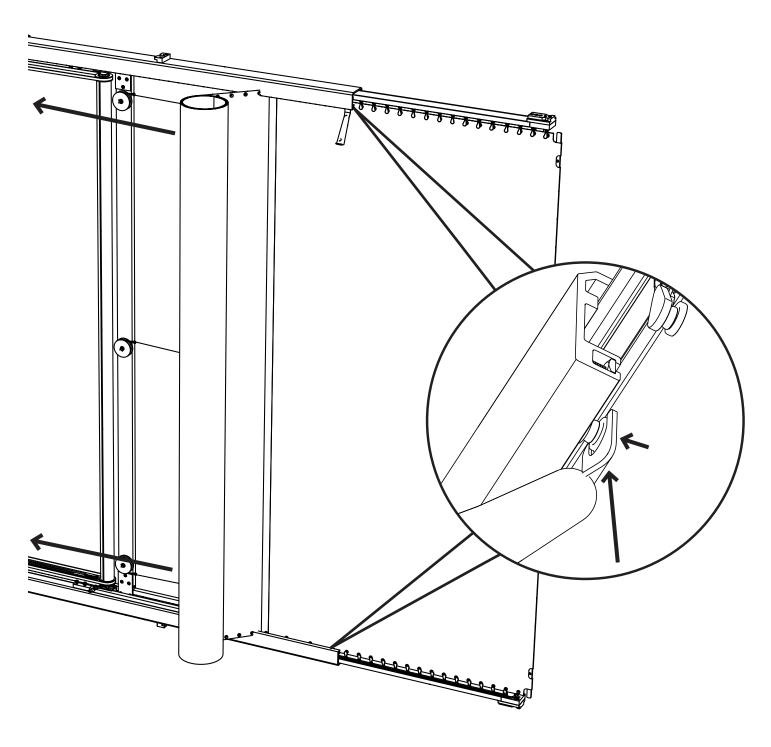
NOTE: TOP OF SCREEN IS THE SIDE WITH A SNAP POST ATTACHED TO THE BAR.



Remove the screen material from the cardboard tube. Remove the tape securing the snaps to the ends of the frame .Then snap into the moving snaps located on the far right side of the screen assembly working left. One installer should be available to hold the rolled up screen material upright and unroll as another installer snaps the screen into the frame. Use the Top-Snapper to easily pull the screen material to the snap.

ATTACH SCREEN MATERIAL

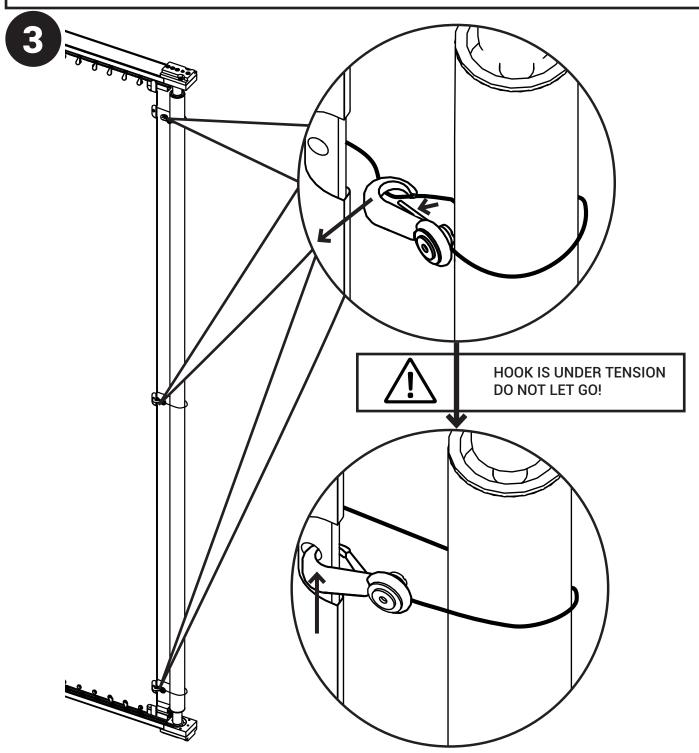




Continue snapping the material into the frame untill all the right side moving snaps are attached to the screen material. Then use the top snapper to attach the screen material to the first fixed snaps in the main frame piece.

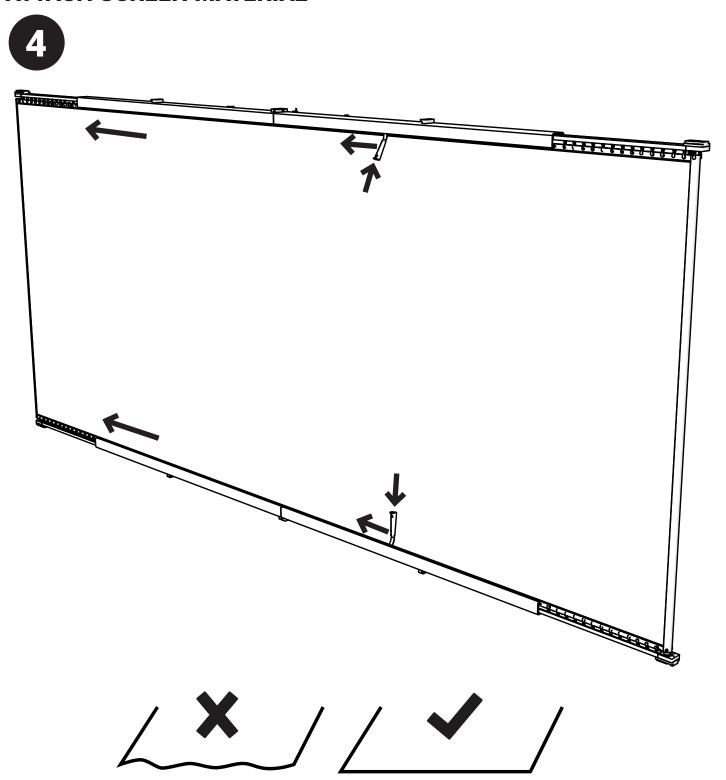


SPRING CABLES ARE UNDER TENSION. DO NOT LET GO OF HOOK UNTILL IT IS ATTACHED TO THE BAR IN THE SCREEN MATERIAL. IF SPRING CABLE BECOMES UNRAVELED AND SPRING TENSION IS LOST THEN PLEASE CONTACT SI AT 512-832-6939 FOR ASSISTANCE.



Unclip the hook from spring cable wrapped around the tube being carefull to hold on to the hook. Then hook into the bar in the screen material. DO NOT let go of the hook untill secured to the screen material bar. Once all 3 hooks are attached you can let the springs gently pull the screen marterial around the back of the roller.

ATTACH SCREEN MATERIAL

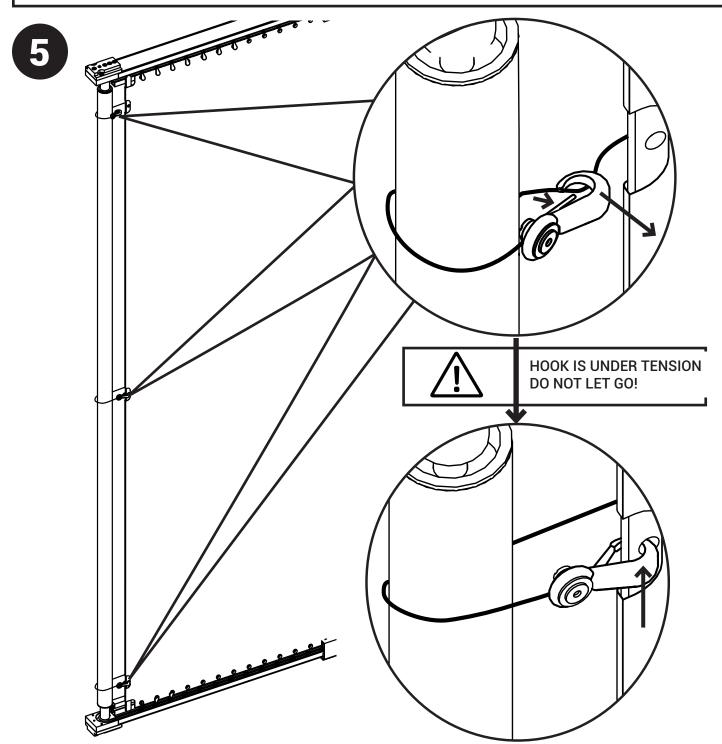


Continue attaching the screen material to the frame working to the opposite end of the frame. When snapping into the fixed snaps make sure to put enough horizontal tension between the new snap and the previous snap to make the material lay flat. Once all snaps have been attached go back and adjust the snaps in the fixed frame portion to make the screen lies flat. Remove the cardboard tube from the end of the screen material

ATTACH SCREEN MATERIAL

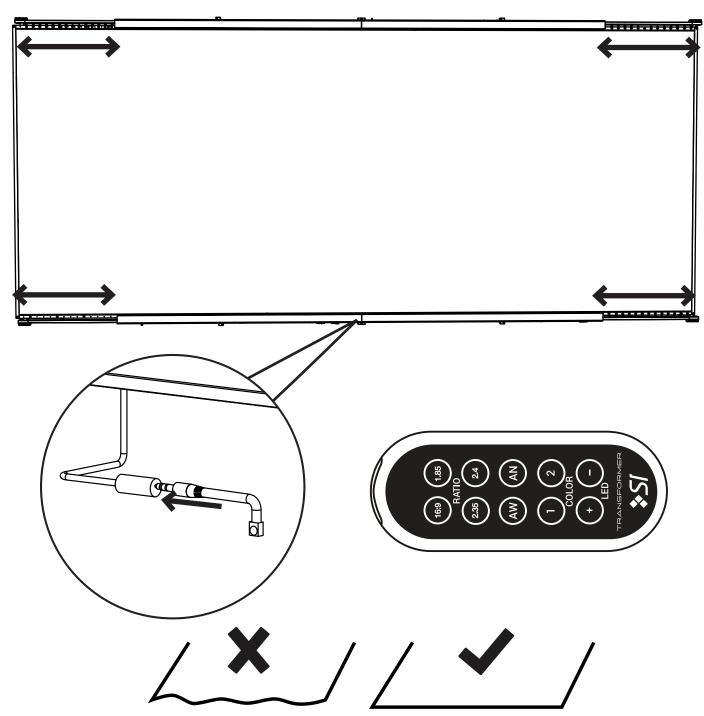


SPRING CABLES ARE UNDER TENSION. DO NOT LET GO OF HOOK UNTILL IT IS ATTACHED TO THE BAR IN THE SCREEN MATERIAL. IF SPRING CABLE BECOMES UNRAVELED AND SPRING TENSION IS LOST THEN PLEASE CONTACT SI AT 512-832-6939 FOR ASSISTANCE.



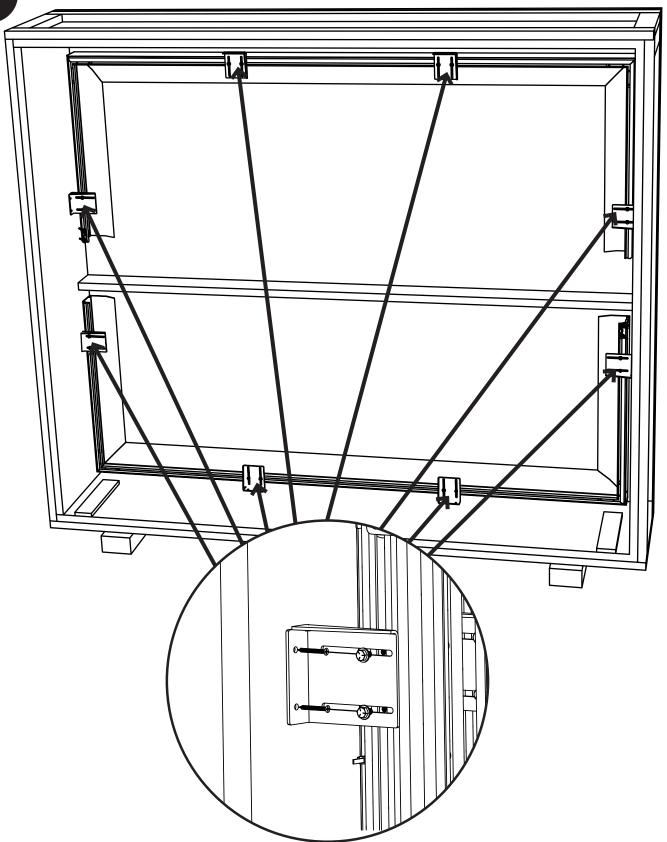
Unclip the hook from spring cable wrapped around the tube being carefull to hold on to te hook. Then hook into the bar in the screen material. DO NOT let go of hook untill secured to the screen material bar. Once all 3 hooks are attached you can let the springs gently pull the screen marterial around the back of the roller.





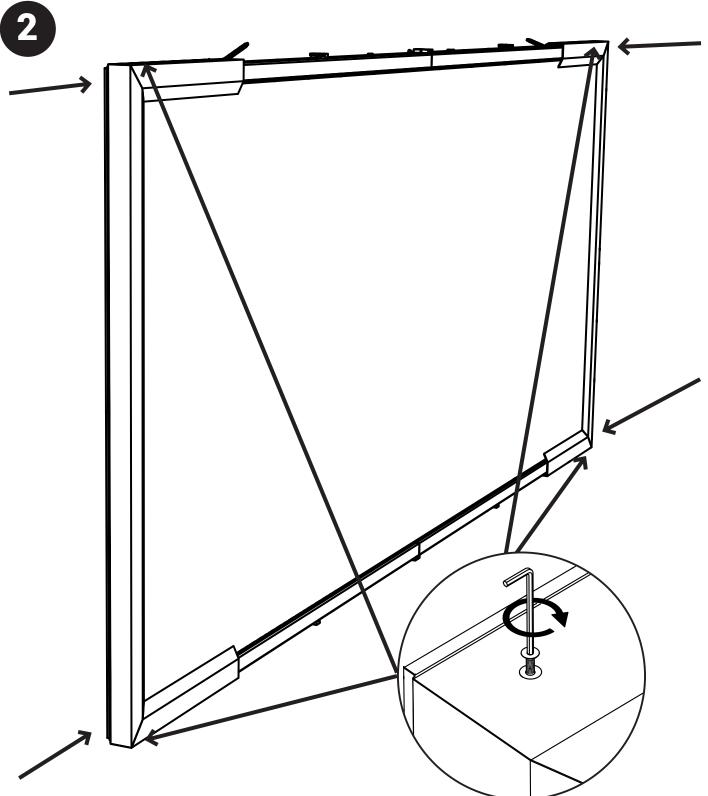
Plug in the IR eye for control of the screen. Press the 16:9 button to close the screen, and adjust the fixed snaps to make the screen flat. You will likely need to move the outermost fixed snaps in to make the screen flat at the transition, then adjust snaps working towards middle to make the screen flat. Cycle the screen several times between the 2.4 and 16:9 aspect ratios to make sure that the screen material is lying flat. Before proceeding tmake sure that the screen in it's minimum closed position (16:9) and then disconnect the IR eye.





Remove the wing trim from the crate by removing the shipping brackets from the crate and then removing the shipping brackets from the wing trim assemblies.

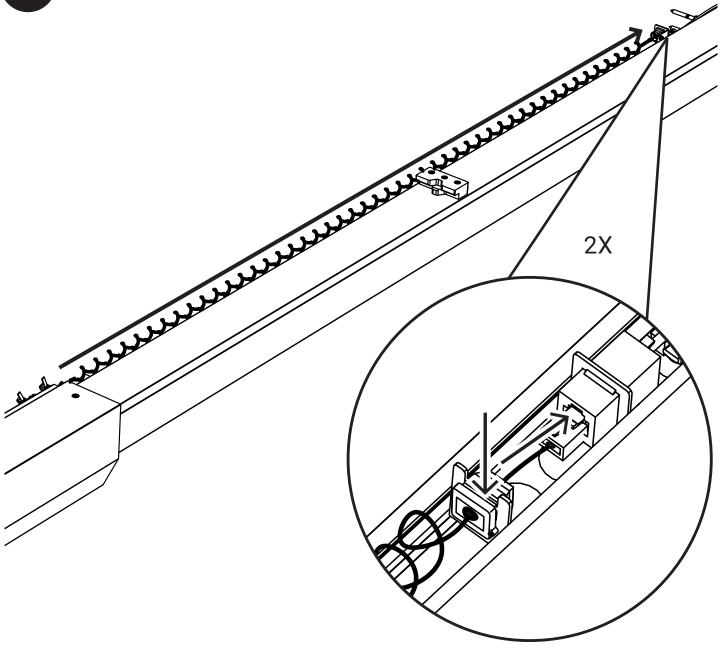




NOTE: The trim is put on to the fame such that the coiled cable for the lights is at the top.

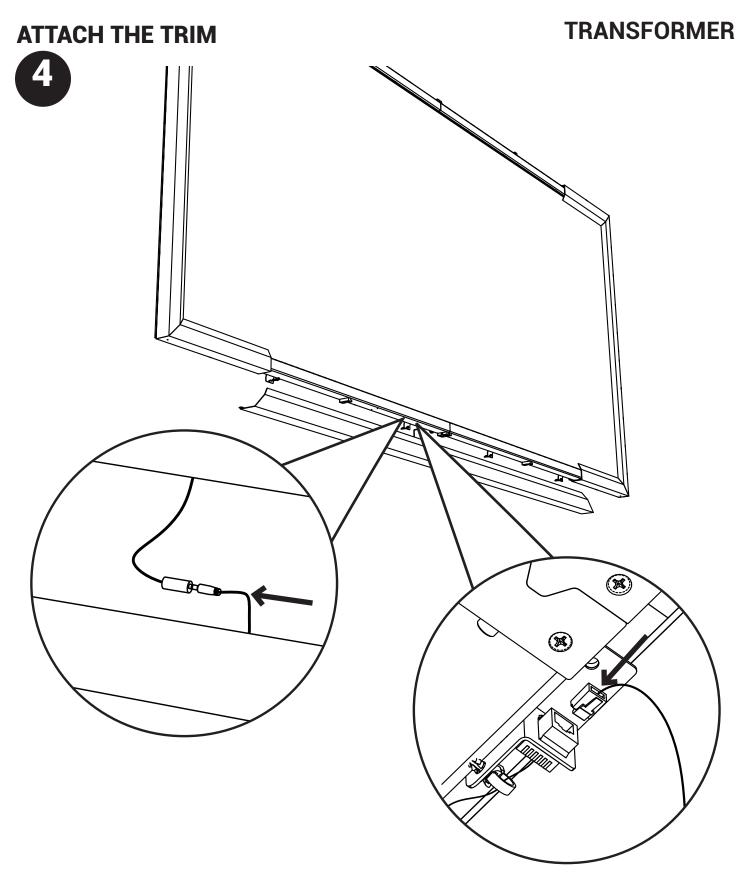
Slide the wing trim pieces on to the main screen assembly untill it hits the bumper on the end of the frame. Then align the hole in the wing trim with the hole in the frame and secure with the 10-32 flat head screw. Do NOT overtighten the screw.





Stretch the coiled cable on the top of wing trim pieces to the port on the frame. Slide the black strain relief in into the slot and then plug the cable into the port.

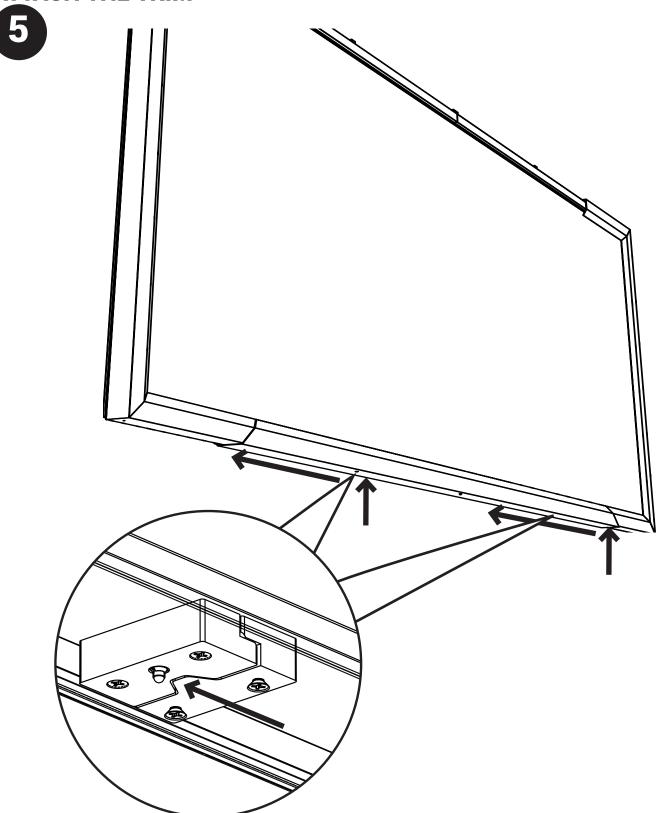
29



NOTE: The bottom trim piece is the piece with the IR eye dome connected to it.

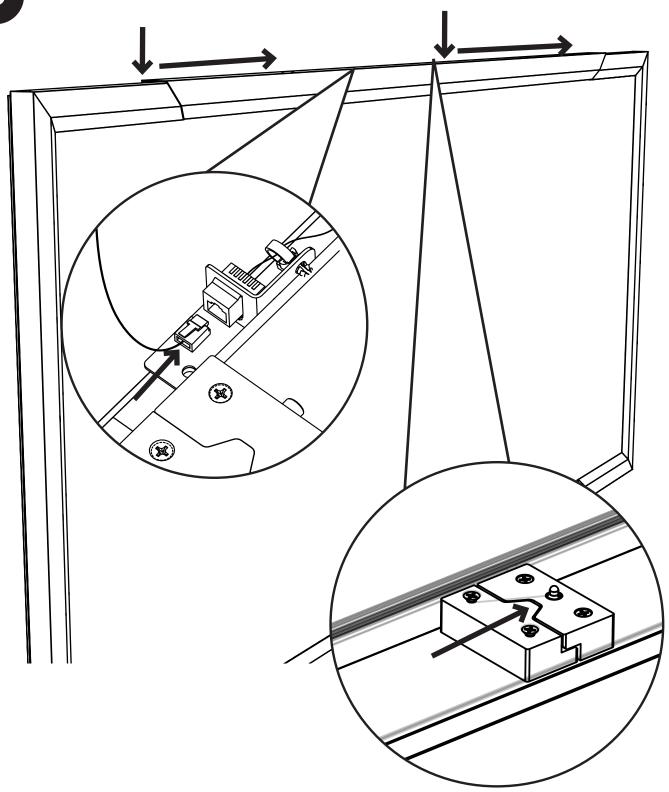
Place the bottom trim just below the bottom of the screen and connect the IR eye mono jack into the port hanging from the bottom of the screen. Plug in the phone jack connected to the LED in to the port mounted to the bottom of the frame.





Lift up the trim and slide to the **LEFT** untill the blocks line up and the plunger clicks into place to secure the trim. The trim is correctly installed when the trim will no longer slide back to the right.



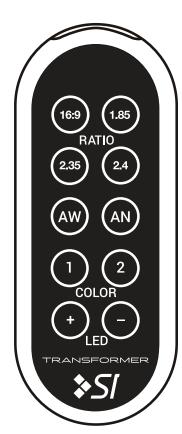


Connect the lights to the port at the top. Then rest the trim on frame and slide to the RIGHT untill the blocks line up and the plunger clicks into place to the secure the trim. The trim is correctly installed when the trim will no longer slide back to the left.



ONLY USE THE IR RECIEVER PROVIDED BY SI WTIH THE SHIPMENT. THE IR RECIEVER IS INSTALLED IN THE TRIM PIECE AND CONNECTED TO THE 1/8" STEREO JACK IN THE CONTROLLER AS ONE OF THE LAST STEPS OF INSTALLATION.

Primary Functions - Normal Mode



Button	Action Description
Press	
16:9	Screen moves to preset 1 position (factory set to 16:9).
1.85	Screen moves to preset 2 position (factory set to 1.85:1).
2.35	Screen moves to preset 3 position (factory set to 2.35:1).
2.4	Screen moves to preset 4 position (factory set to 2.40:1).
AW	Screen moves to preset 5 position (factory set to 2.40:1).
AN	Screen moves to preset 6 position (factory set to 16:9).
1	changes LED lights to DIY color 1 (see page 38 to change).
2	changes LED lights to DIY color 2 (see page 38 to change).
+	Turns LED lights on.
_	Turns LED ligths off.
+ *	Enters preset setting mode.
- **	Enters field maintenance mode. (For factory use only)

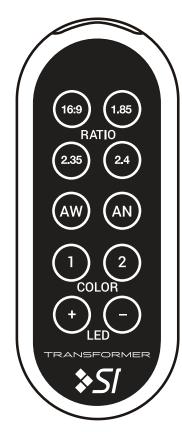
^{*} press and hold for 4-5 seconds. Screen lights will fade between colors indicating screen is in preset setting mode.

Note

All presets are set at the factory however they can be adjusted by holding down the "
 + " button for 4 to 5 seconds to enter the preset setting mode.

^{**} long press and hold for 12-15 seconds. (For factory use only; Contact SI if instructions for using this mode are required.)

Preset Setting Mode



Button	Action Description
Press	
16:9	Save current aspect ratio position into preset 1.
1.85	Save current aspect ratio position into preset 2.
2.35	Save current aspect ratio position into preset 3.
2.4	Save current aspect ratio position into preset 4.
AW	Save current aspect ratio position into preset 5.
AN	Save current aspect ratio position into preset 6.
1	Jogs screen open to wider aspect ratio.
2	Jogs screen closed to more narrow aspect ratio.
+*	Restores factory default preset settings.
_	Exits preset setting mode to normal mode.

^{*} press and hold for 4-5 seconds

Notes

- To return to normal mode press the " " button.
- To restore factory default preset settings press and hold the " + " button
- Lights will provide flash feedback when new preset is properly stored.

IR CONTROL (3RD PARTY)

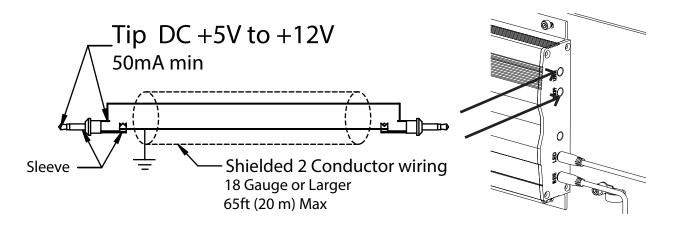
IR Hex Codes

The following RS1 protocol codes are provided in pronto hex code format to be used when programming a 3rd party universal IR remote or control system. See remote's manufacturer for instructions on how to use the codes.

Key	Pronto Hex Code	Key	Pronto Hex Code
16:9	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 0018	1.85	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 0013
2.35	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 001	2.4	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 0013
AW	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 001	AN	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0026 0013 0013 0013 0013 0013 0013 0013 0026 0013 0013 0013 0026 0013 0026 0013 0013 0013
1	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0013 0013 0013 0013 0026 0013 0013 0013 0026 0013 0013 0013 0026 0013 0180	2	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 0013
+	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 001	ı	0000 006d 0002 001a 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0026 0013 0013 0013 0013 0013 0013 0013 001

LOW VOLTAGE TRIGGERS (OPTIONAL)

TRANSFORMER



Projector ON/OFF Trigger

- Screen will move to the Preset 1 position (factory set to 16:9) when trigger transfers from low to high voltage.
- Screen will move to RESTING position (hard programmed to 2.40:1) when trigger transfers from high to low voltage.

Anamorphic Lense Trigger

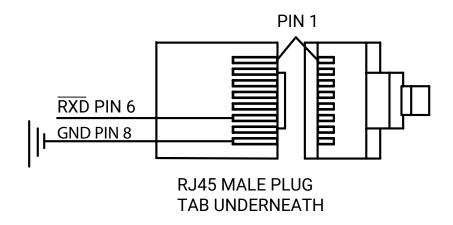
- Screen will move to the Preset 5 position (factory set to 2.40:1) when trigger transfers from low to high voltage.
- Screen will move to the Preset 6 position (factory set to 16:9) when trigger transfers from high to low voltage.

Low Voltage Trigger Summary

Trigger Input	HIGH Voltage Position	LOW Voltage Position
ON/OFF	preset 1 (16:9)	RESTING (2.40:1)
LENSE	Preset 5 (2.40:1)	Preset 6 (16:9)

Note that the trigger action is caused by the change of voltage from either high to low or low to high. Therefore the order of when that change occurs determines the state of the screen.

For example if the projector ON/OFF trigger is turned on it will begin moving the screen to 16:9, however once the LENSE trigger is turned on it will move the screen to 2.4:1 even though the on/off voltage is still high.

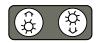


Command	Action Description
\$P1	Screen moves to preset 1 position (factory set to 16:9).
\$P2	Screen moves to preset 2 position (factory set to 1.85:1).
\$P3	Screen moves to preset 3 position (factory set to 2.35:1).
\$P4	Screen moves to preset 4 position (factory set to 2.40:1).
\$P5	Screen moves to preset 5 position (factory set to 2.40:1).
\$P6	Screen moves to preset 6 position (factory set to 16:9).
\$AW	Screen moves to anamorphic wide preset.
\$AN	Screen moves to anamorphic narrow preset.
\$F1	Screen moves to factory set 16:9 position.
\$F2	Screen moves to factory set 1.85:1 position.
\$F3	Screen moves to factory set 2.35:1 position.
\$F4	Screen moves to factory set 2.40:1 position.
\$OF	Screen moves to RESTING position.

Notes

- 9,600 baudrate, 8 bits, no parity, one stop (standard), no line terminations
- Normal operations will use \$P1 \$P6 to select watching preference.
- \$AW, \$AN will be used for anamorphic modes.
- \$F4 may be used to force a rest position move

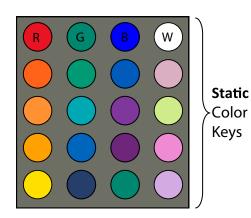
LED remote operates with one CR2032 battery.

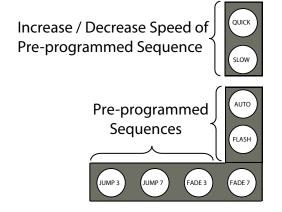


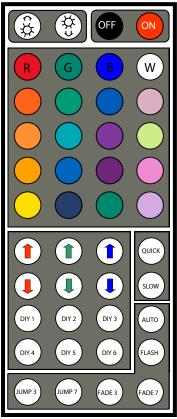
Increase / Decrease Brightness



Discrete OFF / ON



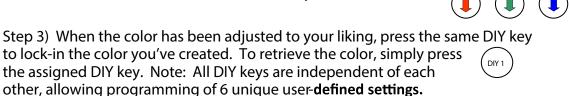


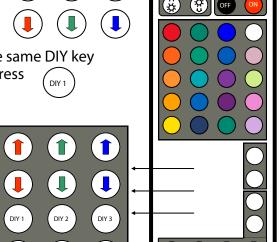


DIY Key programming instructions:

Step 1) Press any of the DIY 1 through DIY 6 keys (DIY 1) to activate the programming of that key.

Step 2) Use the 6 Up and Down arrow keys to adjust the amount of Red, Green, or Blue, denoted by the arrow color.





User-Programmable

DIY Key Section

LED CONTROL TRANSFORMER

LED Lighting Hex Codes

2013 5CA3 2013 58A7 2013 54AB 2013 1CE3 2013 14EB 2013 10EF 2013 0CF3 2013 0CF3	20 13 50 A2 20 13 59 A6 20 13 55 AA 20 13 10 E2 20 13 10 E2 20 13 10 E2 20 13 11 EE 20 13 00 F2 20 13 00 F2 20 13	20 13 41 BE 20 13 45 BA 20 13 49 B6 20 13 14 EE1 20 13 16 E9 20 13 16 E9 20 13 12 ED 20 13 0A F5 20 13	2013 40BF 2013 44BB 2013 4CB3 2013 1FE0 2013 17E8 2013 17E8 2013 17E8 2013 13EC 2013 0FF0 2013 0BF4



NEVER SCRUB, USE SOLVENTS, OR ANY ABRASIVE SUVSTANCE THAT MIGHT DAMAGE THE MATERIAL.

Slate® & Pure®

Suggested Method:

Microfiber cloth towel and distilled water applied with lightly rubbing the surface until the spot is removed.

Alternate Method:

Can be cleaned with a microfiber cloth. Mix a solution of 1oz simple green to 20ozs water. You can lightly rub the surface until the spot is removed.

Please allow 10 minutes of drying time before retracting motorized screens.





9715-B Burnet Road Suite 400, Austin, TX 78758



9715-B Burnet Road Suite 400, Austin, TX 78758



9715-B Burnet Road Suite 400, Austin,TX 78758