Zero-G (External)
Installation Instructions

ZERO-G DISCLAIMER

⚠ Failure to comply with the following steps will result in a void of the manufacturer's warranty. The dealer/ installer will be responsible for all costs associated with failure to comply, including replacement parts, and/ or additional on-site visits needed for repair work.

- Do not use a knife to cut foam/wrapping, you may cut cables.
- Due to the complexity of Zero-G, please scan the QR code to review the installation video before proceeding:
- A minimum of 12" of drop must be met to ensure no mechanical failures.
- Please use the supplied data cable & wall switch for initial setup before introducing 3rd party control systems.
- Before operating, please inspect helix & wing cable pulleys didn't lose tension during transit.
- Please contact SI support at (512) 832-6939 w/ any install related questions prior to installation or scan the QR code to get more details:
- Leveling the Zero G Case and Wing/Lower Tube Assembly: These pieces MUST be level and parallel within 1/16th of an inch. Failure to accurately level these two pieces can cause the screen cables to become unstable and fray over time.

Installation video for external Zero G

Support page QR code

⚠ **INSTALLERS: PLEASE LEAVE THIS MANUAL WITH THE OWNER.**

Limited 1 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.

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BEFORE PROCEEDING

The placement from bottom to the screen should be between 36” (91cm) - 42” (106cm).
Check the projector manual for Projector placement.

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:

- Blocking is required. The ceiling or wall used for fixture installation must be able to support 300 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 14 and 17 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.

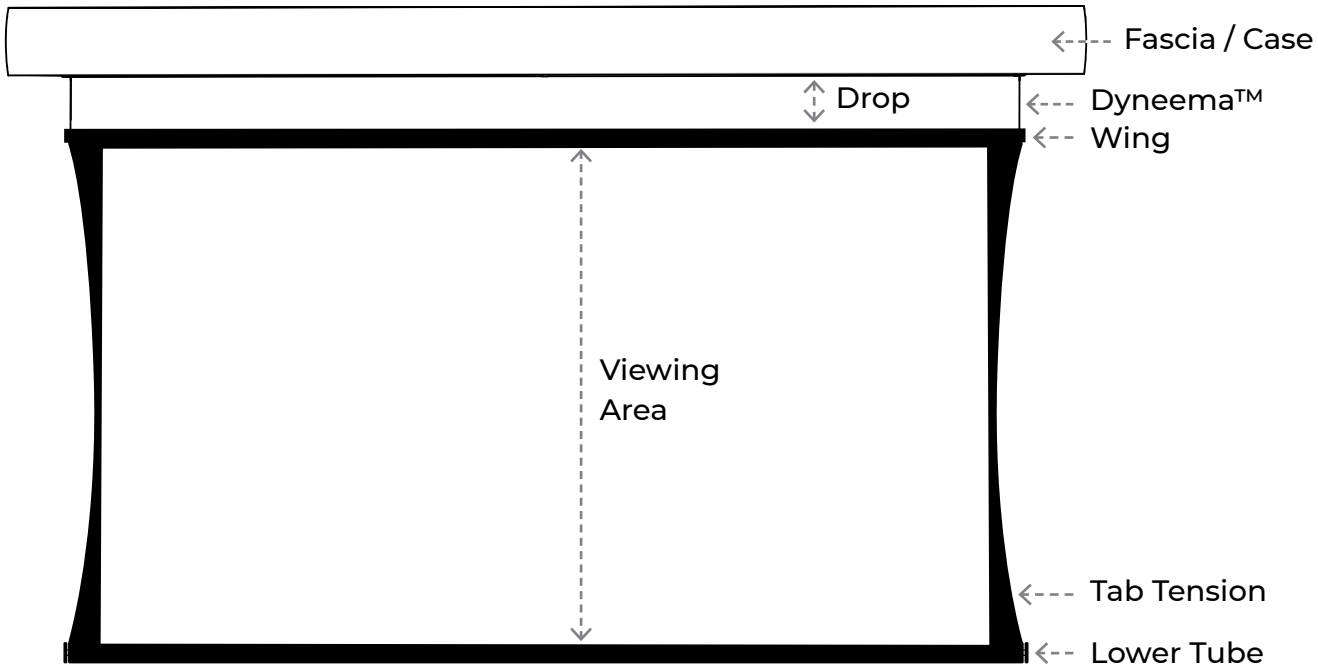
NOTE: The screen has been thoroughly inspected and tested at factory and found to be operating properly prior to shipment.

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 or under the screen that would come in contact or impede the normal operation of the screen when deployed.
- Damage to the screen can result if an object prevents the screen from fully deploying.

PRODUCT OVERVIEW

It is important to familiarize yourself with the product and its parts prior to installation. Please refer to the diagram and definitions below.



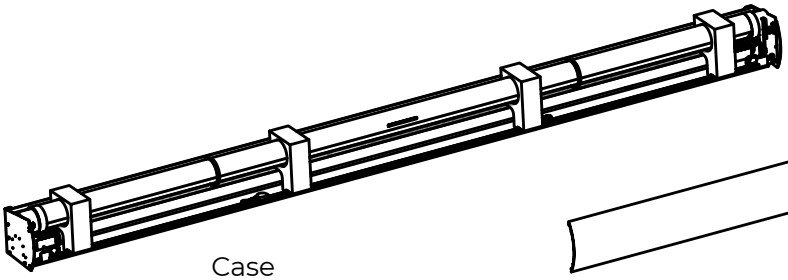
1. Case - The case is the enclosure of the screen that houses the upper tube assembly, doors, controls, and the lower tube assembly when the screen is retracted.
2. Fascia - The fascia is the decorative cover that is installed on the front of the case.
3. Drop - The distance between the bottom of the case and the top of the wing. Do not exceed the minimum(12") / maximum drop as specified for your screen.
4. Dyneema: the nylon cords which suspend the lower tube assembly from the case when the screen is deployed.
5. Wing: the upper part of the lower tube assembly which holds the top of the screen material and nests with the lower tube when the screen is retracted.
6. Viewing Area: the area of the screen material onto which an image is projected.
7. Tab Tension: the small tabs and string on the outer edges of the screen material that maintain the flatness of the screen.
8. Lowe Tube: the lower part of the lower tube assembly which holds the bottom of the screen material and nests with the wing when the screen is retracted.

PARTS IN THE BOX

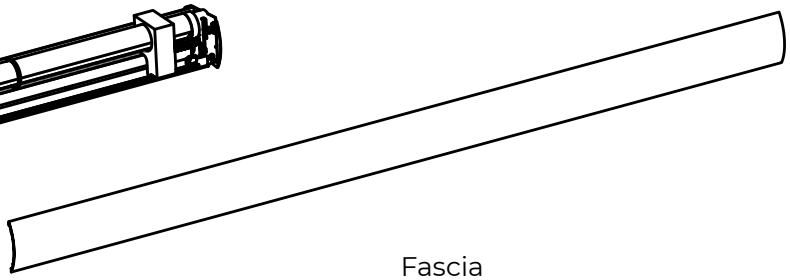
3+

Installation requires three or more people. The product weighs up to 225 lbs. Please use safe lifting and rigging techniques.

External Mount Case



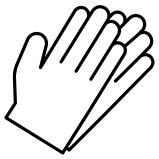
Case



Fascia

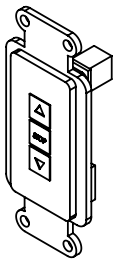
Mounting Bracket Options

16 x - 24 x
Wood Screws

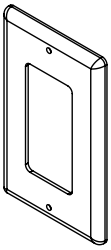


2 x Hand
Gloves

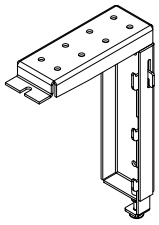
1 x IEC Cable - 12’



1 x Wall Switch

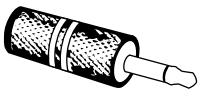


1 x Wall Switch
Cover Plate



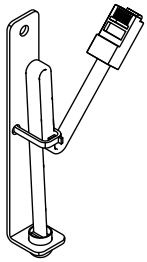
2 x - 3 x
L - Brackets

1 x IR
Remote

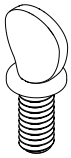


2 x 35mm
Mono Plug

1 x Wall
Switch Cable



1 x IR Eye

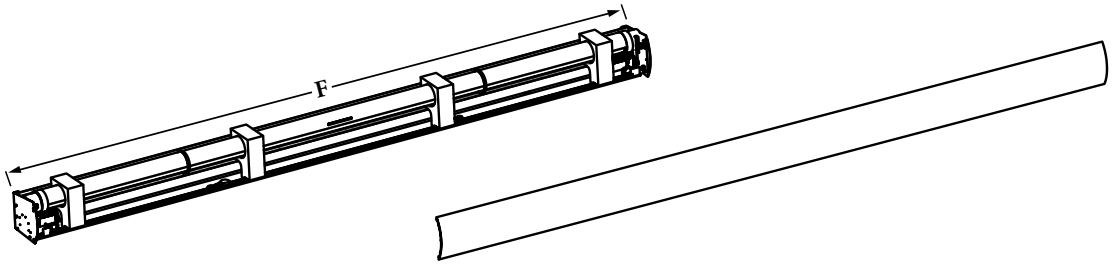


1 x Thumb
Screw

CASE INSTALLATION

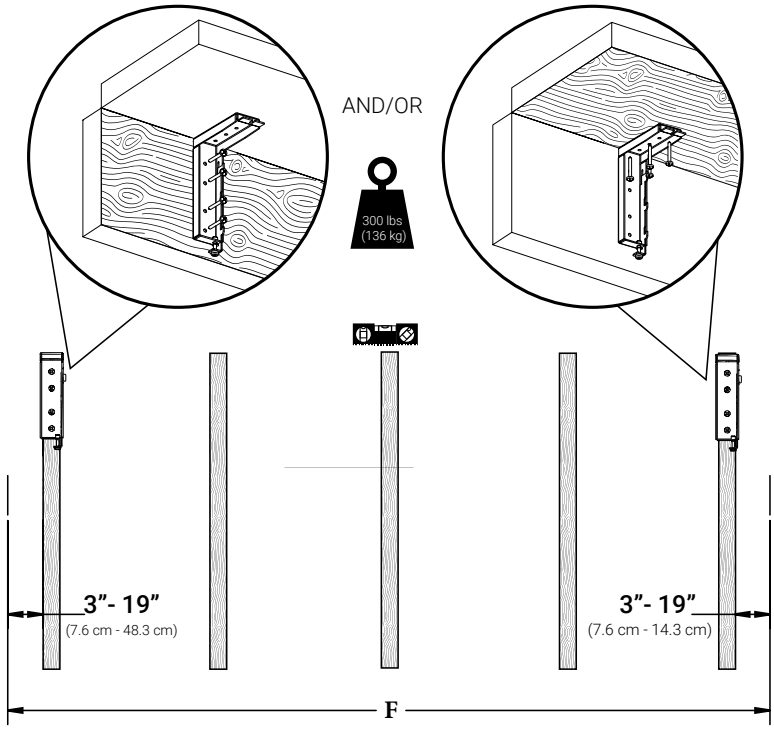
1 Set fascia aside and out of the way of the installation location. Leave the foam around the tube inside the case in place. Remove all other foam and packaging materials. Measure full length of the case (F).

⚠ Blocking required. The ceiling or wall used for fixture installation must be able to support 300 lbs or more. Failure to properly secure the screen may result in injury and/or damage.



2 Level the brackets to within 1/8” over 10’ using the case length (F).
Note that the bracket screws provide 1/8” additional adjustment after they have been mounted.
Install the brackets so that they will be 3” - 19” away from the edge of the case on both sides.

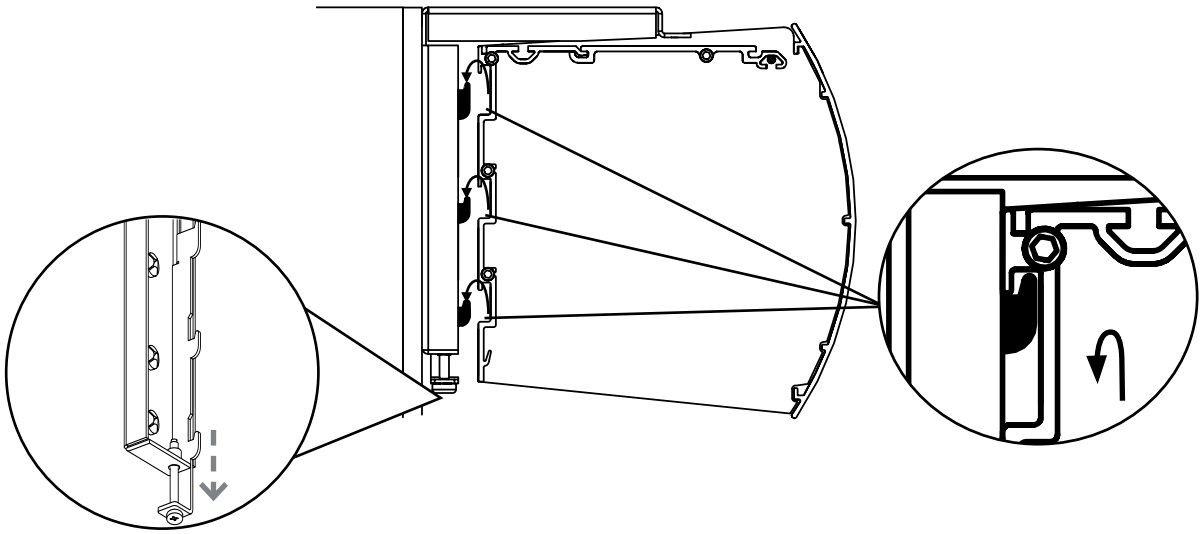
⚠ Failure to properly level the mounting brackets may create issues with the screen over time, which could damage the screen material.



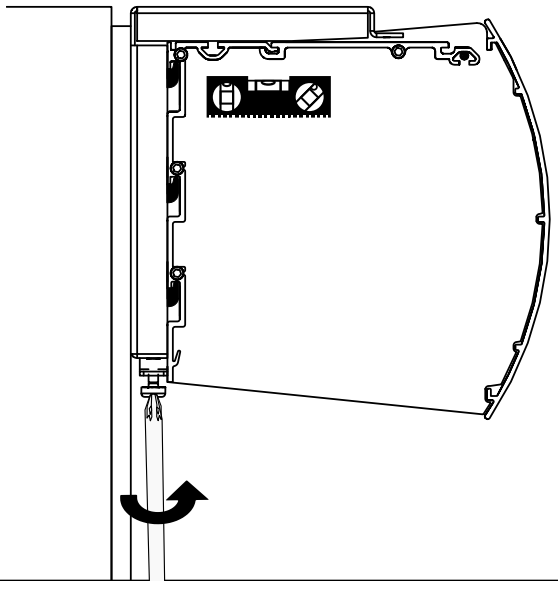
CASE INSTALLATION

3+	**Installation requires three or more people. The product weighs up to 225 lbs. Please use safe lifting and rigging techniques.**

3 Make sure bracket screws are backed out all the way before putting the screen in place. Hook the bracket into all 3 grooves in the case.



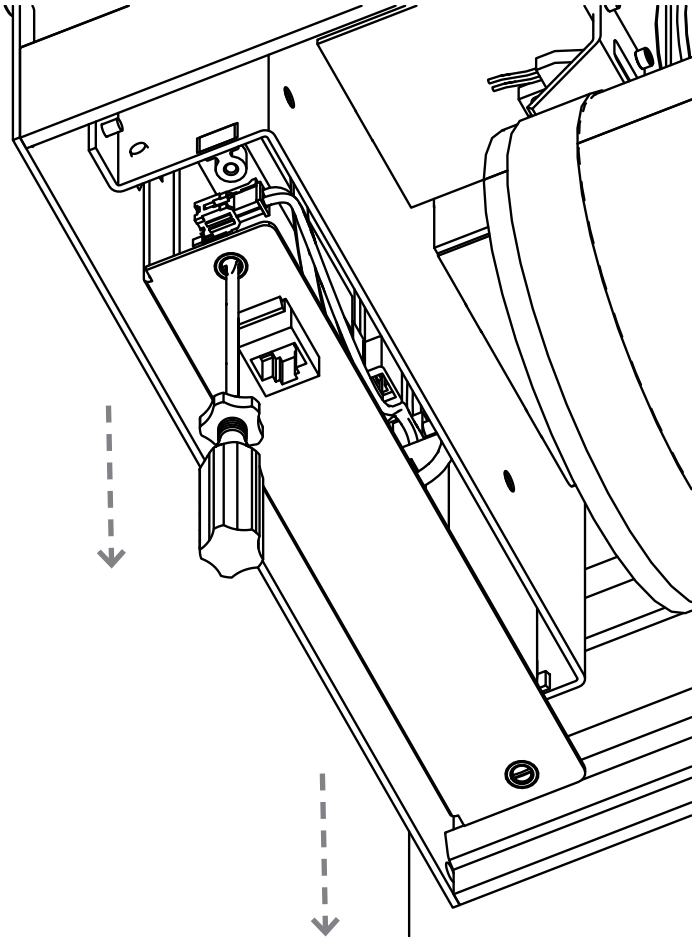
4 Tighten the screws to lock in place. Then check to make sure the screen is level to within 1/8” over 10 ft. You can make up to 1/8” adjustment with bracket screws.



POWER & CONTROLS

1 Open the tray. Unscrew and pull down the control center carefully ensuring none of the cables or motherboard become damaged. **If you feel resistance do not yank.**

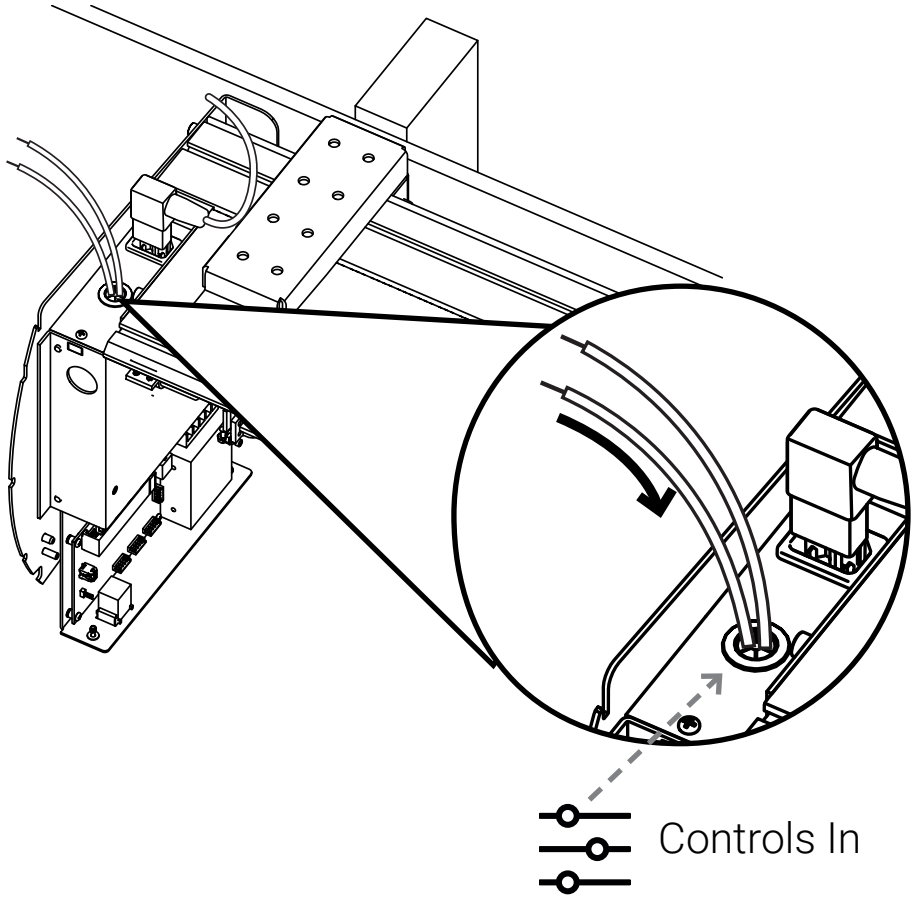
⚠ Do not open the control center with the circuit breaker on.



POWER & CONTROLS

2 Pass the control cables through the appropriate opening in the case, and connect your AC power cable.

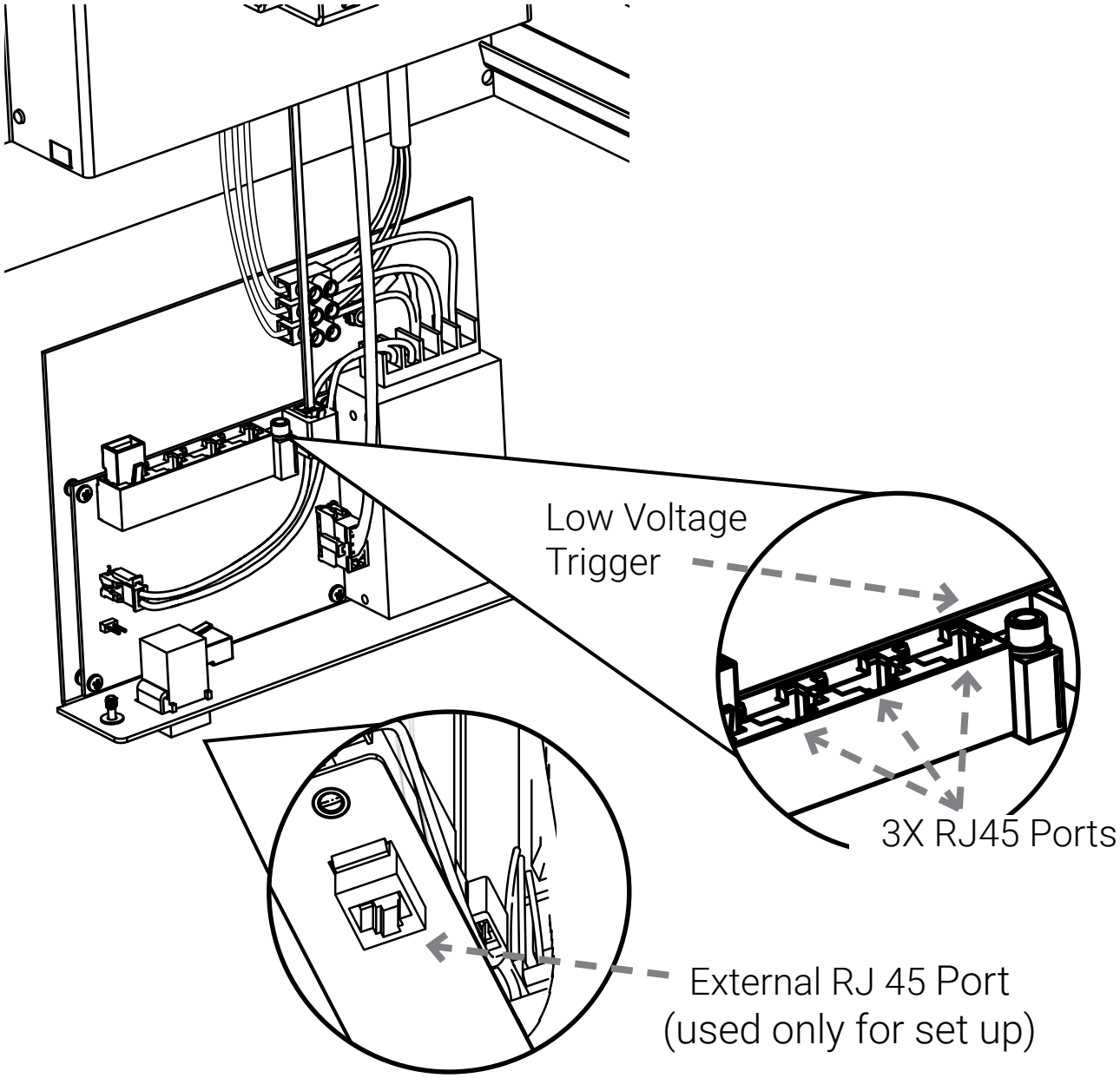
To be installed and/or used in accordance with the appropriate electrical codes and regulations by a licensed electrical professional. Do not connect power with the circuit breaker on.



POWER & CONTROLS

3 All RJ 45 Ports act the same, and can be used for wall switch, IR Eye, or 3rd Party Control.

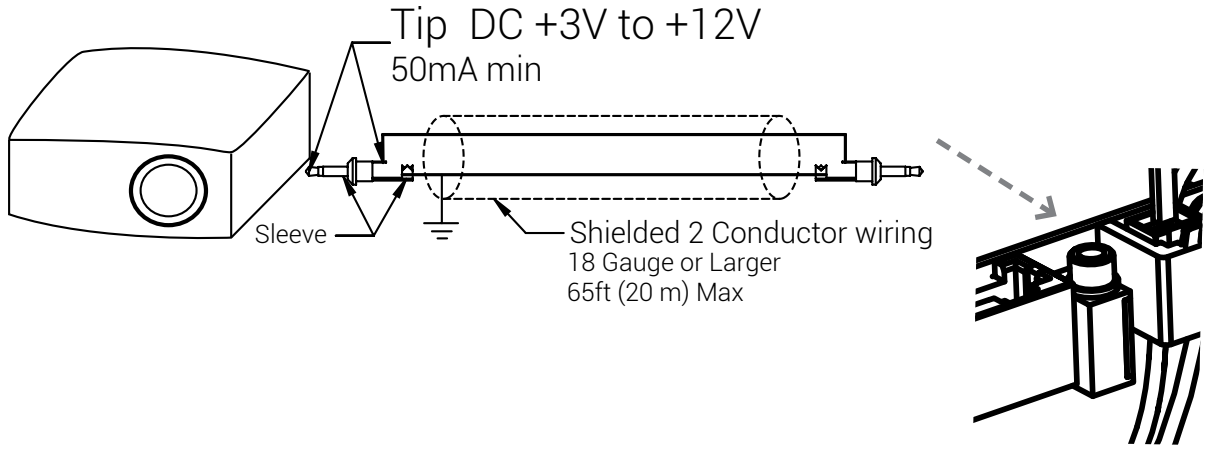
⚠ To be installed and/or used in accordance with the appropriate electrical codes and regulations by a licensed electrical professional. Do not connect power with the circuit breaker on.



POWER & CONTROLS

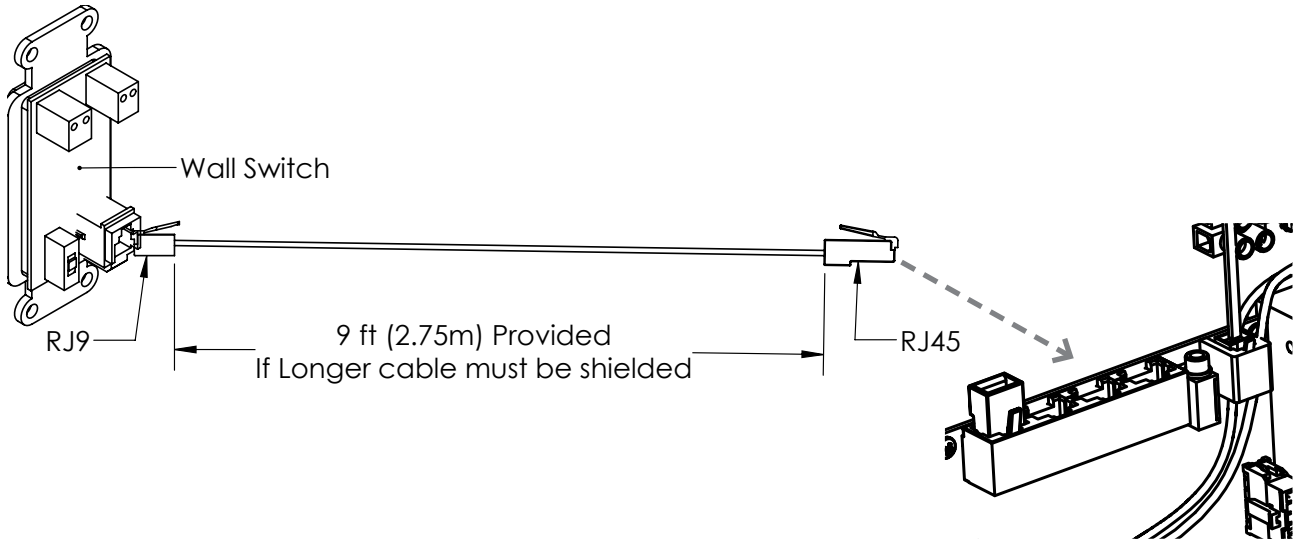
Low Voltage Trigger (Optional)

1 Some projectors may have a low-voltage trigger that will allow your screen to drop when it is turned on. Installer must supply conductor wire in the length and guage needed..



2 Use the supplied cable for all set-up procedures. It is recommended to permanently install the wall switch in an accessible location for future limit setting and troubleshooting procedures. Plug in the RJ45 end into the control center, and plug the smaller RJ9 end into the wall switch.

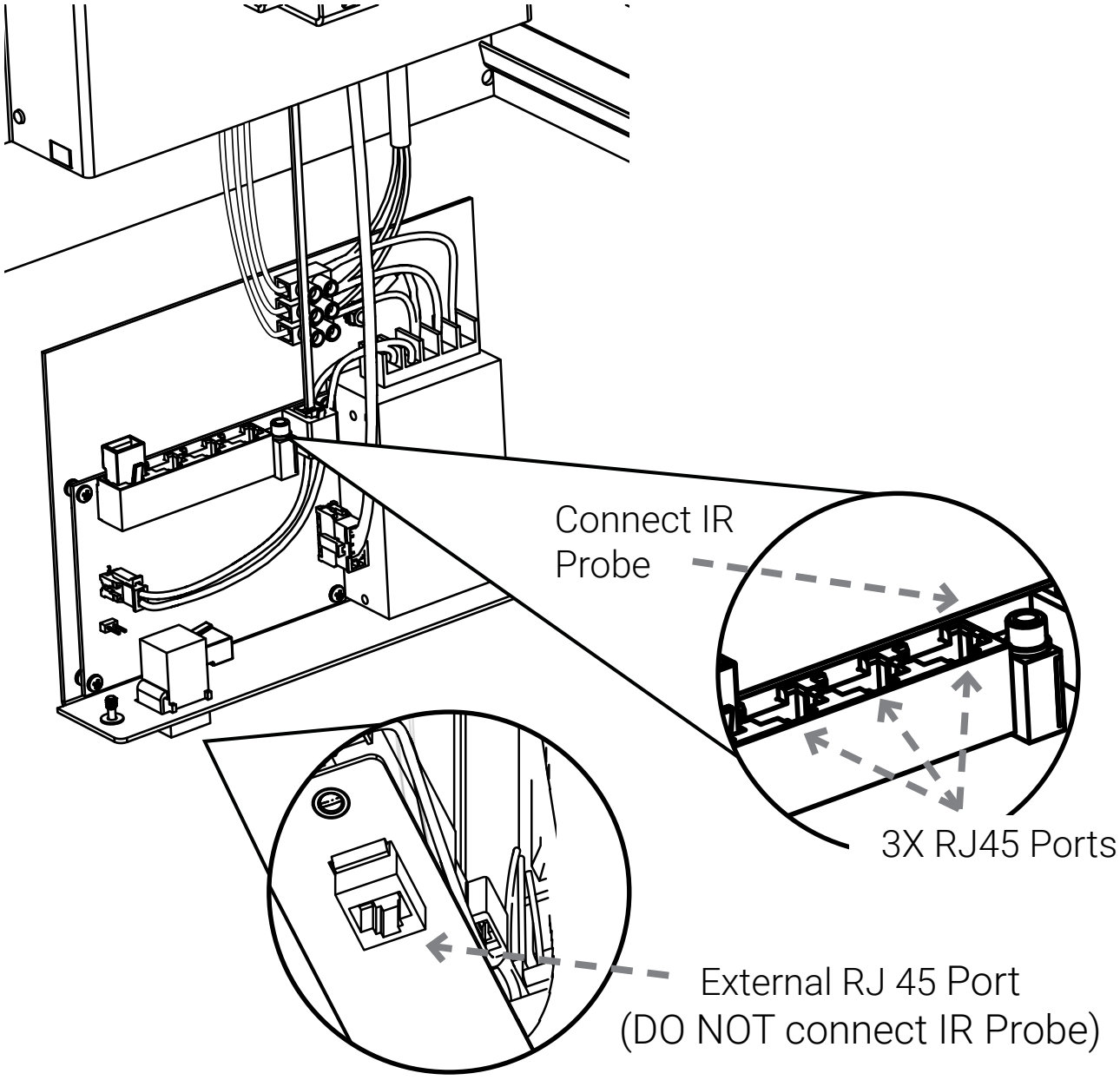
⚠ Wall switch and supplied data cable must be used for setting limits once. Once motor limits are set you can switch to a longer if needed. The wall switch and supplied data cable must always remain with the screen as they are the tools needed to set motor limits.



POWER & CONTROLS

IR Remote (Optional)

3 Connect the IR eye assembly to the case with the thumb screw, then plug into the external RJ45 port.



POWER & CONTROLS
IR Remote (Optional)

IR Remote Use

- If the IR remote is held down continuously as the screen is moving there is a chance that the screen can stop in-between limits. If this happens simply send another IR signal in the direction it was going to continue its movement.
- If a control system is using an IR blaster to control this screen, make sure to limit the period where it blasts the signal one second or less.

IR Hex Codes

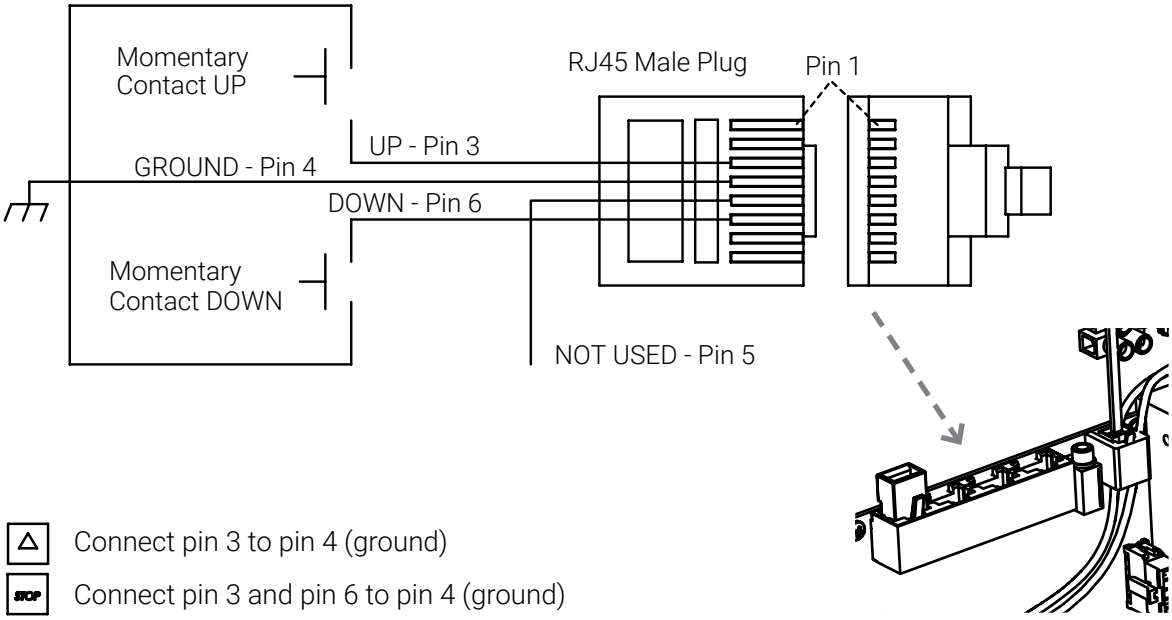
These codes are to be programmed into 3rd party universal control systems.

△	0000 006c 0000 000c 0006 011b 0006 011b 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 011b 0006 08a4
STOP	0000 006c 0000 000c 0006 011b 0006 011b 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 011b 0006 011b 0006 08a4
▽	0000 006c 0000 000c 0006 011b 0006 011b 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 00bb 0006 011b 0006 00bb 0006 08a4

POWER & CONTROLS

3rd Party Control (Optional) - Wall Switch

Screen will not function properly if wired incorrectly.



△ Connect pin 3 to pin 4 (ground)

STOP Connect pin 3 and pin 6 to pin 4 (ground)

▽ Connect pin 6 to pin 4 (ground)

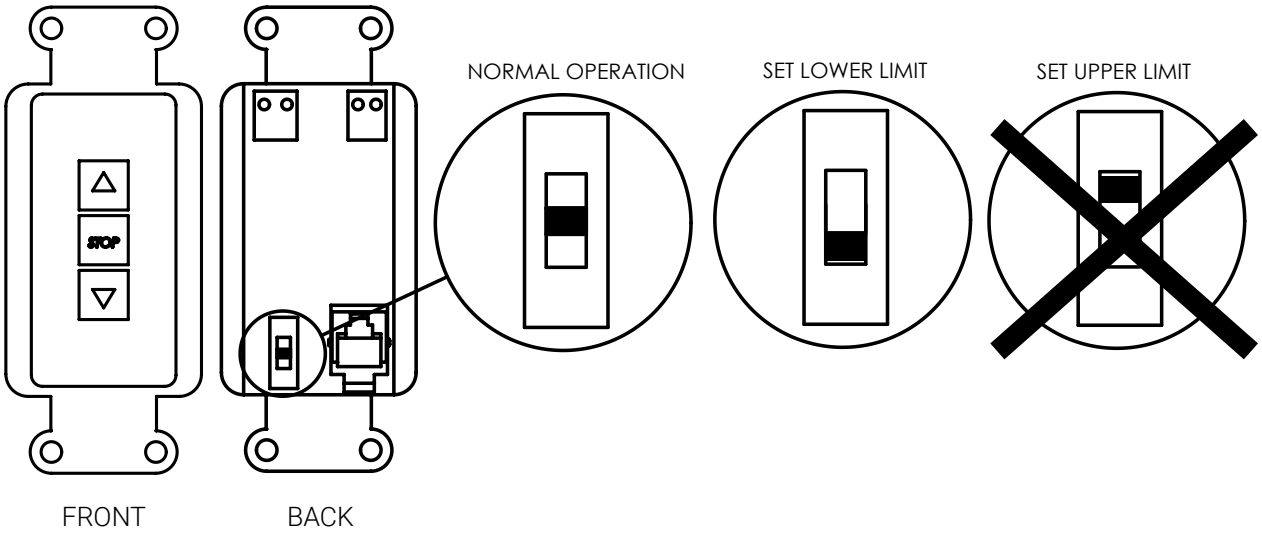
CAT 5	Orange/ White	Orange	Green/ White	Blue	Blue/ White	Green	Brown/ White	Brown
Wall Switch	1. Empty	2. Empty	3. Up	4. Ground	5. 5V	6. Down	7. Empty	8. Empty

RJ45 to RJ11	1. Empty	2. Empty	3. Yellow	4. Green	5. Red	6. Black	7. Empty	8. Empty
Wall Switch	1. Empty	2. Empty	3. Up	4. Ground	5. 5V	6. Down	7. Empty	8. Empty

POWER & CONTROLS
Wall Switch General Operation

2 On the back of the supplied wall switch, move the switch to the down position.

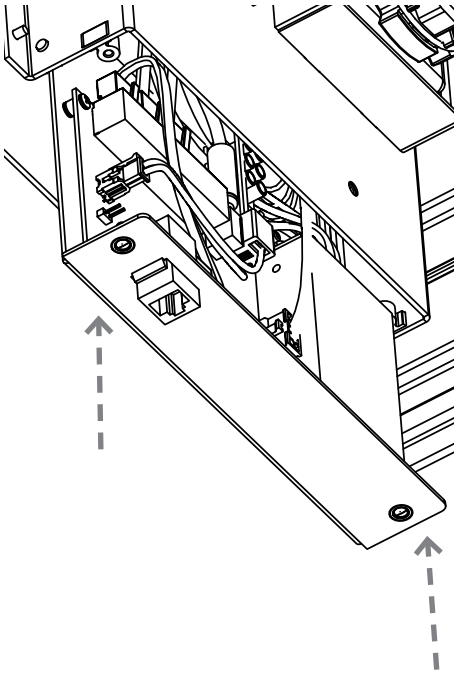
⚠ Setting the upper limit incorrectly could damage your screen. Contact screen innovations if you are having problems with the wall switch.

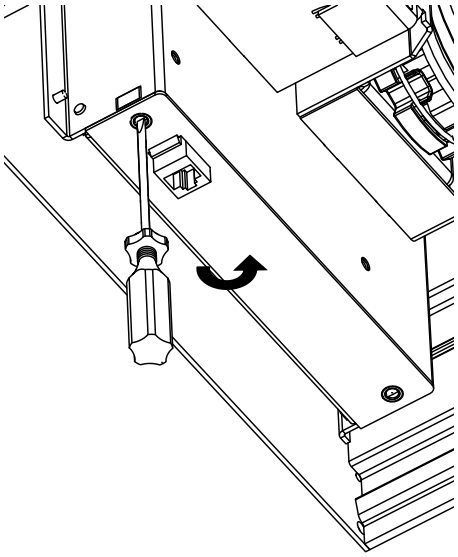


POWER & CONTROLS

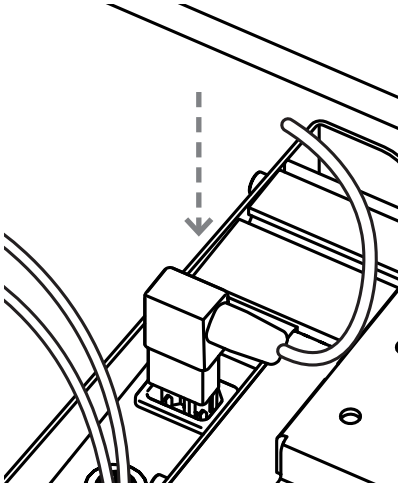
4 Close the Control Panel. Carefully push up the control center back into the tray ensuring the cables or motherboard are not damaged. Tighten panel fastening screws.

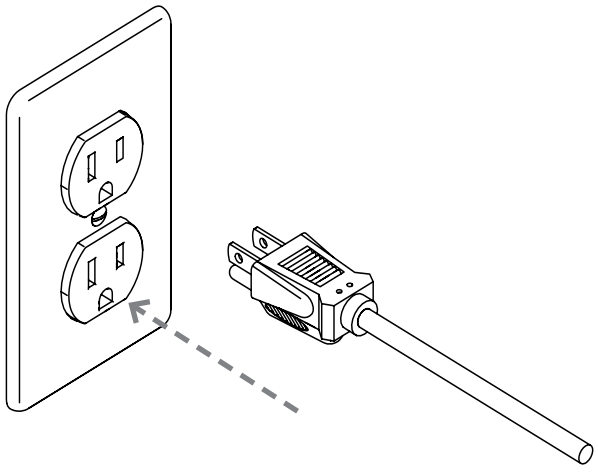
⚠ Do not force the control panel. If it does not close easily, reopen the panel and look for wires or other obstructions and then attempt to close it again.





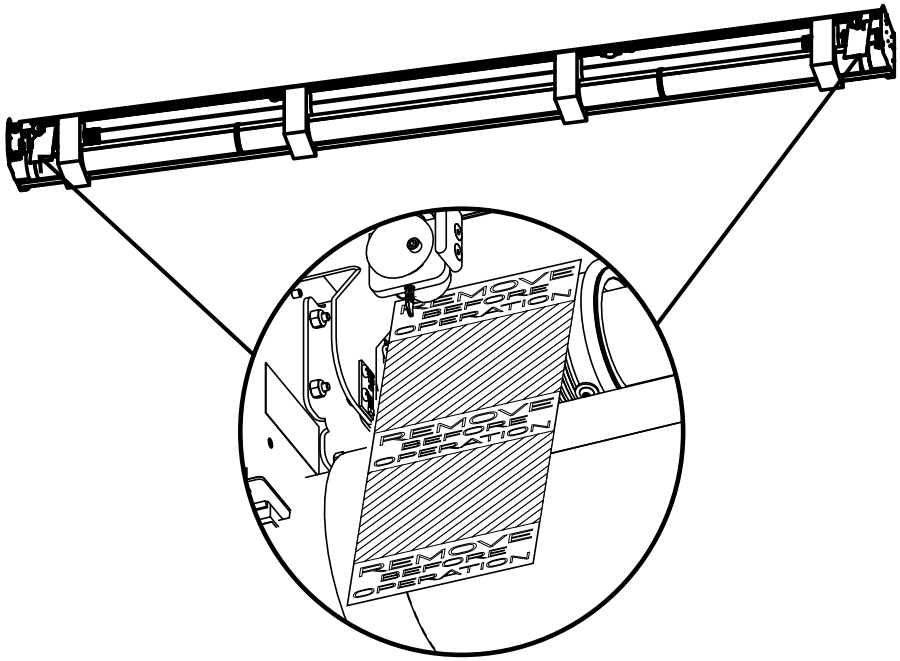
Plug in the power cable to the case and then to a receptacle. Turn on the main breaker to power screen.



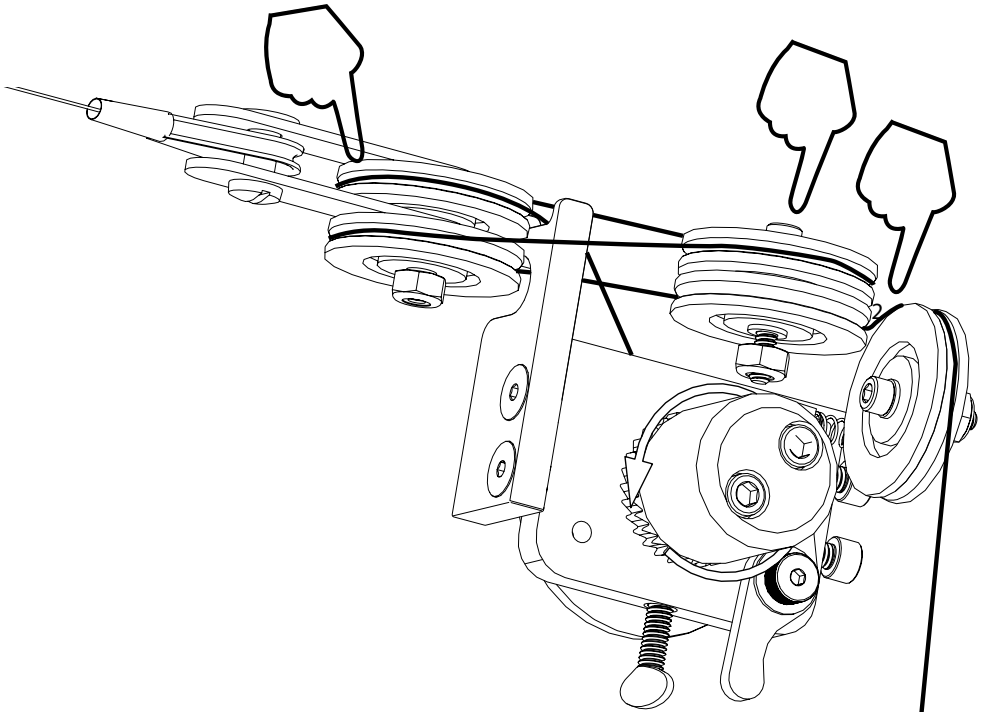


SETTING THE DROP FOR VIEWING HEIGHT

1. Remove the stickers labeled “REMOVE BEFORE OPERATING” that secure the cables to the helix inside the case, leave the remaining foam in place. It will lower with the screen and be easy to remove later. Ensure dynemma is on helix and all pulleys.



If the cable becomes loose, make sure the it is still set correctly on all pulleys as shown.

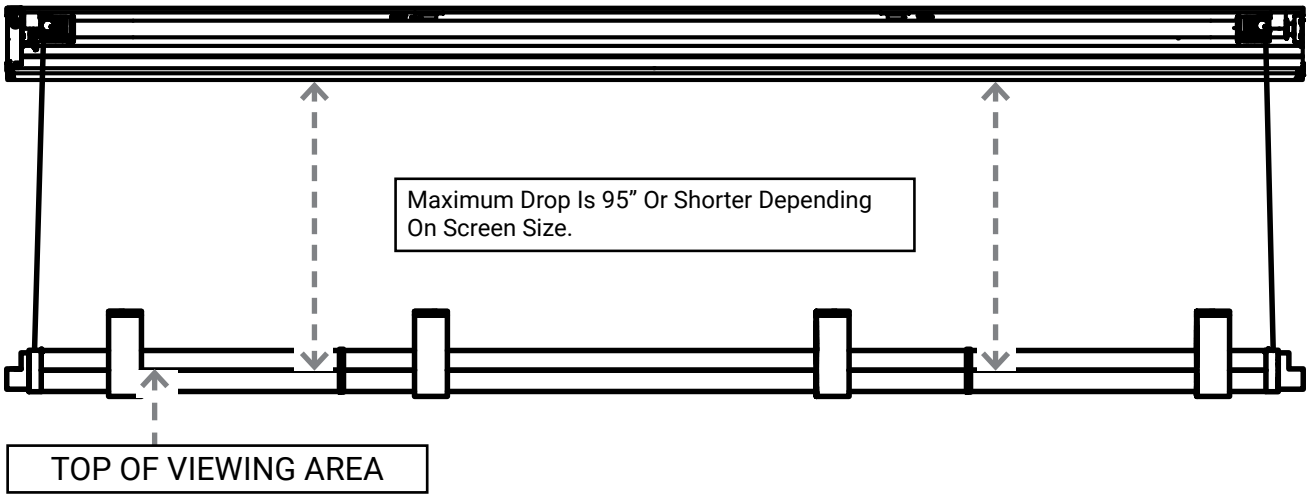


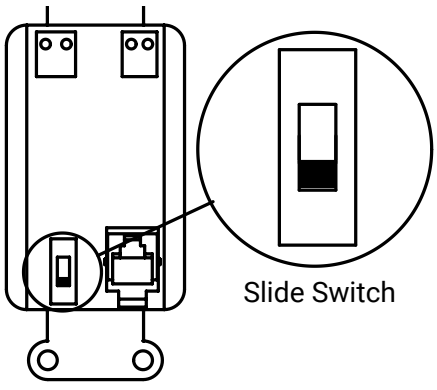
SETTING THE DROP FOR VIEWING HEIGHT

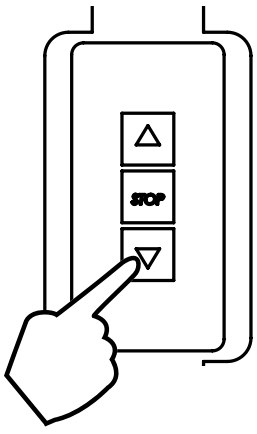
3 Set the Slide switch on the back of the Wall switch to the lower position. Hold the **DOWN** button on the Wall Switch and release it once the screen reaches the desired drop; the top of the viewing area is indicated on the protective tube. Remove any packing foam remaining inside the case that did not lower with the screen.

⚠ Max drop is 95”or shorter depending on screen size.

⚠ The motor is thermally protected. If the motor stops running during setup, let it cool down for at least 30 minutes before attempting to run it again.

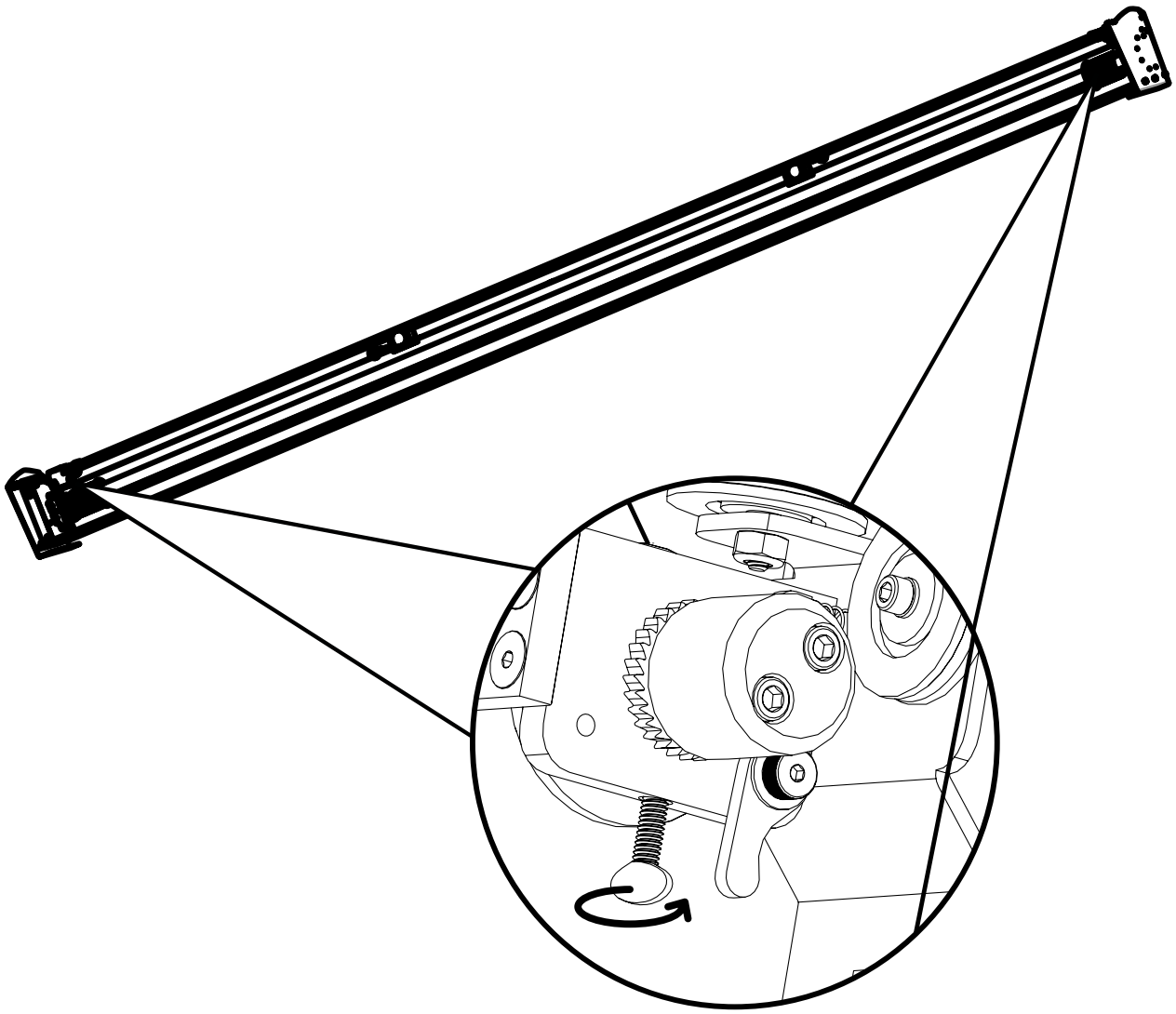






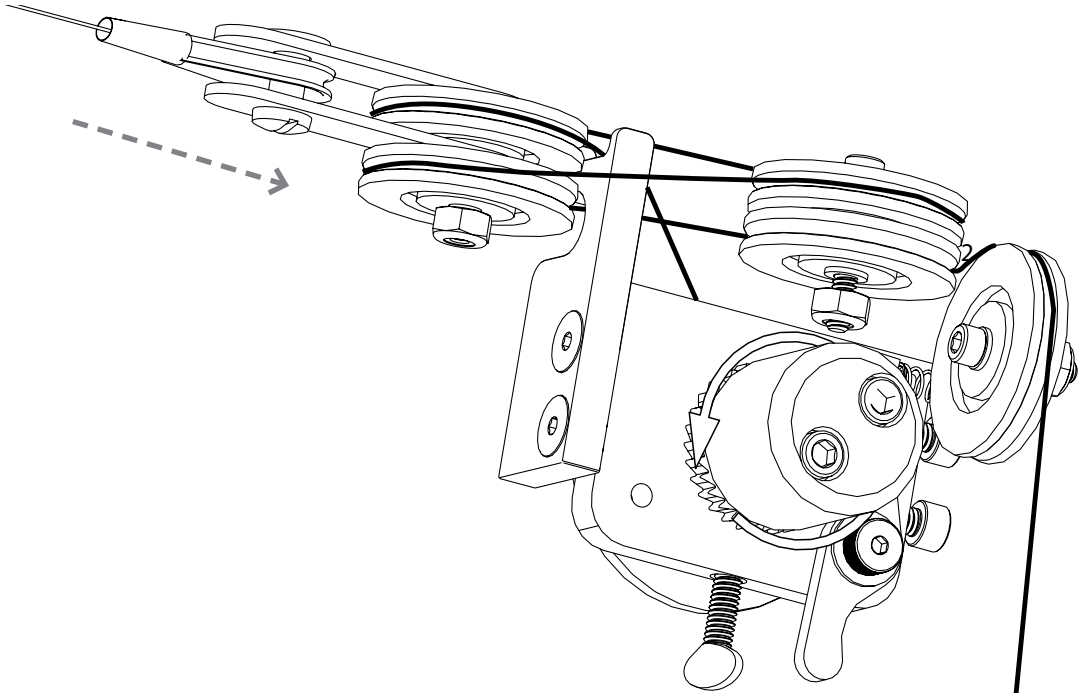
SETTING THE DROP FOR VIEWING HEIGHT

4 Perform Steps 4 through 6 on both ends of the screen.

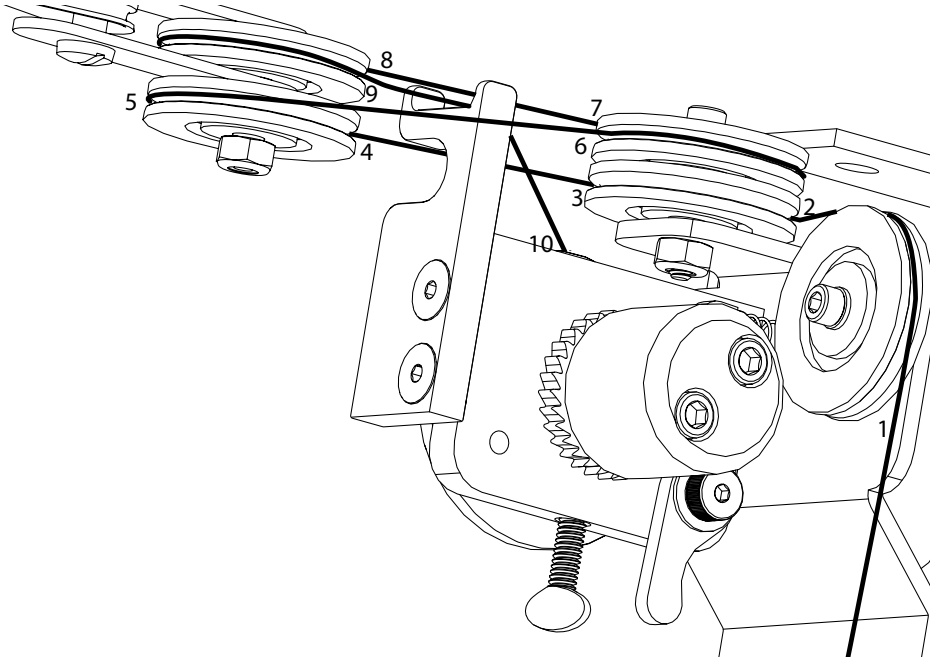


SETTING THE DROP FOR VIEWING HEIGHT

5 Turn the knob untill the moving pulleys are firmly pressed against the stoppping plate.



If the cable becomes loose, make sure the it is still set correctly on all pulleys as shown. Follow the numbers to indicate where the cables are to be routed if they come off of the pulley grooves.

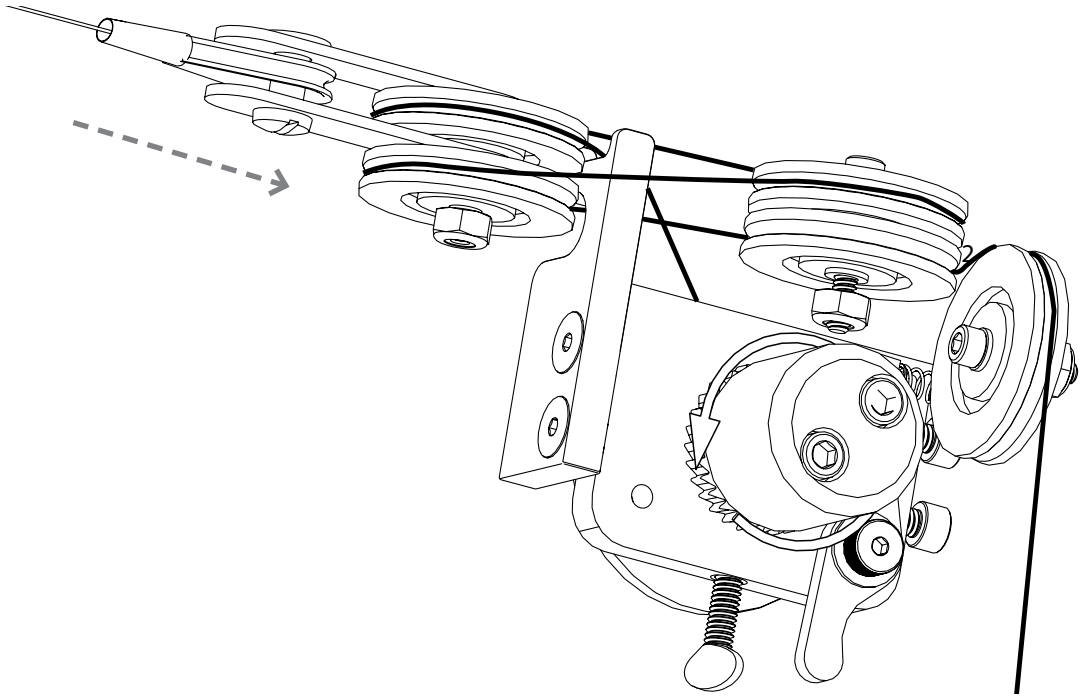


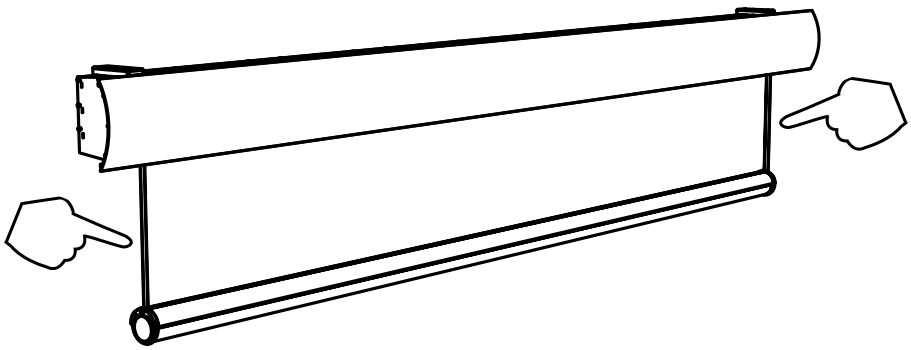
SETTING THE DROP FOR VIEWING HEIGHT

6 Both the wing cables should have tension on them. Tighten the thumb screw firmly to secure the wing drop setting. Perform Steps 4 through 6 on both ends of the screen. The wing pulleys should not engage with the stopping plate if you need extended drop.

⚠ Make sure there is even tension on each wing cable. This will help the drop to be set level to the case on the first try.

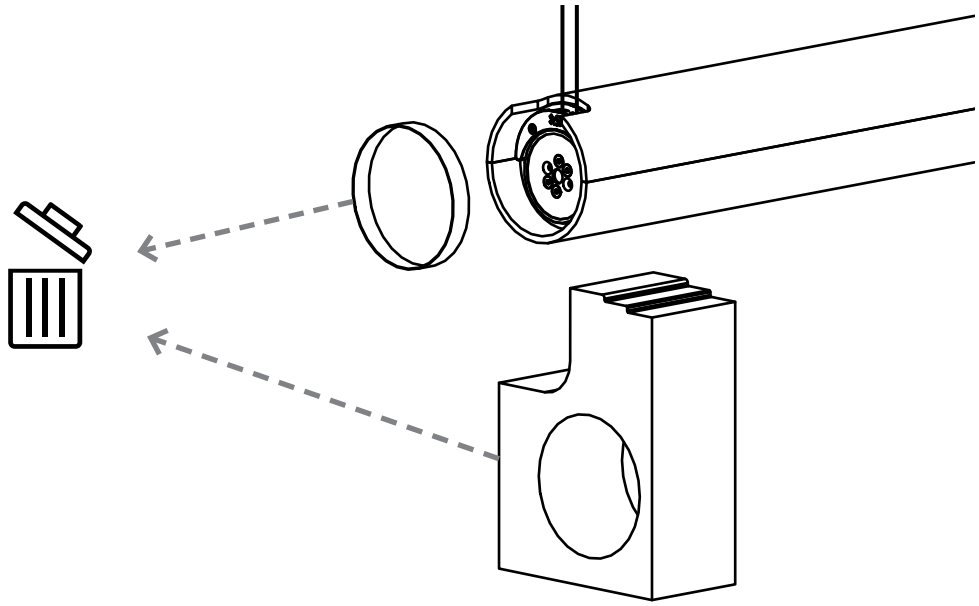
⚠ Thumb screw must be firmly tightened to prevent the drop setting from changing.



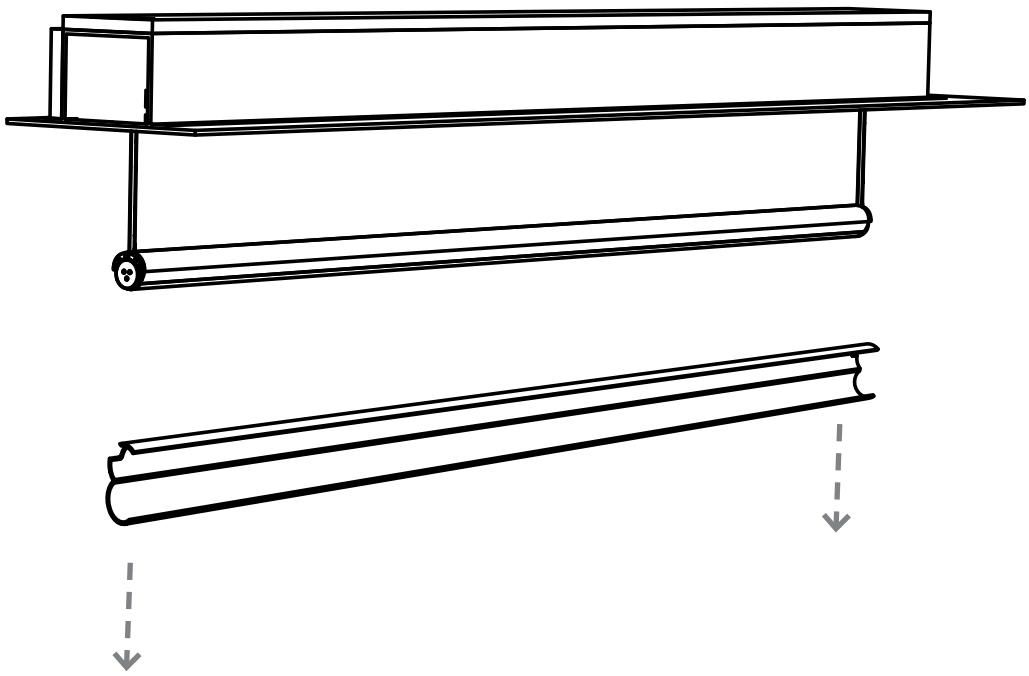


REMOVE THE PACKAGING

1. Dispose of all rubber bands, velcro, and foam.

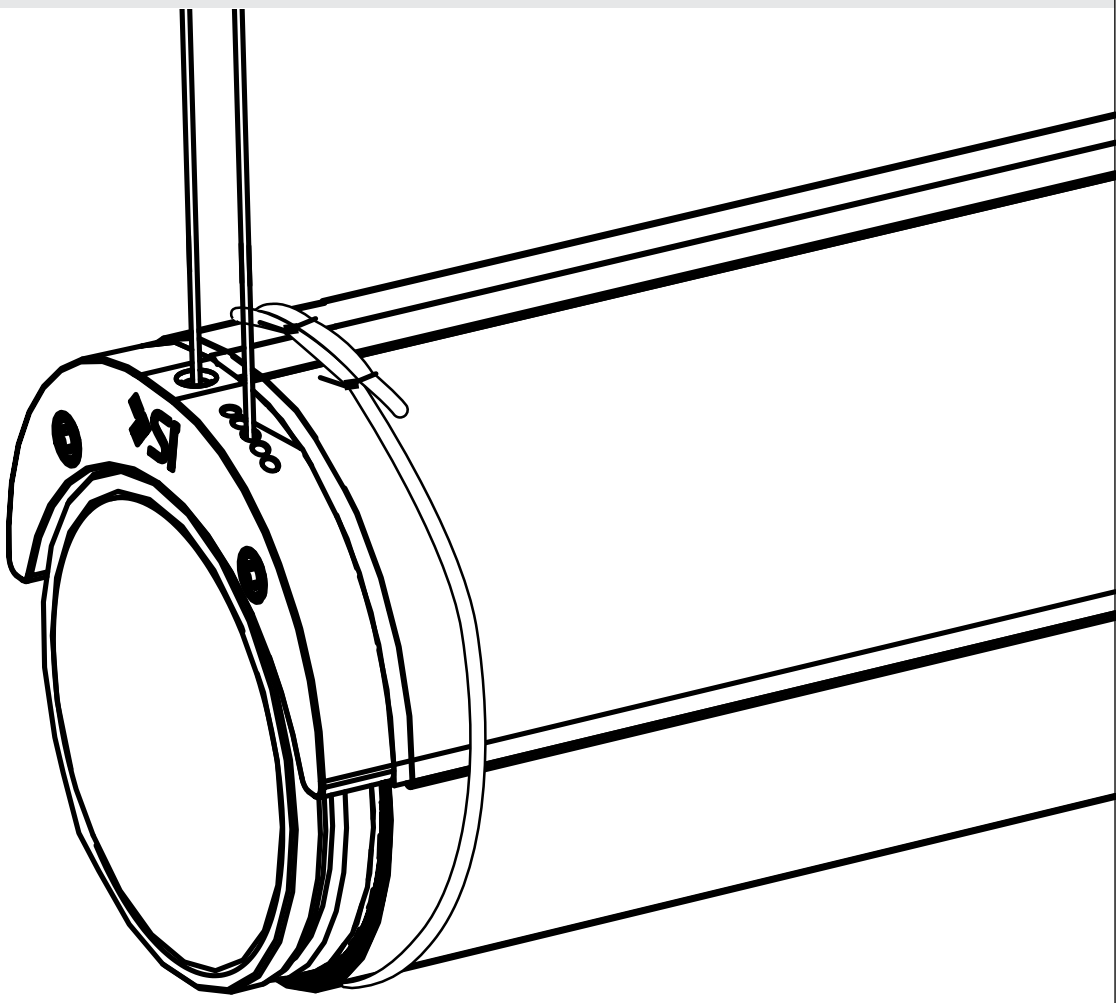


2. Carefully remove protective tube and foam wrapped around screen inside protective tube making sure to not damage the screen.



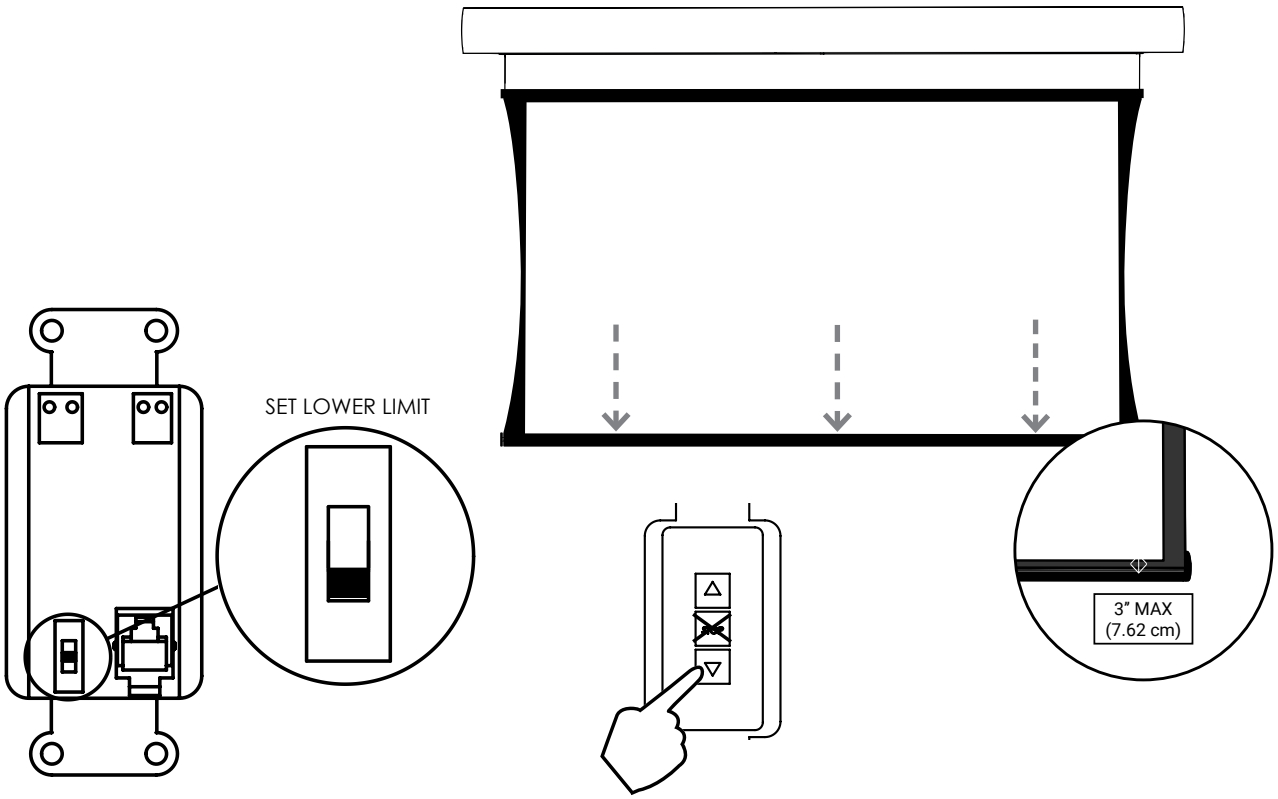
REMOVE THE PACKAGING

3 Carefully remove rubber ring without damaging the screen material.

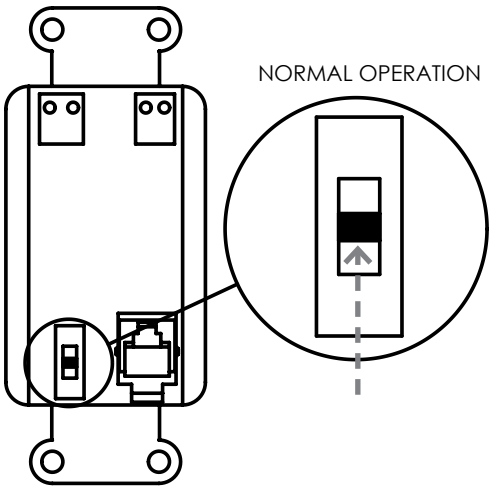


SETTING THE LOWER LIMIT

1 Set the Slide switch on the back of the Wall switch is in the lower position. Then hold the DOWN button on the Wall switch until the desired amount of black is showing at the bottom. Do not deploy the screen past 3” black showing at the bottom, else it can cause permanent damage.

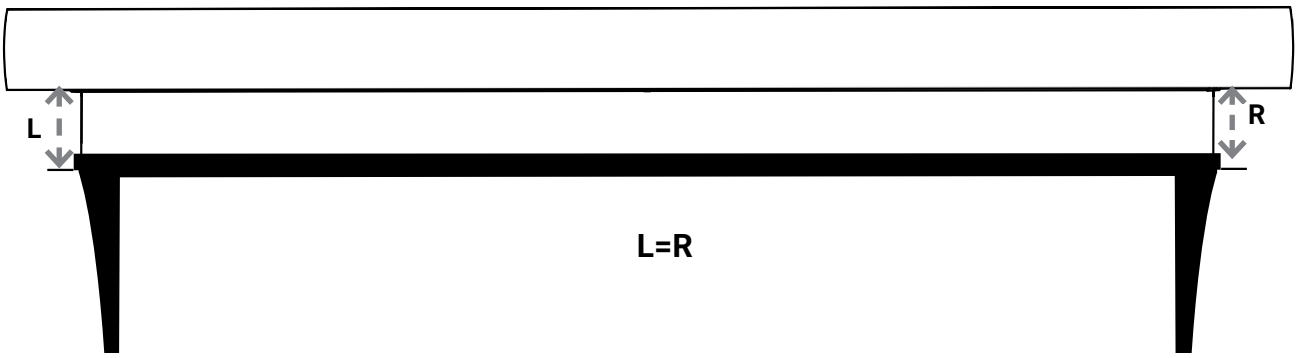


2 Move the switch located on the back of the controller to set the lower limit and return to normal operation.

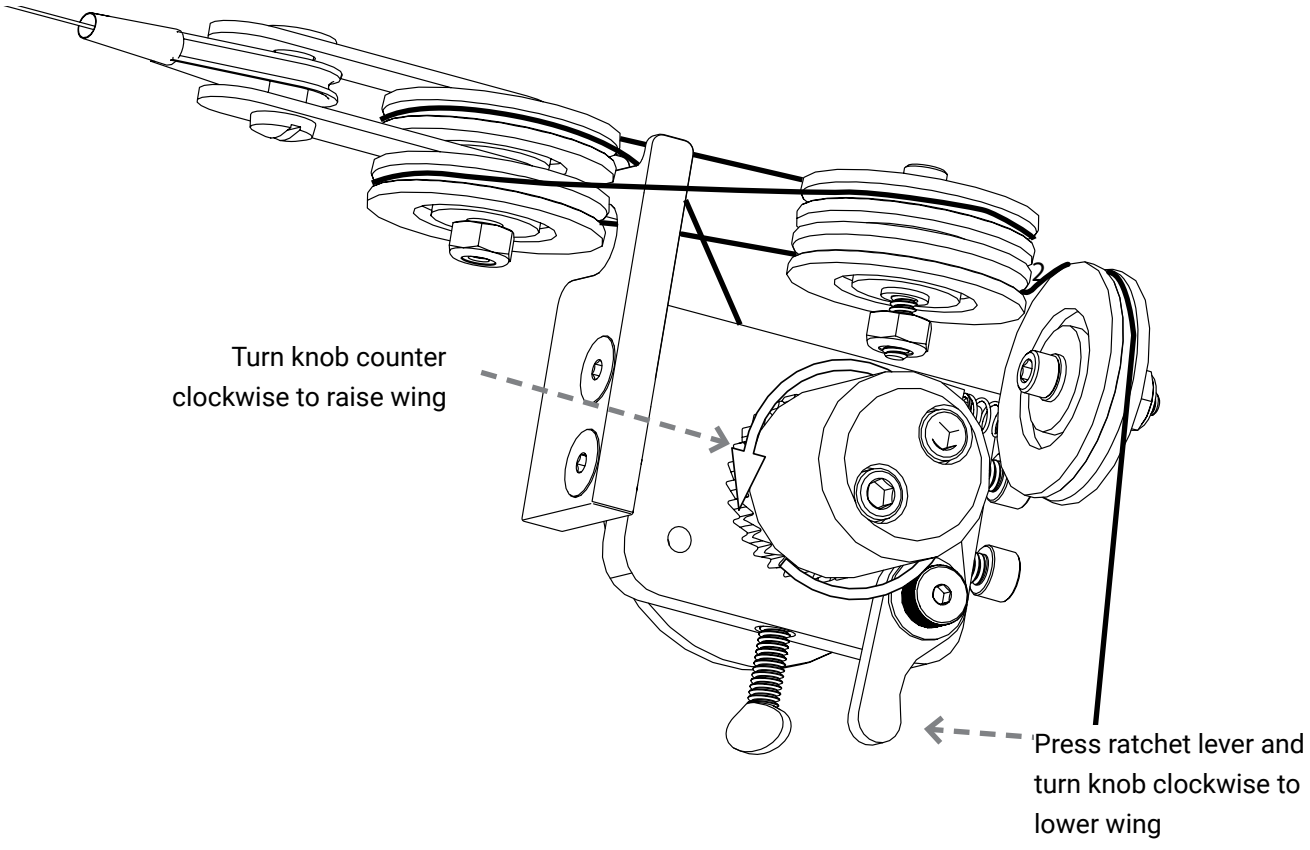


ADJUSTING THE WING TO LEVEL

1 Measure from the case to the front edge of the wing on both sides and check to make sure they are equal to within 1/16”.

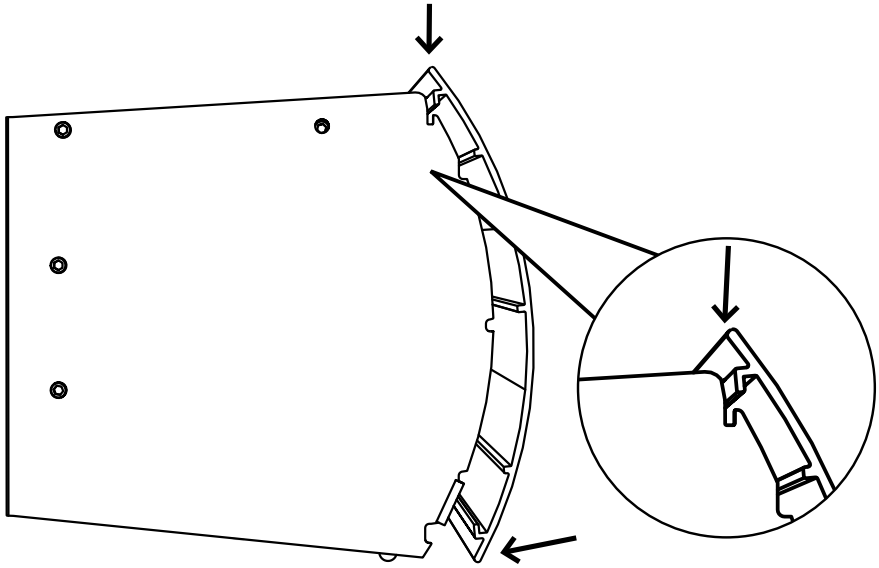


2 Loosen the thumb screw on the side that needs to be adjusted to level out the wing. Then turn the knob counter clockwise one click at a time to raise the wing. Or to lower the wing hold the lever on the ratchet and turn knob clockwise. When the wing is level tighten the thumb screw back up.

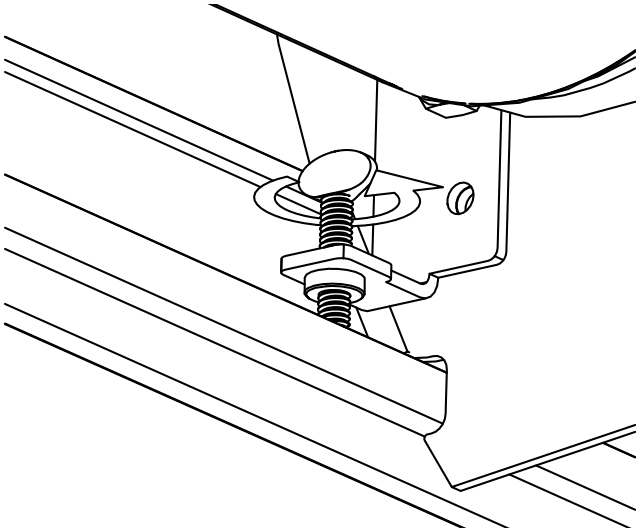


ATTACHING THE FASCIA

1 Lift the fascia up onto the case and make sure that the hook at the top engages the slot on the end plate.



2 Lock the fascia in place on each side by tightening the thumb screw at each end of the case.



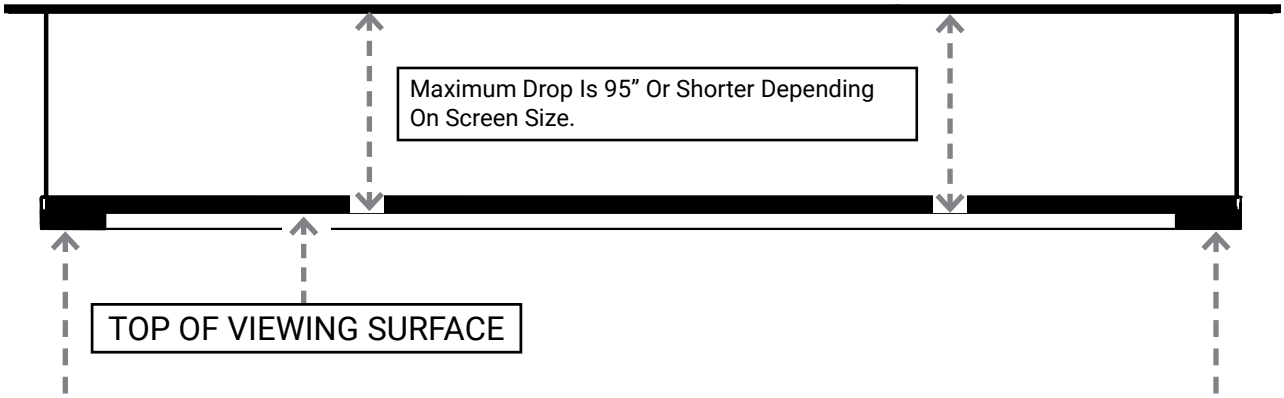
STOP

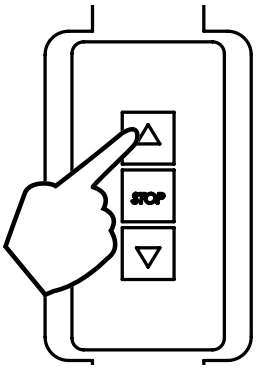
If you are happy with the viewing area height then your installation is complete.
If not, see the following pages to adjust the drop.

RAISING THE VIEWING AREA (IF NECESSARY)

1. Hold the UP button on the Wall switch to raise the screen to the desired viewing height. Release the UP button when the top of the viewing area is at the desired position.

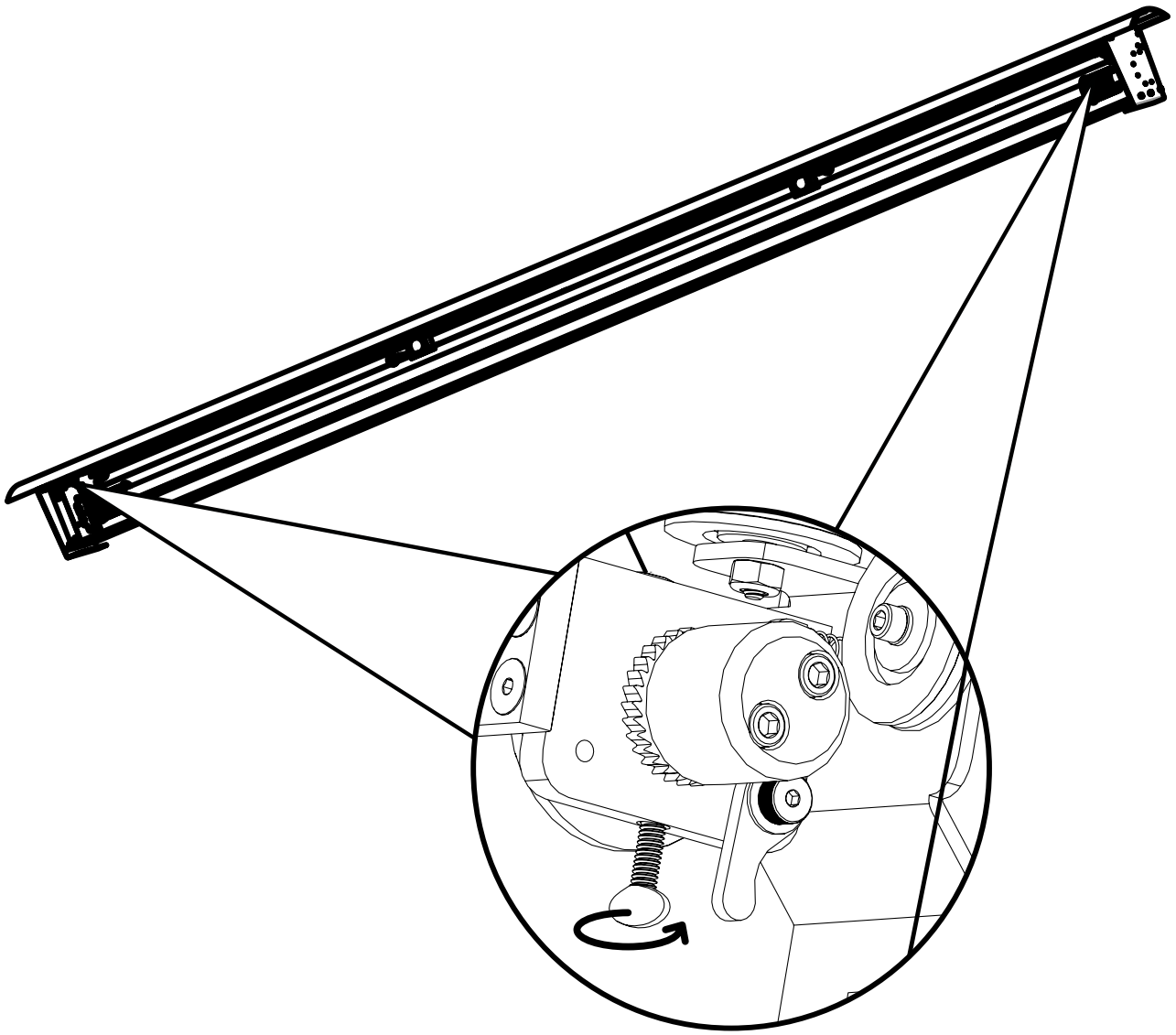
The motor is thermally protected. If the motor stops running during setup, let it cool down for at least 30 minutes before attempting to run it again.





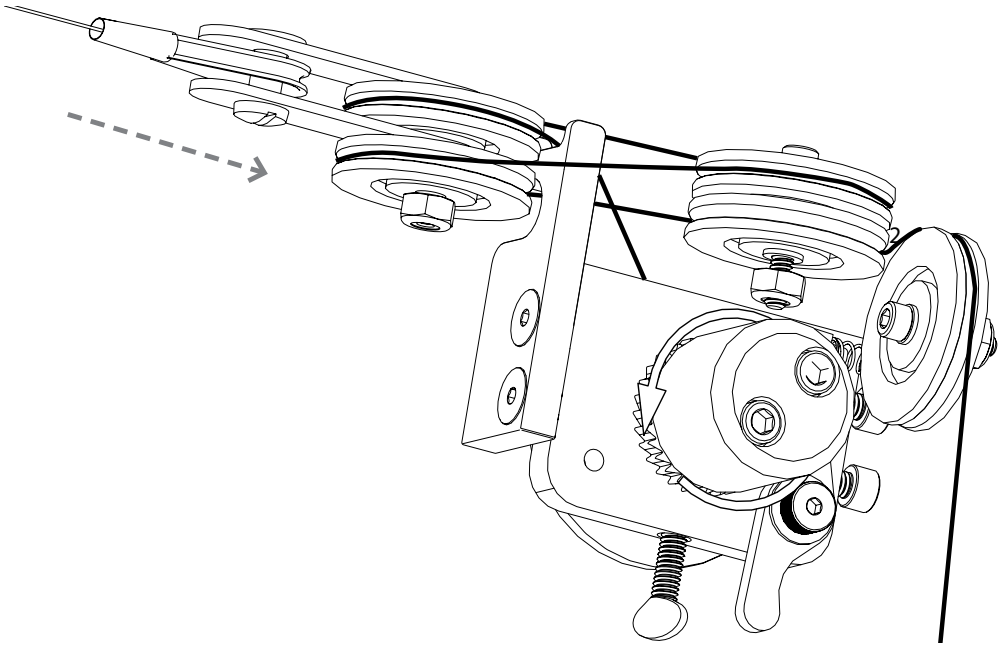
RAISING THE VIEWING AREA (IF NECESSARY)

2 Loosen the thumb screw connected to the wing cable spool.

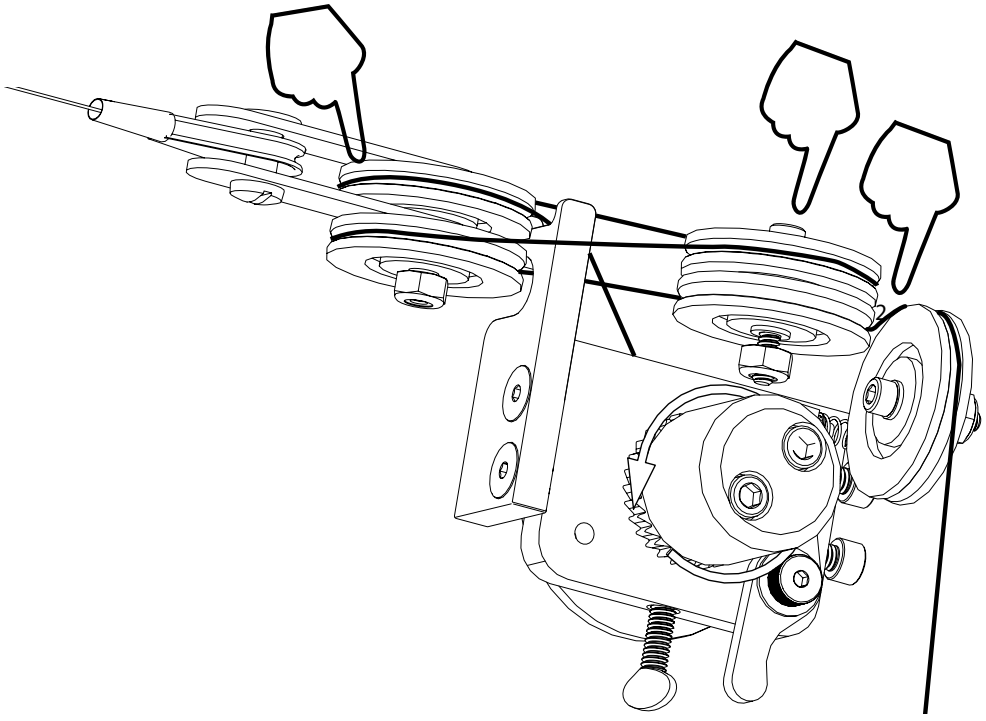


RAISING THE VIEWING AREA (IF NECESSARY)

3 Turn the knob untill the moving pulley is firmly pressed against the stopping plate.



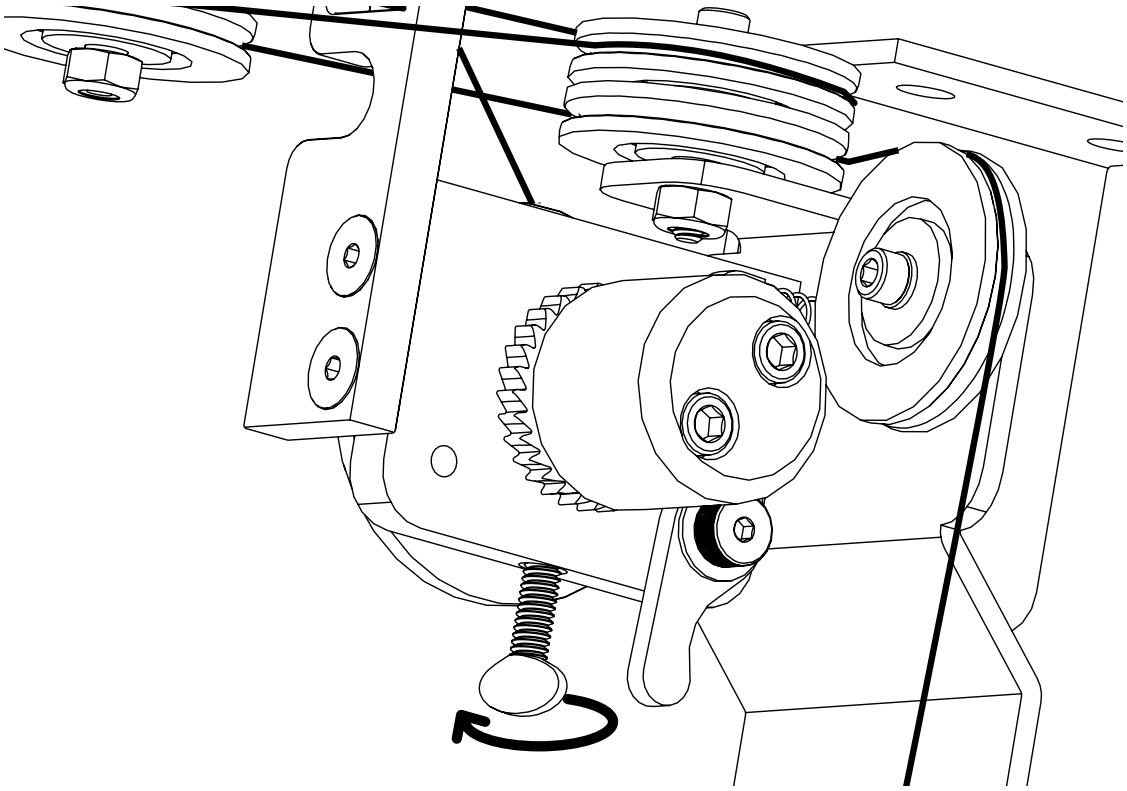
If the cable becomes loose, make sure it is still set correctly on all pulleys as shown.

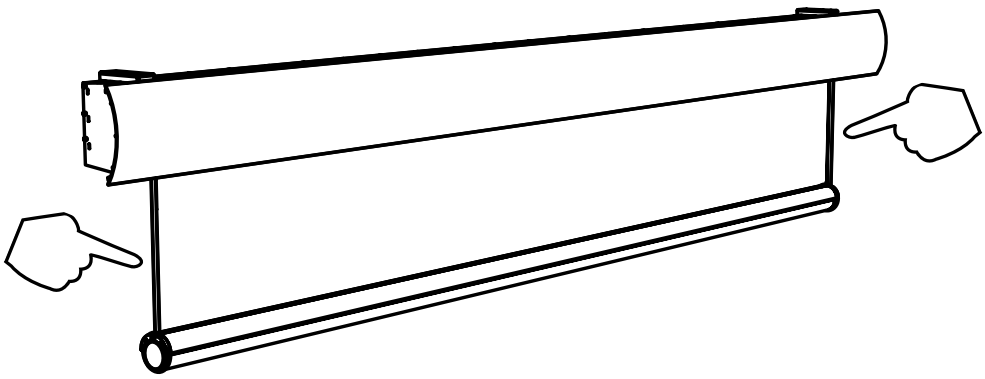


RAISING THE VIEWING AREA (IF NECESSARY)

4 Make sure the wing cables both have tension on them. Tighten the thumb screw firmly to secure the wing drop setting. **Perform steps 2 through 4 on both ends of the screen.**

Thumb screw must be firmly tightened to prevent the drop setting from changing.



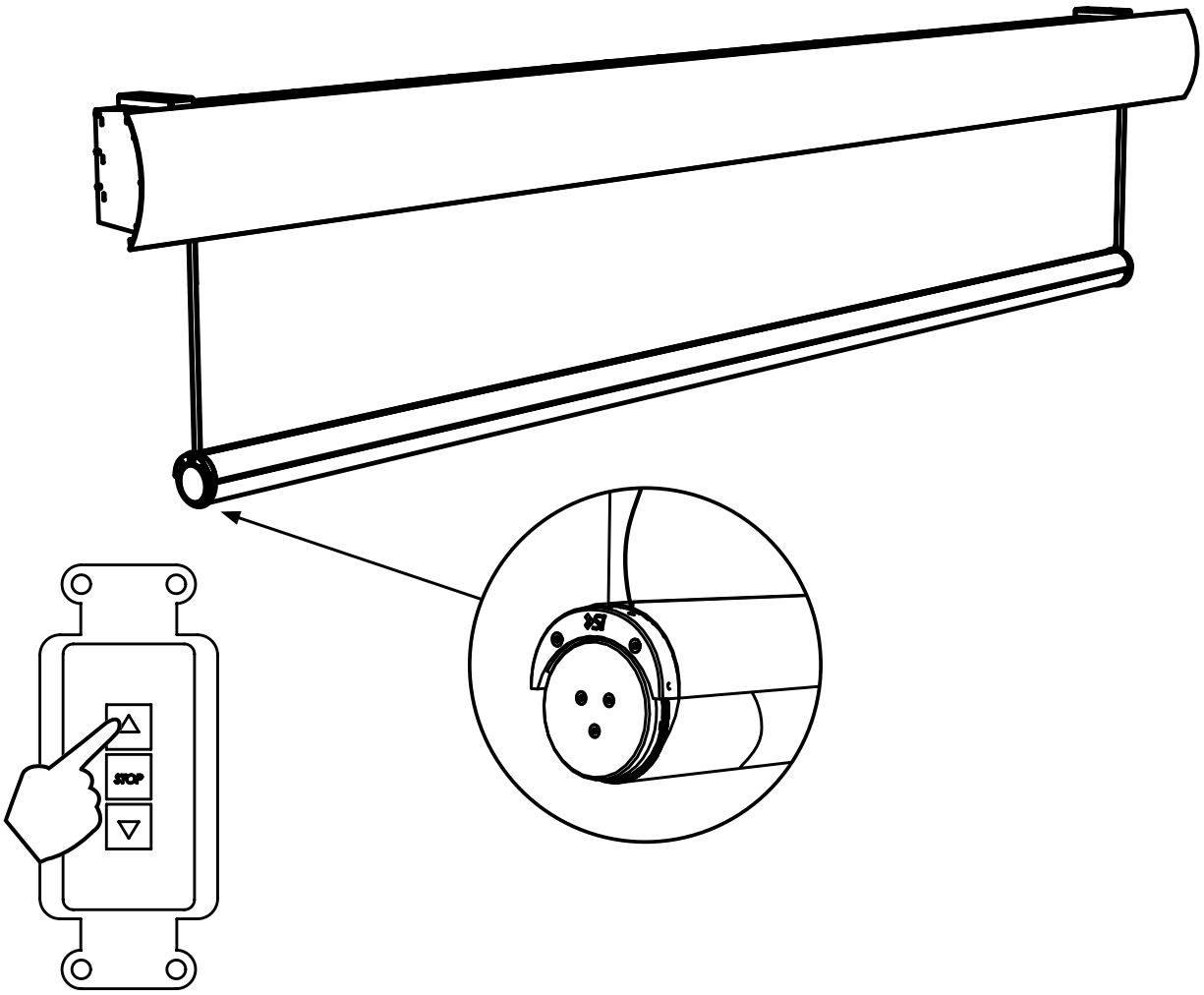


LOWERING THE VIEWING AREA (IF NECESSARY)

1. Hold the up button on the wall switch to raise until it is nested in the wing, and tension has been taken off of the wing cable.

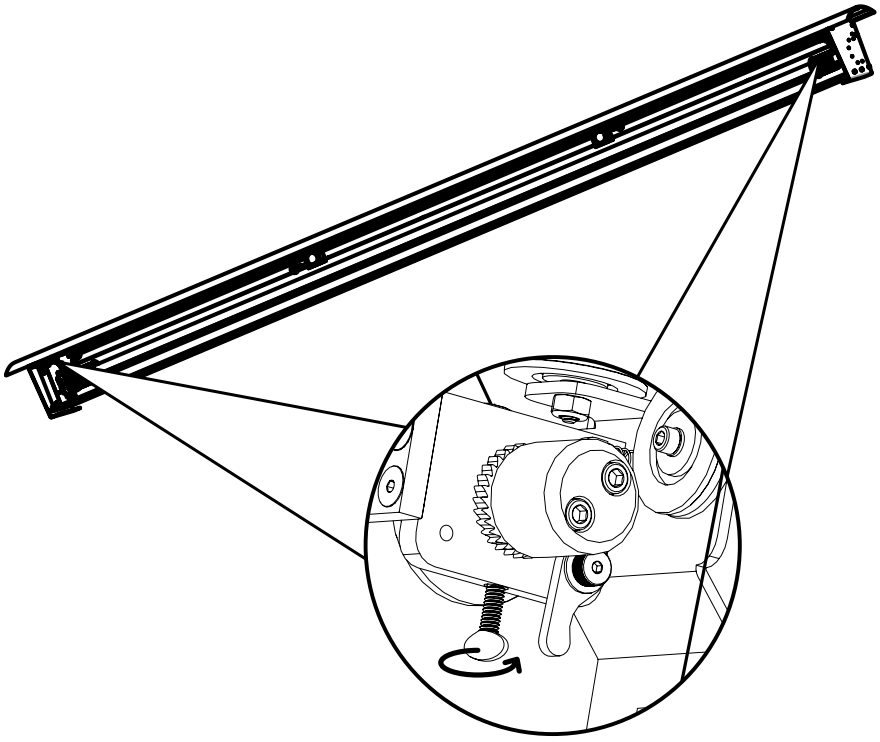
⚠ Do not exceed the maximum drop of 95-inches or shorter depending on your screen size.

⚠ The motor is thermally protected. If the motor stops running during setup, let it cool down for at least 30 minutes before attempting to run it again.

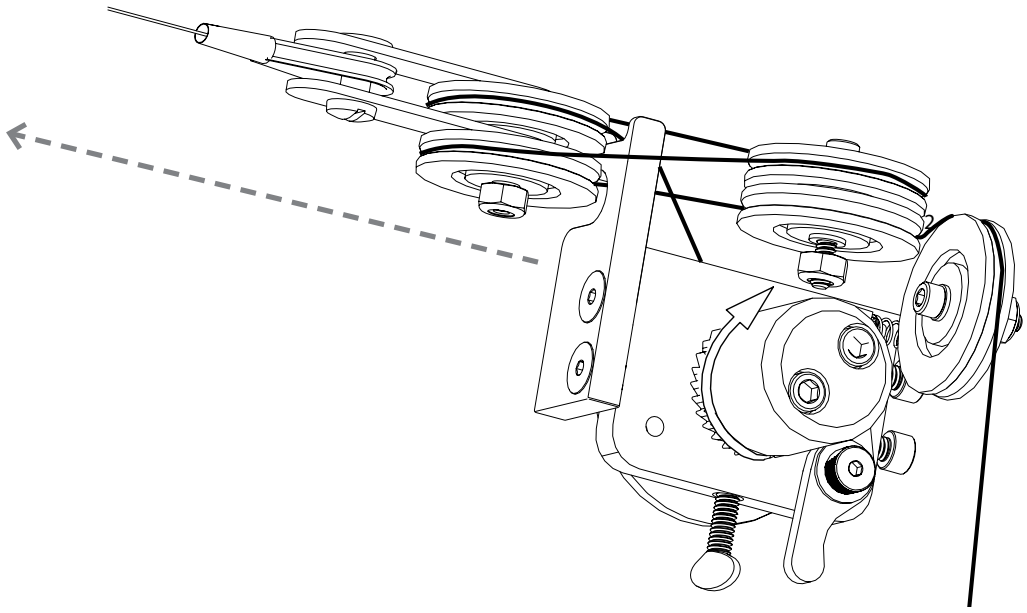


LOWERING THE VIEWING AREA (IF NECESSARY)

2 Loosen the thumb screw connected to the wing cable spool.



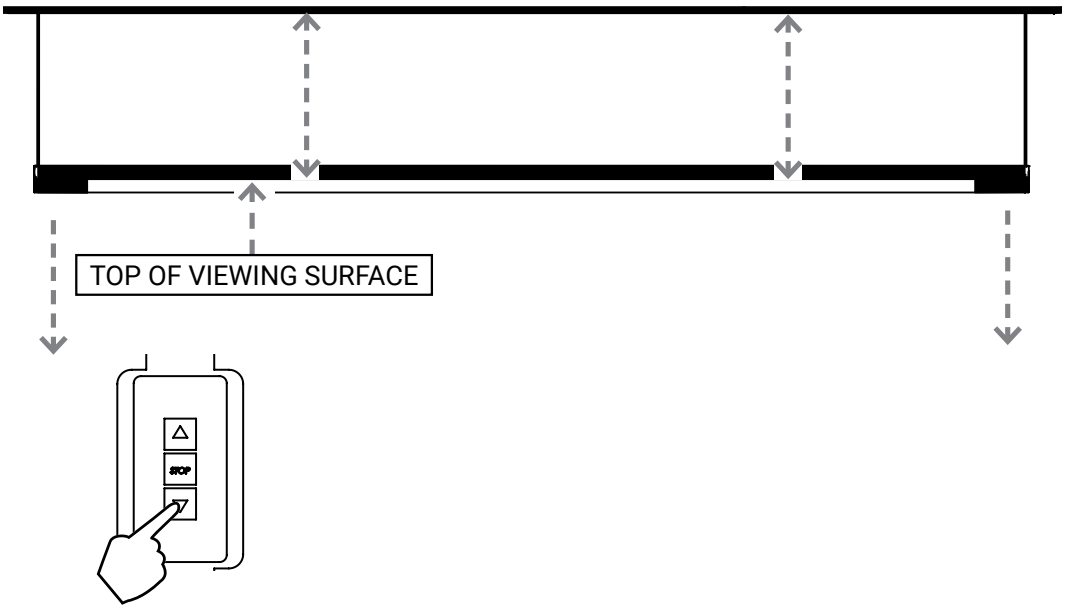
3 Turn the knob to allow the pulley to move away from the stopping block. Make sure to unwind more cable than you will need to lower the screen to the desired drop. **Perform steps 2 through 6 on both ends of the screen.**



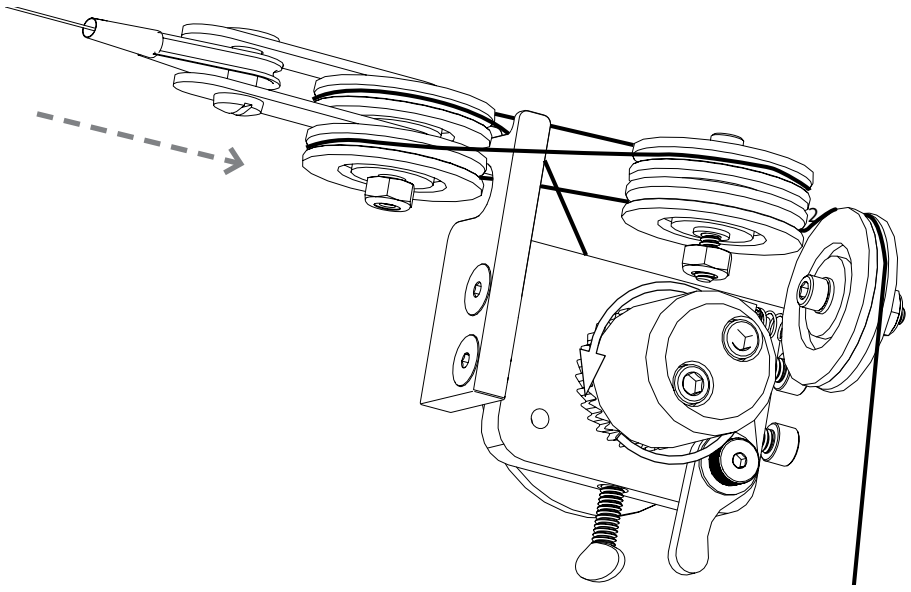
LOWERING THE VIEWING AREA (IF NECESSARY)

4 Hold the **DOWN** button on the wall switch untill the top of the viewing area is at the desired viewing height.

If your screen begins to open on either side before your desired viewing height, go back to Step 2 on page 31 and release more wing cable.



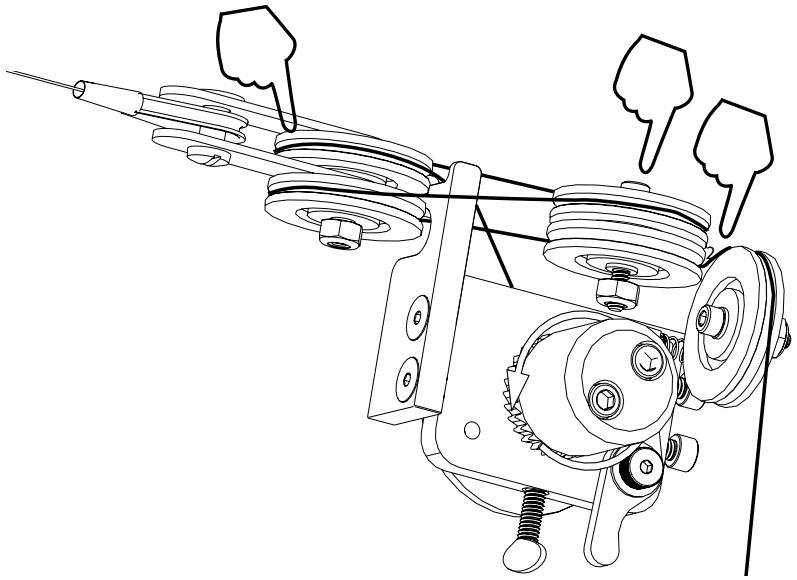
5 Turn the knob untill the moving pulley is firmly pressed against the stoppping plate.



LOWERING THE VIEWING AREA (IF NECESSARY)

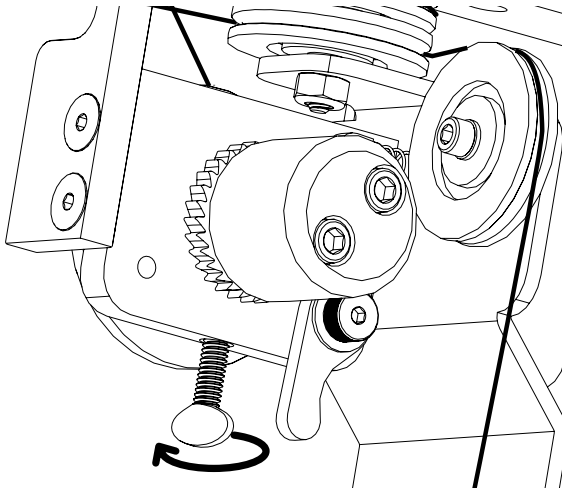
6 If cable becomes loose make sure the it is still set correctly on all pulleys as shown.

Thumb screw must be firmly tightened to prevent the drop setting from changing.



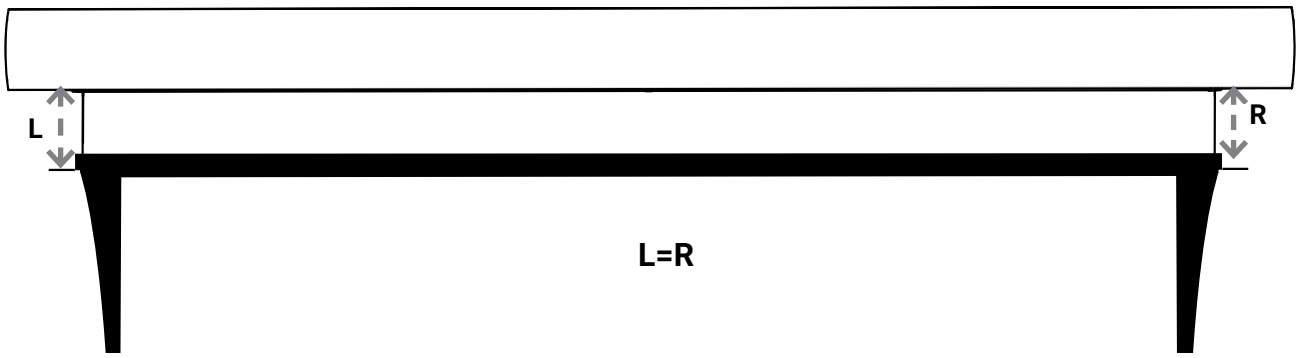
Make sure the wing cables both have tension on them. Tighten the thumb screw firmly to secure the wing drop setting.

To reset lower limit turn to Pg 26

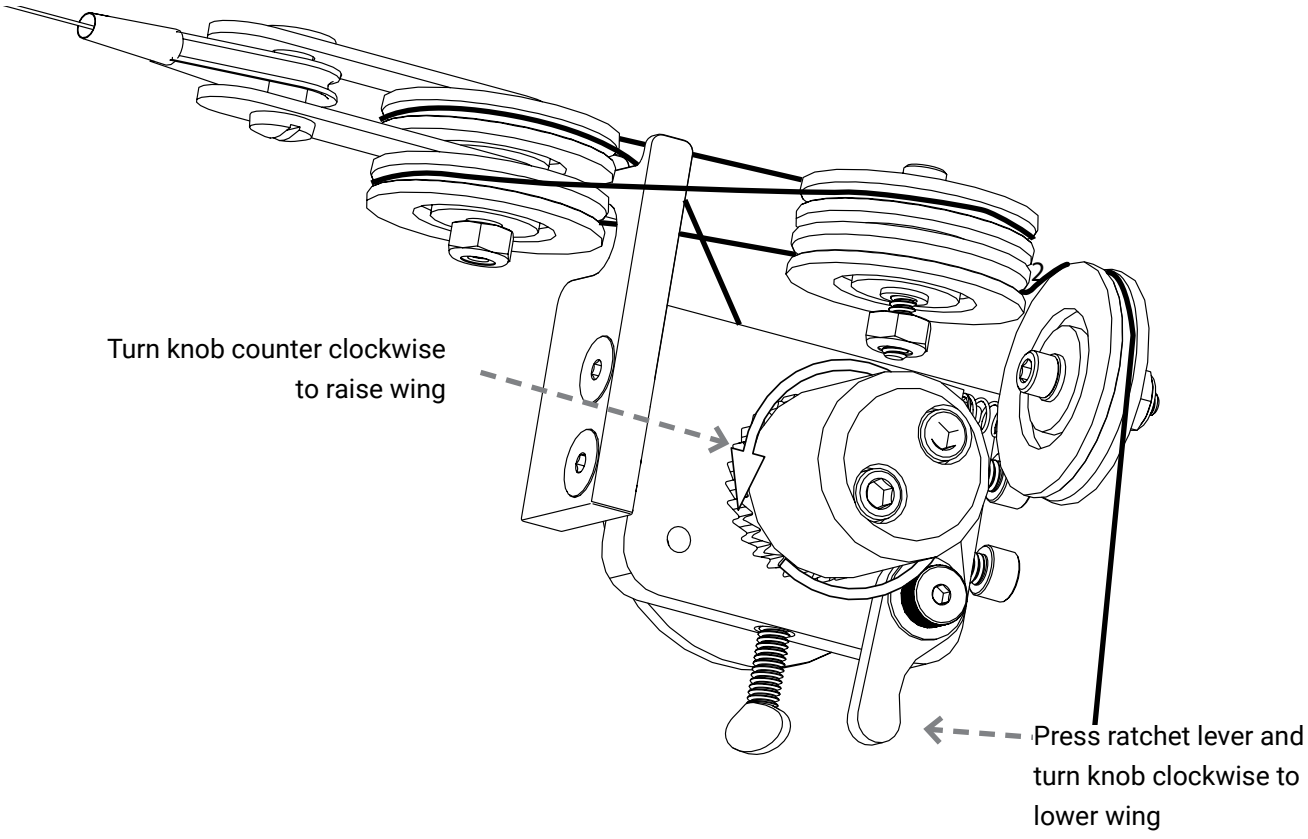


ADJUSTING THE WING TO LEVEL

1 Measure from the case to the front edge of the wing on both sides and check to make sure they are equal to within 1/16”.



2 Loosen the thumb screw on the side that needs to be adjusted to level out the wing. Then turn the knob counter clockwise one click at a time to raise the wing. Or to lower the wing hold the lever on the ratchet and turn knob clockwise. When the wing is level tighten the thumb screw back up.



SCREEN MATERIAL CLEANING INSTRUCTIONS

⚠ Never use abrasive scrub pads, oil-based solvents, or concentrated detergents to clean screen material. Always test cleaning solutions in a small inconspicuous area to check for compatibility. “Soapy water” is a dilute solution of clean water (preferably distilled) and a mild dish washing detergent.

Maestro White / Grey

Remove light dust by using a bristled attachment with a vacuum cleaner, or compressed air. Light stains can be removed with a microfiber towel and soapy water, or with a clean white pencil eraser.

Slate/Pure / 360 / Backstage

Gently wipe screen material using a microfiber towel and distilled water. Do not scrub the material excessively. For stains or smudges, use a microfiber towel with a diluted degreaser solution (1:20 dilution recommended) or lukewarm soapy water.

Black Diamond

Gently wipe screen material with “Whoosh” Screen Cleaner (included with all Black Diamond screens) and a microfiber towel.

FlexGlass

Remove dust and fingerprints by using a microfiber towel with a diluted glass cleaner solution (1:10 dilution recommended) or soapy water.

TROUBLESHOOTING

Problems related to electrical or motor function may require a qualified service person or electrician. Should you have a problem that is not addressed here, call: Screen Innovations (512-832-6939.)
http://www.screeninnovations.com/category/support/

Problem	Probably Cause	Action to Take
Motor shuts off. Motor has been in use for more than 2 minutes.	Motor is designed for short operations (lowering and retracting), not continuous running. Longer operation, causes the motor to overheat and shutoff. This typically happens during installation when testing the screen.	Allow the motor to cool down. Complete cooling can take an hour or more. Heat gain is cumulative and takes time to dissipate. If motor use is initiated before it has cooled completely, the motor will shut down again when it reaches maximum temperature.
Dirt, fingerprints, marks, etc. on screen surface.	Improper handling of screen.	Follow the the cleaning instructions outlined in the Screen Care and Cleaning Section
Indentations appear on screen surface.	Debris or particles clinging to the screen due to static cling.	Check both sides of the screen for dust or debris. Wipe the back of the screen with a clean damp cloth. Also, lightly brush off the front of the screen.
Screen won't operate.	No AC power available.	Check to see if the circuit breaker has switched off. Reset if needed. Check outboard switching apparatus. Check voltage availability. Contact an electrician.

Please use this QR Code to access the updated installation instructions and related documents.

Technical Support: 512.832.6939 | screeninnovations.com
Hours of Support: 7:30am - 5pm CST | support@screeninnovations.com

Screen Innovations
9715-B Burnet Rd, Suite 400 Austin, TX 78758
512.832.6939
www.screeninnovations.com