

Chassis Installation Instructions



The Tensioned Shade Chassis Installation Guide is a complement to the enclosed Basic Wiring and Setup Guide. The Chassis Installation Guide describes the mechanical installation. The Basic Wiring and Setup Guide describes the procedure to verify the proper function of the tensioned shade. For system and advanced wiring and programming, please refer to the Wiring and Programming Guide.

Your tensioned shade has been shipped either in the Preassembled or Customer Assembled configuration, based on the order specifications. This provides the flexibility of installing the tensioned shade in one of three different ways:

- Assembled in Place
 Preassembled
 Customer Assembled configuration. Assembled window opening into skylight well window opening
 Preassembled
 Preassembled configuration. Installs directly into skylight well, as shipped.
- 3. Floor Assembled Customer Assembled configuration. Assembled at jobsite on floor, then into skylight well window opening.

This installation guide describes all three procedures. Each step is marked to indicate the steps that apply to the particular installation. Simply follow the steps marked for your application.

Installation instructions

Tools required:

Tape Measure Pencil
Wire Cutter/Stripper Level
Pliers Power Drill
#2 Phillips Screwdriver Tarp for floor

Stud Finder

Note:

The Drive Unit will need to be powered to complete the installation. Refer to Basic Wiring and Setup Guide

Box contents:

(8) Mounting Clips



(5) Stainless Steel Fascia Screws





Hex Bits

(1) 3/32"





(1) Installation DVD



(1) Hex Ratchet

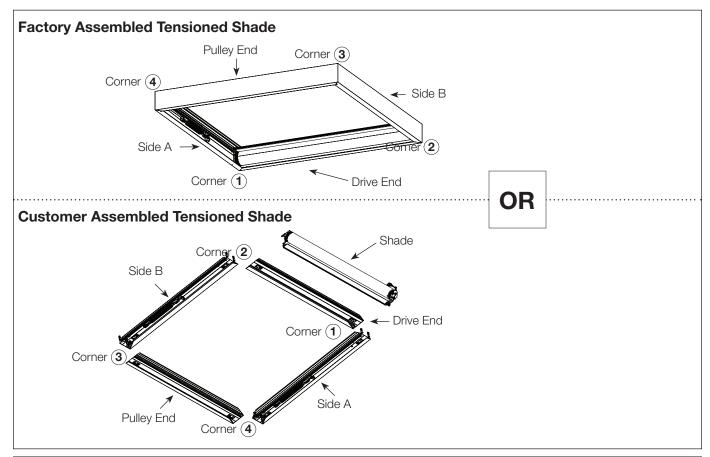


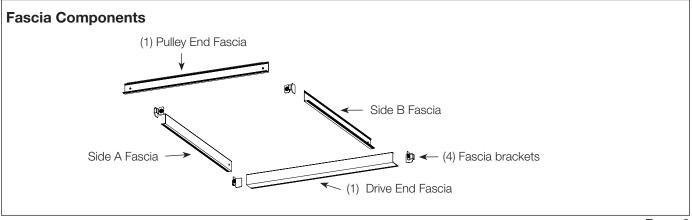
Page 1

Installation instructions (continued)

Box contents (continued):

* Each of the four fascia pieces and frame are labeled to indicate their installed position on the Tensioned Shade frame. They are labeled Drive End Fascia, Pulley End Fascia, Side A Fascia and Side B Fascia.





Installation instructions (continued)



CAUTION: Risk of minor or moderate injury from falling heavy object.

Install and fasten shade securely per the installation instructions.

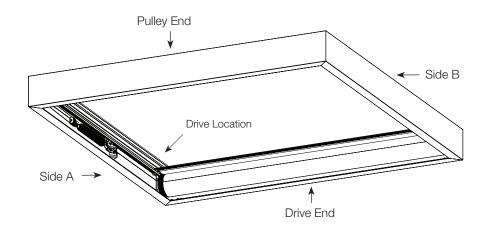
Notes:

- · Codes: Install in accordance with all local and national electrical codes.
- **Environment:** Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0 to 90% humidity, non-condensing. Indoor use only.
- 2 people required for installation.



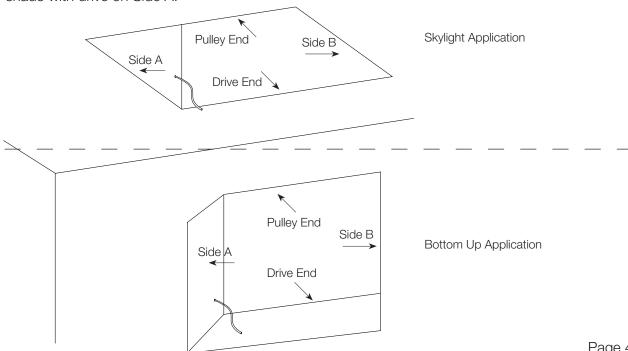
Preparing the window well for installation

The 4 sides of the tensioned shade frame are referred to as the Drive End, Pulley End, Side A, and Side B. The fascia is marked accordingly for easy identification and placement.



Note: Preassembled tensioned shade shown. Follow the same procedure for Customer Assembled Tensioned Shade.

The wiring for the tensioned shade Electronic Drive needs to be located at the drive end on the side of the tensioned shade where the drive is located. The diagram below shows wiring for tensioned shade with drive on Side A.

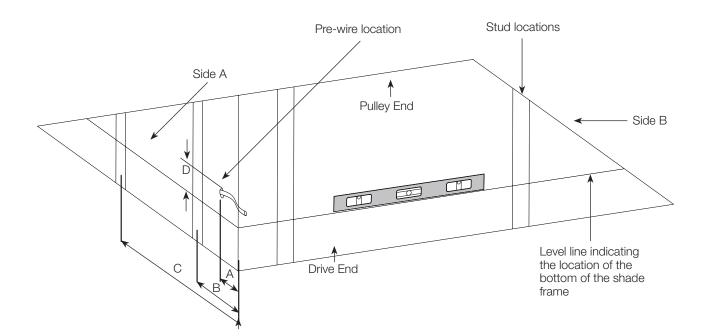




Preparing the window well for installation (continued)



- 1.3 Mark the location of the studs on all four sides of the window well.
- 1.4 Mark a level line around the perimeter of the window well for the location of the bottom of the frame.
- 1.5 Measure and note the location of the pre-wire location corner of the well where the drive is located.
- 1.6 Measure and note the location of the studs on Side A and Side B of the well so they can be trans.



Dimension A: 7-9 in (178 mm - 229 mm)

Dimension B: 16 in (406 mm) MAX
Dimension C: 32 in (812 mm) MAX
Dimension D: 2-3 in (51-76 mm)
Skylight application shown

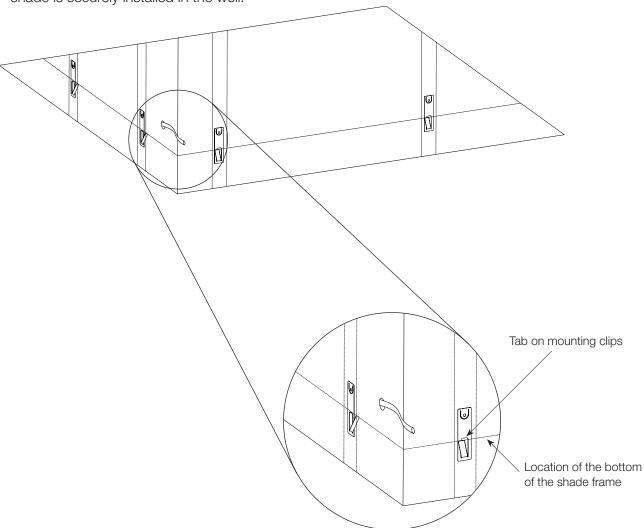


Preparing the window well for installation (continued)



- 1.7
- Eight installation clips are provided to hold the shade in position until it can be securely fastened to the window well.
- 1.8
- Install two clips into a structural member or stud, on each of the four sides of the well. (Clips are not required for vertical installations)
- 1.9

Install clips such that the top of the tab on the clip is level with the line from step 1.4, indicating the bottom of the shade frame. These clips will be rotated out of the way behind the frame after the shade is securely installed in the well.





If you are assembling the tensioned shade on the floor, proceed to **section 2** If you are installing a preassembled tensioned shade proceed to **section 3** If you are assembling the tensioned shade in place proceed to **section 6**



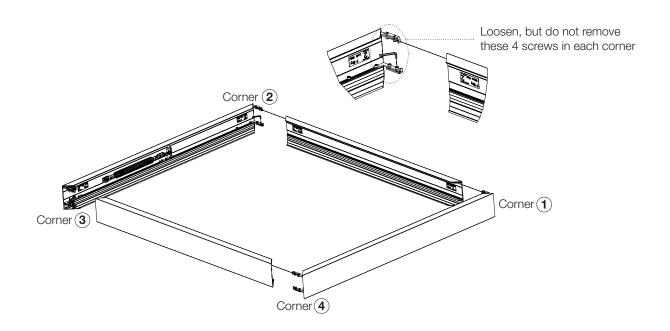


Assembling the frame on the floor (floor assembled shade)



2.1

Lay the four sides of the frame out on the floor with the matching corners adjacent to each other and with "fabric \nabla" pointing to the floor.



2.2

Loosen the four screws on the corner brackets at each end of the Side A and Side B until they are fully loosened, but do not remove them completely.

2.3

Slide each corner together by inserting the loosened corner bracket into the slot in the adjacent piece. Start with the two pieces marked corner and proceed in order (1) to corner number (4).



Assembling the frame on the floor (continued) (floor assembled shade)

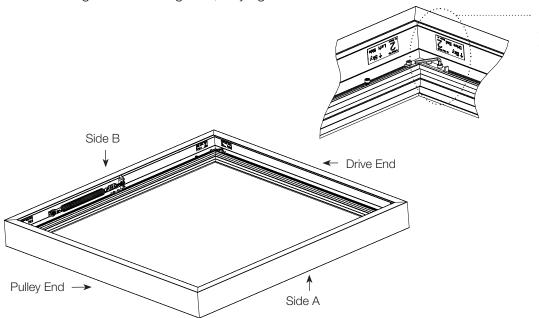


- 2.4
- Partially tighten the four screws on each of the four corner brackets.
- 2.5

Inspect each corner and push together until there is no gap between the two pieces of frame that form the corner.

2.6

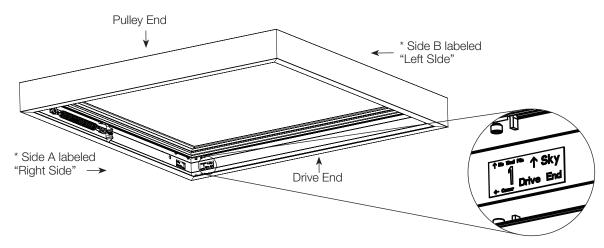
While holding the corner together, fully tighten each of the screws.



Partially tighten screws in all four corners

2.7

Flip the frame over so that the "fabric arrows" marking on the labels point upwards as shown below.

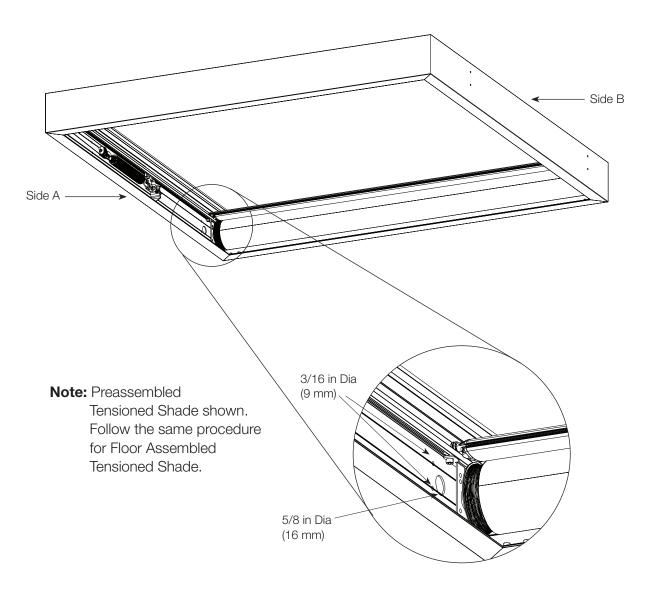


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Pre drill the frame for installation



- Mark the pre wire location (from step 1.5) on the frame and drill a 5/8 in (16 mm) diameter hole through the frame
- 3.2 Mark the location of the studs on Side A and Side B of the frame (from step 1.6)
- Drill a 3/16 in (9 mm) hole through the frame in the stud location at each of the 2 grooves on the inside of the frame



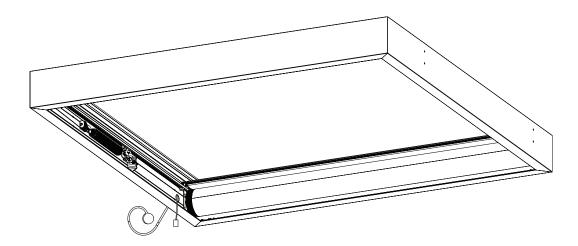


Pre-installing IR receiver (if applicable)

Preassembled
Floor Assembled

4.1

Insert the IR receiver connector through the 5/8 in (16 mm) diameter hole so the connector is located on the inside and the receiver dome is located on the outside of the frame.



Note: Preassembled shade shown. Follow the same procedure for Floor Assembled shade.

Installing frame assembly in well

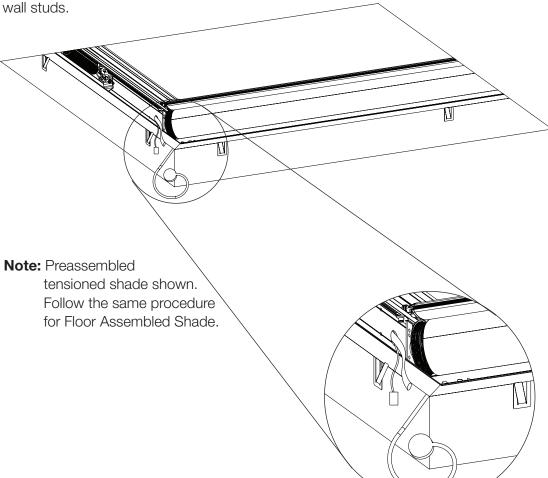
Preassembled Floor Assembled

Carefully lift the skylight frame into the well while feeding the cable through the pre-drilled 5/8 in (16 mm) hole in the frame. Use care not to pinch the IR Receiver cable. This step may require more than one person.

Insert the frame until it snaps securely into the mounting clips on all four sides of the frame. The clips provide temporary support to hold the frame into place until it is securely mounted to the studs.

A CAUTION: Risk of minor or moderate injury from falling heavy object. Support the tensioned shade frame with your hands until it is securely fastened with the screws.

Partially tighten the screws to hold the frame in place using #10 X 3 in screws through all the predrilled 3/16 in (9 mm) diameter holes in Side A and Side B of the frame and into the



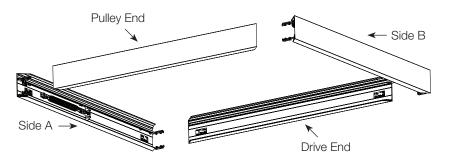
STOP

If you are assembling the tensioned shade on the floor, proceed to **section 10** If you are installing a preassembled tensioned shade proceed to section 11



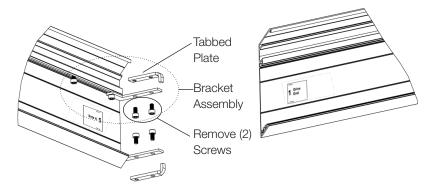
6.1

Lay the four sides of the frame on the floor with the matching corners adjacent to each other with the "fabric ↑" pointing up



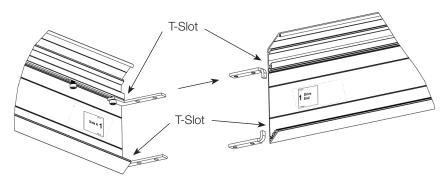
6.2

Remove the tabbed plate from the bracket assembly by removing the 2 screws that hold it in place



6.3

Slide the tabbed plate into the T- slot on the on the adjacent frame section in the matching corner

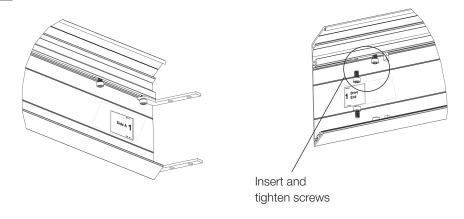


Preparing the corner brackets (continued)

Assembled in Place

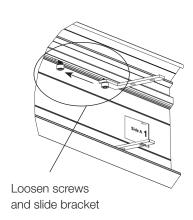
6.4

Insert and tighten the screws to hold the tabbed plate in place



6.5

Loosen the two remaining screws on the bracket assembly, slide bracket assembly inward about 3 in (76 mm) and retighten screws





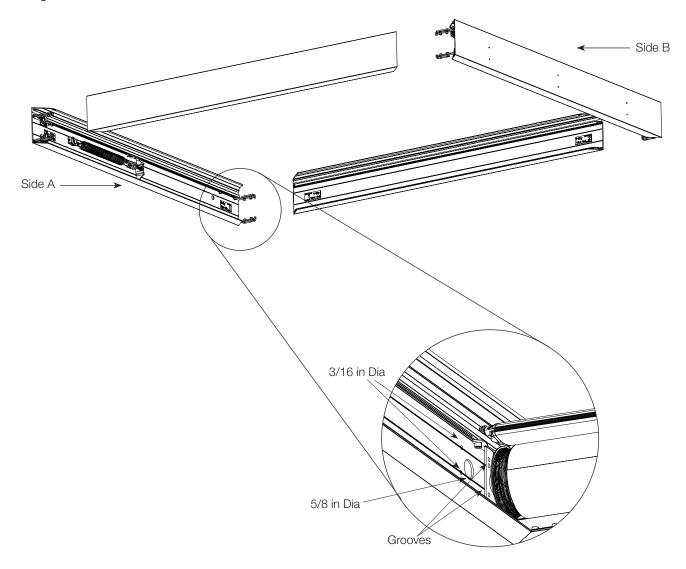
6.6

Repeat steps 6.2 through 6.5 for all eight corner bracket assemblies (2 bracket assemblies per corner)

Pre-drilling the frame



- 7.1 Mark the pre-wire location on the frame (from step 1.5) and drill a 5/8 in (16 mm) diameter hole through the frame
- 7.2 Mark the location of the studs on Side A and side B of the frame (from step 1.6)
- 7.3 Drill a 3/16 in (9 mm) hole through the frame in the stud locations at each of the 2 grooves on the inside of the frame

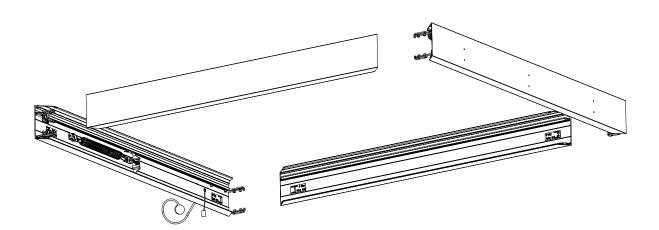


Pre installing the IR receiver (if applicable)

Assembled	Place

8.1

Insert the IR receiver connector through the 5/8 in (16 mm) diameter hole so the connector is located on the inside and receiver dome is located on the outside of the frame



Installing the skylight frame into the well

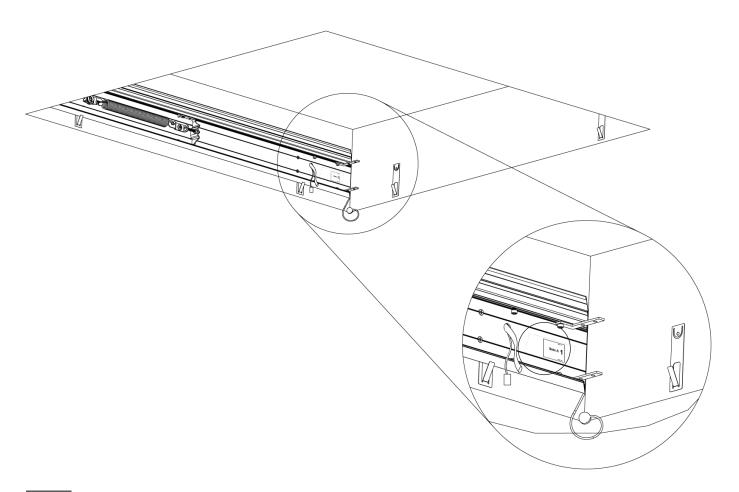


9.1

Position the frame section with the 5/8 in (16 mm) hole into place while feeding the cable from the wall through the hole in the frame and on top of the clips

9.2

Partially tighten the screws to hold the frame in place using $#10 \times 3$ in screws through all the predrilled 3/16 in (9 mm) diameter holes in the frame and into the wall studs



9.3

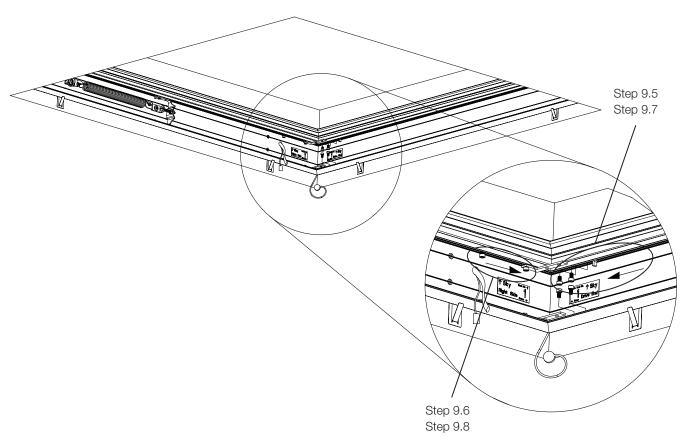
Repeat 9.1 and 9.2 with side B frame

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Installing the tensioned shade frame into the well (continued)



- Install the drive end frame onto the mounting clips
- Remove the screws from the tabbed plate and slide it toward the corner
- Loosen the screws and slide the bracket from side A into the corner
- Insert screws through the tabbed plate and into the corner bracket. Tighten screws.
- Tighten the remaining two screws in the corner bracket





Installing the tensioned shade frame into the well (continued)



9.9

Repeat steps 9.5 thru 9.8 for other corner

9.10

Repeat steps 9.4 through 9.8 for the pulley end frame



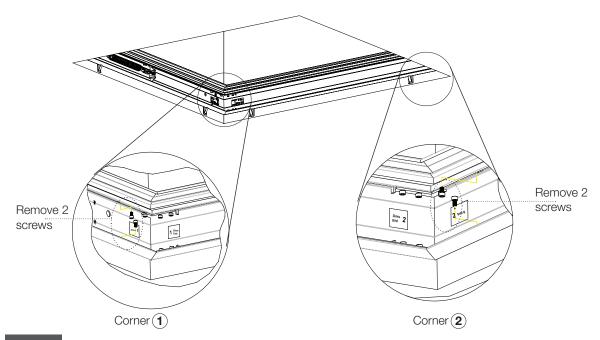
Install Shade in Frame

If your tensioned shade arrived pre-assembled, proceed to step 9.



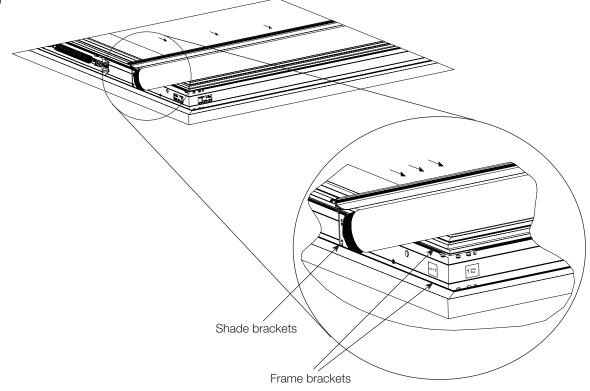
10.1

Remove 2 screws from each corner (1) and corner (2) brackets as shown.



10.2

Insert shade and align shade brackets with the frame brackets

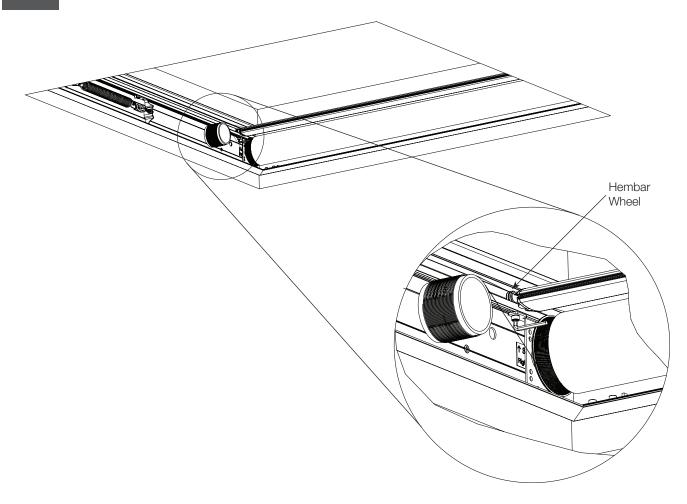


Install Shade in Frame (continued)

Assembled in Place
Floor Assembled

10.3

Insert in the hembar wheels into the guide tracks on the frame



10.4

Reinsert and tighten the 4 screws removed in step 10.1 to secure the shade.

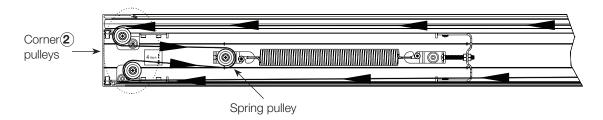
Install Shade in Frame (continued)



10.5

Attaching cable to Side A

- Unroll the cable from the cardboard spool and route through the two corner 2 pulleys
- Pull the loop of the cable through the two pulleys and route it around the spring pulley

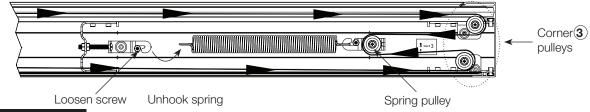


10.6

Attaching cable to Side B

NOTICE: Spring must be removed to attach cable.

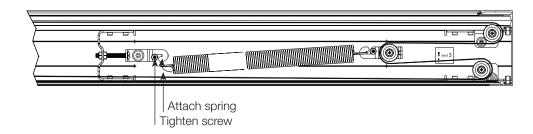
- Loosen screw and unhook spring
- Unroll cable from cardboard spool and route through the two corner 3 pulleys
- Pull loop of cable through the two pulleys and route it around the spring pulley



AWARNING:

The following steps will put the system under tension. Failure to secure spring properly could result in personal injury.

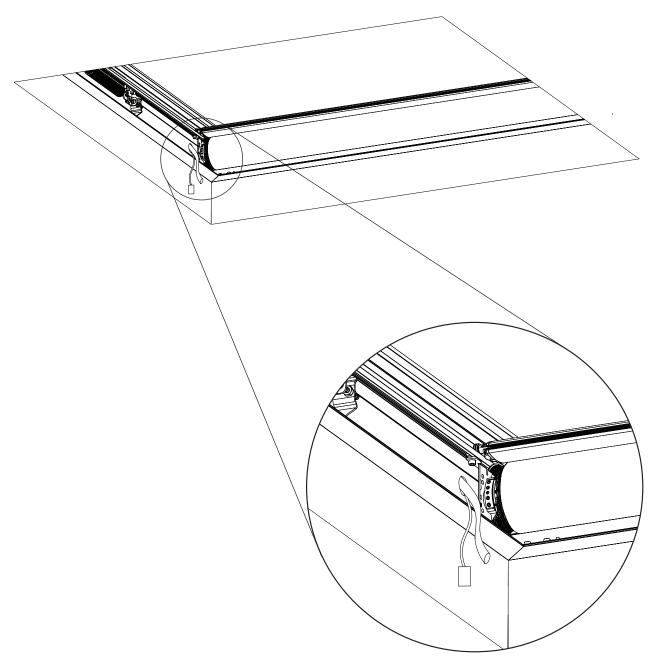
- Firmly grasp spring. Stretch and attach it to hook
- Fully tighten screw on hook to secure spring



Wiring and basic setup

10.7

Refer to the Basic Wiring and Setup Guide for wiring instructions and basic setup including setting limits. The control panel of the EDU can be accessed by inserting the enclosed small screwdriver between the spool and the bracket. A label on the bracket indicates the button functions.



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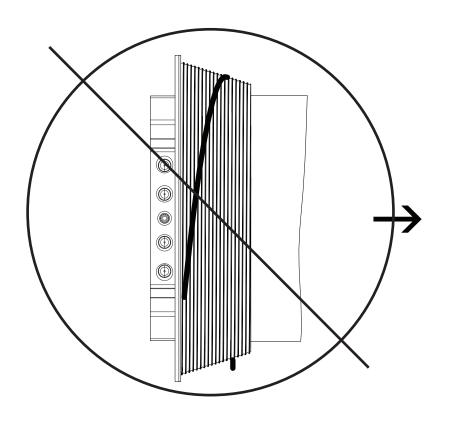


Aligning the cable on the spool

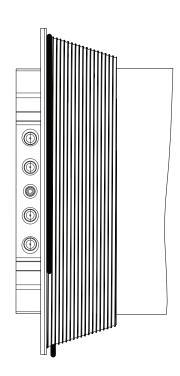


NOTICE: Cable must be fed through all pulleys and on spools before attempting to move shade.

- 11.1 Enter open limit mode
- Open shade until the hembar just makes contact with the shade roller. Moving the shade to this position allows the cable to align properly
- 11.3 Close the shade about 12 in (305 mm)
- Verify proper orientation of cable on spool (Refer to diagram below for proper alignment of the cable on the spool)
- 11.5 Exit open limit mode to resume normal operation



Misaligned



Aligned

Squaring and shimming frame



12.1

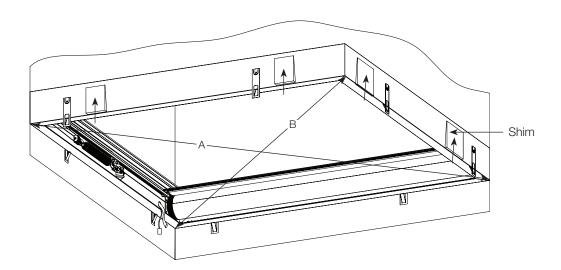
For proper operation, the tensioned shade frame must be square

12.2

Measure the frame across both diagonals and install shims, if necessary, such that dimensions A and B are within $\frac{1}{4}$ in (6 mm) of each other.

12.3

Tighten mounting screws. Add additional shims if necessary to prevent frame from bowing. Verify that diagonals are within ¼ in (6 mm).

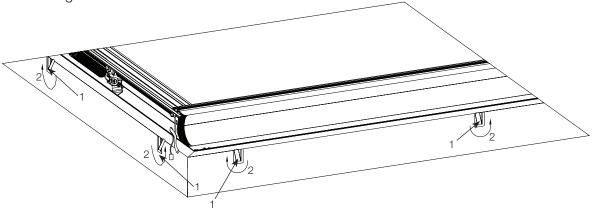


Note: Factory assembled tensioned shade shown. Follow the same procedure for Customer Assembled Shade.

13 Hide Mounting Clips

13.1

Depress the tongues on mounting clips and rotate behind the frame until they are no longer visible.



Note: Factory assembled tensioned shade shown. Follow the same procedure for Customer Assembled Shade.

14 Mounting IR receiver (if applicable)

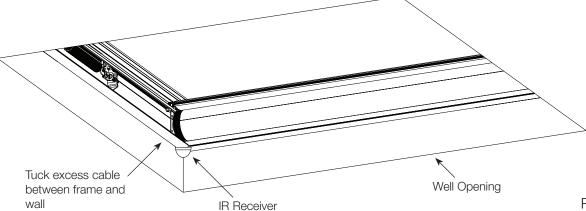
14.1

Refer to the Basic Wiring and Setup Guide included with the skylight shade to connect IR Receiver to the Drive wiring harness.

14.2

Attach the IR receiver dome to the corner of frame using the included double-sided adhesive tape. Tuck any excess cable up between the frame and the wall.

Note: Factory assembled tensioned shade shown. Follow the same procedure for Customer Assembled Shade.



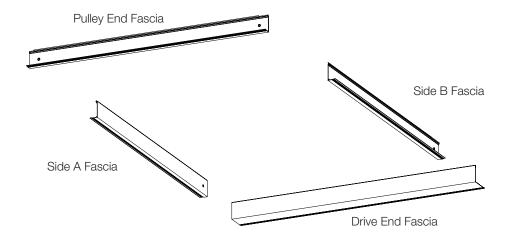
Identify fascia components

Assembled in Place
Preassembled
Floor Assembled

Locating and indentifying

15.1

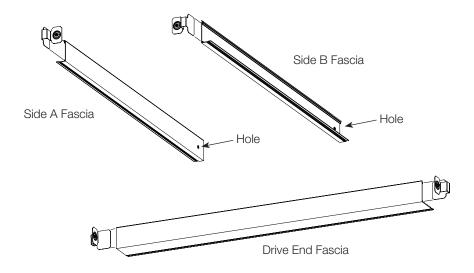
Fascia is included to conceal cable guides and eliminate light gaps around fabric. Fascia is provided for the Drive End, Pulley End, Side A and Side B. Four fascia brackets and four screws are included for attaching the fascia to the Tensioned Shade frame.



16 Installing brackets in the Fascia

16.1

Slide flat tab of bracket into the end of the Side A Fascia and Side B Fascia without the hole Slide the flat tab of the remaining two brackets into the Drive End Fascia

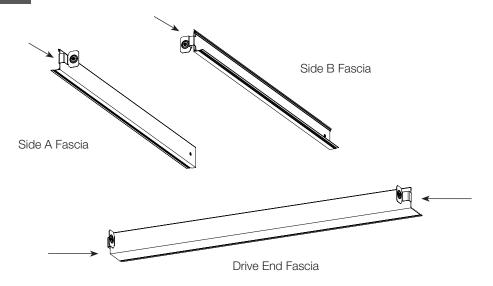


Installing fascia in the Frame

Assembled in Place
Preassembled
Floor Assembled

17.1

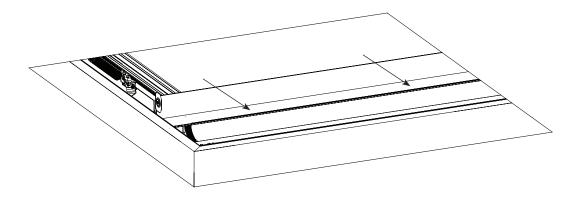
Slide brackets into fascia until they are fully inserted



Note: Pulley End Fascia requires no insertion of brackets

17.2

Insert the fascia labeled Drive End Fascia into the drive end of the frame and slide it into place until it is fully seated.



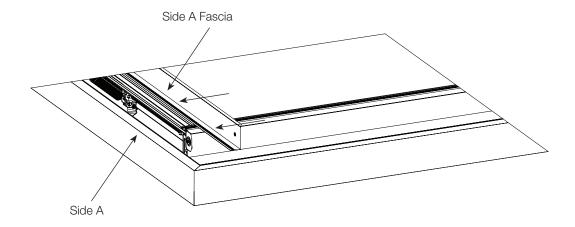


Installing fascia in the frame (continued)



17.3

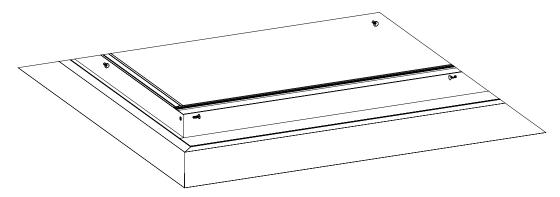
Insert the Side A Fascia into Side A of the frame and slide it into place until it is fully seated.



17.4

Insert the Side B Fascia into side B, then Pulley End Fascia Insert four fascia screws through the holes in the fascia and into the fascia brackets to secure the fascia to the frame, using the 3/32 in hex bit to tighten.

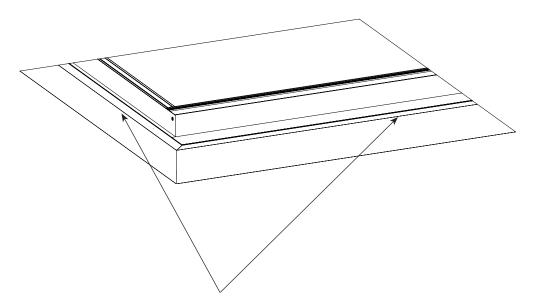
Note: Screws are self locking and will require higher torque to insert.



Finishing the installation

18.1

Apply scalant around the perimeter of the frame to conceal any gaps that may exist between the uneven mounting surface and the tensioned shade frame. For larger gaps, wood trim, such as quarter round may be used.



Apply scalant or molding to conceal gaps

18 Troubleshooting

Assembled in Place
Preassembled
Floor Assembled

Symptom	Solution
Shade will not move using adjustment buttons on EDU.	EDU is not powered - check EDU Power by unplugging and re-plugging in EDU. LED should flash for 5 seconds
	Shade is obstructed - free obstruction
Shade does not fully open or fully close.	Limits have been set incorrectly - refer to "Set open limit" and "Set close limit" sections Shade is obstructed - free obstruction
Shade does not move smoothly.	Check for binding of shade fabric in frame Verify frame is square
IR controls will not operate shade.	IR transmitter does not have line-of-sight to IR receiver Out of range - move to within 40 ft (12 m) of IR receiver EDUs not assigned to IR receiver - Refer to Wiring and Programming Guide IR receiver not plugged into any EDU within range IR remote control batteries are not providing power - replace them
Fabric sags at close limit.	Close limit is set too far. Adjust close limit.
Motor stalls	Verify cable is routed over all pulleys and wound properly on take up spool

Limited warranty

SCOPE

This limited warranty ("Warranty") covers the Lutron

supplied (a) Sivoia_® Shade System ("Sivoia Shade System"), (b) Sivoia Shade System ("Sivoia Shade System"), (c) manual shade system and (d) alternating current or a/c shade system (each of the foregoing being a "System"). Customer acknowledges and agrees that use of the System constitutes acceptance of all terms and conditions of this Warranty.

LIMITED WARRANTY

Subject to the exclusions and restrictions described below, Lutron warrants that each System will be free from manufacturing defects from the date of shipment by Lutron for a period of (a) one year as to the wall controls, interfaces and system accessories of the Sivoia Shade System ("External Sivoia Components") and (b) eight years as to the other Systems and the electronic drive unit, shade fabric and shade hardware of the Sivoia Shade System. If any manufacturing defect exists in the External Sivoia_® QS Components, so long as Customer promptly notifies Lutron of the defect within the one year warranty period and, if requested by Lutron, returns the defective part(s), Lutron will, at its option, either repair the defective part(s) or provide comparable replacement part(s). If any manufacturing defect exists in any of the components of a System other than the External Sivoia Components, so long as Customer promptly notifies Lutron of the defect within the eight year warranty period and, if requested by Lutron, returns the defective part(s), Lutron will, at its option, either repair the defective part(s) or issue a credit to the Customer against the purchase price of comparable replacement part(s) purchased from Lutron as provided below:

Replacement parts for the System provided by Lutron or, at its sole discretion, an approved vendor may be new, used, repaired, reconditioned, and/or made by a different manufacturer

EXCLUSIONS AND RESTRICTIONS

This Warranty will be void, and Lutron and its suppliers will have no responsibility under this Warranty, if Lutron or its representatives cannot access any components of the System to inspect, diagnose problems with or repair the System or any of its components as a result of concealment or inaccessibility of such components within a building structure.

This Warranty does not cover, and Lutron and its suppliers are not responsible for:

Number of years from date of shipment	Percentage of cost of replacement parts credited by Lutron
Up to 2	100%
More than 2 but not more than 5	50%
More than 5 but not more than 8	25%
More than 8	0%

- 1. Damage, malfunction or inoperability diagnosed by Lutron or a Lutron approved third party as caused by normal wear and tear, abuse, misuse, incorrect installation, neglect, accident, interference or environmental factors, such as (a) use of incorrect line voltages fuses or circuit breakers; (b) failure to install, maintain and operate the System pursuant to the operating instructions provided by Lutron and the applicable provisions of the National Electrical Code and of the Safety Standards of Underwriter's Laboratories; (c) use of incompatible devices or accessories; (d) improper or insufficient ventilation; (e) unauthorized repairs or adjustments or alterations; (f) vandalism; (g) an act of God, such as fire, lightning, flooding, tornado, earthquake, hurricane or other problems beyond Lutron's control; or (h) direct exposure to corrosive materials.
- On-site labor costs to diagnose issues with, and remove, repair, replace, adjust, reinstall and/or reprogram the System or any of its components.
- Components and equipment external to the System, such as, non-Lutron lighting and automation systems; building wiring audio-visual equipment; and non-Lutron time clocks, photosensors and motion detectors.
- 4. The cost of repairing or replacing other property that is damaged when any System does not work properly, even if the damage was caused by the System.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES.
ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF
MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, ARE
LIMITED TO EIGHT YEARS FROM THE DATE OF SHIPMENT, EXCEPT THAT
SUCH IMPLIED WARRANTIES ARE LIMITED TO ONE YEAR FROM THE DATE OF
SHIPMENT AS TO THE EXTERNAL SIVOIA COMPONENTS.

NO LUTRON AGENT, EMPLOYEE OR REPRESENTATIVE HAS ANY AUTHORITY TO BIND LUTRON TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY CONCERNING THE

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