Installation Instructions
SkyLight 3 FlexShade

**Tools Required:**
- Tape Measure
- Hex Wrench
- Power Drill
- Wire Strippers
- Crosshead Screwdriver
- Flathead Screwdriver
- Rubber Mallet
- Fastening Hardware (By others)

**SkyLight 3 Components:**
1. Motor Mounting Brackets (Upper / Lower Sections)
2. Side Channels (2)
3. Trim for Side Channels (2)
4. Trim for Motor End
5. Trim for Pulley Bracket End
6. Roller Fabric Assembly:
   - (Motor /// Fabric /// Hem Bar /// Tensioning Pulleys /// Draw Cables)
7. Relieving Roller (if required)
8. Relieving Roller Anchors (if required)
9. End Pulley Brackets (2)

Inspect all boxes to make sure you have received the proper shades and parts. Controls may be shipped separately, or in same carton as shades.

**CAUTION**
1. Inspect all boxes to make sure you have received the proper shades and parts. Controls may be shipped separately, or in same carton as shades.
2. Do not over-tighten Draw Cables. Over-tightening could cause damage to the window frame.
3. Inside Measurement (IM) = Outside Measurement (OM) minus 1/8”.
4. During installation and adjustment, the hem bar must not be allowed to contact the mounting brackets. Doing so could damage the unit. Insure that pinch points between the mounting brackets and hem bar are kept clear during operation. Set the motor limits so that the shade stops about 1/2” away from the mounting brackets at both ends of shade travel.
5. Unit is not designed for fabric to lay perfectly flat. Some sag is to be expected.
6. Periodic Draw Cable tensioning may be required.
7. Unit should not be installed on an Incline-UP orientation (motor at bottom).
8. If you are planning to place a decorative fascia below the unit to hide the edges make certain that no part of the fabric panel or draw cable touch the fascia. If any part of the shade comes into contact with any adjacent fascia the additional friction may prevent the unit from operating reliably.
9. Safe installation of this unit requires two or more people.
10. All motors should be tested and limits set using test cord before electrician wires shade.
11. Before connecting switches, controls, or electrical, make sure power is off. Wiring indicated in diagram by dashed lines must be completed by an electrician.
12. Do not wire motors in parallel without written permission from Draper.
13. It is the installer’s responsibility to make sure appropriate fasteners are used for mounting the unit.
14. Please read the following installation guidelines thoroughly and follow them carefully. Failure to do so may cause product to fail or otherwise fail, and invalidates warranty.

Please Note: Custom products/installations may not be reflected by this document. Call Draper, Inc. if you have questions about your installation.

411 S. Pearl St., P.O. Box 425, Spiceland, IN 47385 USA
Tel. 765-937-7999 • Fax 765-937-7142 • www.draperinc.com
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Installing Mounting Brackets

Two (2) Roller Mounting Brackets are shipped assembled and will need to be separated prior to installation.

1. Remove two (2) screws from Lower Section of each bracket using a Hex wrench.

2. Separate Lower Sections of Mounting Brackets and set aside (see Fig. 2).

3. The two (2) Upper Sections of Mounting Bracket will be mounted directly to the skylight window frame.

**Caution:** Before mounting shades, verify measurements on the card provided with the shade, and ensure the brackets are installed at the correct width.

4. Hold Mounting Brackets in place along the length of the window frame. Mark the location of the pre-drilled mounting holes.

**Please Note:** Brackets must be installed level (see fig. 3) with center tab flush with window. This will allow adequate room for Motor End Trim to be installed later.

5. Fasten Mounting Brackets to mounting surface using appropriate mounting hardware (by others).

Installing Side Channels

1. Hold the Side Channels in place and mark the location of the pre-drilled mounting holes along the entire length.

2. Drill pilot holes (if necessary).

3. Secure the Side Channels with appropriate mounting hardware (by others). The four pre-drilled holes at the end of the track will be used in the next step.

4. Repeat steps 1 - 3 for the opposite side.

Installing End Pulley Brackets

**Part One: Insert Relieving Roller Anchor**
Before inserting the Relieving Roller Anchor, confirm measurements on the card provided with the shade. The length of the shade will determine whether a Relieving Roller is required and the Relieving Roller Anchor orientation.

1. Insert the Relieving Roller Anchor into the Side Channel (see fig. 5) and slide to the center of Side Channel. Repeat on the opposite side.

**Part Two: Attaching End Pulley Brackets**

1. Align the End Pulley Brackets with the four (4) pre-drilled holes in the end of the Side Channel. Attach using appropriate mounting hardware (by others).

Cable Exit / Motor Trim Installation

1. The center hole on the Motor Mounting Bracket is provided for Cable Exit. Determine on which end of the Roller Assembly the Motor Cable is located. Using a 5/16” Ø bit, drill through the mounting surface to provide an path for the Motor Cable to exit the skylight frame (see Fig. 6).

2. Next, attach the Motor Trim Extrusion using appropriate hardware (by others).
Part Three: Installing Roller Fabric Assembly - (2 installers REQUIRED)

1. Lift the entire Roller Assembly up near the Motor Mounting Brackets and insert the Hem Bar Rollers into the Side Channels (see Fig. 9). Be sure to continuously pull the excess Motor Cable through the Cable Exit.

2. With the Hem Bar inserted into both of the Side Channels, lift the Roller Assembly up until the Lower Sections of the Motor Mounting Brackets (attached to the ends of the Roller Assembly) are completely engaged with the Upper Sections (mounted to the skylight frame).

3. Re-tighten the four (4) screws (2 per bracket) using a hex wrench.

**WARNING**: The following procedure REQUIRES at least two (2) installers to preform safely.

Part Two: Motor Cable Routing (see fig. 8)

1. Feed Motor Cable through the Cable Exit hole (See Cable Exit Step 1).

2. Route the Motor Cable toward the back of the Motor Mounting Bracket as shown in Fig. 8. This will ensure that the Motor Cable does not interfere with the shade while in operation.

3. With the Hem Bar inserted into both of the Side Channels, lift the Roller Assembly up until the Lower Sections of the Motor Mounting Brackets are engaged with the Upper Sections.

4. Re-tighten the four (4) screws (2 per bracket) using a Hex Wrench.
The diagram below shows the proper path of the Draw Cables (see fig 11).

Before Routing Cable - Side View

Cable Properly Routed- Side View

Attaching Draw Cables to Hem Bar

Once the Draw Cable has been properly routed it must be attached the Hem Bar with the appropriate amount of tension.

To ensure proper tension, pull Draw Cable until the end is in line with the center of the Orange Sticker on the Side Channel. To remove slack from the Draw Cable, rotate the Roller Assembly down (see fig. 12).

Slide the Hem Bar to the Draw Cable and insert the Cable into the Hem Bar Slot (see fig. 13) Slide the Cable along the Hem Bar Slot, toward the Side Channel, until it stops. This Draw Cable is now properly tensioned.

Repeat on the opposite side.
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Part Two: End Pulley Bracket Fascia

The SkyLight 3 FlexShade is now properly installed.

Installing Relieving Roller(s)

For larger SkyLight 3 FlexShades, up to two (2) Relieving Rollers may be required to eliminate sag in the fabric. To install these Relieving Rollers:

1. Locate the sliding Relieving Roller Anchors that were inserted in the Side Channels (see Installing End Pulley Brackets: Part One - Step 1 and align them with the lowest point of sag in the fabric.
2. Insert one end of the Roller into one of the Anchors at a slight angle (see fig. 14).
3. Insert the other end of the Roller into the opposite Anchor and align parallel to the Roller Fabric Assembly. Make sure the Draw Cables are set in the channels provided at each end of the Roller.
4. Slide the Relieving Roller into position and fix into place with the provided self-tapping screws.

Attaching Trim Pieces

Part One: Side Channel Trim

The Side Channel Trim extends along the entire length of the Side Channels.

1. Snap the Trim Piece into the Side Channel. You may need to tap them with a mallet to secure them properly. Make sure that it is flush with the End Pulley Bracket and allows plenty of room for the Tensioning Pulley and Draw Cables to move unobstructed.
2. Secure Trim in place with provided self-tapping screws in the pre-drilled mounting holes. These holes will line up with the Side Channel Mounting Holes.
3. Repeat on the opposite side.

Part Two: End Pulley Bracket Fascia

1. Attach the End Pulley Bracket Trim to the skylight frame, through the pre-drilled holes, using appropriate hardware (by others).

Electrical Connections

Shade operates on 110-120V, 60 Hz. current. Shade is shipped with internal wiring complete and control switch(es) fully boxed, and standard supplied with a 6' cable lead. Longer lead can be substituted by removing two screws in motor end of roller, removing lead, plugging new lead in, and replacing screws. Wire to connect shade to switch(es) and switch(es) to power supply should be furnished by installer. Connections should be made in accordance with attached wiring diagram, and wiring should comply with national and local electrical codes.

DO NOT wire motors in parallel without written permission from Draper. All operating switches should be “off” before power is connected.

Please Note: For low voltage wiring requirements, Draper recommends consulting with a professional low voltage electrical contractor. It is very important that shielded and stranded CAT 5 cable be used to prevent any electrical interference.

Limit Adjustments

1. Connect the ILT switch to the motor via the terminal blocks, or via the modular port using four conductor modular cable. When using modular cable, the cable connectors MUST NOT be crimped in reverse, as with standard telephone cable.
2. Set the slide switch to the lower position. Press and hold the DOWN button on the switch to move the shade to the desired lower limit. If the shade moves in the opposite direction, release the DOWN button and depress the STOP button. This will reverse the operation of the UP and DOWN switches.
3. Set the slide switch to the higher position. Move the shade to the desired upper limit by pressing and holding the UP button on the wall switch.
4. Return the slide switch to the center position to return to normal operation.
5. To set the shade to an alternate format position, move the shade to the desired position and press the STOP button. Press and hold STOP for at least three seconds to record the position.

Please Note: 5V DC must be connected to be able to set limits using the wall switch.

Please Note: Pressing and releasing the UP button on the switch will move the shade to its upper limit. Pressing and releasing the DOWN button will move the shade to its lower limit.

While the motor is in motion, pressing STOP for less than two seconds will stop the viewing surface at its present position.

Once the motor is stopped, pressing the STOP button will move the shade to its alternate format position.

Pressing and holding the STOP button, when the motor is at rest or in motion, for at least three seconds will record a new alternate format position.
SkyLight 3 Dimensions

Top View - Open Position

Shade Length

2"

Stay and Seam Placement (if Required)

Center Roller Diameter 1½"

Hem Bar Width

3¼"

Fabric Width - Shade Width - 4"

Shade Width

This Side

Faces the Window

Side View

4¼" to 10¼"

6 3/8"

110-120V Sonesse ILT 50 Shade Wiring Diagram

Internal Shade Wiring

White (Neutral)

Black

Green (Ground)

Dashed wiring by electrician

Data Cable

Wall Switch, RF or IR Receiver, or integrated control system

To 110-120V Line

www.draperinc.com (765) 987-7999