Installation Instructions Crank-Operated Skylight FlexShades by Draper

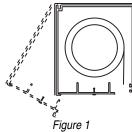
Caution

- ① Read entire procedure before installing. Keep instructions for future reference.
- Tools needed for installation: Cordless drill/screwdriver, with flathead, (2) phillips, and 1/4" nut driver attachments (magnetized, if possible), extensions, and 1/8" drill bit; Carpenter's level; Hack saw; Aluminum file; Square; and "Stiff" tape measure or zig-zag rule.
- ③ Use extreme care during installation to avoid scratching finish on Skylight parts.
- ④ Use drawings on back page as reference throughout installation.
- ⑤ Headboxes and side channels must be installed level and square.

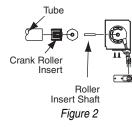
Please follow installation guidelines carefully. Failure to do so invalidates warranty.

Installation Preparation

- ① Arrange pieces on floor in the general manner they are to be installed.
- 2 On crank headbox, remove small retaining screw that secures front cover to headbox, then remove covers from both headboxes (see Fig. 1).



- ③ Remove spring roller from its headbox. The one-notch spring roller is pretensioned and the dog is locked in the notch.
- ④ If tension is lost, add 8-11 pre-turns (if needed, a couple more pre-turns may be added).
- If the shade has a detachable crank handle, remove the universal joint from the bottom of the end cap by removing 2 screws. (Fig. 2). Save universal joint & screws.



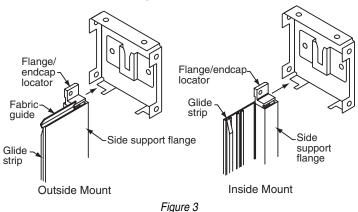
⑥ Attach short end of "L"-shaped Stay Bar Stops to Stay Bar (Figs. 4 and 11).

Unit Assembly/Installation

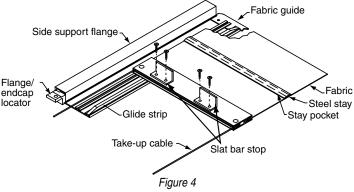
① With unit still on floor, install both side support flanges to both headboxes (see Fig. 3). Make sure flange/endcap locators are properly seated; tap gently with plastic hammer or rubber mallet if necessary. NOTE: Fabric travels toward operator end.

Please Note:

Crank operated FlexShades do not have stops; if crank operated Flex-Shades are lowered too far, fabric can come loose from the roller.



② If the unit is to be inside (jamb) mounted, then go to step 4. If the unit is to be outside (face) mounted, then install one fabric guide at the fabric end of each side support flange (see Fig. 4). Make sure the bevel, or bent portion, is placed so that it points away from the fabric when the shade is closed.



③ For Outside Mount—Measure opening and unit and compare the two (see Fig. 5). The Skylight FlexShade should be about 51/2" larger than the opening to be covered; the length should be about 8" longer than opening (11"-12" longer if slat bar and headboxes are all to be outside opening).

Note: Skylight FlexShades can be installed up and down slopes, but not sideways along slopes. Headboxes must be installed level.

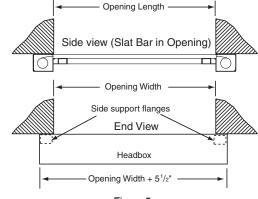


Figure 5

④ For Inside Mount-Measure and cut the lower perimeter angles that will support the headboxes and side support flanges, making sure they fit the opening exactly. Cut notch for crank handle.

For Outside (face) Mount-Locate and layout lines on the surface of the ceiling or the face itself, representing the unit size. Check these lines for squareness by checking for equal diagonals($+/- \frac{1}{8}$ ").



411 S. Pearl St., Spiceland, IN 47385 USA 165-987-7999 1 fax 765-987-7142 If you encounter any difficulties installing or servicing your Skylight e-mail draper@draperinc.com I www.draperinc.com Form CrankSkyLightFlexShade_InstO6-R Printed in U.S.A. 7999, fax (765) 987-7142, or e-mail draper@draperinc.com. Copyright © 2006 Draper Inc.

FlexShade, call your dealer or Draper, Inc., Spiceland, Ind., (765) 987-

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5 For Inside Mount-Place the assembled skylight frame onto the perimeter angles. NOTE: You may have to take the unit apart and reassemble it in the opening. Center the skylight frame in the opening and temporarily place shims (see Fig. 6). Once the frame is in place, measure the diagonals to make sure the unit is square. Adjust frame and re-shim until it is square, then install screws through endcaps to hold them in position.

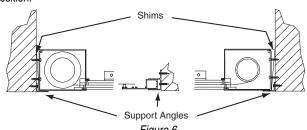
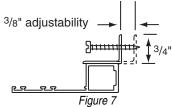


Figure 6

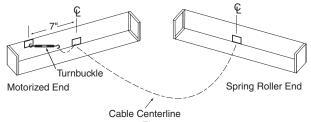
For Outside Mount-Pre-drill holes in headboxes to match holes in endcaps. Outside mount units are generally too large to attach in one piece, so take apart the frame for installation. On the layout lines, attach each headbox through the endcap holes using the long, non-painted screws. Next, place each side support flange by sliding its flange/endcap locator black plastic tab into the headbox endcap matching slot. Make sure side support flnages are on the layout lines, and attach using screws through face of channel. Cover holes with colored plastic plug buttons.

⑥ For Inside Mount—Loosen adjustable channel mounting angle fasteners, and slide the angles out until they meet the jamb (see Fig. 7). Fasten with #8 x 3/4" screws. Re-check the straightness of each side support flange, then tighten the angle to side support flange screws.



Cable Support System

- NOTE: If your Skylight FlexShade does not utilize a cable support system, skip this section and go to "Roller Assembly/Installation". For Inside Mount-
- ① Make sure Skylight unit is square.
- ② Fasten cable support plates to structure through outboard holes in plate (see Fig. 8). If #10 x 11/2" screws provided are not adequate, installer will need to provide fasteners appropriate to site conditions.
- 3 Attach loop at one end of cable to hook on cable attachment plate at spring roller headbox. Run cable the full length of the opening, and through the hole at the lower plate in the motor end headbox.
- ④ Attach remaining cable loop to turnbuckle, which in turn attaches to upper cable attachment plate in motor end headbox.
- Tension cable by tightening turnbuckle until cable is straight. NOTE: Do not (5) overtighten, but make sure cable is as taut as possible.





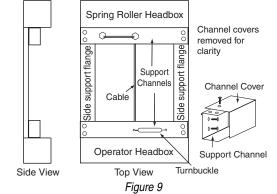
NOTE: Above view shown with face/bottom covers removed from headboxes.

For Outside Mount-

- ① Make sure unit is square.
- 2 Install the motor roller and spring roller assemblies by following the instructions in the "Roller Assembly/Installation" section.
- ③ Remove finished channel covers from from support channels.

④ Attach support channels to the side support flanges through the pre-drilled holes (see Fig. 9). Make sure fuzzy protective strips along bottom of support channels face inside, away from the headboxes.

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- ⑤ Tension cable by tightening turnbuckle until cable is straight. NOTE: Do not overtighten, but make sure cable is as taut as possible. Overtightening may cause fabric to bind while opening.
- 6 Re-attach channel cover with fasteners provided.

Please Note: If there is not enough slack in the cable to allow you to attach both channel supports, unhook turnbuckle from support on operator end of unit. After attaching both channel supports to side support flanges, you can re-attach turnbuckle.

Roller Assembly/Installation

① Re-install the spring roller by generally reversing the steps in the "Installation Preparation" section. If mounting on an angle, consult Draper. For 21/4" rollers (units over 96" wide), note that the notch or arrow on the spring roller is positioned to face away from the headbox slot. For all other rollers, note that the notch or arrow on the spring roller is positioned to face toward the headbox slot (see Fig. 10).

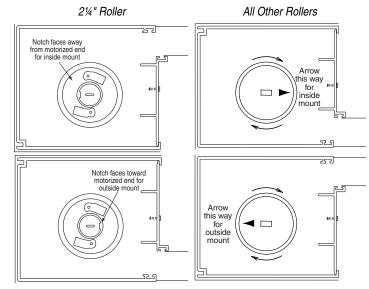


Figure 10

② Wedge something soft, such as Styrofoam, between the spring roller and its headbox to keep the spring roller from moving.

For Crank Units:

- ① Using the crank operator, rotate the drive roller so that the cable mounting holes in the take-up reels are oriented toward the fabric roller.
- 2 Take one end of the cable directly to the takeups. Thread the cable into the small hole on the inner reel wall (see Fig. 11, page 3).
- ③ Thread cable through cable screw clamp (provided), and tighten clamp as tight as possible. Pull cable to a stop against the outer side of the take-up reel. Be sure that the cable is contained between the sides of the take-up reel. Also be sure there is no cable wrapped on the roller when the unit is fully open.

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- ④ Make sure the cable is properly routed through the slat bar (see Fig. 11).
- ⑤ Install the other end of the cable into the take-up reel as described in steps 2 and 3 above.
- Operate the unit before trimming the cable end (s). The length of cable may be adjusted to provide a hard stop in the fully open position.
- $\ensuremath{\mathbb{O}}$ If the operator turns the shade in the wrong direction when open, the slack will cause the cable to take-up on the wrong side of the roller.
- If you have not already done so, attach short end of "L"-shaped Stay Bar Stops to Stay Bar (Figs. 4 and 11).
- Replace the headbox covers and retaining screws.

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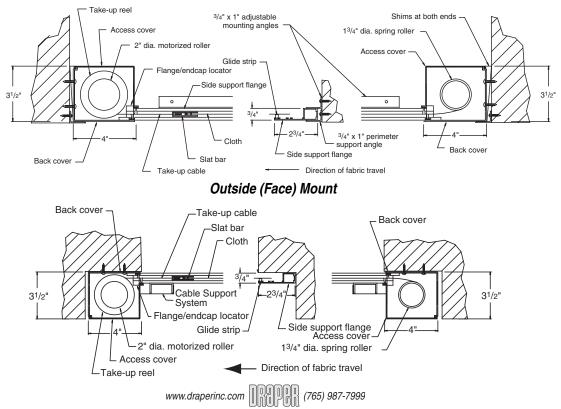


- 2- Fabric Guide LH
- 3- Flange/Endcap Locator RH
- 4- Flange/Endcap Locator LH
- 5- Side Support Flange
- 6- Take-Up Reel
- 7- Idler Gudgeon
- 8- Take-up Cable
- 9- Slat Bar
- 10- Nylon Bushing
- 11- Crank Assembly (crank units only)
- 12- Endcap
- 13- Mounting Angle
- 14- Trim Angle
- 15- Steel Stay
- 16- Slat Bar Stop (crank units only)
- 17- Crank Handle (crank units only)
- 18- Crank Handle Attachment (crank units only)
- 19- Turnbuckle (for some large units)
- 20- Support Channel (for some large units)
- 21- Support Cable (for some large units)

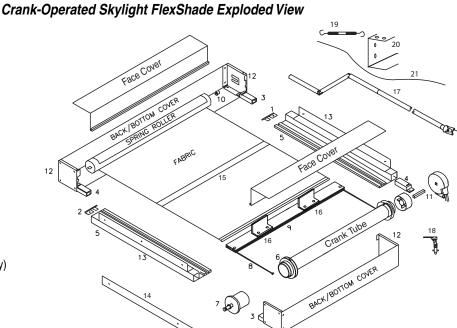
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Inside (Jamb) Mount



Slat bar stop Slat bar Figure 11



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