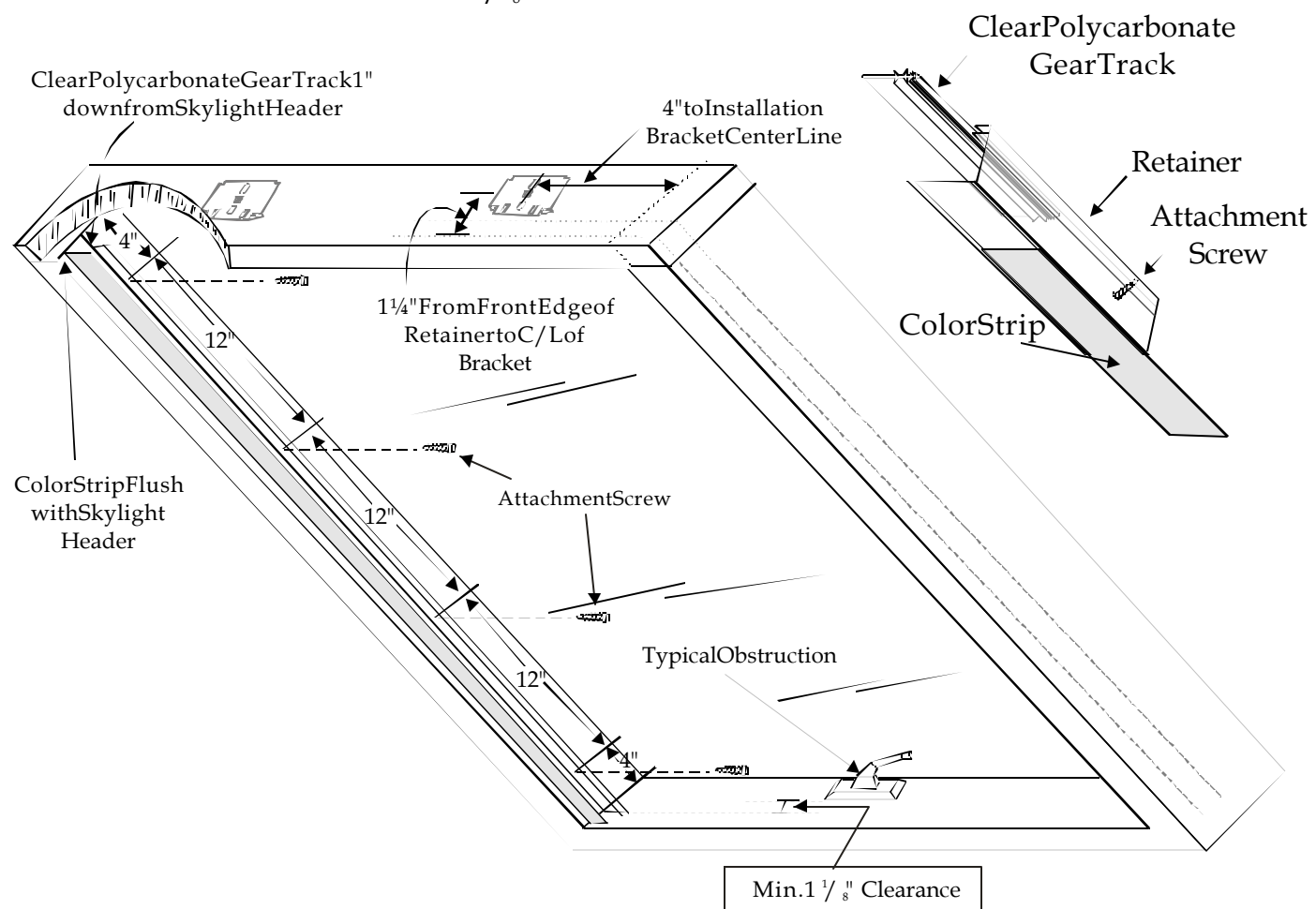


Skylight and Greenhouse Gear Driven Shading Systems Installation Manual

For All Non-Curved Applications - Retainer Installation

Note: For all Non-Curved applications, the Clear Polycarbonate Gear Track and Retainers will arrive preassembled at the factory.

- ◆ Install the Retainer assembly with screws provided as shown below.
- ◆ Screws should be on the center line of the Retainer.
- ◆ Screws should be placed four (4) inches in from each end and twelve (12) inches apart for intermediate screws.
- ◆ LEFT AND RIGHT TRACKS MUST BE INSTALLED PARALLEL TO EACH OTHER.
- ◆ GEAR TRACK MUST BE AT LEAST $1\frac{1}{8}$ " FROM ANY OBSTRUCTION.



- ◆ Screw Installation Brackets into the skylight header with the center of the attachment screw hole $1\frac{1}{4}$ " back from the front edge of the Retainer. They should be screwed four inches in from the left and right sides.

- ◆ Proceed to *Shade Installation* Instructions at the bottom of page 2.

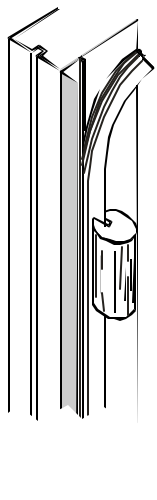
For All Curved Applications - Retainer Installation

◆ For curved applications, Gear Track, Color Strip and Retainer will be shipped separately. There may be 2 or 3 sections of Retainer. When installing connecting sections of Retainer, it is important the ends are realigned evenly.

◆ A portion of the Retainer is slotted for flexibility. This section is applied to the curved area of the glazing bars.

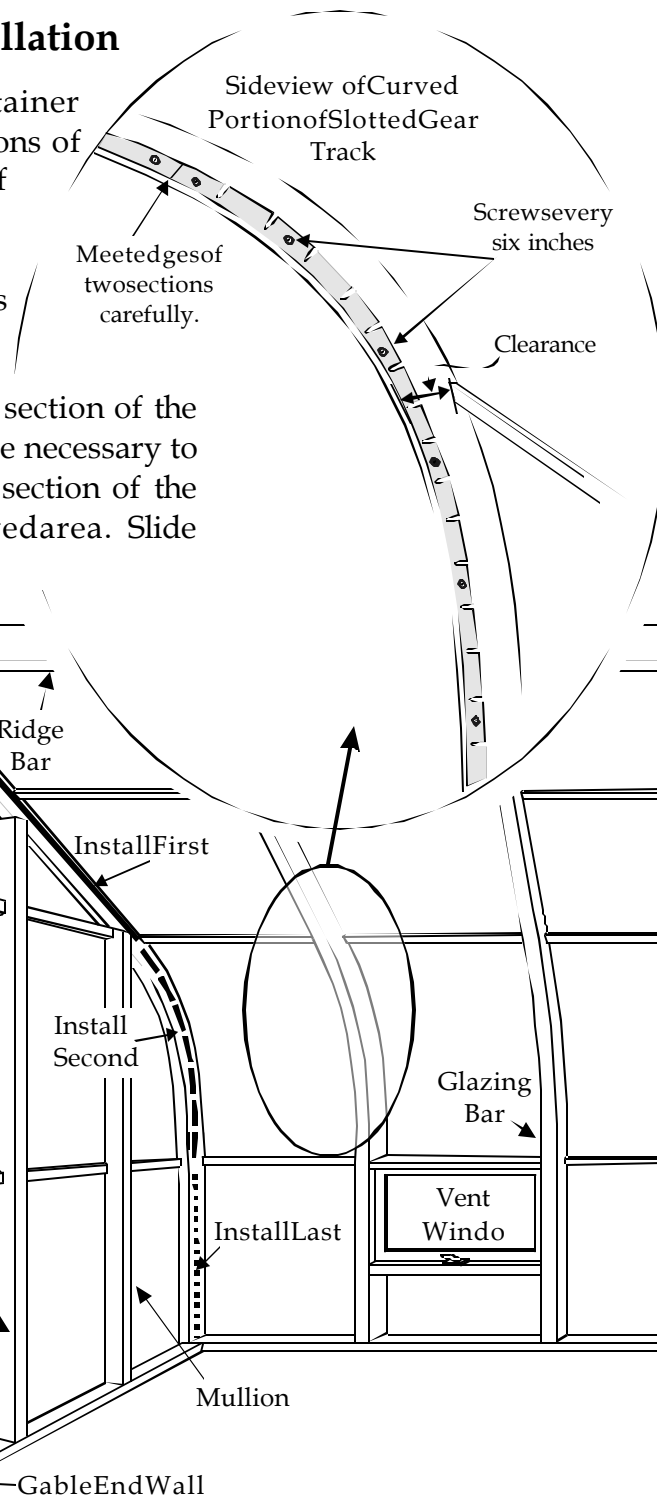
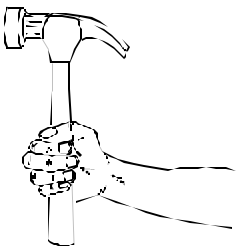
◆ When shade is to cover the entire bay, install the roof section of the Retainer first, followed by the curved section. It will be necessary to place a screw every 6" or less on the slotted, curved section of the Retainer to achieve a smooth transition through the curved area. Slide

◆ the aluminum Color Strip into its slot on the face of the curved section of the Retainer and up to the peak. Slide the lower section of the Retainer onto the Color Strip then screw the lower Retainer into place.



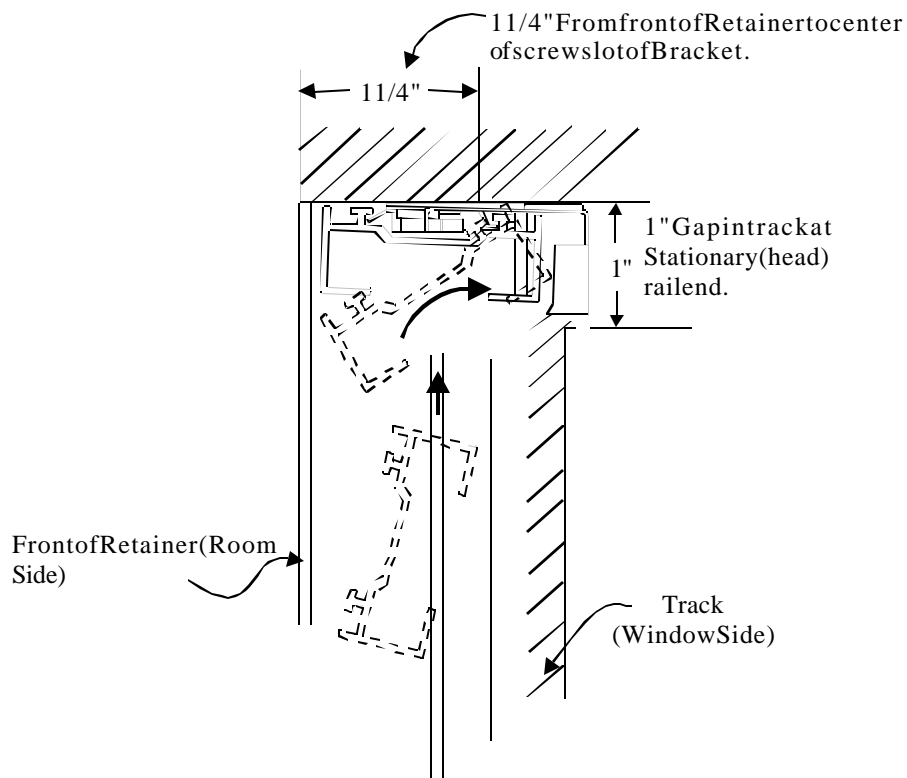
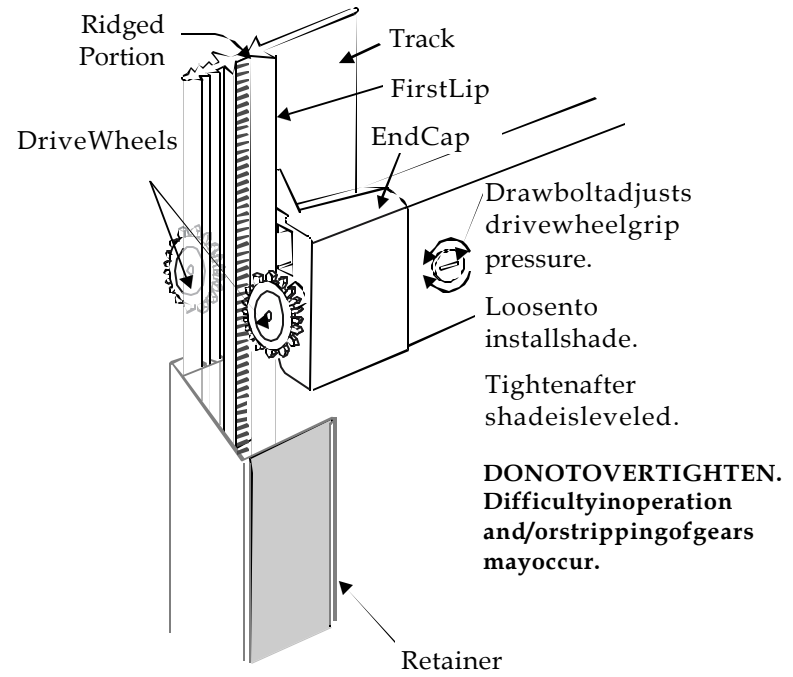
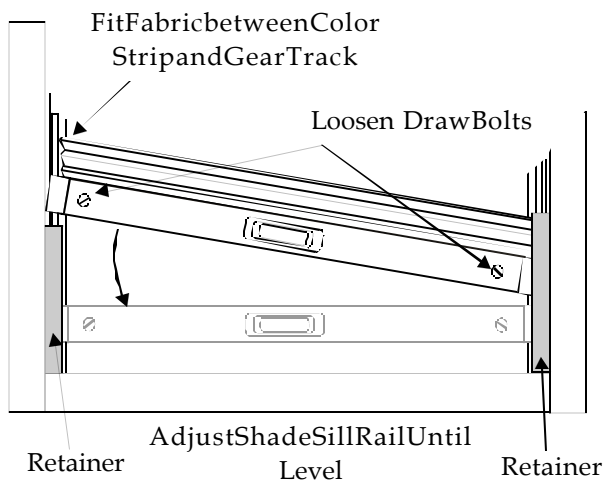
◆ Pound the Gear Track into slot of Retainer using the wooden tool provided. See to left.

◆ Install Mounting Brackets as for Non-Curved Application.



For All Applications - Shade Installation

◆ Loosen the draw bolts on both ends of the moving Sill Rail. Place shade between Gear Tracks as shown on next page. With the shade at an angle, work Drive Wheel over first lip of Gear Track making certain that the Gear Wheels are seated properly into the ridged portion of the Gear Track. Then lower the other side onto gear track and repeat previous procedure. Make sure all four Drive Wheels are seated properly in the Gear Track. Make sure shade fabric is located between the Gear Track and the face of the Retainer. Lower moving Rail to the bottom sill until it is level. Tighten bolts until the shade moves freely and the Gear Wheels do not skip or grind. **Do not overtighten.** Difficulty in operation and/or stripping of gears may occur.

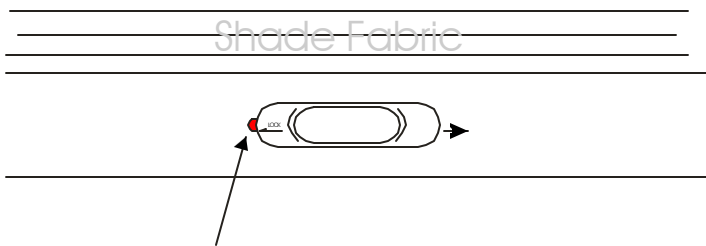


- ◆ Allow the moving Sill Rail to rest on the windowsill. Lift the Head Rail up against the bottom of the Installation bracket so that the spring loaded front clip is engaged in the front groove of the rail.
- ◆ Push the Rail back and up until the back hooks of the bracket are engaged in the back groove of the Rail. To remove the rail, simply reverse the procedure.

Operating instructions:

1. To raise or lower the shade:

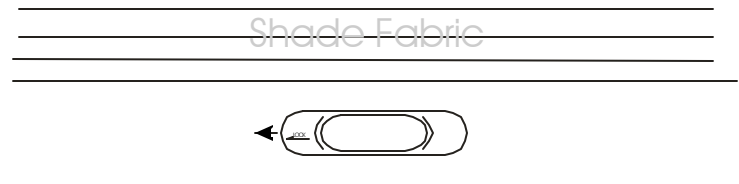
Slide the locking handle to the right to release the lock.



When the orange sticker is exposed, gears are free to move. Raise or lower the shade as desired.

2. To lock the rail in place:

When rail is in desired position, slide the locking handle to the left.



When orange sticker is hidden, gears are locked in place.

DONOT try to move the rail while gears are in locked position. Permanent damage could occur.

Trouble Shooting:

GENERAL PROBLEM	SYMPTOM	SUGGESTED REMEDY
Head Rail shifts out of square.	One or more Gear Wheels not in proper position on track.	All four Gear Wheels need to be in place engaging the Gear Track to function properly.
	One or more Gear Wheels not engaged to internal shafts.	All four Gears must be connected to the two shafts for the product to function properly.
Gear Wheels slip on Track.	Skipping noise, out of square movement.	Tension on Draw Bolts not sufficient. Tighten loose side.
	Grinding or skipping noise, out of square movement.	Broken teeth on Gear Wheels. Replace any broken Wheels.
Moving Rail too difficult to move.	Locking handle engaged.	Make sure Handle Lock is off before attempting to move shade.
	Tension on Gear Wheels too great.	Loosen Gear Wheels until shade moves easily without skipping or going out of square. A 1/4 turn counter-clockwise should be adequate.
	Track not inserted into Retainer properly.	Make sure track is inserted firmly. A good test is that it should be impossible to insert a fingernail between the track and its retainer.
	Shade too wide.	Recheck width dimensions. Call your dealer if cut down is required.
Shade Fabric does not move smoothly on track.	Dirt or tape on track.	Make sure that track is clean.
	Fabric not inserted properly.	Make sure fabric is installed correctly between Color Strip and Gear Track.