



Nova-Lite ***XL***
PANEL

Installation Guide



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Table of Contents

	1
I.	Table of Contents	2
II.	Installation Preparation	3
	Signal Words.....	3
	Qualified Persons.....	3
	Important.....	3
III.	Safety	3
	Electrical Safety	3
	General Safety	4
IV.	Hardware Included	5
	Tools Required.....	6
V.	Standard Framing Detail	7
VI.	Installing the Track System	8
VII.	Installing the Nova-Lite Panel System	10
VIII.	Assembling a Multi Part Panel	12
IX.	Installing the Nova-Lite Panel System Continued	15

Installation Preparation

Signal Words

The signal words “Danger”, “Warning” and “Caution” used in this manual indicate the degree of hazard that may be encountered by the user. These words are defined as:

Danger - Indicates death or serious physical injury will result if proper precautions are not taken.

Warning - Indicates death, serious physical injury or property damage can result if proper precautions are not taken.

Caution - Indicates some injury or property damage may result if proper precautions are not taken.

Qualified Persons

For the purposes of this manual and product labels, a qualified person is one who is familiar with the installation, construction, operation or maintenance of the equipment and the hazards involved. In addition this person has the following qualifications:

(a) is trained and authorized to energize, de-energize, clear, ground and tag circuits and equipment in accordance with established safety practices.

(b) is trained in the proper care and use of protective equipment such as rubber gloves, hard hat, safety glasses or face shields, flash clothing, etc., in accordance with established safety practices.

Important

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser’s purposes, the matter should be referred to the Sun-North Systems sales office.

Safety

Electrical Safety



DANGER! Ignoring the following instructions can cause physical injury or death, or damage to the equipment.



WARNING! Only qualified personnel are allowed to install the drive and connections to the motor!

Never work on the drive, motor cable or motor when input power is applied. After disconnecting the input power, always wait for 5 minutes to let the intermediate circuit capacitors discharge before you start working on the drive, motor or motor cable.

Do not work on the control cables when power is applied to the drive or to the external control circuits. Externally supplied control circuits may carry dangerous voltage even when the input power of the drive is switched off.

General Safety



WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

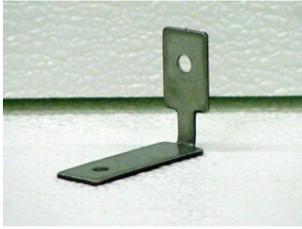
- Installation work and electrical work must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- The installation is to be in accordance with the National Electrical Code, CSA C22.1, ANSI/NFPA 70, and local codes.
- **CAUTION!** This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been supervised or instruction concerning use of the appliance by a person responsible for their safety.
- Check drawings and layouts provided to locate where the equipment is to be installed.
- Ensure work area is safe and that all security, policies and procedures for the facility are met.
- Inspect the lift device or mobile platform.
- Each person installing the equipment with a lift device or mobile platform must use a safety harness at all times.
- Other safety requirements may be required for installation.
- All workspace safety requirements, lock out procedures and hoarding of construction zone for the assembly and installation must be met and followed.



WARNING!

- Never remove or disable a machine guard or use a machine that has a missing or disabled guard.
- Never reach around, under, or through a guard.
- Report guards that are missing or not working properly.

Hardware Included



• SN127X1007
Nova-Lite Track Pickup Tab



• SN022X0402
Hex Head Tek Screw #10 x 3/4"



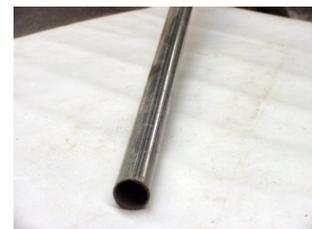
• SN022X0403
Pan Soc Tek Screw Z 10 x 1/2"



• SN020X2221
S.S. Cable Thimble 1/8"



• SN127X1013
Nova-Lite Joiner 3/4" wide x 8"



• SN127X1009-11
Galvalume 1-1/2" Tube 8' to 16'



• SN127X1101
Black Rubber Gasket - 3"



• SN022X2050
Hex Head Tapcon Screw 1/4x1-1/4"



• SN127X1102
Nova-Lite Black Gskt Track 16'4"



• SN020X2004
Stainless Steel Cable 3/32" Dia.



• SN022X4100
Flat Soc Woodscrews Z 8 x 1-1/4"



• SN020X2002
Stainless Steel Cable 3/16" Dia.



• SN127X1003
Nova-Lite Track Top Wheel
Bracket



• SN020X2102
Galv. Mall. Wire clips 3/16"



• SN127X1002
Nova-Lite Track Bottom Adjust.
Bracket Unit



• SN020X2103
Galv. Mall. Wire clips 1/8"



• SN127X1005
Nova-Lite Track Guide, 1"
Extension



• SN127X1006
Nova-Lite Track Guide, 2"
Extension



• SN227X0248
Nova-Lite Panel Assembly w/ Clear
Acrylic



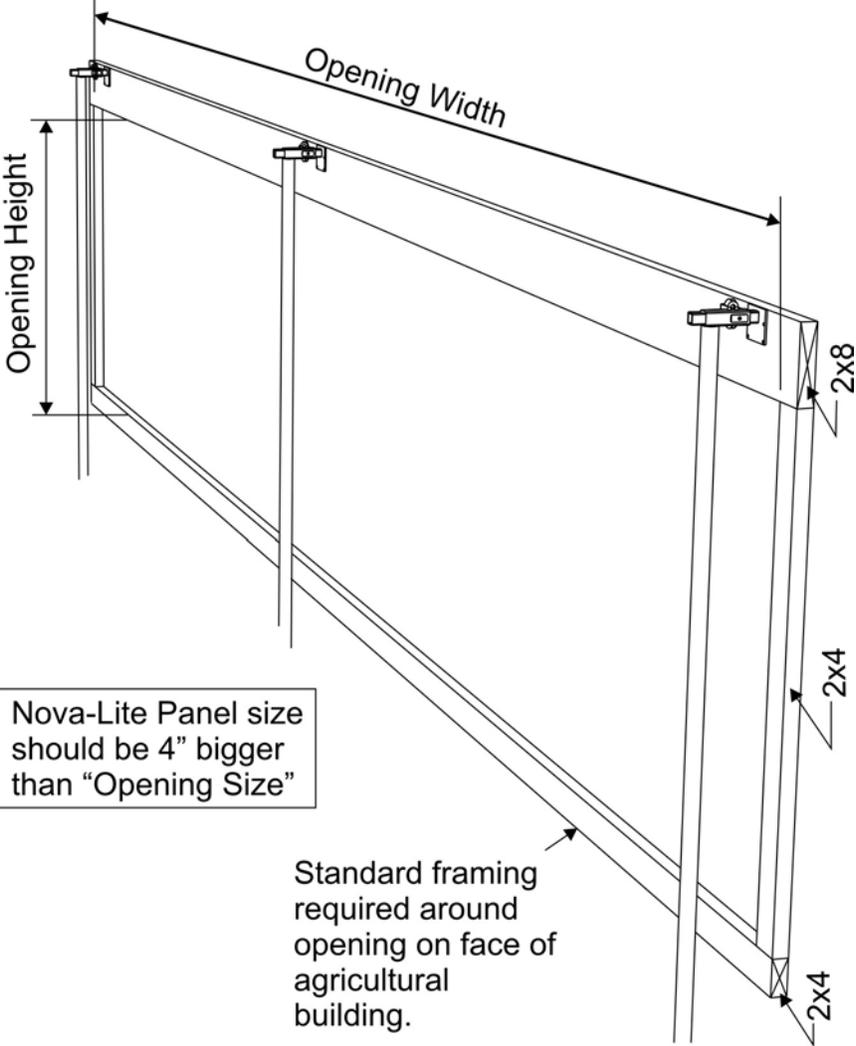
• SN022X4002
Hex Lag Screws Z 1/4 x 2

Tools Required

- Cordless Drill
- 9/16" Socket
- 7/16" Socket
- 5/16" Socket
- 1/2" Socket
- Cable Cutters
- Tape Measure
- Level
- Hammer Drill (some applications)
- Hammer
- #2 Bit (Red Robby)
- 1/2" Drill Bit
- Allen Keys (for actuator use only)
- Chop Saw or Hack Saw
- Utility Knife

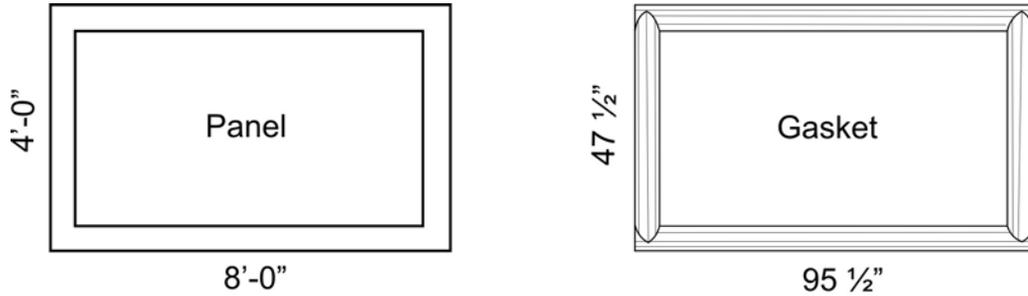
NOTE: Illustrations/images may be changed without notice. All dimensions and specifications are approximate and drawings are not to scale.

Standard Framing Detail



Installing the Track System

1. Prior to laying out the SN127X1102 gasket track for the Nova-Lite, size, layout and cut the SN127X1102 gasket track for the seal system. This gasket should case all four sides of the opening in the barn. Attach this gasket to the barn using #8 wood screw x 1 ¼" long evenly spaced (approx. 16" on center) on all four sides. Keep the gasket track ¼" in from where the panel will sit.



Example of Final Gasket & Track/Panel Size.

2. Once the SN127X1102 gasket track is installed on the opening of the barn, measure and cut the SN127X1101 black gasket to match the length of each track it will mount or slide into.



SN127X1102
Gasket Track



SN127X1101
Black Gasket

a. Take SN127X1101 black gasket, fold and slide into SN127X1102 gasket track as shown.



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- b. Once started, slide the gasket along the track until the black gasket is fully held in place by the track. When completed, a “U” shape seal should form as shown below.



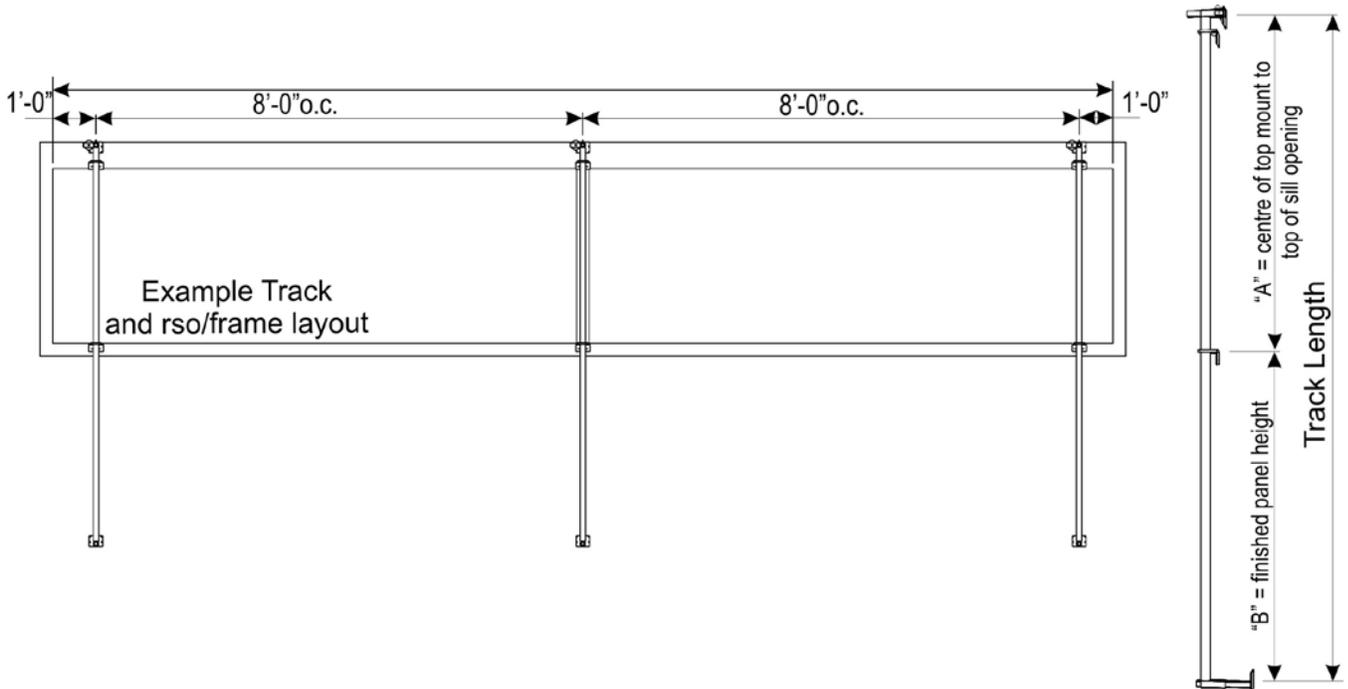
- c. The SN127X1102 gasket track is shorter than the SN127X1101 black gasket (sides of frame only) to allow black gasket overlap as shown.



3. Install on all four sides. This will act as your seal when Nova-Lite is in place.

Installing the Nova-Lite Panel System

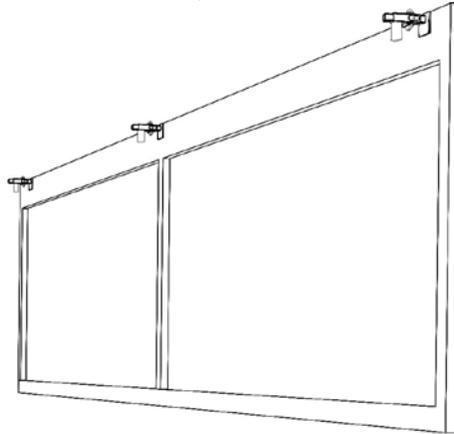
1. Layout the proper track spacing along the opening of the barn. We have enclosed a layout shown below as an example. Buildings may be different so some planning is required on your part to figure out the spacing of your track. You are not installing the track at this point, it must be known where your tracks are going to be installed before you begin.
2. Mount the top brackets as per your layout drawings and keep an inch down from top of the header, secure with 1/4" x 2" lags.



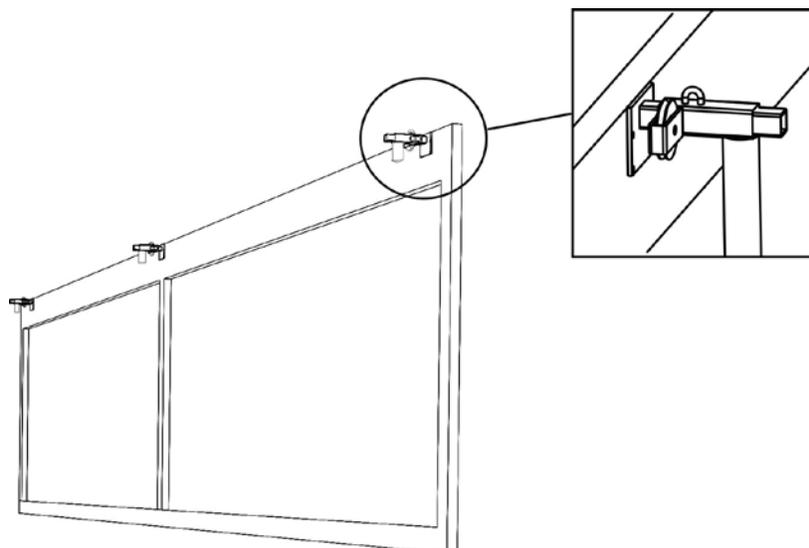
3. Establish track length from top bracket to the location where the bottom bracket is to be installed. The track length must allow the panel to open its full depth past the sill of the opening. This track length is Length "A" plus Length "B" plus 1/2" to equal track length.

Track Sizing Chart		
Opening Height	Panel Height	Minimum Track Length
24"	28"	60"
30"	34"	72"
36"	40"	84"
42"	46"	96"
48"	52"	108"
54"	58"	120"
60"	64"	132"
66"	70"	144"
72"	76"	156"
78"	82"	168"

4. Mount the bottom brackets as per your layout drawings and ensure they line up with the top brackets (they must be level / plumb and fastened using Tapcons into the face of the concrete foundation or onto solid blocking in the wall depending on the construction).

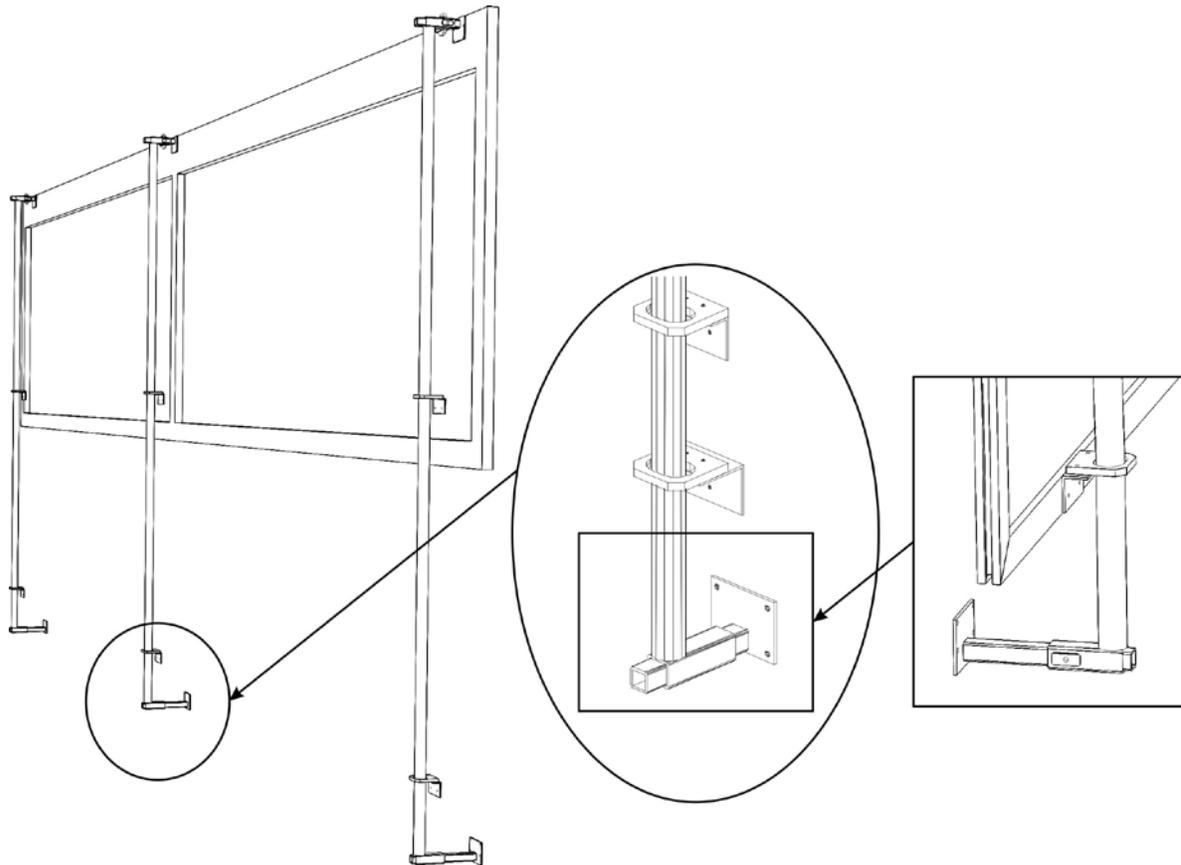


5. Prep your Nova-Lite panel with secondary cables by fastening them to the upper track clips (thimbles and cable clamps are used for the secondary installation). Note: that the Nova-Lite panel may be put into place resting on the bottom track brackets before you install the tracks. Please also read step 6 before proceeding.



Note: Always remember to install two panel track support guides onto each track as shown in the middle figure below. This must be done when the track is installed. The smaller of the two supports is to be mounted to the top end of the track while the larger support is for the bottom.

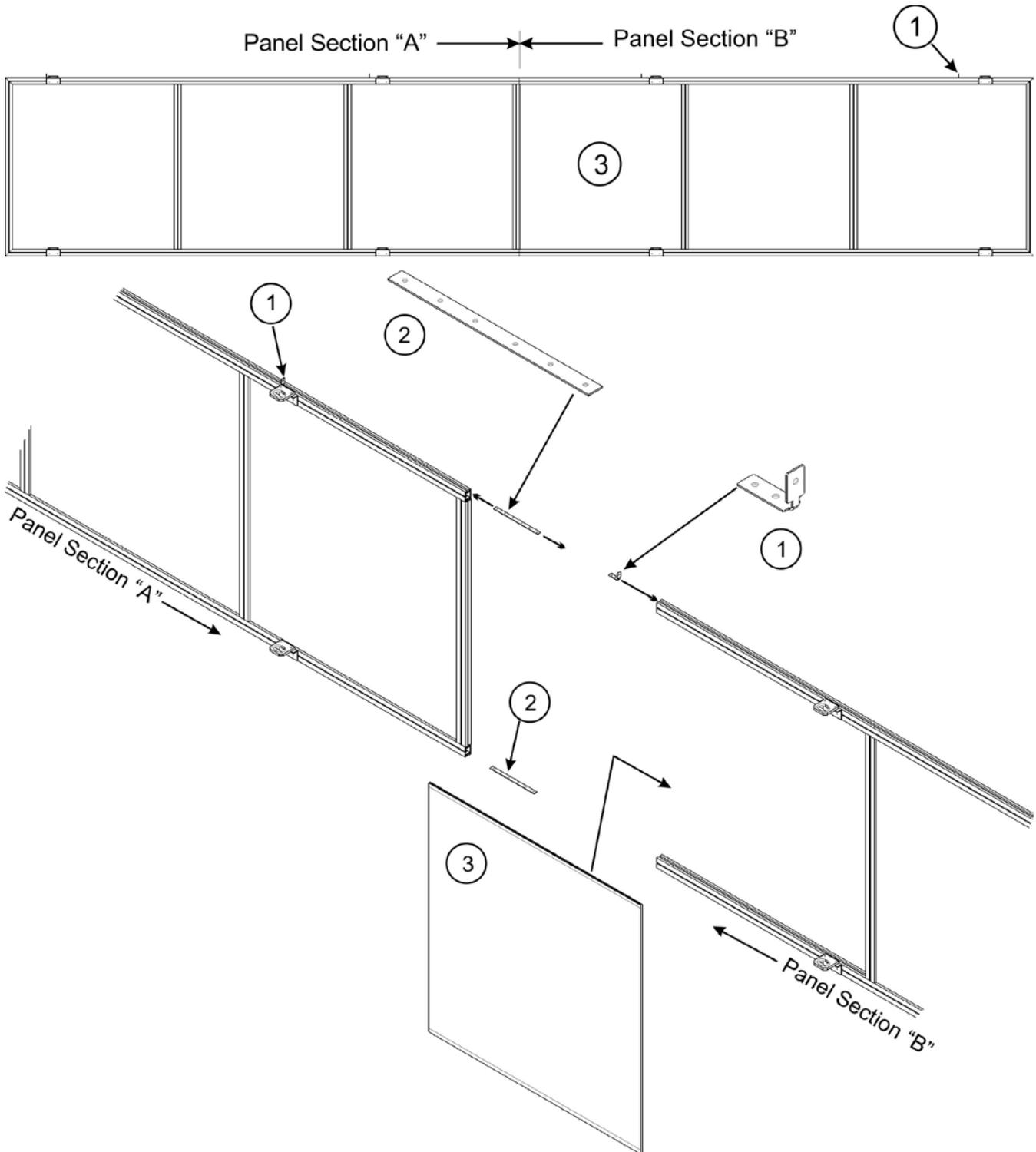
Note: Bottom support bracket mounted to face of agricultural building exterior wall or foundation as required for track length.



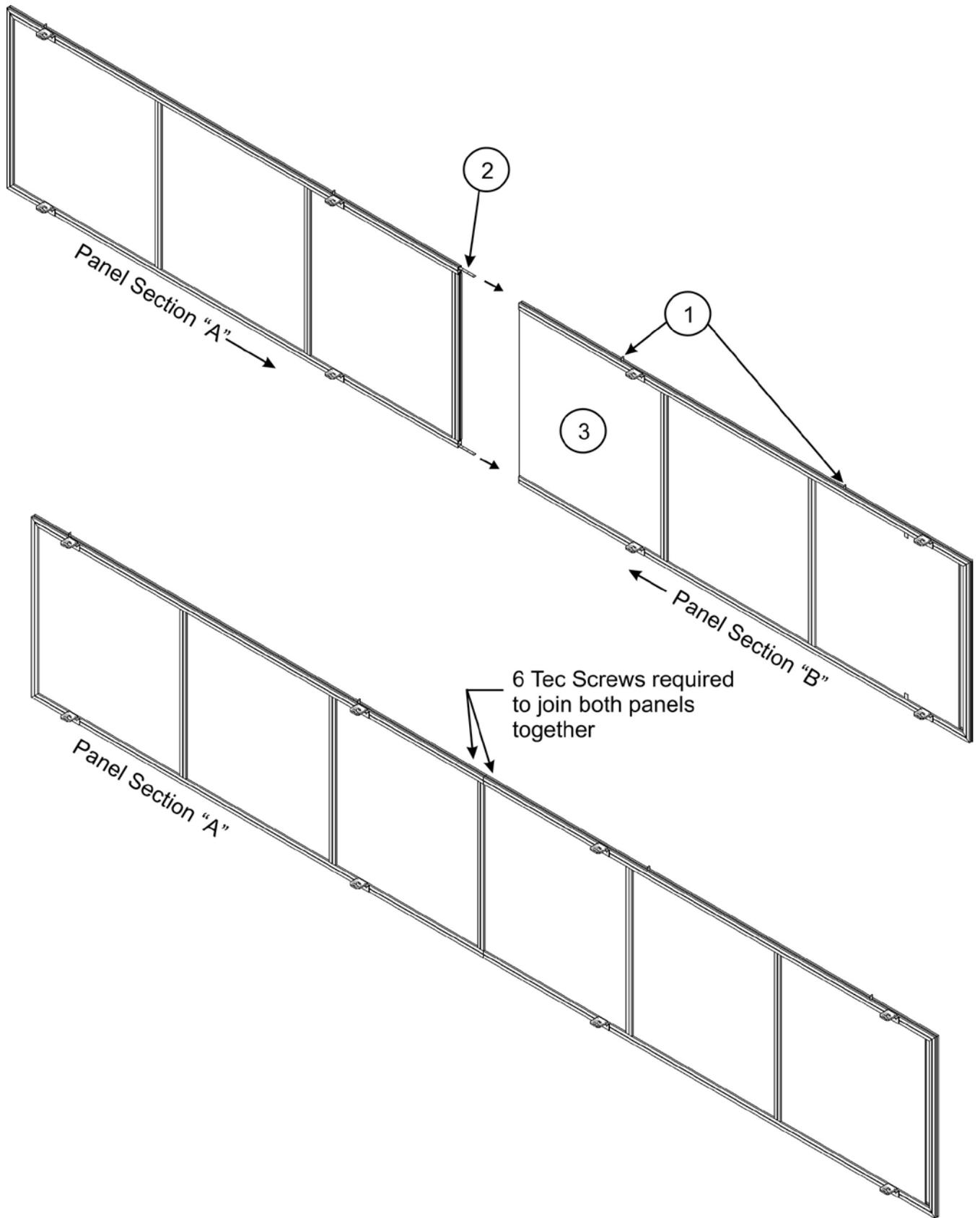
Assembling a Multi Part Panel

1. Track Clips - These clips are shipped loose with the assembly and must be first installed into the upper frame.
2. Panel Join Strip - 6 Tec screws used to fasten Panel Sections "A" to Panel Sections "B".

3. One polycarbonate panel material is loose and must be installed on site. (This loose piece of material should be shipped with tape to ensure clean inner flutes. If the flutes are dirty inside, the interior of the glass must be cleaned).



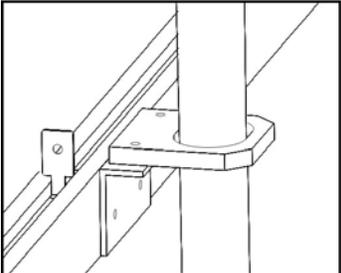
Note: If edge is not taped during shipping the interior flutes may become dirty, you must ensure that these flutes are cleaned before the poly glass panel is installed into the assembly.



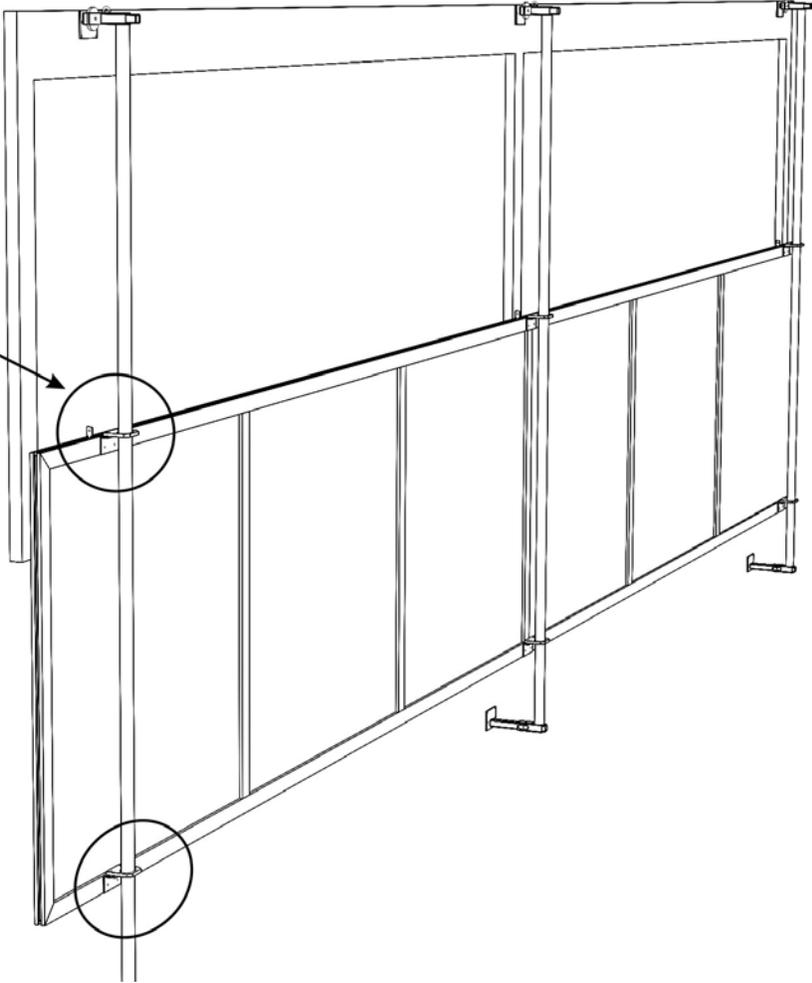
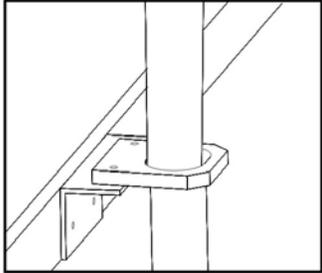
Installing the Nova-Lite Panel System Continued...

6. Slide the panel between the building face and the track (if you have installed the track) or sit the panel on the bottom brackets then install the outside track. The track guides will be fixed to face of the panels in steps 10 and 12.

Top Track Guide

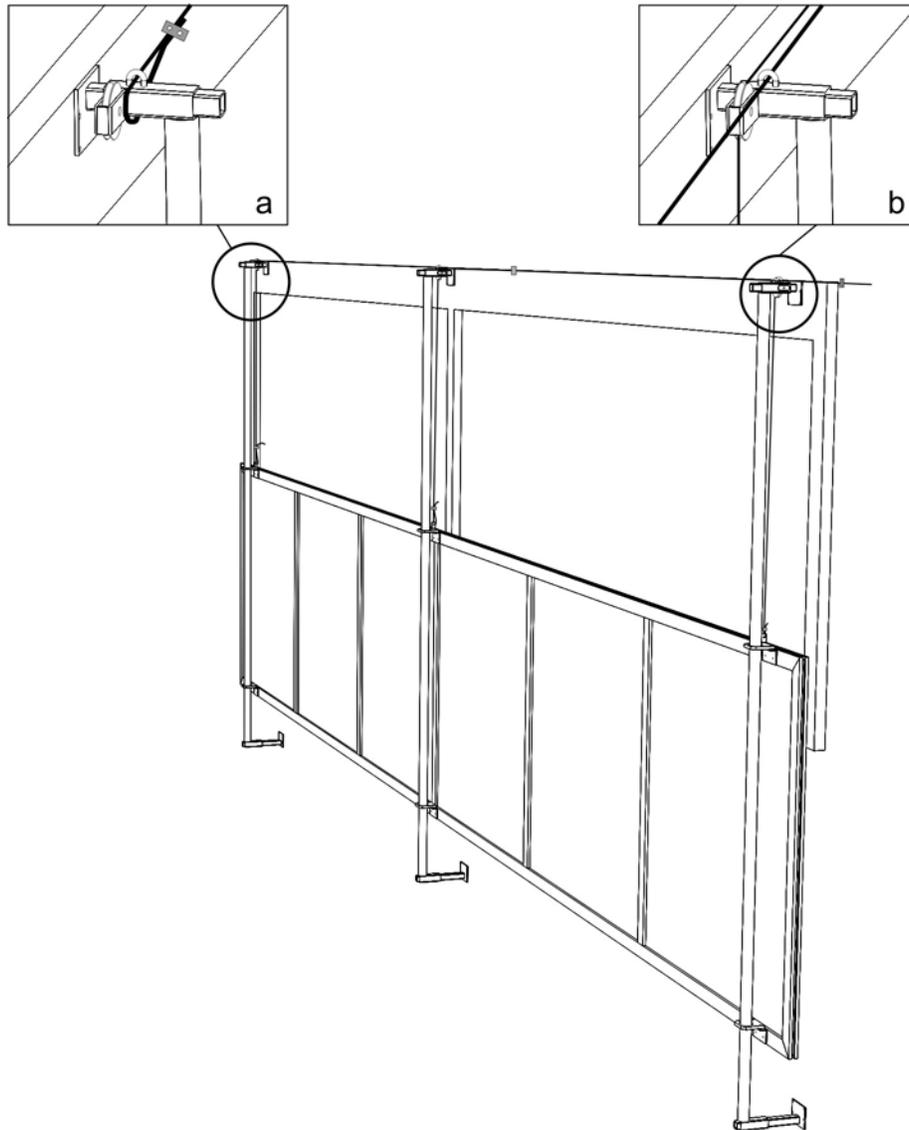


Bottom Track Guide

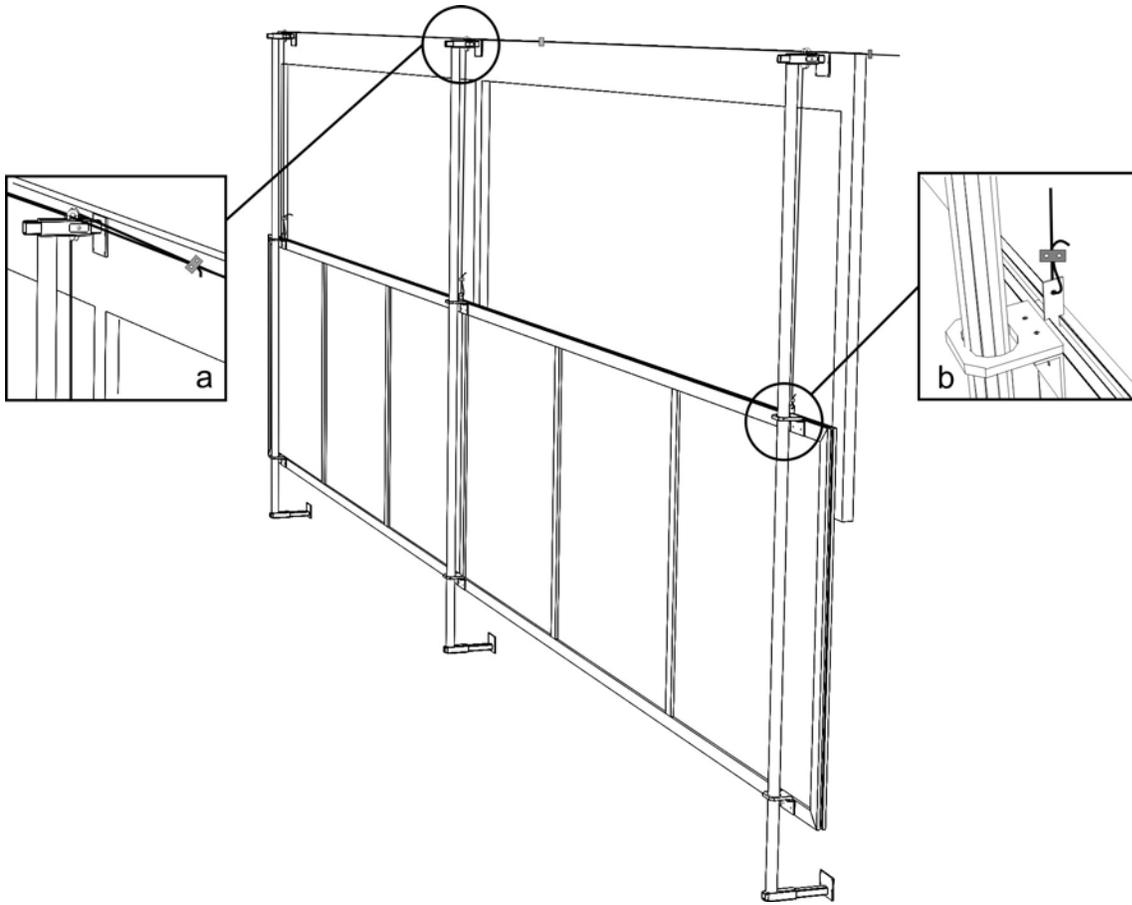


7. You must now determine the location of your winch and corner wheels. See the detail below to the right showing the corner wheel placement and main cable. The placement must allow the main cable to run plumb with the corner wheel and just above the upper track bracket as shown.

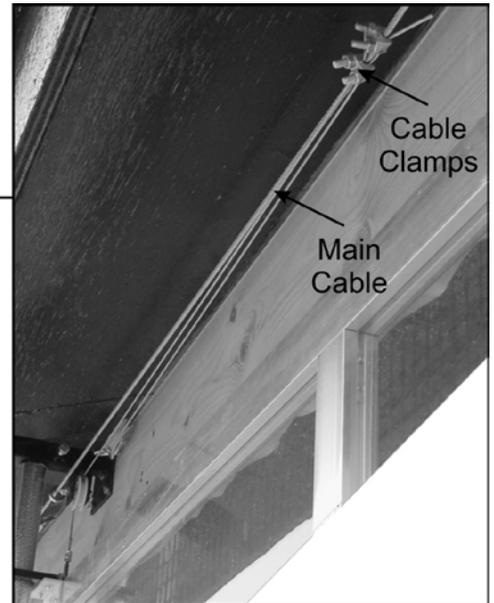
8. (a) Hook up main pull cable around end upper track support and clamp as shown. (b) Hoop on upper bracket to carry main cable. The main cable is then put under tension using the winch or actuator.



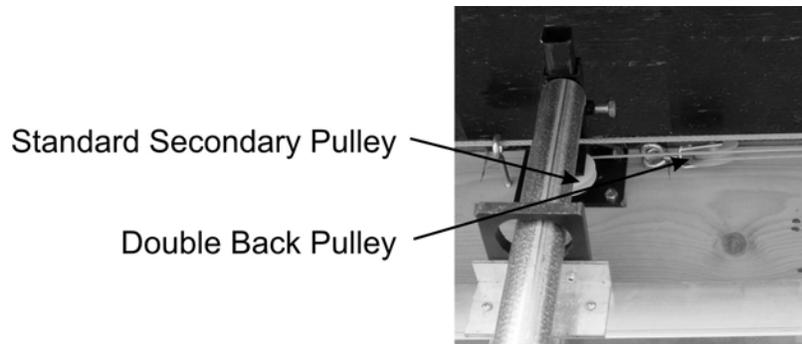
9. Position the panel flush with the top of the sill. With the main cable under tension the secondary cables may now be hooked up. (a) View of secondary cable hooked up to panel. (b) Please note that the thimbles and cable clamps or crimps must have been used to pre-install the secondary cables in step 5.



Note: Areas that require greater travel length or when end pulleys are near the end panel you will be required to install a double back pulley system as shown in these pictures.



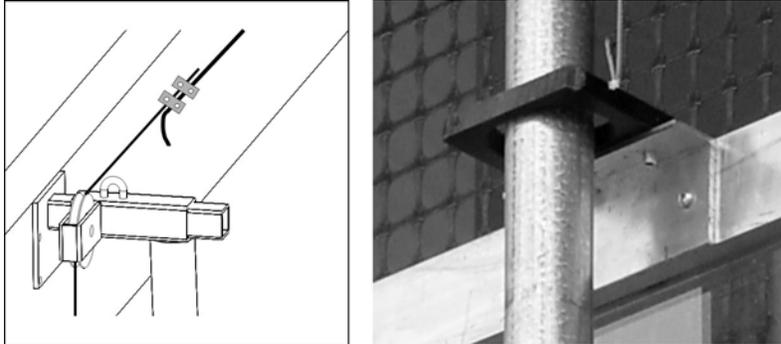
Double back secondary cable and standard secondary cable are clamped together to the main cable.



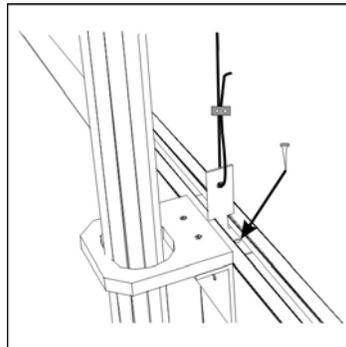
Secondary pull cable requiring a double back to allow travel into the end pulley and into the building.

10. You must now unfasten the cable clamp holding the main pull cable under tension and fasten the secondary to the panel hookup.

The top track guides can be fastened to the top of the panel using the heavy self-tapping screws or rivets that are provided with your system.



11. Operate the panel up and down to check for adjustments and that the secondary cables are plumb with the tracks. The clips used in the upper frame can be moved within the frame enabling this adjustment. You must then fasten the secondary track clip to the main panel frame using a self-tapping screw as shown.



12. Position the panel $\frac{1}{2}$ open and attach the bottom track guides to the face of the panel.



13. Raise the panel until the gasket seals evenly all around the framed opening.

14. Top and Bottom track brackets have to be adjusted to ensure a good seal around the entire opening.



Gasket Too Tight



Gasket Too Loose



Gasket Correct