Assembly, Installation and Operating Instructions for:

CSA-2.5-FT CSR EXT — Fold-Tite Stacker Door System

Externally Hung with Concealed Stay Roller bottom guide system

This door is built for:

Jeff Auen

Door Size 53' x 14'

16 panel Two Way Operation

Using Concealed Stay Rollers

Full Assembled panels

Note: In addition to this instruction book, two prints are attached one is a plan view normally inside looking out and a Isometric drawing that is out side looking in. the plan view shows the correct girt quantity and the ISO drawing shows just three and notes if there are more than shown. Panel pre assembly or full assembly doors will note the panel number on the door and on the plan print. Optional lock location is on either side and the lock girt is not pre installed.

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Assembly, Installation and Operating Instructions for:

CSA-2.5-FT CSR EXT — Fold-Tite Stacker Door System

2.5 inches Thick — Utilizing Concealed Stay Rollers — Externally Hung

Our doors are easy to operate. However, the instructions must be followed to insure correct assembly and installation. It is imperative that the dimensions, squareness, and levels are adhered to, to insure that the door is hung properly and operates freely. Not all structures are square and not all structures have even dimensions from top to bottom and side to side, so allowances will have to be made to install the door properly. We have carefully highlighted those areas in the instructions, where the assembly and installation are critical to the operation of the door. Should you have any questions during the assembly and installation process, we are here to help you through the project to insure good operation of the door. DO NOT HESITATE to call us. At times we may be not be reachable at the moment but we will get back to you. Thank you for buying our door.

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Beginning Notes:

1. Please take an inventory of all materials received as soon as possible. We strive to be as accurate as possible, but sometimes there are mistakes. We will insure that any discrepancies will be taken care of as soon as possible. However, shortages must be reported within 60 days of receipt.
2. This instruction set is general in nature. Please review your print (included in this instruction set) for exact measurements and number of girts etc. for your specific door.
3. We have taken care to highlight some important text in this instruction set. It is very important that these highlighted texts be followed to insure that the door operates properly. As an example, it is very important that the door be level and it is very important that the panels be square and that there is no bowing in the verticals.
4. Before you start the assembly of the door, it would be very helpful that you read through the instruction set and to review the foldout sheets entitled "Drawing Specific to your door". This foldout will give you a perspective of how the door is assembled and the placement of key components.
5. You will be utilizing a variable speed drill to insert many TEK screws. The Tek screws now supplied are 12-14 x 3/4" Pancake Quad head. You can use a #2 Phillips drive or #2 Square drive to insert the teks. It may take a few seconds before the screw begins to penetrate, once the screw does begin to tap into the aluminum, you should be prepared to back off on the torque of the drive and stop the drill as soon as the screw completes its penetration. Otherwise, you may strip the screw.
6. Although the text indicates this, it would be helpful to layout the components in front of the door in panel sets to visualize the placement of the girts and active components (lock pins and Trolleys). This can be done in combination with reviewing the foldout overview drawings.
7. The panels should be assembled with the front of the panel (front of the door) facing up. When you do this, observe that the "J" trim of the verticals is up or facing toward the front of the door.
8. As you hinge the panel sets do NOT rotate the panel from side to side rather turn each panel over top to bottom. Otherwise the hinge relationship will be changed.
9. We enjoy receiving feedback from our customers, whether good or bad. Please let us know what you think of this instruction set or the door itself. Should you have a chance we encourage you to send us photos (hardcopy or electronic). These would be greatly appreciated
10. Should you have any issues or questions during your project, please DO NOT hesitate to call us. We want your project to be as trouble free as possible. It would be to our mutual benefit if we are able to address your problems head on and as soon as possible. Our best form of marketing is word of mouth, and therefore we want you to be successful.

Dave Coolman—President and Phil Coolman—Partner

FoldTite Systems, Inc.

1.0 Inspect the packaging for damage. Before opening, document (Photos) any signs of damage on the outside which may result in damage on the inside. Should you find damage to the material on the inside, please contact the shipping carrier.

2.0 Open all structural component and hardware boxes and compare with the itemized packing list. Note: structural components and hardware may arrive in separate shipments.



3.0 **Installation of the Box Track**

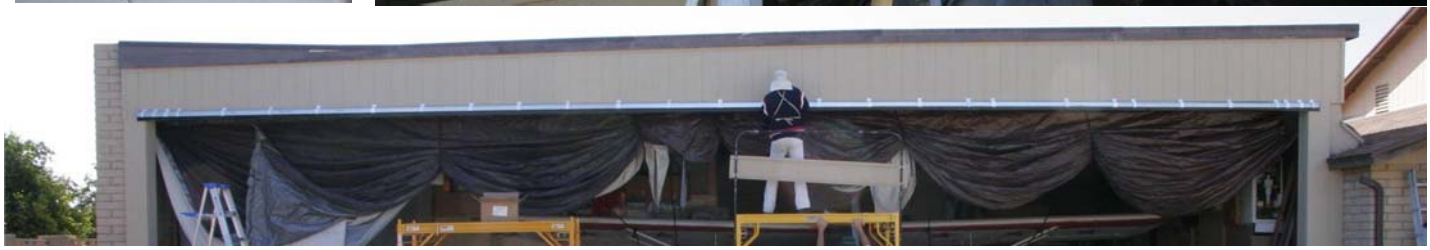
3.1 **Track Installation** — Install box track, with bottom of track bracket (#714721) located at the bottom of header. It is very important that the track be level. You can accomplish this by using a chalk line snapped in place utilizing a level. Insure that the distance from the bottom of the track bracket to the finished floor equals your called clear operating height on your print from left to right to insure proper hang. The finished floor may not be level. Make adjustments with the track as necessary, up or down, to insure this distance will allow door to hang properly over the entire width of the door. The average variation should equal the stated print for the opening height. The track brackets are installed 24" on center except at each end over the area where the door is stacked when open, where they are mounted 6"OC. Splice brackets (#714944) will be used at each joint of the track.

Checking the height along opening



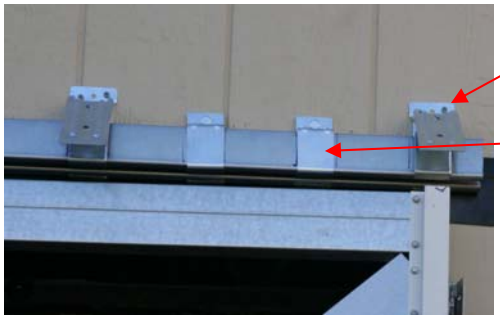
Making sure the track is level





3.1(Cont) The door has been designed with the track extending at least 4" past the opening on each side. The 1" Brush top seal is supplied with aluminum holder and this is attached to the bottom of the header with brush facing out towards the door. This could also be installed by placing between the track and the header. Use Lag bolts 3/8 X 2" to install brackets.

3.2 **Installation of the rain cover support brackets** — The rain cover support brackets can be installed at the same time as the track. The Track cover support bracket is supplied and should be placed over the track brackets (24" OC). **Rain cover will be installed after the door is installed.** The rain cover is not supplied by Fold Tite Systems Inc. (you will want to match the color of your door and building on site) A print for the rain cover is located towards the end of this instruction set in section 17.0.

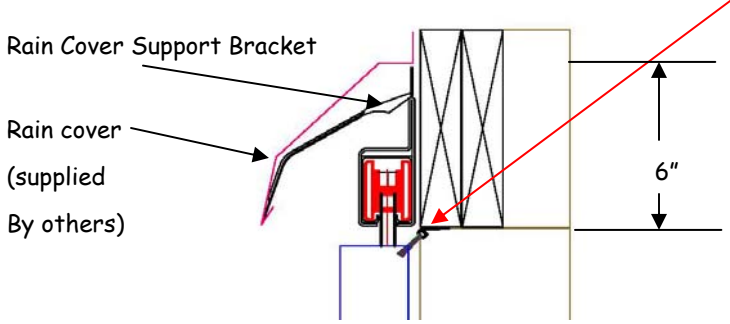


Rain Cover Support Bracket #713573

Track Bracket #727979



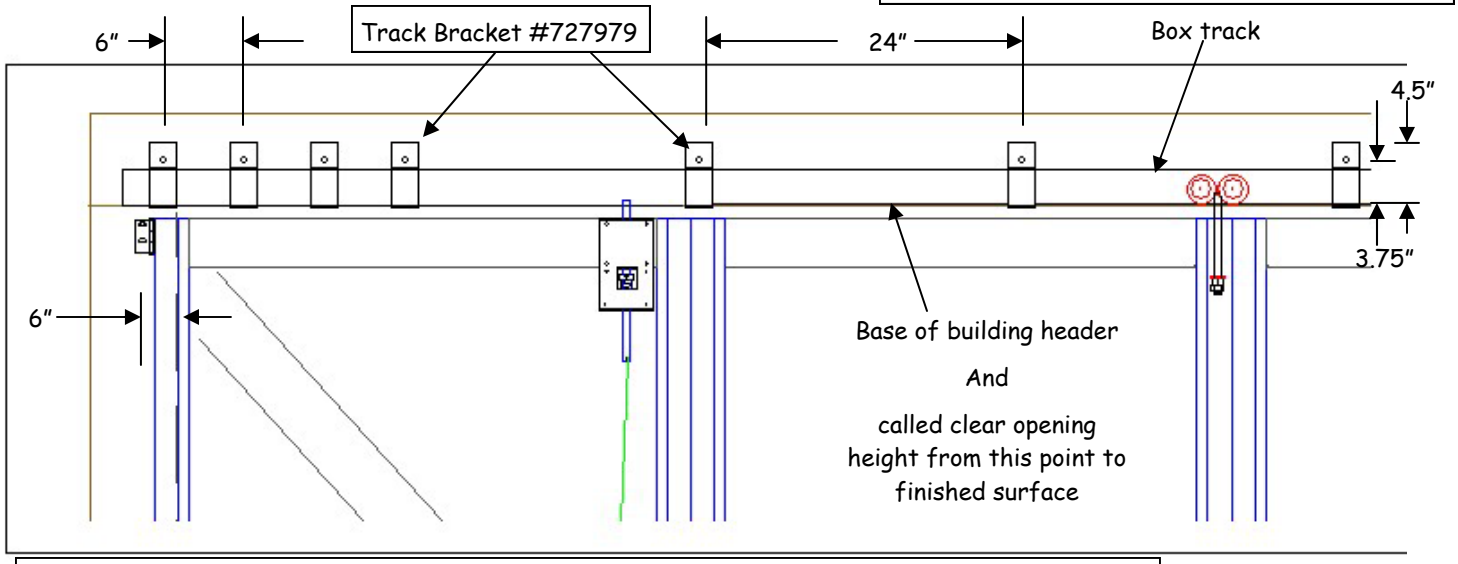
1" Brush Seal now supplied with aluminum holder for top seal. Install on bottom of header.



Track brackets (#727979) Rain Cover Support Bracket and installed using Lag Bolts (3/8 x 2 " supplied). Splice brackets (#714944) will be used to connect the joints of the track. Track Cover is installed using smaller lags.

Each end of the completed track is plugged with track plug (#714366)

These instructions are intended for a wood building, for a steel building, see structural list for correct lag bolt part numbers.



Extend Track 6" past opening on each side to allow trolley to remain in track with door open.

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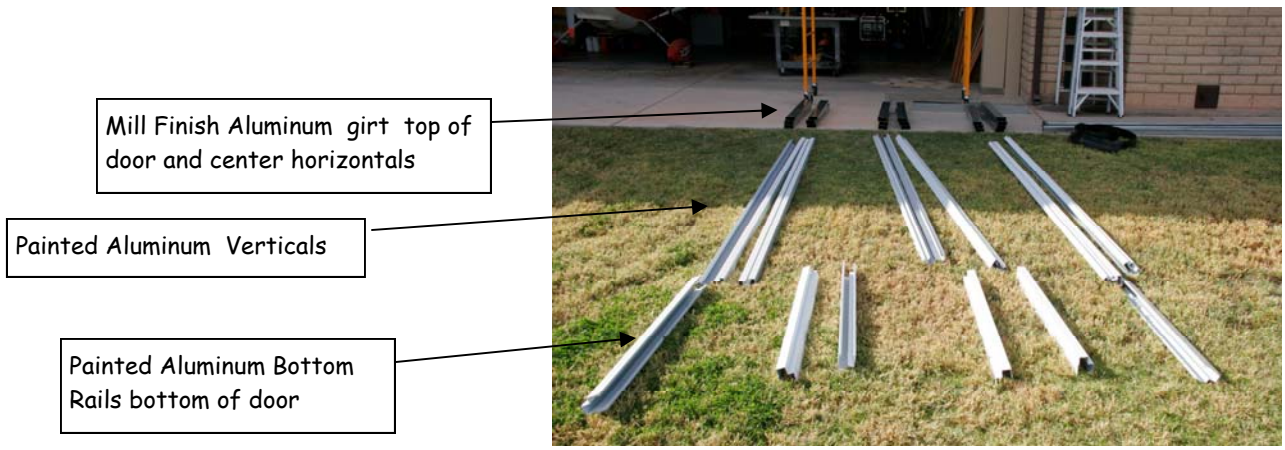
4.0 Door Panel Assembly Introduction — Panels are assembled individually, then hinged in sets of two. The panels will be hung as sets. After hanging, the sets are hinged together from the front. The door is then hinged to the side columns. The standard panel width is 40.25", The panels that meet between the two door halves will be wider than the standard panels by 4". This is to allow the trolleys to be inset. By insetting the trolleys, the door will fully close. These two panels are each paired with a standard size panel. There also may be an excess panel width on two or four of the panels to adjust the final width of the total door to meet your specifications for opening width. The print for your door is included in this instruction set to inform you of the actual dimension of your door to include the panel widths.

As you assemble the panels, it is very important that the panels are square. This will be mentioned several times in this instruction set. We have two suggestions on how to insure that the panels are square. The first is to build a jig that utilizes either metal or wood sides and is the width of the standard panel which is 40.25". This way each panel can be easily squared and bows in the vertical are eliminated. You can adjust this jig for any excess panel widths which may be called out in your print. Alternatively, after installing the TEK screws in each of the four corners, you can measure from the left upper corner to the right lower corner and compare this measurement with the same measurement from the right upper corner to the left lower corner. These two measurements should be identical, which will insure that the panel is square. If they are not the same, the panel should be adjusted to make the two dimensions equal. At the same time, you should eyeball the verticals to determine if any bowing is occurring. Any apparent bowing should be eliminated. This will be done by adjusting the fit of the steel girts in the verticals.

4.1 Panel Overview — Please review fold-out sheet entitled **"Drawing Specific to your door"**. This overview will give you a perspective of each type of panel, on which verticals the hinges are installed, whether on the back or on the front of the door. This overview also provides a view of the locations of the trolley and lock pins. It should be noted that other than the excess panels and the very center verticals, the right side of the door is a mirror image of the left side of the door. Therefore, the trolleys and lock pins are located on opposite sides of the corresponding panels. We have included a full page drawing with associated part numbers of each type of panel set.

4.2 Panel Assembly — We recommend that you physically lay out all of the major components associated with each panel set in front of the opening of the door. This will help you visualize the panel and how it is hung from the track. We term the far left and right panels as the Outboard Brace Panel, which is standard width. For this door configuration the Outboard Brace Panel will have both top and bottom locks. We term the panel which will house the trolley and the lock and latch mechanisms as the active panels. The panel which is neither is an inactive panel. The panels will be assembled separately. Then the panels will be hinged in sets of two. Then the panels will be hung as sets before hinging the panels sets together with front facing hinges. The top rail (Aluminum girt) is pre drilled for the trolley and lock pins. We suggest that the panels be assembled in pairs in the order provided in the instruction set. They should be folded and set aside while you complete each set. Assemble the panels face up with the "J" trim of the vertical facing up. This will represent the front of the door. The exterior sheeting will be installed in the "J" trim of the vertical.

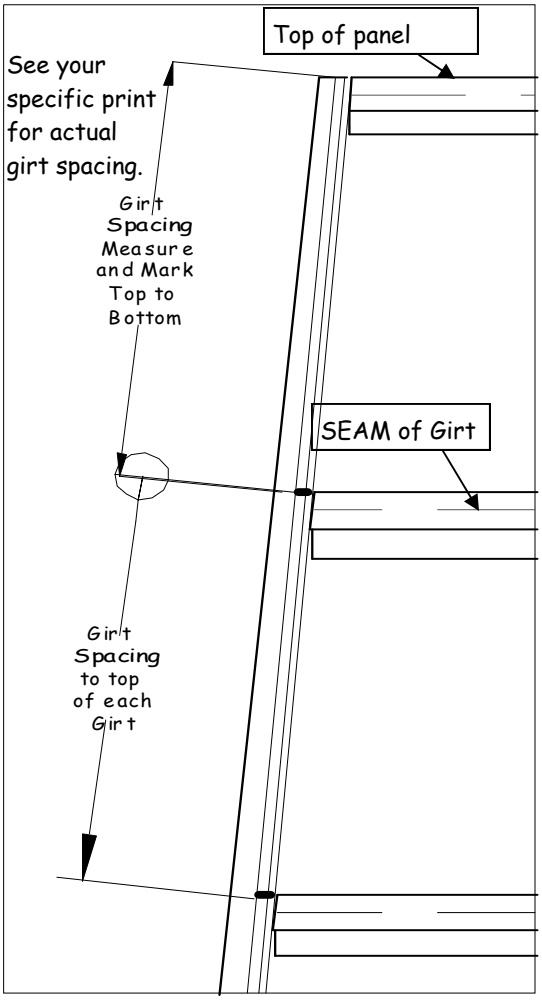


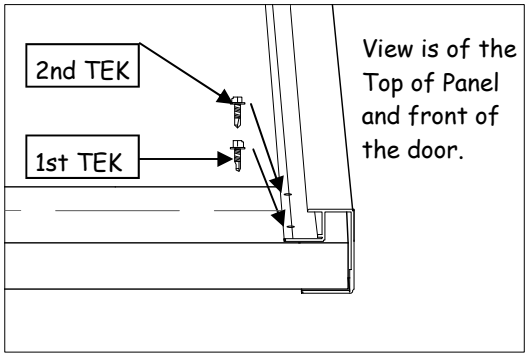


Fitting the girts into the verticals



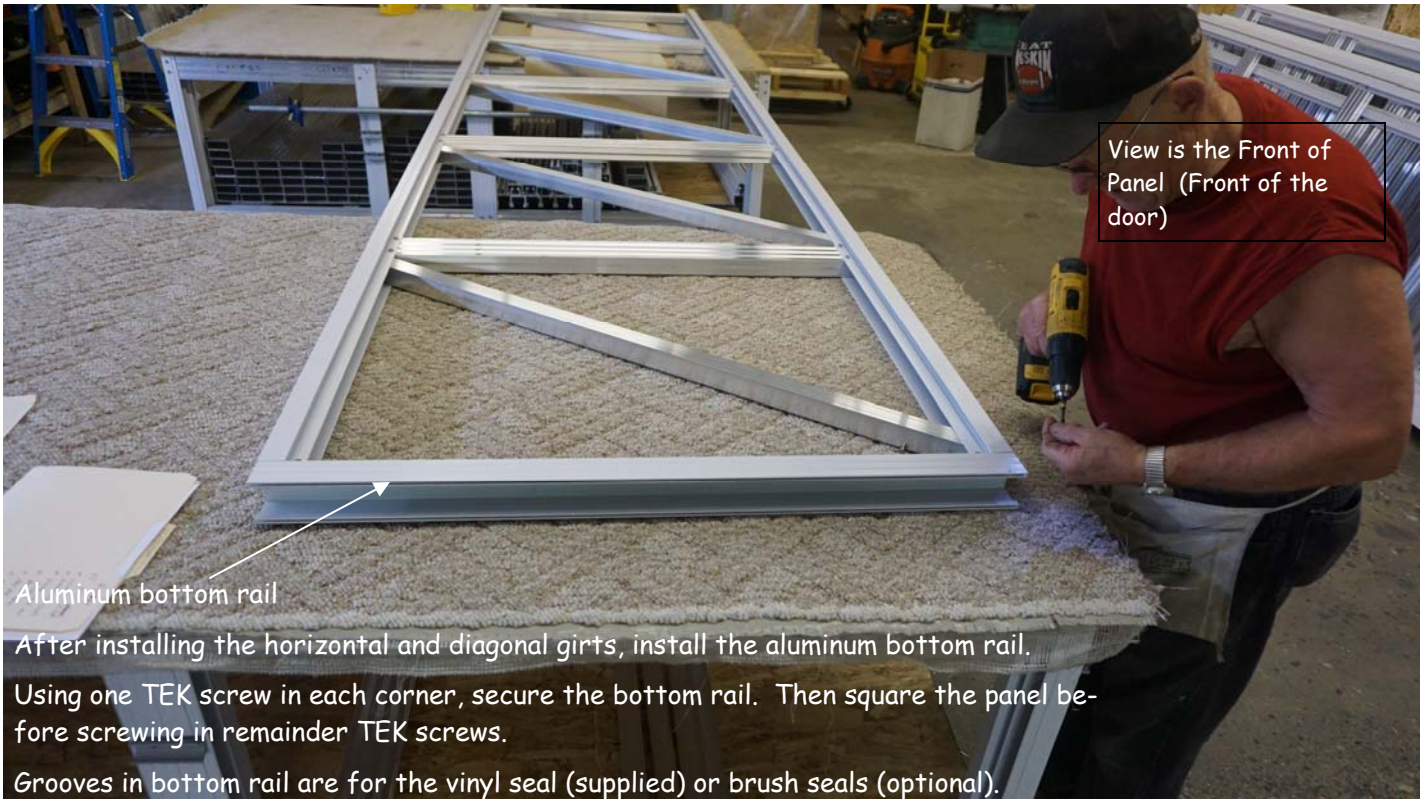
4.3 Outboard Brace Panel Set — Assemble the panels in sets of one active panel and one non-active panel. Assemble the panels starting with the panel which will attach (hinge) to the column with one outboard brace panel and then an active panel. Assembly and part numbers used are shown on page 14. As previously stated, it is important that each horizontal girt is firmly fitted into the vertical. **It is necessary that the panels are square.** Measure and mark each vertical for the girt spacing listed in YOUR print. This spacing is from the top of the door to the top of the next girt, use the same dimension to mark the top of each girt. Please observe that on the active panels the top girts are pre-drilled for insertion of the lock mechanism and trolley. The RIGHT side of the door will be the MIRROR image of the LEFT side of the door.



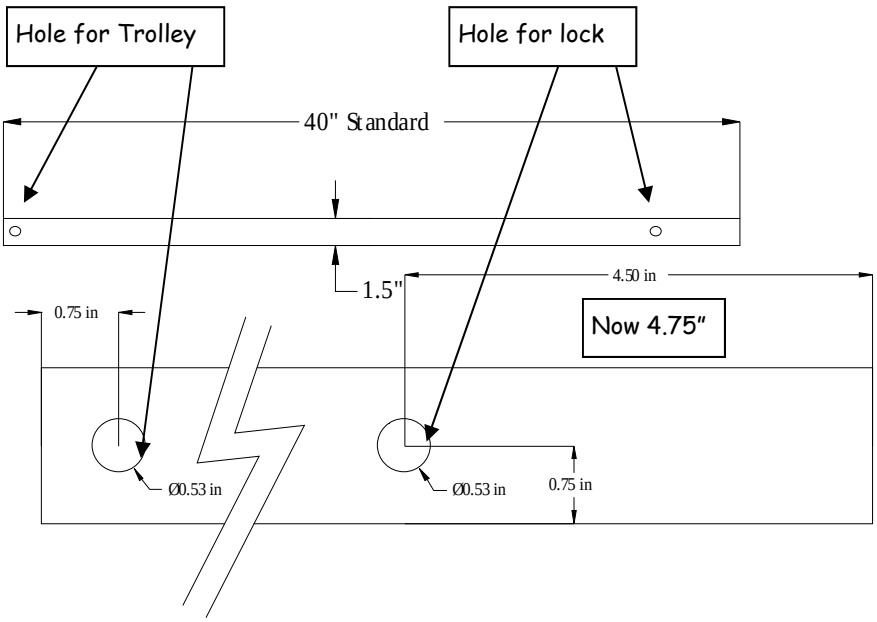


First TEK Screw, place along locator line of vertical

Starting at the top of the outboard panel, insert the top girt into the side of each of the two verticals and screw in one 12-14 X 3/4 pancake quad TEK screw (close to the top, one on each side– 1st TEK). There is a locator line on the vertical for placement of the screw. This will locate the screw in a position that will allow the sheeting to fit into the vertical "J" trim. Measure the vertical, as indicated to the left, for placement of subsequent girts. Insert the girts. Insure that the girts are fitted flush to the vertical. A diagonal brace girt is installed in each bay of the Outboard Brace panel. These brace girts are sized to fit without cutting and the supplied butt end of the girt will be stronger than having the end cut at an angle. One diagonal girt will have to be cut at site. This girt is noted on the diagram page 14. The panel must be square for these to fit properly. 2nd TEK screw inserted after panel is square.



Top views of pre-drilled Aluminum Girt # 500891



During the process of assembling the front of each panel, should a gap between the vertical and girt be noticed (or bowing of the vertical), remove the TEK screw, position the girt fully into the vertical and reposition the TEK screw at a new location.

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4.2 (Continued) After fitting the horizontal and diagonal girts, tightly insert the bottom rail to the bottom of the panel. Insert one TEK screw at each corner using the locator line on the vertical as a guide.

After insuring that

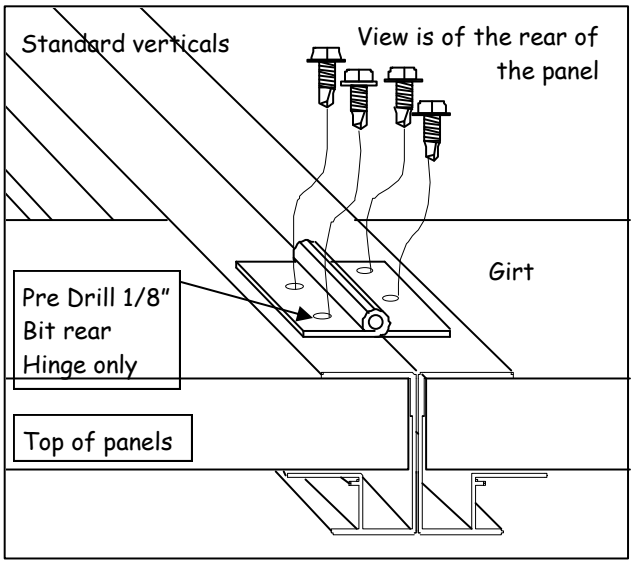
1. The panel is square
2. The girts fit firmly in the verticals
3. The verticals are not bowed

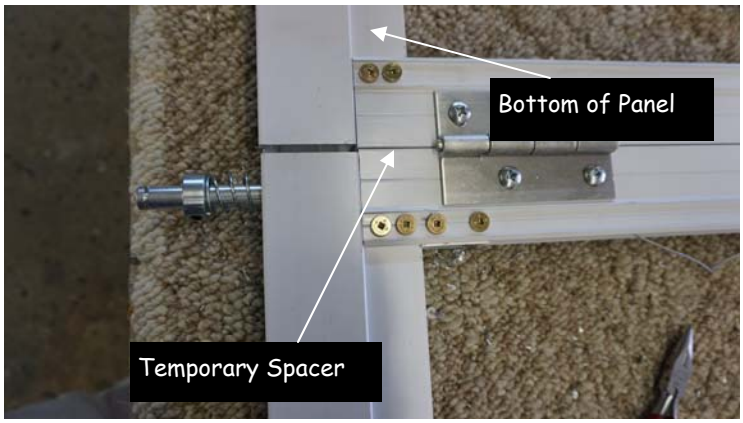
Insert a second TEK screw near the bottom of each horizontal girt and a second screw beside the first screw in the bottom rail. After you have completed installing TEK screws in the horizontal components, install TEK screws in the diagonal brace girts (two places in each vertical).



This photo demonstrates the utilization of measuring from corner to opposite corner and matching the dimension with the opposite corners to insure that the panel is square.

Repeat this entire process for the active panel to be paired with the Outboard Brace Panel. Observe the location of the pre-drilled holes in the top girt. There are no diagonal braces in the rest of the panels.





4.3 Hinging the Outboard Panel Set

The first hinges to install are on the rear of the Outboard Brace Panel Set. The hinge is attached at each location with four (4) 1/4x20 type F screw. Use a temporary 1/16" spacer between the verticals when installing the hinges to insure proper movement of the panels. You should Pre Drill the rear hinge hole locations with a #7 bit. Not all joints are hinged together. On larger doors, the door will operate in 2 or more sections going each way. At joints that are not hinge, an astragal will be supplied to close off any gap. ONLY attach Hinges to the rear of the two panels and the side hinges to the outboard brace panel at this time. The Front Hinges will be attached after all panels are hung.

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4.4 Sequence of Panel Set Assembly

1. Lay out panel components in front of door.
2. "J" Trim of Aluminum Vertical is up (toward front of panel or front of door).
3. Measure and mark girt locations on verticals.
4. Start at top and insert top girt into place and secure with one (1) TEK Screw in each corner.
5. Place remainder of girt components in place as pictured on page 14.
6. Fit the Aluminum Bottom rail in place intothe two verticals.
7. Screw in one TEK screw in the bottom corner securing the bottom rail then insert TEK screw in the opposite corner.
8. *SQUARE* the panel using one of the methods provided.
9. Insure that the girts fit tightly and that the verticals aren't bowed.
10. Insert a second TEK screw near bottom of each girt and a second screw beside the first screw in the bottom rail.
11. TEK Screw the horizontal girts.
12. After the horizontal girts are secured, TEK screw the diagonal brace girts, two places each vertical.
13. Complete the active panel in the same manner.

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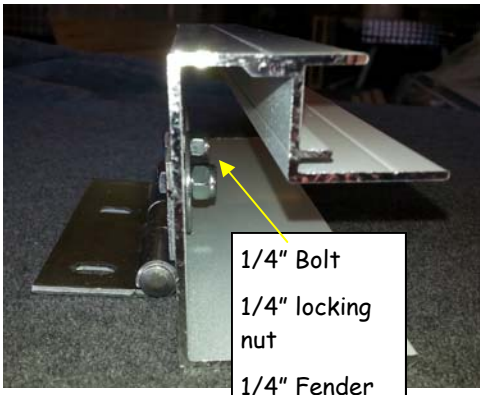
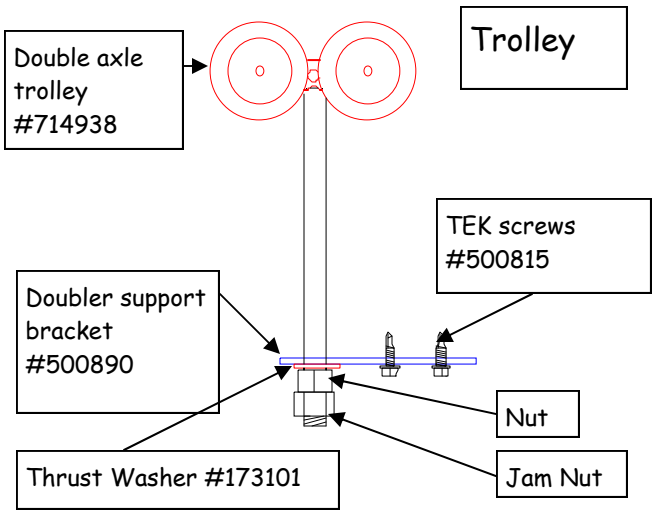
4.5 Installing Side Hinges — **Installing Side Hinges** — Attach the Outboard Brace Panel side hinges to the side of the Outboard Brace Panel with 1/4 bolt, nut and fender washer, locating one hinge at each girt. Use a flat surface to facilitate proper attachment. The 1/4" fender washer has been cut so that overlap will not occur.







4.6 Installing the trolley and the lock pins — Install the Lock Brackets #500887 for the top lock pins and support plate for the trolley. Use standard 12-14x3/4 pancake head TEK screws. Install the trolley and the lock pins. The outboard brace panel will have a top and bottom lock installed also and the hole in the top girt will be pre-drilled for the lock pins. The other top girts are pre-drilled for the trolleys and lock pins. When installing the trolleys, should the assembly TEK screws cause interference, take the TEK screw out and reinstall in an area that does not cause the interference. Measure, Cut Connect the cable between the top and lower girt. Secure the cable at the lower girt with a TEK screw. Holes in top Aluminum girt may have to be reamed for top lock (The pin movement must be smooth and easy). The hole for the bottom lock will be site drilled in the aluminum bottom rail—bracket to be flush on bottom.

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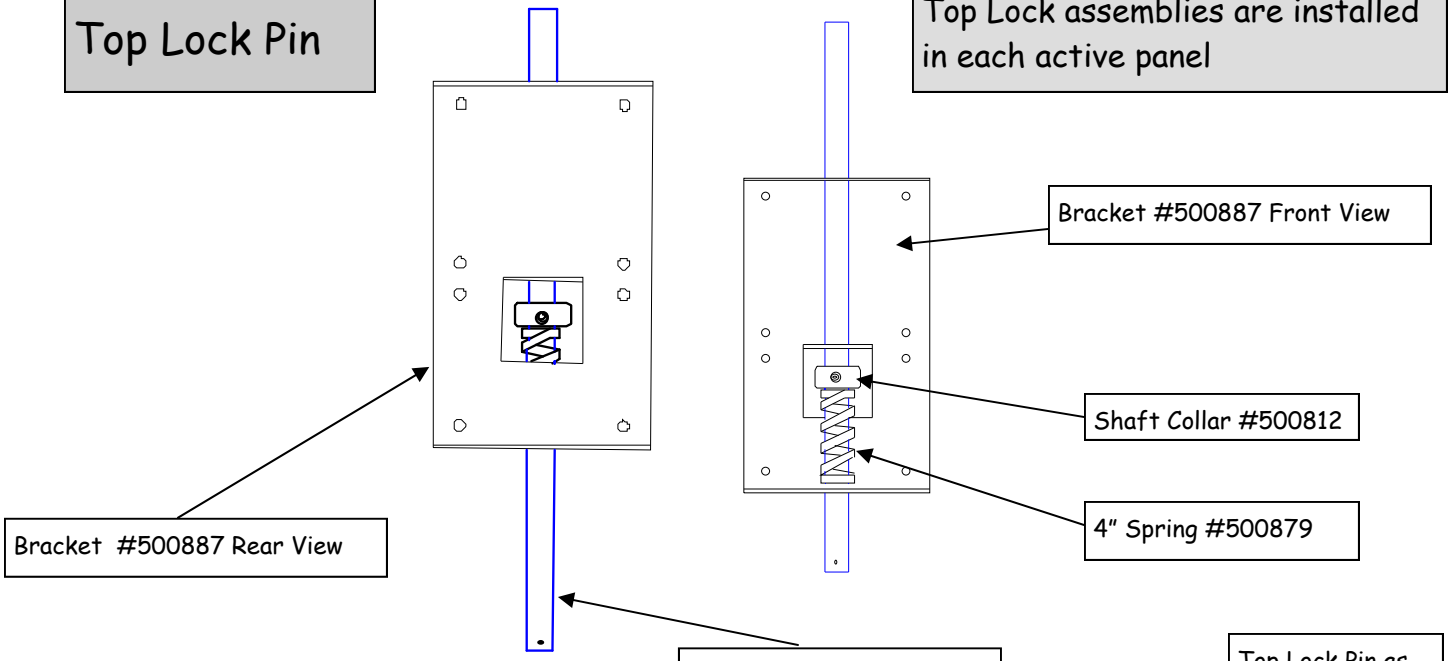
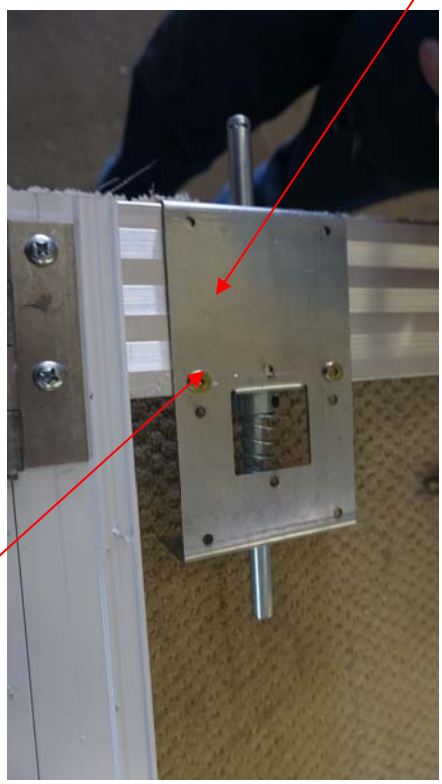
Top Lock Pin

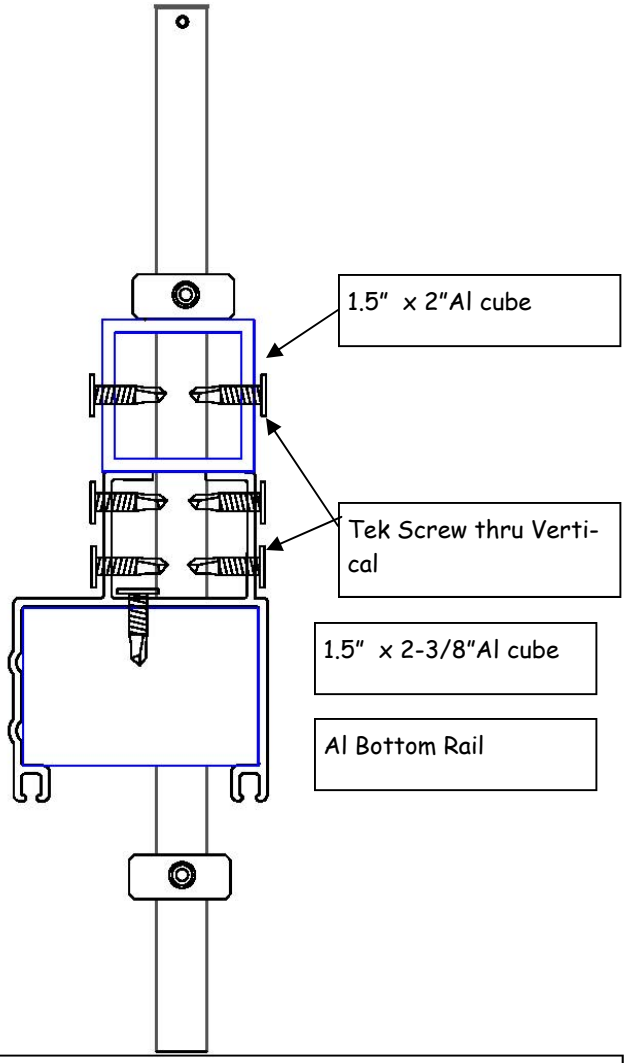
Top Lock assemblies are installed in each active panel





Photos showing placement of the bottom lock pin in the Aluminum Bottom Rail for the right and left out-board panel sets (second panel in from end panel). The right and left panels are mirror images of each other.





The bottom rail is drilled for the bottom lock and the aluminum tube is at-tached at the correct location for the bottom lock. There will be a second alu-minum tube added to reinforce the bottom lock above the bottom rail. It may be necessary to ream the holes to have the lock pin slide smoothly.

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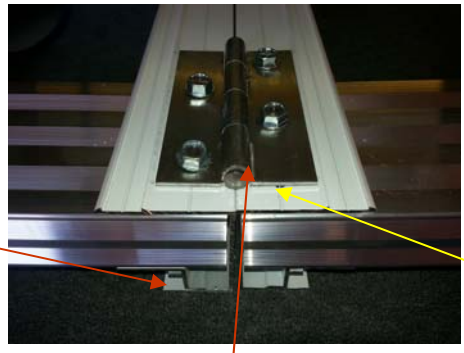
Hinge Placement and installation

Rear hinge placement and attachment. These hinges are installed as you hinge each of the sets together. Attached with Type F screws 1/4x20 Phillips head. Pre Drill using a #7 bit that is supplied



Front of door facing down

Sheeting fits into J trim

Note: Top Rear Hinge must be lowered 1/2" from the top of the door. This will cause the bottom screw to miss the girt. Use a fender washer and nut on the inside for this screw.

Hinge 4" Aluminum

Front hinge placement and attachment. These hinges are installed after you have hung the panel sets.

Hinge 4" Aluminum



Front of door facing up

Sheeting fits into J trim

Screw Boss extruded into Aluminum vertical. Pre drill #7 hole at indented guide line on vertical using hinge as guide.

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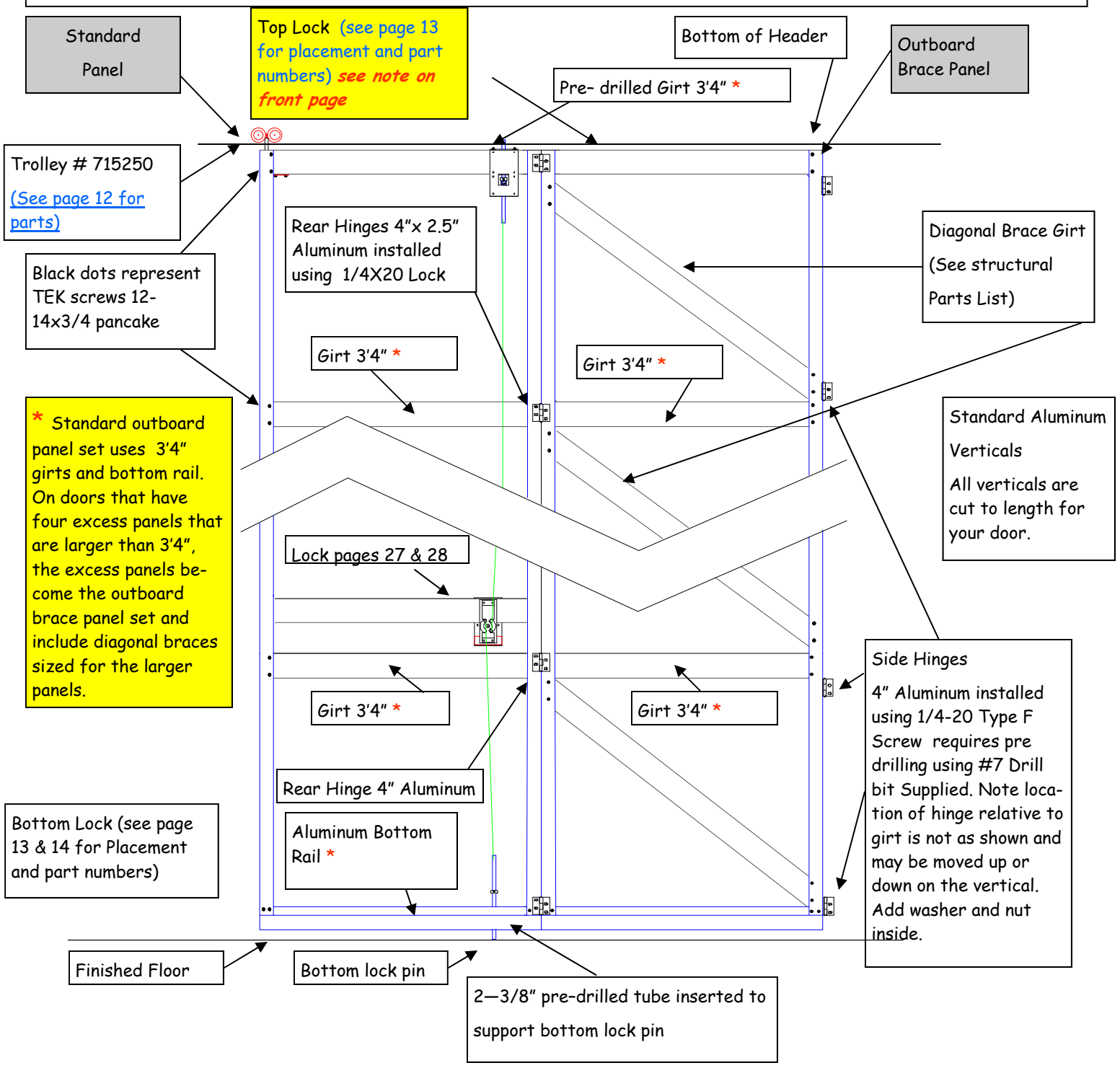
4.7 Outboard panel set for the Concealed Stay Roller (CSR) system. Both panels are 3'4" *. View of this panel set is from the inside of the hangar looking out. This panel set will be hung on the right side of the hangar (right as you are facing the hangar door from the inside).



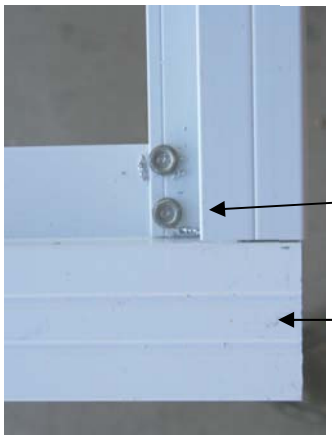


Photo showing the placement of the TEK Screws securing the bottom rail

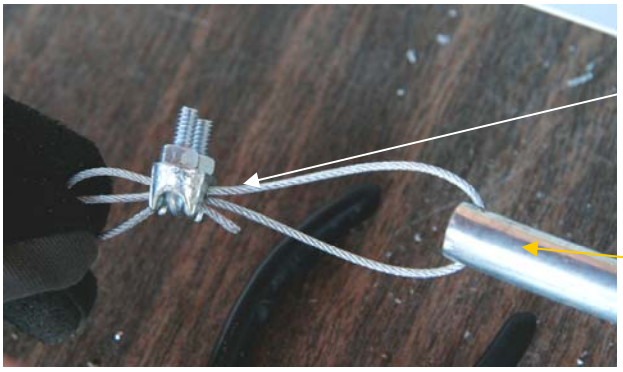


Photo showing assembly of the lock cable in the lock pin



Installation of top lock in top girt.
Photo is from Front of panel



Photo showing the installation of the trolley.
Photo is from rear of panel.

4.8 Assembly of the Standard or Excess Panel Set — In order to meet the full dimension of the closed door, there may be two or four panels which are excess in width (different width than the standard). Please see your print to determine if you have excess panel set (s) and if you do, your print will provide the dimensions of the width of the panels in this excess panel set (s).

Utilizing the diagram on the next page, Assemble this panel set just as you had the Outboard Brace Panel set. There will be no diagonal braces in this panel set. Fold this panel set and gently stack with the previously assembled Outboard Brace Panel set.

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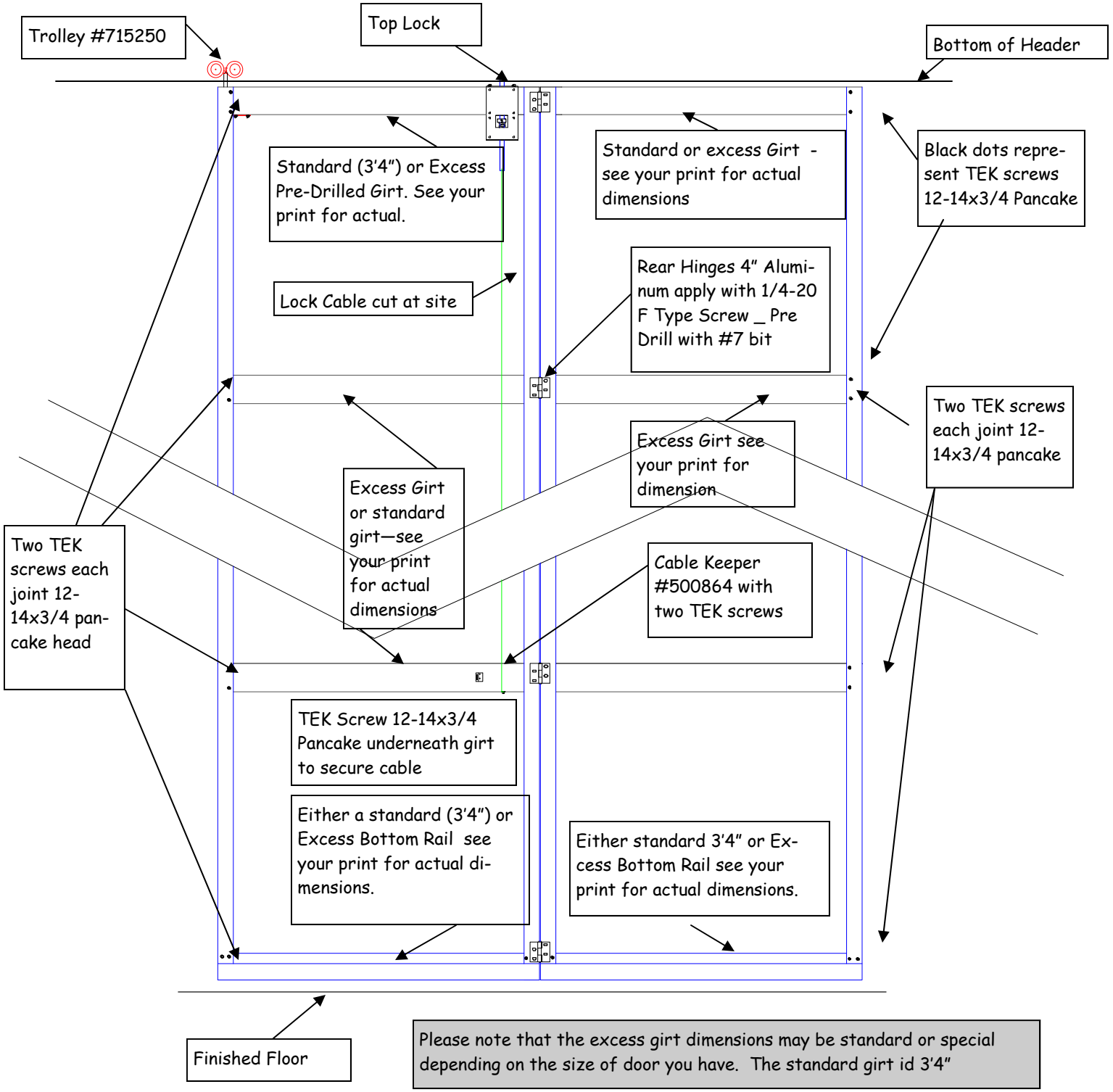
4.9 Standard or excess panel set for the Concealed Stay Roller (CSR) system. View of this panel set is from the inside of the hangar looking out on the right side of the door. These two panels will either be 3'4" or will be two equal sized Excess Panels as called out on your print.



Please note that the excess girt dimensions may be standard or special depending on the size of door you have. The standard girt id 3'4"

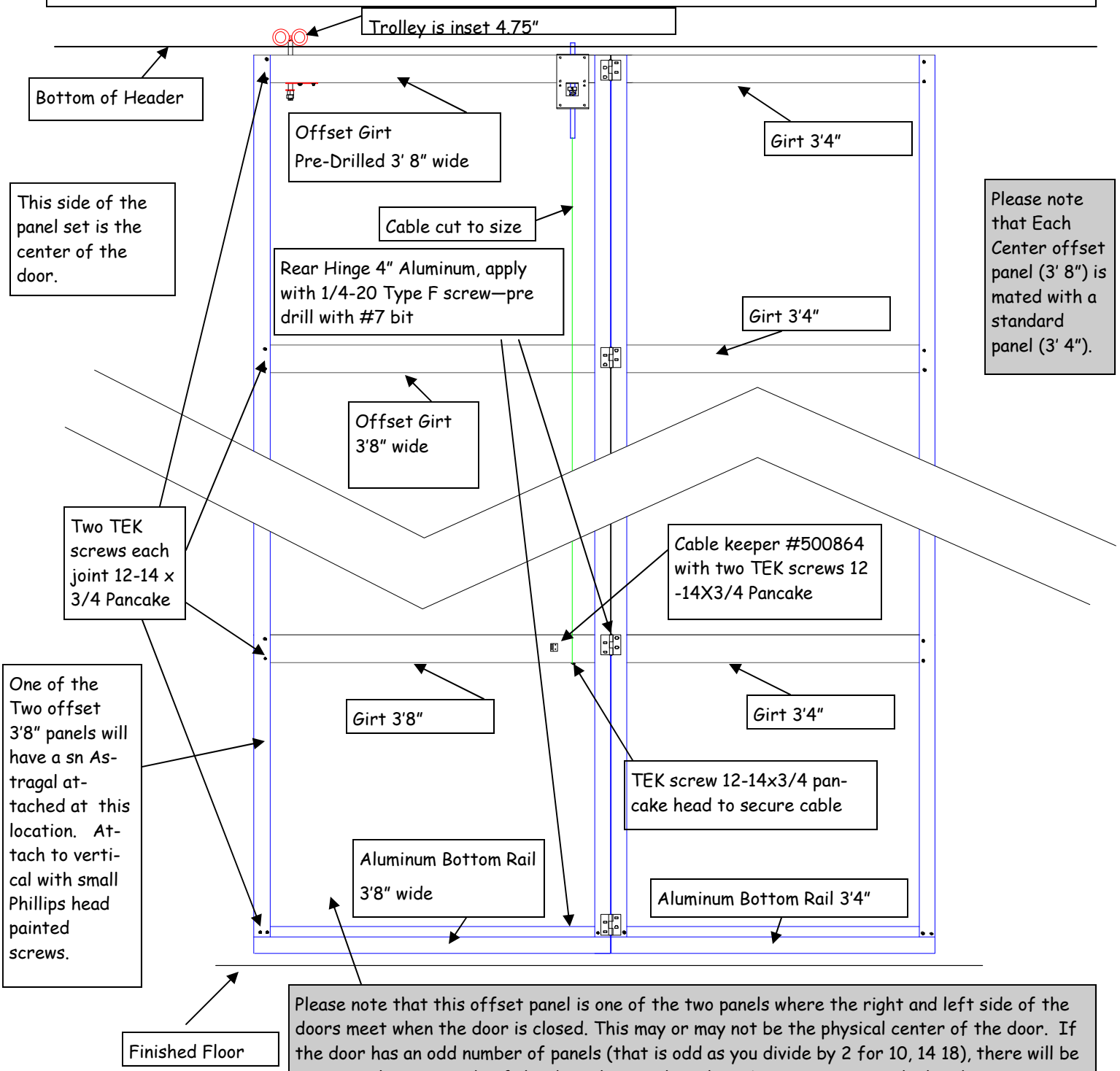


Folding and stacking the assembled panel sets prior to hanging

4.10 Assembly of Center Offset Panel Set — The adjoining panel sets (where the door from the left meets the door from the right when the door is closed) will have the very center panel assembled with Girts and Bottom Rail measuring 3'8". The Trolley is inset 4.75" to allow the center two panels (from the left and right side of the doors) to meet without a gap. One of the center verticals will have an astragal attached with small painted Phillips head tek screw and provides for overlap when the door is fully closed. (See diagram next page). Please note that this may or may not be the physical center of the door. If the door has an odd number of panels (that is odd as you divide by 2 for 10, 14 18), there will be more panels on one side of the door than on the other. Does not matter which side. The offset panel is paired with a standard panel. When the door is open and stacked this center offset panel will extend into the hangar.



Center Offset Panel Set for the Concealed Stay Roller System. Each of the center panels (two) is 3'8" with the trolley inset by 4.5" to allow full closure of the door. This view is from the inside looking toward the outside. This is the rear of the panel set. Other than the vertical with the astragal, the panel on the left side of the door is the mirror image.



Please note that this offset panel is one of the two panels where the right and left side of the doors meet when the door is closed. This may or may not be the physical center of the door. If the door has an odd number of panels (that is odd as you divide by 2 for 10, 14 18), there will be more panels on one side of the door than on the other. Does not matter which side.

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5.0 Hanging the Panel Sets — Place wood spacers on the floor. These spacers will support the panel sets until the panel sets are hinged together.

Utilizing 2 to 3 individuals, insert the trolley for the assembled Offset set (center panel) into the track and move towards the middle of the opening. Then insert the excess or standard panel set. Finish with the Outboard Brace Panel Set. Repeat on the other half of the door.





Support the Panel sets with wood spacers before the panels are hinged together.

6.0 Hinging the Panel Sets Together — Clamp the adjacent panel sets together. Note: all doors have an even number of panels but on doors that have an uneven number of panel sets (please see your print for exact number of panels) the door will have one more set going one way than there is going in the other direction. It does not matter whether the right half or the left half of the door has the extra panel set. Attach the front hinges at the joint between the panel sets. These hinges are attached using either 1-4x20 lock head tek screws or 1-4x20 type F tapping screw (pre drilling is required for the type F screw and recommend for the tek screw. Pre drilling with a small bit (1/16" to 1/8" helps provide more accurate holes for the hinge attachment). The verticals are extruded with a screw boss at the location the screw will be inserted so the hinge can be located at any point but it is best to place at each horizontal girt.

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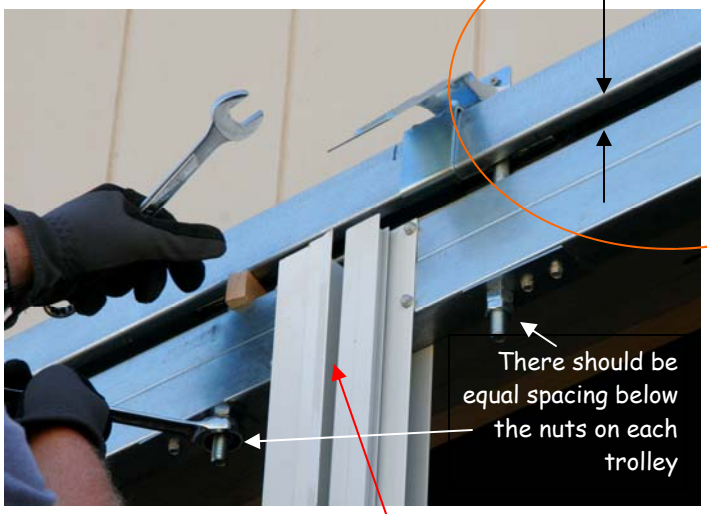
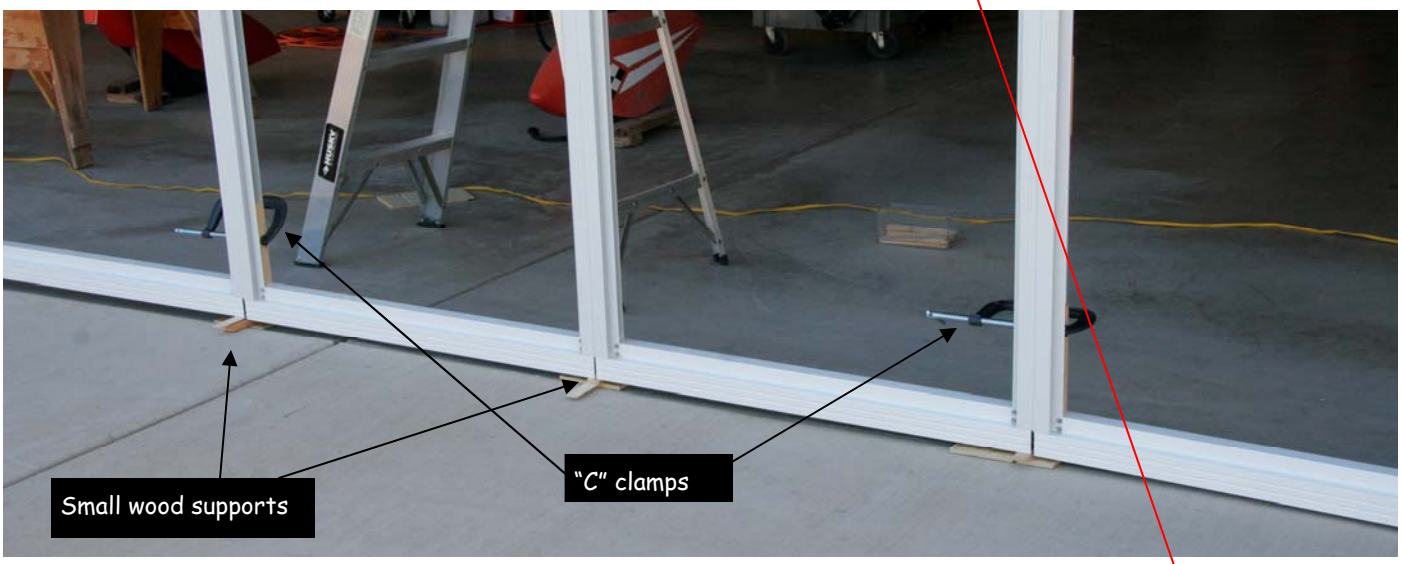
6.0 (Continued) Hinging the Panel Sets Together







6.1 Level the door at each trolley by adjusting the nuts to approximately the same height to cause the top of the door to be 1" below the header. After the door is completed and final adjustments are made to the trolley height, jam the lock nut to the first nut on the trolley.

7.0 Hinge the door to the building columns — (support the hinged brace panel with wood blocks during this process) Center the door in the opening, allowing a little space between the panel with the double astragal and the adjacent panel such that the joint is not too tight. Temporally screw one screw per hinge for the outboard brace panel to the building column at the top, center and bottom hinge, this can be a smaller screw than the lag bolts supplied for final attachment. Open the door and confirm that the outboard brace panel is hinged to the column at the right height. If this panel is hinged to low or to high, binding will occur and not allow the door to smoothly open. If this is the case, close the door, mark the hinge width location on the column. Remove the screws from the hinge at the column. Open the door and mark the hinge height with the door open. Close the door enough to access the hinges and again place screws into the hinge to the column at the width and height marks. Confirm that the panels will open again. Once this is completed, the hinge height is established unless the trolley height is changed. In that instance, it may be necessary to adjust the hinge height. When the door operates easily, complete the installation by screwing in the remainder of the bolts in the hinges to the column.

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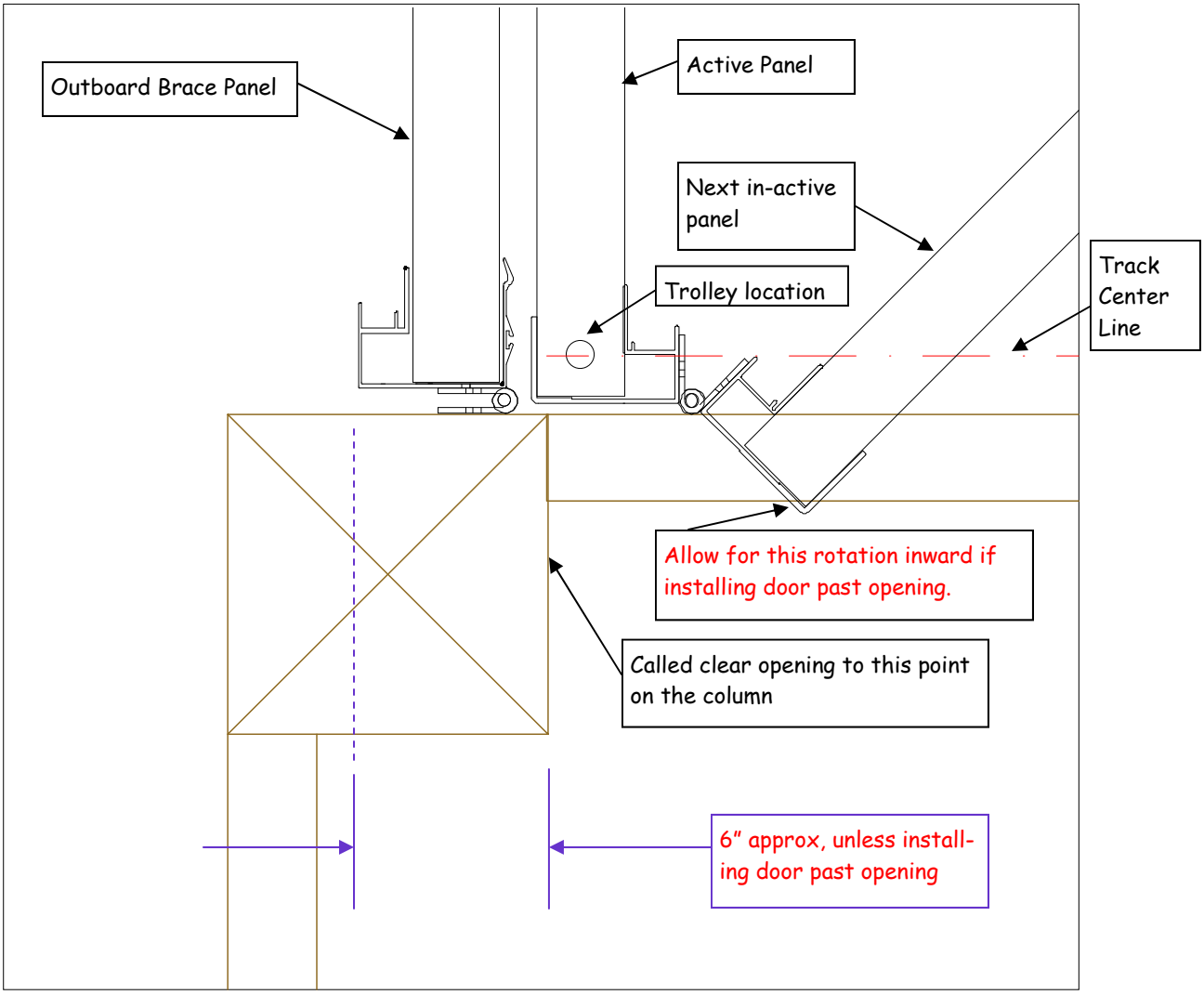
7.1 Top View of hinge placement on Column of the building



NOTE: If your door is designed to extend an additional distance past the opening to optimize the opening width, then refer to your print to determine dimensions of framing needed to accommodate the entire door when closed. The framing must be at least 3" in depth in order to accommodate the door panels as they rotate in a stacked fashion. In addition, the dimension of the offset in the offset panel will have to be taken into account when determining the depth of the framing.

Photos showing hinging the panel sets together and hinging the door to the columns.









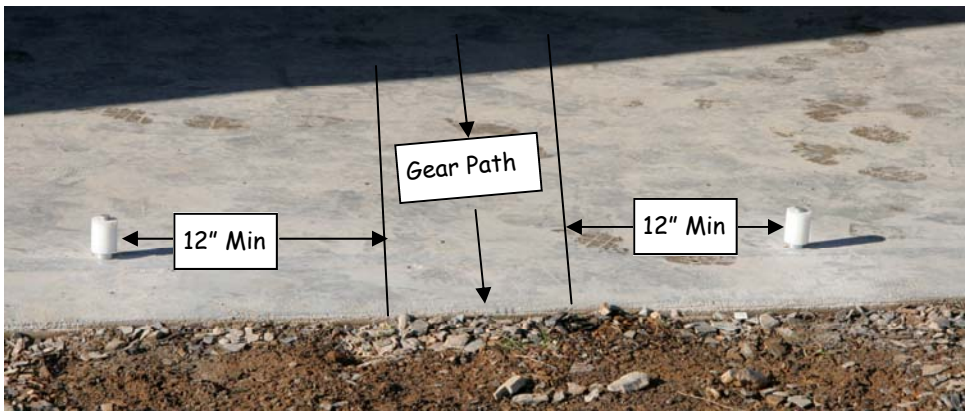
To see a video of the operation of the door opening and closing, go to You Tube URL:

http://www.youtube.com/watch?v=g-BUqX16SOU

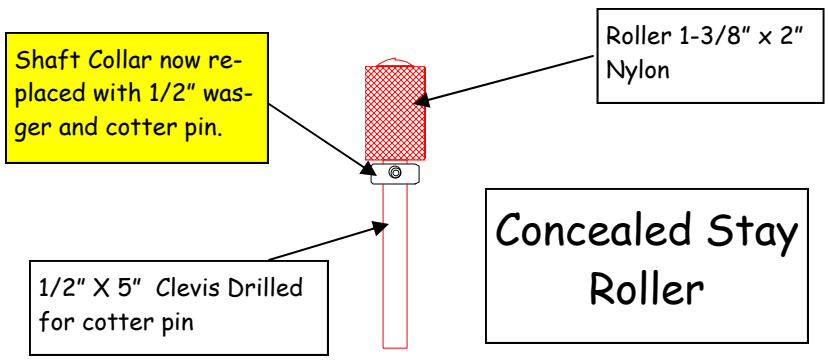
8.0 Installation of the Concealed Stay Rollers — **The Concealed Stay Rollers "CSR" must be installed prior to attaching the exterior sheeting to the panels.** Mark the center line of the Bottom Rail on the surface as you open and close the door. Also mark the path of the Aircraft gear as you move it or other equipment in and out of the hangar. Mark and drill the floor for the CSR's locating them at least 12" away from the gear path and any other areas you marked. If it is desirable to occasionally remove the CSR's, we recommend that you install a larger pipe with a minimum 1/2" ID as a receptacle for the CSR. As long as there is no more than one panel that does not have a CSR, that is ok. However, if more than one adjacent panel does not have a CSR then a manual foot bolt must be installed. Each door panel should have a stay roller and if an area is marked that is larger than one complete panel, we recommend that you install a manual stay roller which will be lifted out after door is open. **Drill** a 17/32" hole for the Stay Roller clevis pin or Foot Bolt in floor. This may be oversized if a stub pipe (not supplied) is to be inserted in the floor to receive the Stay Roller Bolt. Install the Stay Roller in the drilled hole.





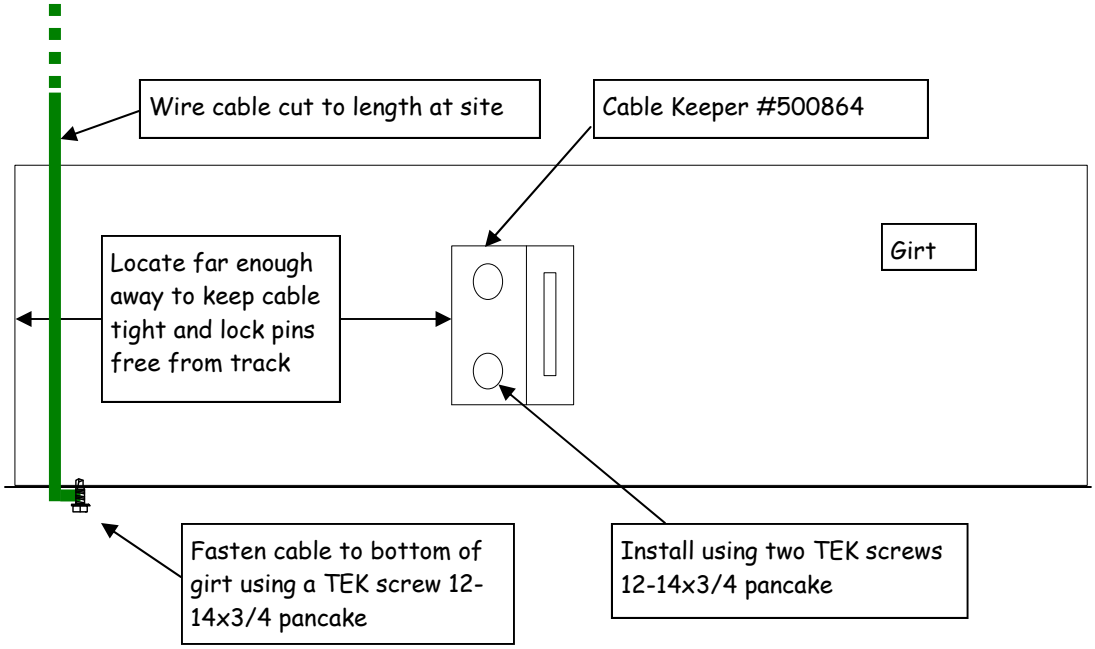






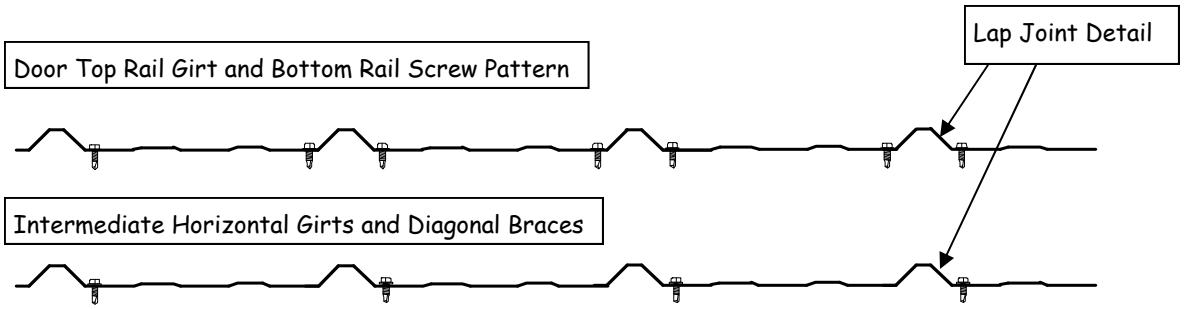


9.0 Installation of the Cable Keeper — All of the lock pins on the panels without the latch system can be operated from the interior just by pulling the cable and hooking it on the cable keeper. The Keeper, #500864, is installed at a comfortable working height to hold the cable and keep the lock retracted as the door is opened. This keeper is TEK screwed to the girt about 5" away from the cable.



10.0 Install the Exterior Sheeting — First Determine where the ribs of sheeting will be located on the panels and mark the location of the portion of the sheeting which is flat. Locate the where the Lock will be located on the flat area so that the exterior handle can rotate and not hit the ribs of the sheeting.

This screw pattern layout is for the steel sheeting purchased locally. If polycarbonate is utilized, pre-drill the polycarbonate with a minimum 1/4" drill bit before attaching to the door panel. If Polycarbonate is supplied, a "J" trim is supplied for the top of the door and a starter strip for the bottom. Mark the location of the ribs of the polycarbonate on the door panel and TEK screw the "J" trim and starter at the rib location.



Steel Panel Screw Pattern Recommendations: The top horizontal rail and the bottom rail will have one screw at each side of each major rib. The remaining horizontal girts and diagonal braces will need one screw at one side of each major rib. For other configurations of steel sheeting and other types of sheeting, follow the manufactures recommendations, but use 80 to s100 screws per square of sheeting.

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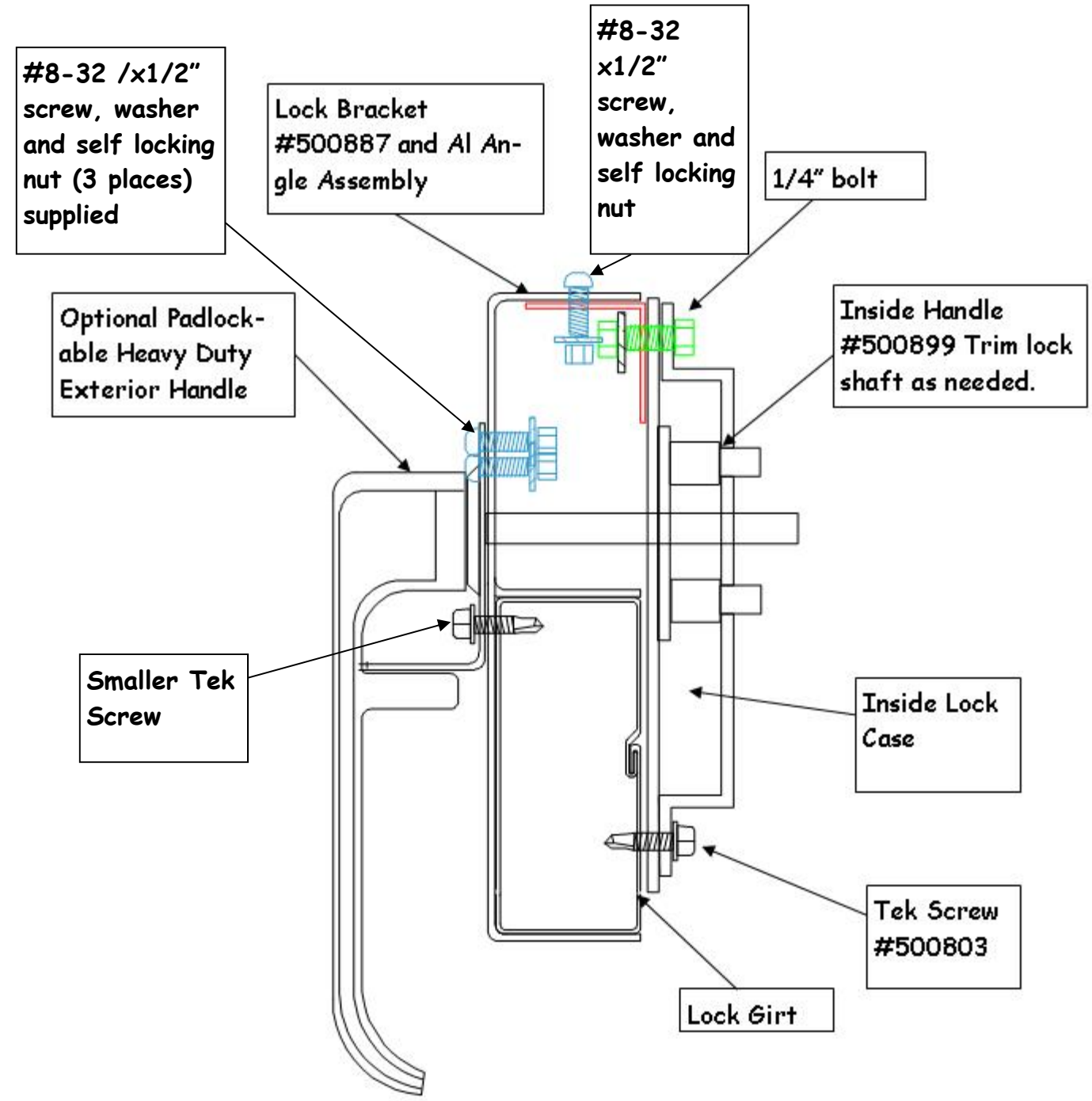
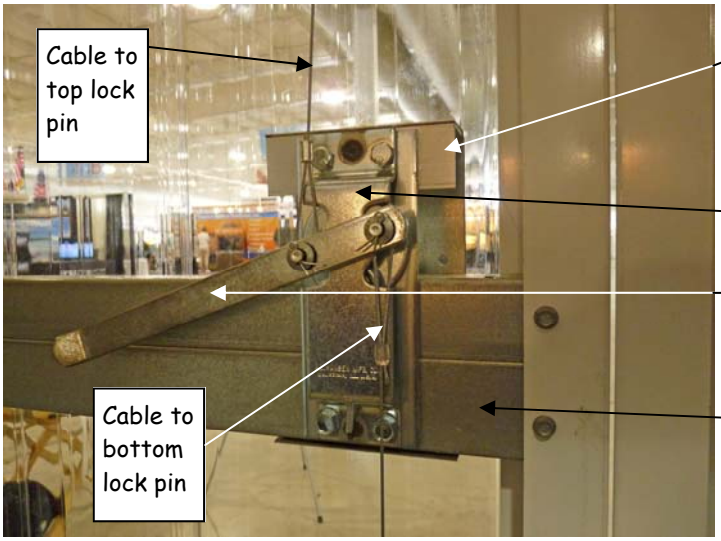
Optional Lock Assembly





#500887 bracket assembly.

Lock mechanism

Inside latch handle

Lock Girt

View of lock from inside the door as it is mounted on the lock girt. The bracket assembly (#500887) is placed over the girt from outside the door. The lock mechanism is secured by bolts and Tek Screws as shown on previous page. The inside latch handle is put in place as shown and secured by washer and cotter pin with cable wrapped around the pin from the lock bracket and secured with a cable tie. Place the lock in the unlock position as shown in photo before attaching the outside handle. The sheeting is put in place before attaching the outside lock handle.



#500887 bracket assembly.

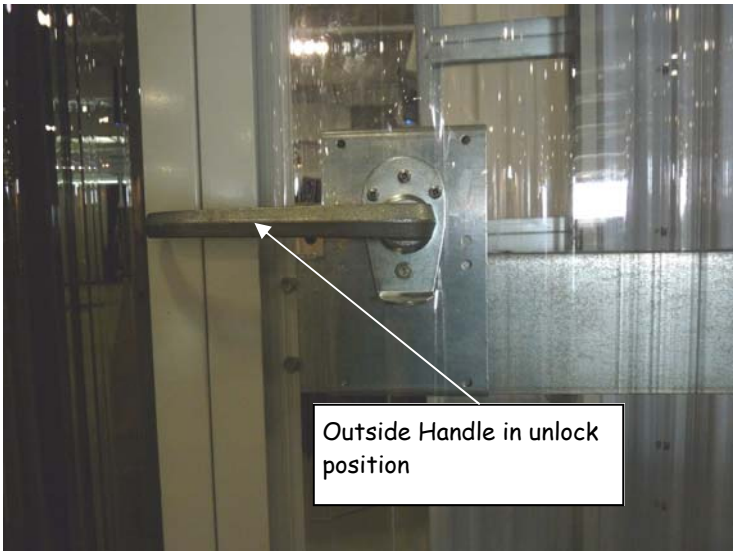
Outside lock handle in padlock position

Sheeting

View of the lock from outside the door as it is mounted on the lock girt. The outside lock handle is placed on the lock assembly with the outside handle down and the inside handle in the unlock position. The handle is shown in the padlock position.

For a video of lock assembly attach and operation go to You Tube URL:

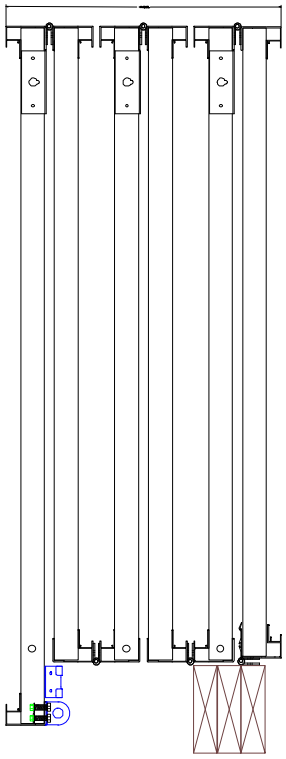
TBD





The foot bolt is needed on each center panel for the CSR system. This footbolt must be bolted to the door vertical (no tek screws) but the raised foot bolt support can be tek screwed to the first girt.

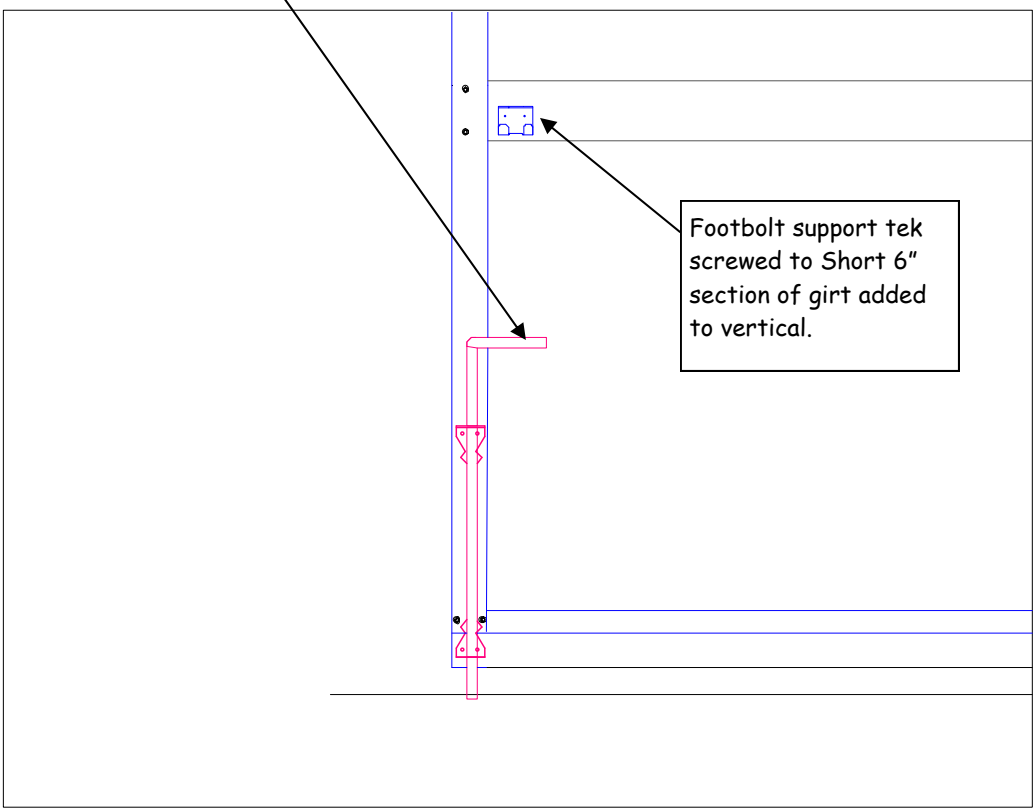
This footbolt is used to hold the door open.



Fold-Tite Stacked

Footbolt and Footbolt support placement

Footbolt is bolted to panel, it is NOT TEK screwed.



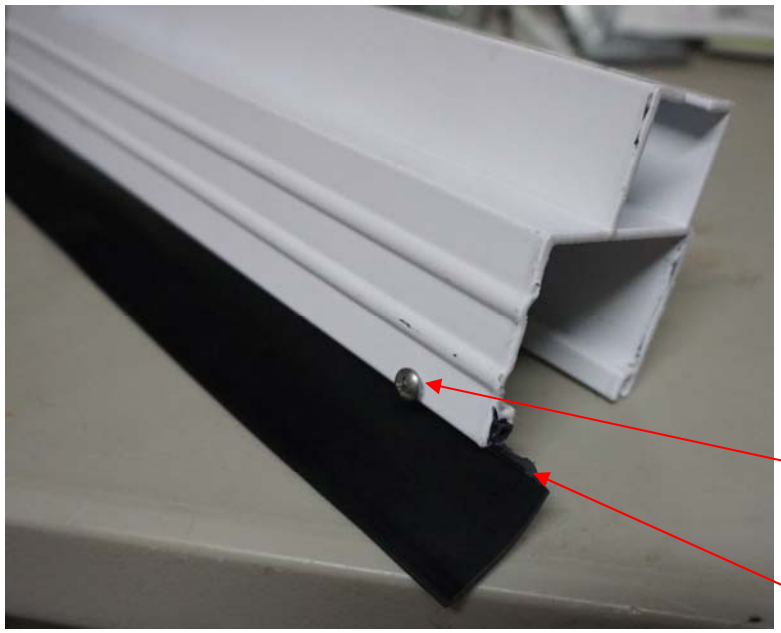
Footbolt support tek screwed to Short 6" section of girt added to vertical.

12.0 Installation of Seals — The top seal (#500835) is attached between the track & header. (see photo on page 6) The standard vinyl seal (#500905) is attached to the front of the bottom of the door (in the small channel of the aluminum bottom rail). You can purchase additional vinyl seal and insert in the back channel. Seals in both channels can be installed. The vinyl bottom seal extends 1/2" on each side. An optional brush seal can be inserted in either channel. The Brush seal must be cut even with the edge of the Bottom Rail. Pinch the channels slightly in the side and the bottom rail to prevent the seal from sliding. Foam insulation seal is provide (#500897). This will be placed on one of the verticals which are hinged on the rear and one of the verticals which are hinged in the front. This will seal the gap between the verticals when the door is closed. Use the foam insulation on the outboard brace panel to seal between the column and the door. This seal is cut square with the top and bottom of the verticals.



Seal #500905

Inserted into the channels of the aluminum bottom rail



Optional brush seal



Secure seal in place with 1/8" type F screw. Pre drill with 9/64" drill bit.

The Vinyl bottom seal can be extended 1/2" past the width of the bottom rail on each side and notch off the square top to allow the seal to index or overlap with the seal of the next panel.

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13.0 Operation of the Door

Opening the door:

13.1 First unlock the pins in the panel set closest to the building column. DO NOT attempt to start at the center and push folded panels to the side, will cause damage!

13.2 Push the hinge joint of this panel set out and pull the remaining panels towards you. The top lock pins will remain in the top track and the bottom of the door will be secure with the concealed stay rollers still concealed in the aluminum bottom rail while the door is sliding toward the column as you operate the door open.

13.3 Pull the top lock pin and operate the second panel set the same as the first, then continue until this half of the door is open.

13.4 Repeat on the opposite side.

13.5 If the exterior handle is installed, this can also be used to secure the door in the open position with the floor mounted strikes.

Closing the door:

13.6 Close the door by closing one two panel set at a time starting with the panels that will be at the center of the door.

13.7 Release the lock pin into the top track and guide the aluminum bottom rail over the concealed stay rollers.

13.8 Repeat until the door is closed.

13.9 The door can be locked from the outside, leave a gap at the center by not fully closing one half of the door, then push in the panel set with the external lock attached and secure the locks in the top track and bottom

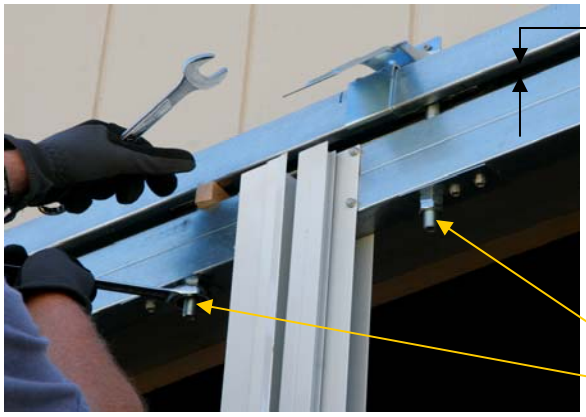
For a video presentation of the correct procedure to open and close a FT door, please go to the following YOU TUBE URL address:

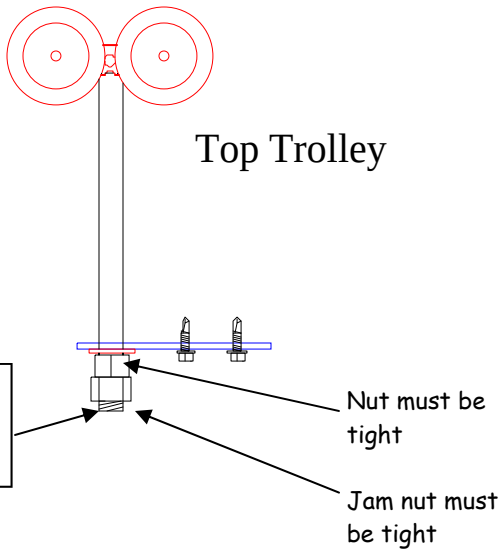
http://www.youtube.com/watch?v-BUqX16SOU

14.0 Maintenance of the Door

14.1 Lubricate hinges and locks with dry graphite annually or when needed.

14.2 Confirm that all trolley nuts are tight. All trolleys must be adjusted to give equal support. Equal support generally means that the trolley pendant bolt has the same amount showing below the nuts.





14.3 Trolley lubrication is **NOT** recommended

14.4 Confirm that all locks move smoothly and fit into the top track a minimum of 1″. Make sure that the bottom lock fits into the Bottom Floor mounted Strikes a minimum of 1″.

14.5 Confirm that all hinge TEK screws are tight.

14.6 Check bottom lock systems periodically. Confirm that the concealed stay rollers are turning and are tightly installed in the floor and fit at least 1″ into the aluminum bottom rail.





14.7 Lubrication of the upturned edges of the track (where the trolley can rub) at the stack area and for the next four feet will smooth the initial closing and final opening of the door.

16.0 Tools required for the assembly and installation

Screw Gun (or variable speed drill)

Electric Drill (with hammer function for drilling concrete)

Drill bits including

- 1/2" (metal for lock install)
- 17/32" or 9/16" (to ream predrilled trolley and lock pin holes)
- 1/2" or 17/32" (Masonry for hole in concrete for stay roller)

Drive sockets for screw gun — 5/16", 3/8", 7/16", 1/2"

Drift punch to align holes

Square

Chalk Line (to aid in track install)

Level

25' minimum tape measure

Box end wrenches

Socket and ratchet set

Cable cutter to cut control cable to size

Box cutter to cut bottom seal to length

Allen wrench set

Hammer

"C" clamps (4) for holding panels together during hinging

Tin Snips for trimming girt inside vertical at hinge

Hack saw or Cut Off saw for trimming track as required

Wood shims (to aid in supporting door while hinging the panel sets and clamping)

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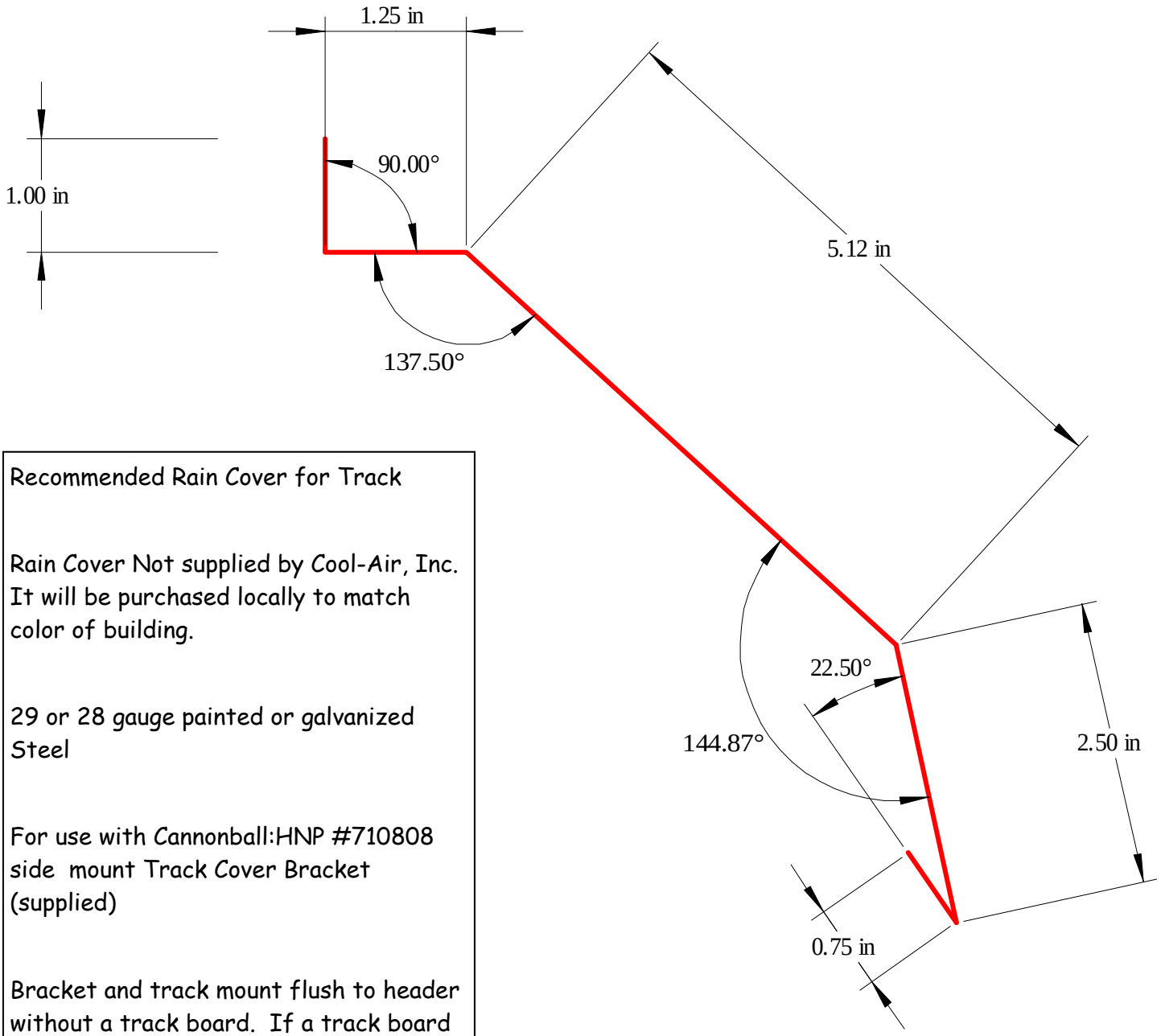
17.0 Print for the rain cover (to be installed after door is completed)



Recommended Rain Cover for Track

Rain Cover Not supplied by Cool-Air, Inc. It will be purchased locally to match color of building.

29 or 28 gauge painted or galvanized Steel

For use with Cannonball:HNP #710808 side mount Track Cover Bracket (supplied)

Bracket and track mount flush to header without a track board. If a track board is used, the standard Cannonball track cover will work, but the vertical column must be spaced out the same distance as the track board for hinge attachment.

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