



**ASD**<sup>TM</sup>  
**AMERICAN**  
STRUCTURES & DESIGN  
Gate Kit - All Infill Types



Infill Types:



Glass



Picket



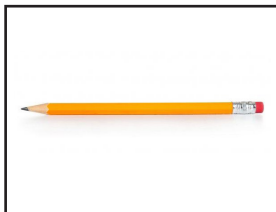
Cable

**GATE KIT - ALL INFILL TYPES  
INSTALLATION INSTRUCTIONS**

### Important Note:

It is the installer’s responsibility to meet all engineering requirements and building codes. AS&D and/or its distributors shall not be liable for improper or unsafe installations.

### Recommended Tools for Gate Installation



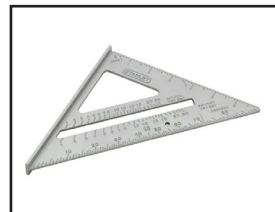
1. Pencil



2. Tape Measure



3. Level



4. Speed Square



5. Drill/Impact Driver



6. Electric Miter Saw  
 With a 10" carbide blade with minimum 65 teeth (improve performance with additional teeth, optimal blade has 100 teeth)



7. Screw Driver Bits  
 • #2 Phillips  
 • #2 Square  
 • T-40 Allen (socket head bit)



8. Impact Tip Holder

### Recommended Tools for Gate Infill

#### Cable Infill



1. 3/16" Allen Hex Wrench



2. Cutoff Wheel



3. Cable Pliers

#### Glass/Picket Infill



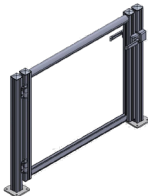



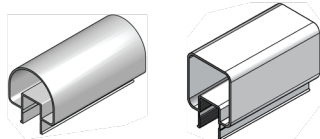
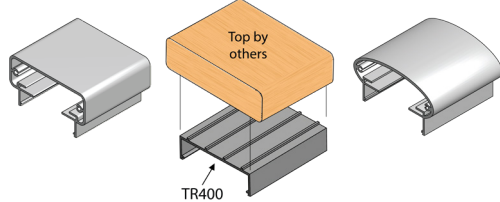
1. Rubber Mallet



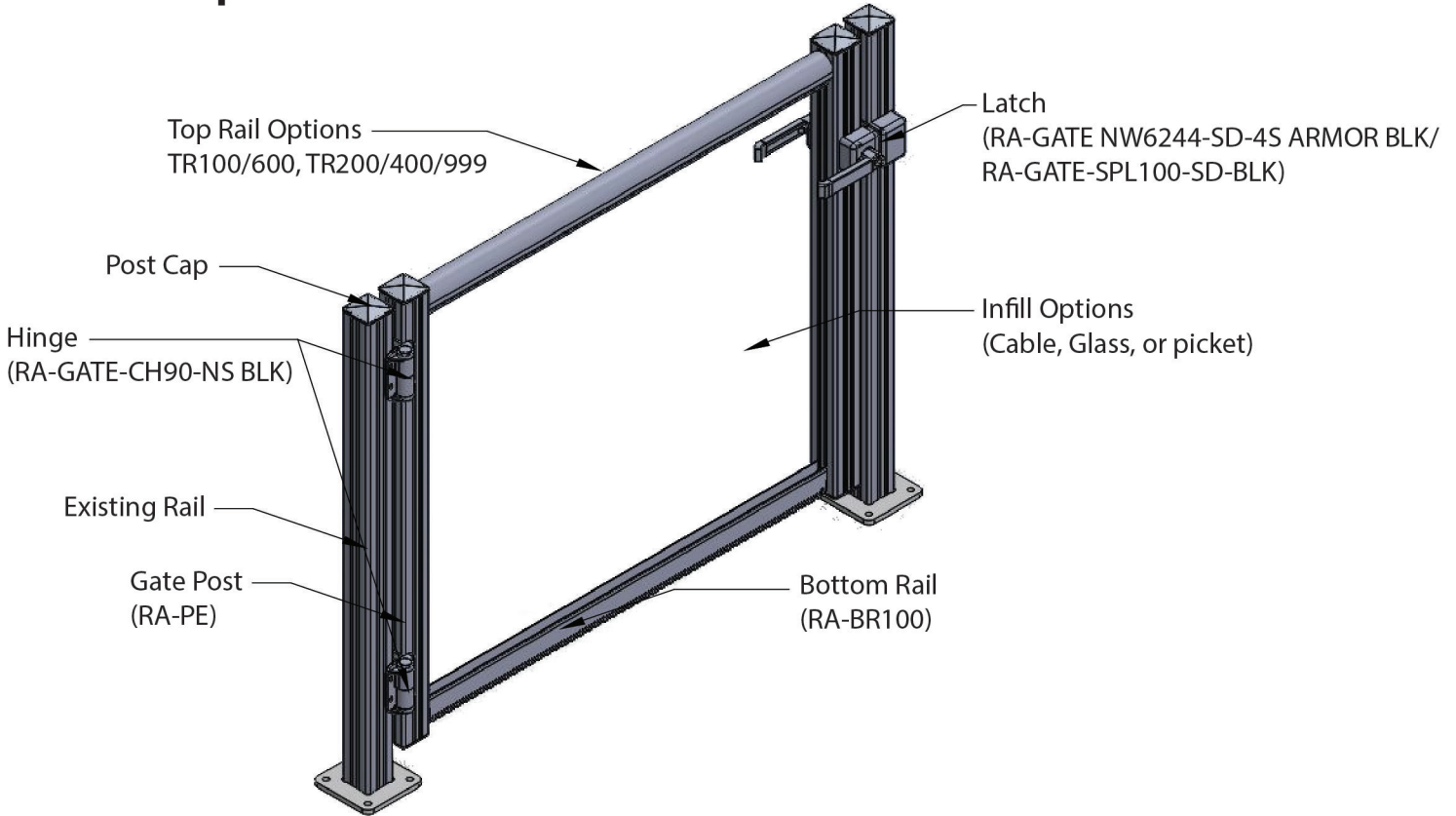
2. Aviation Snips

## Gate Kit Materials

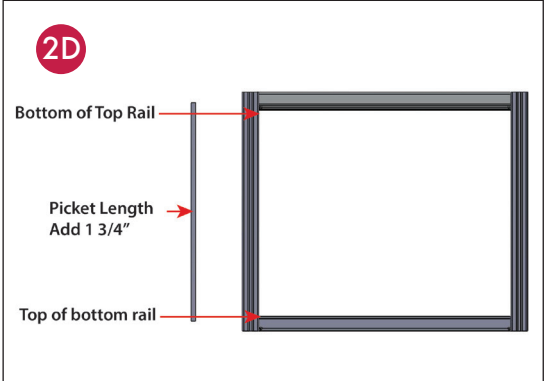
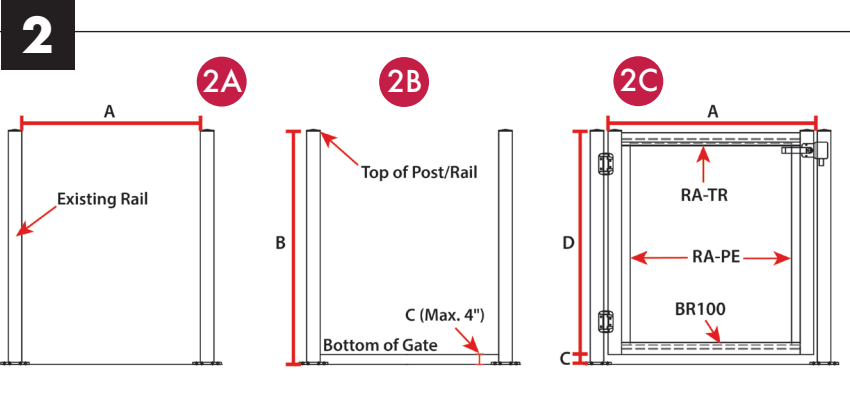
General gate kits include the materials denoted below. Then depending your infill and rail type you will receive the appropriate kit depending on your rail and infill type.

<p>General Gate Kit</p> 	<p>2 ea. Posts                  1 ea Series Bottom Rail (BR100)                  1 ea Top Rail as per specification                  2 ea. Rail Connecting Block for Top &amp; Bottom Rails (RCB1)                  4 ea. #10x2" SS Philips Pan SMS (FS-10X2.00PANSQTEK-SS)                  4 ea. #10x3/4" SS Philips PanTek Screw (FS-10X.75PANSQTEK)                  1 ea Latch (optional)                  2 ea. Hinge (optional)</p>
<p>Cable Gate Kit</p> 	<p>Swaging studs                  Receivers                  Pull-Lock Assembly                  Delrin washers                  1/8" or 3/16" T-316 Cable</p>
<p>Plexiglass Gate Kit</p> 	<p>Plexiglass                  GV-Top Rigid Glass Vinyl - Black (RA-GV-TOP-120)                  GV-Bottom Rigid Glass Vinyl - Black (RA-GV-BOT-120)</p>
<p>Picket Gate Kit</p> 	<p>Pickets                  GV-Top Rigid Glass Vinyl - Black (RA-GV-TOP-120)                  GV-Bottom Rigid Glass Vinyl - Black (RA-GV-BOT-120)                  SP41 Series 100 Picket Spacers (RA-SP-3.875)</p>
<p>TR100/600 Rail Kit</p> 	<p>2 ea. Rail Connecting Block for Top &amp; Bottom Rails (RCB1)                  4 ea. #10x1/2" SS Philips Pan SMS (FS-10X2.00PANSQTEK-SS)                  4 ea. #10x3/4" SS Philips PanTek Screw (FS-10X.75PANSQTEK)</p>
<p>TR200/400/999 Rail Kit</p> 	<p>Infill 200/99/400 (for glass/picket) RA-IF</p>

## Gate Components



**1** Check materials - Verify all parts have arrived and match the packing slip.

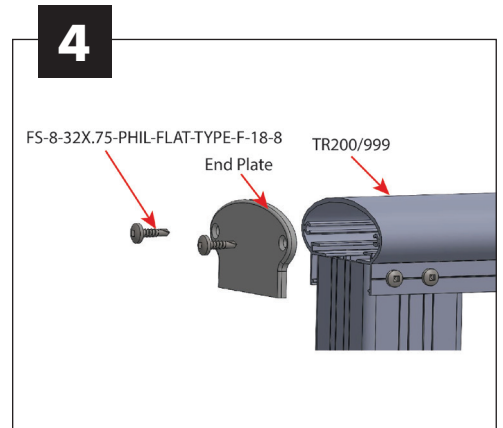
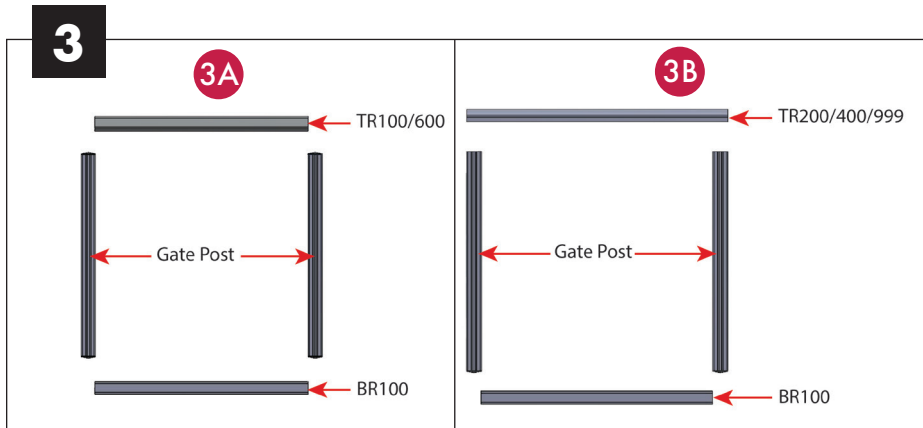


**Cut Posts and Pickets (if applicable) to length**

- 2A. **Determine gate width** - Measure distance between existing railing end posts (A)
- 2B. **Determine gate height** -
  - 2B-1. Measure height of existing mounting rail (B)
  - 2B-2. Measure gap between deck surface and bottom of bottom rail, (C) gap cannot exceed 4".
  - 2B-3. Subtract measurement C from B to get post height (B-C=D)

**2C. Cut post to dimension D**

2D. **Determine picket length (if applicable)** - Measure from the top of the bottom rail to the bottom of the top rail and add 1-3/4" for picket length. Cut picket(s) to appropriate length.



### Cut top rail and bottom rail to length

#### 3A. TR100/TR600 Top Rail and BR100 are installed between gate posts.

To determine rail length use measurement A from Step 2A.

For AS&D gate hardware subtract 5.75".

For gate hardware by others subtract 4.75".

#### 3B. TR200/TR400/TR999 are installed on top of the gate posts.

To determine rail length use measurement A from Step 2A.

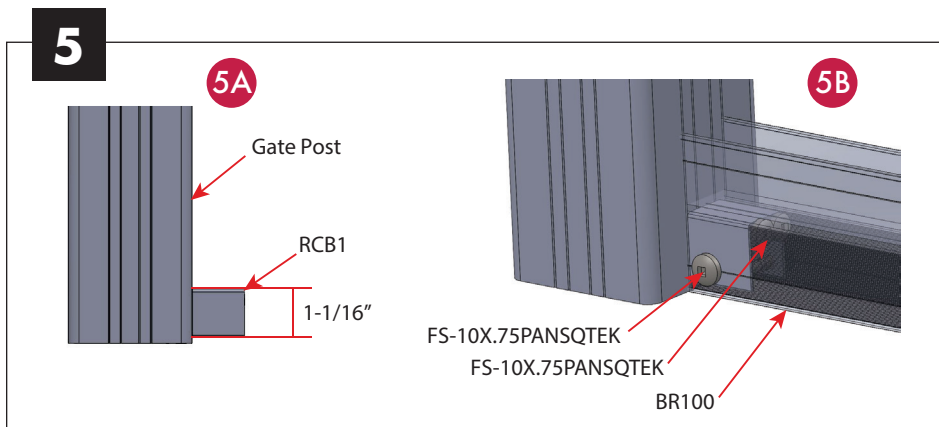
For AS&D gate hardware subtract 1".

For gate hardware by others subtract hardware dimension (gap between existing post and gate post).

### Attach end plate to TR200/999 - using

2 FS-8-32x.75-PHIL-FLAT-TYPE-F-18-8 screws on each side.

**Note:** TR200/999 is not installed yet.

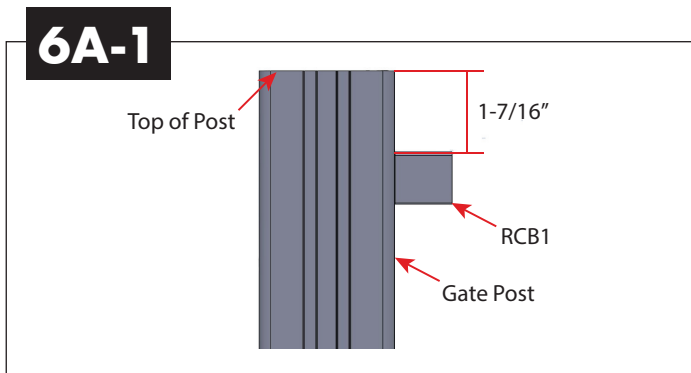


### Attach bottom rail flush to bottom of gate frame

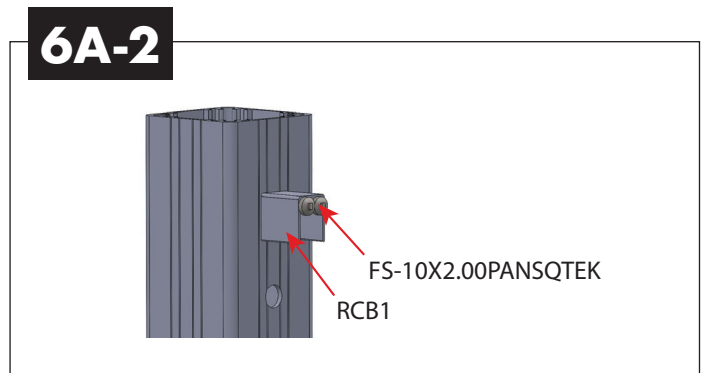
5A. Measure up 1 1/16" and place top of RCB1. Attach RCB1 to post with 2ea FS-10X2.00PANSQTEK-SS screws.

5B. Place bottom rail on top of RCB1 and attach using 1ea FS-10X.75PANSQTEK-SS screws on each side of rail.

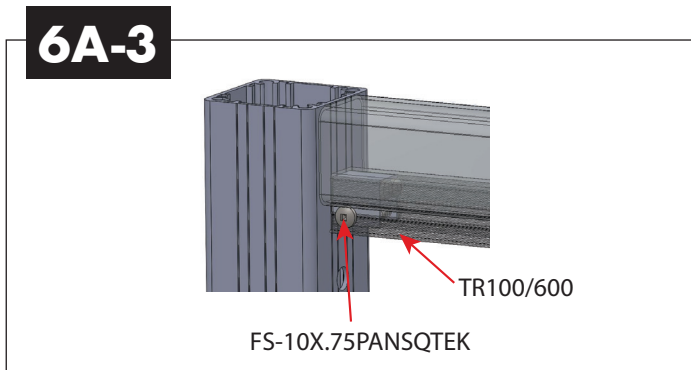
## TR100/TR600 Top Rail Attachment



6A-1. **Measure** down 1 7/16" from top of post and place top of RCB1.

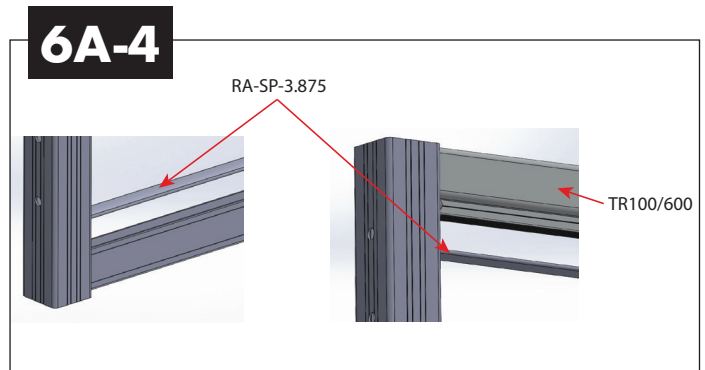


6A-2. **Attach RCB1** using 2ea FS-10X2.00PANSQTEK-SS screws.



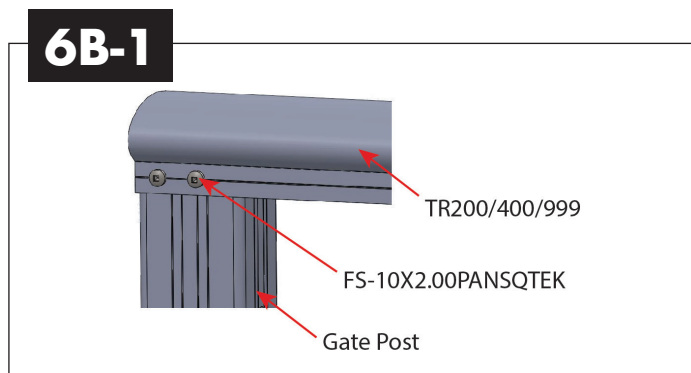
6A-3. **Place top rail** on top of RCB1 and attach to sides of RCB1 with 2ea FS-10X.75PANSQTEK screws on each side.

**Important Note:** Offset the screws when connecting the top rail to the RCB1 so they don't intersect.

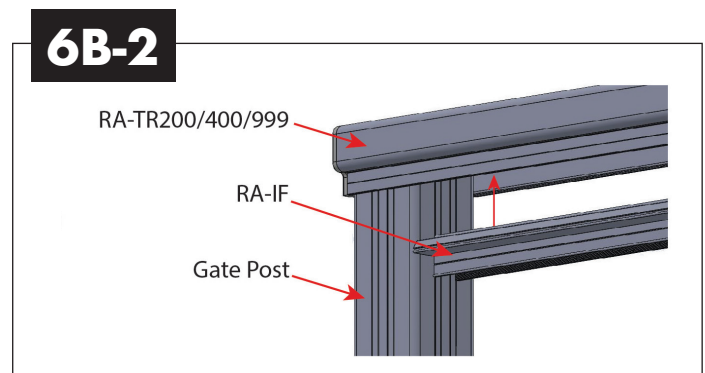


6A-4. **FOR CABLE INFILL:** Cut RA-SP-3.875 to same length as BR100. Once cut, snap into bottom of top rail and RA-SP-3.875 into top of bottom rail.

## TR200/400/999 Top Rail Attachment

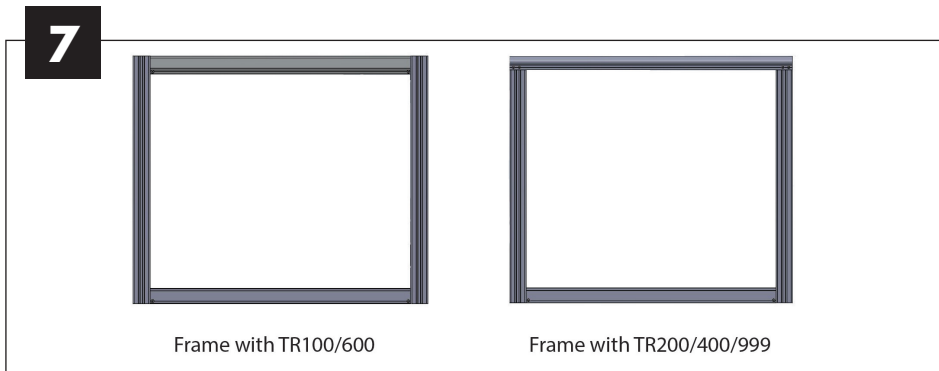


6B-1. **Attach top rail** to top of posts using 2ea FS-10X2.00PANSQTEK-SS on each side of the end posts.



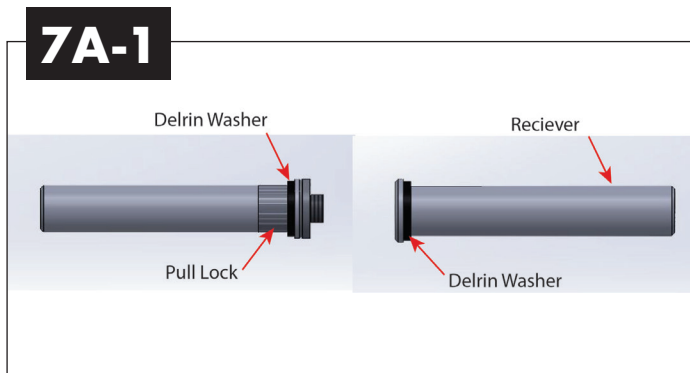
6B-2. **FOR CABLE, GLASS and PICKET INFILL:** Cut RA-IF and RA-SP-3.875 to same length as BR100. Once cut, snap RA-IF into bottom of top rail and RA-SP-3.875 into top of bottom rail.

## Installing Infill into Gate Frame

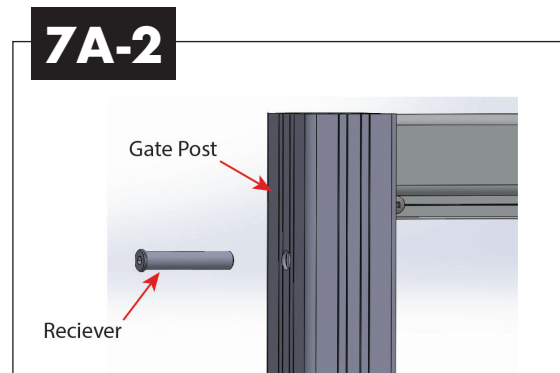


7. Infill Options: Cable, Picket, Plexiglass

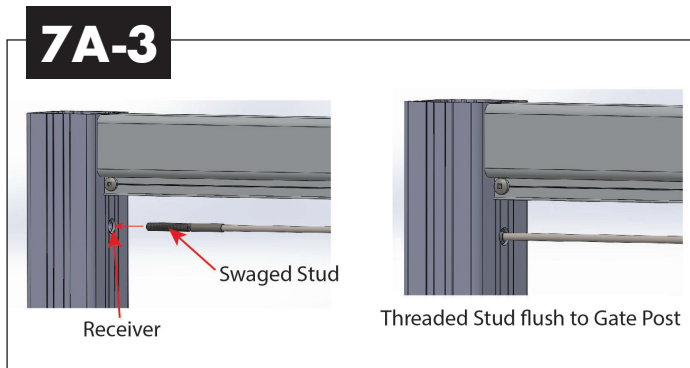
## Cable Infill Installation



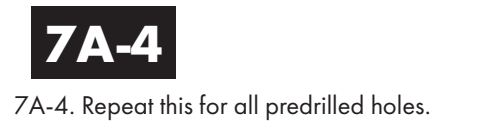
7A-1. Slip Delrin washer over receivers and Pull Locks.



7A-2. Insert the receivers into the predrilled post holes on one side of the gate.

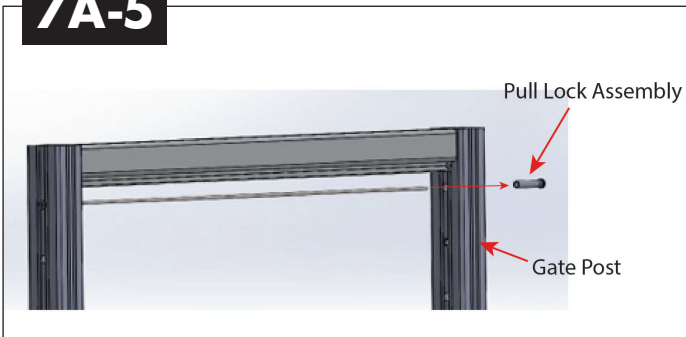


7A-3. Twist the threaded, swaged stud attached to the cable into the receiver. Continue twisting until the threaded stud is flush with the inside of the gate post.



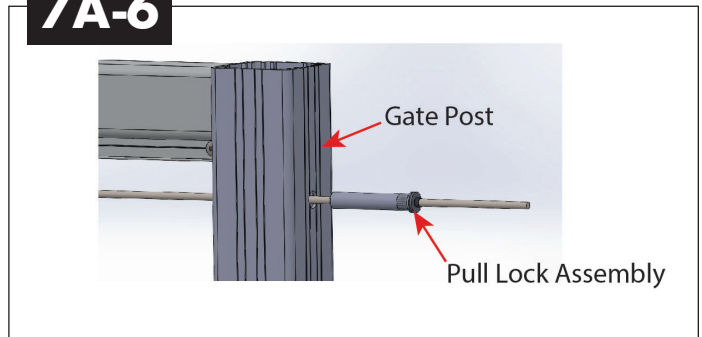
## Cable Infill Installation

### 7A-5



7A-5. Run the loose end of the cable through the predrilled hole directly across from the cable's threaded stud and receiver.

### 7A-6



7A-6. Push the Pull Lock onto the cable until the lip of the Pull Lock is flush with the outside of the gate post and through both predrilled holes on the post.

## Cable Infill Tensioning

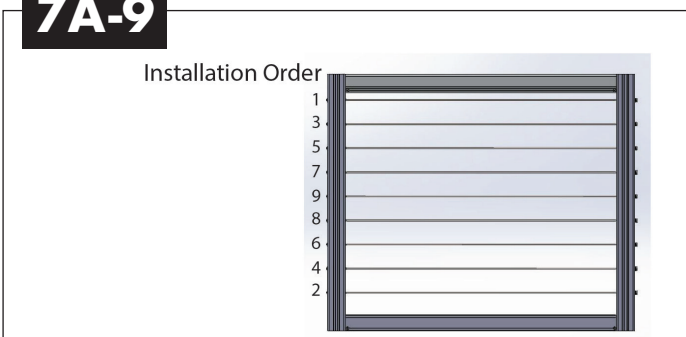
### 7A-7

7A-7. Starting with the cable near the bottom of the gate using cable pliers, grab the cable a half inch away from the threaded stud.

### 7A-8

7A-8. Using 3/8" Allen wrench, insert into end of receiver hardware and tighten until cables can move about 1/4" when finger pulled.

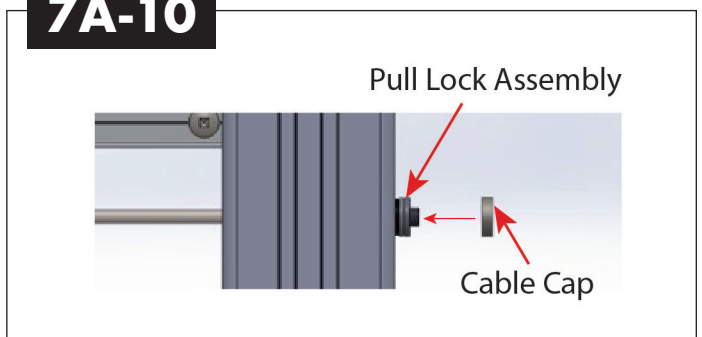
### 7A-9



7A-3. Repeat for all cable, beginning with the outside cables and moving back and forth towards the center.

*\*Number of cables is determined by height of gate \**

### 7A-10

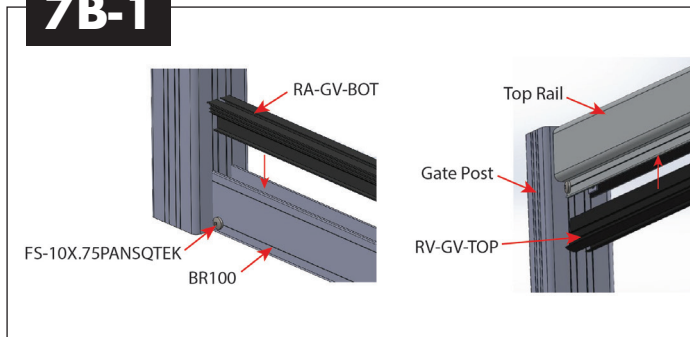


7A-10. Cut the cable flush with the hole in the back of the pull lock fitting using a cut off wheel. Press the cap onto the lip of the pull lock fitting.



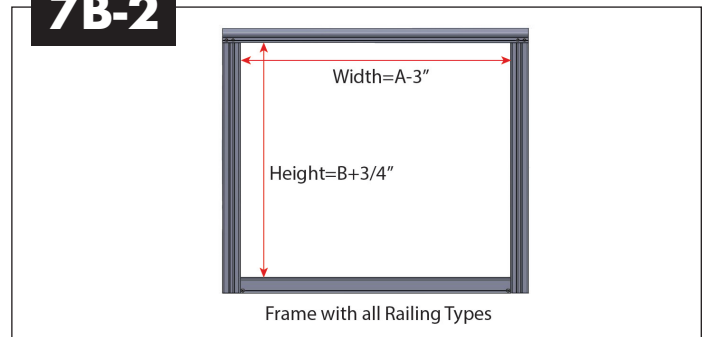
## Plexiglass Infill Installation

### 7B-1



7B-1. Insert RA-GV-BOT to the bottom rail and RA-GV-TOP to the inside of the top rail infill.

### 7B-2



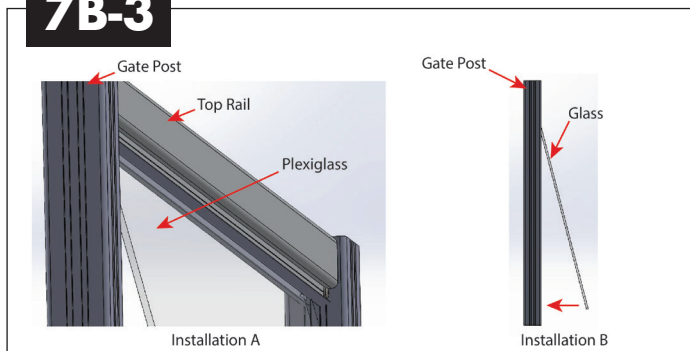
7B-2. Measure plexiglass (by others)

Width: Measure distance in-between the gate posts (A) and subtract 3".

Height: Measure from top of bottom rail to bottom of top rail and add 3/4".

**Locate position of the sides of the plexiglass by making a mark on the top and bottom rail 1-1/2" away from gate post.**

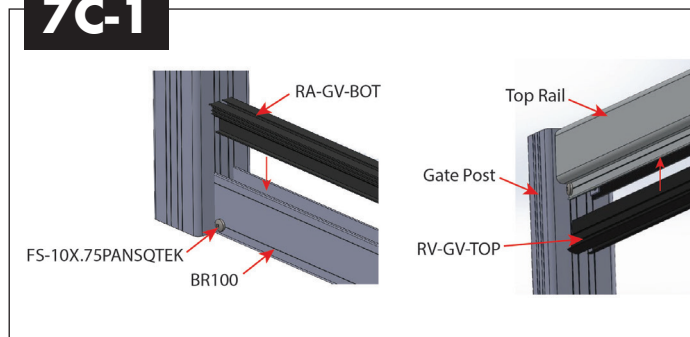
### 7B-3



7B-3. **Install plexiglass** - Wet top and bottom of RA-GVs and center the plexiglass in the opening between the two posts. Insert the plexiglass into the top by pushing upwards. Move the **bottom** of the plexiglass **over the bottom rail** and lower into RA-GV-BOT.

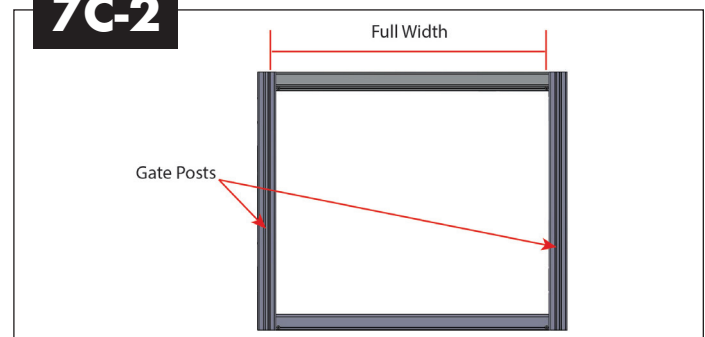
## Picket Infill Installation

### 7C-1

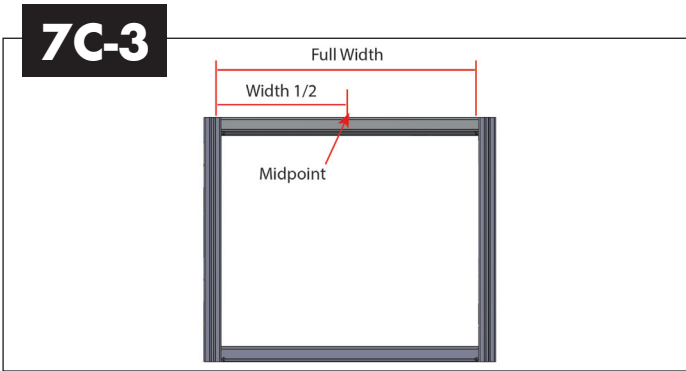


7C-1. Insert RA-PV-BOT to the bottom rail and RA-PV-TOP to the inside of the top rail infill

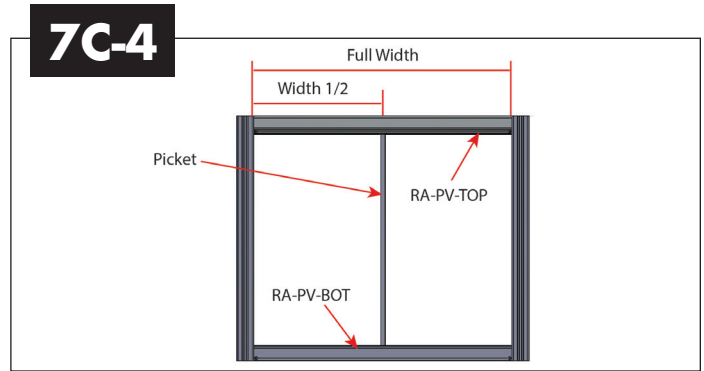
### 7C-2



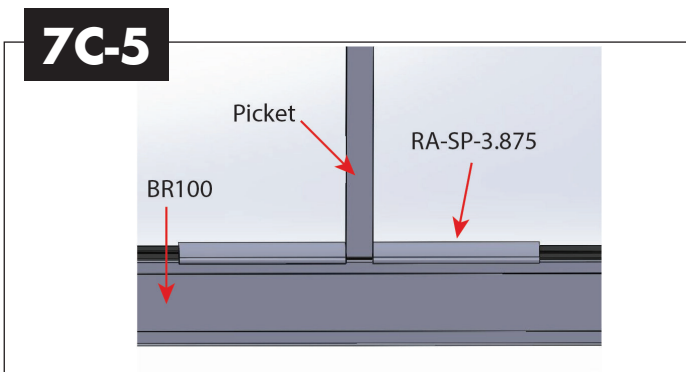
7C-2. Determine infill space with by measuring the distance in-between gate posts.



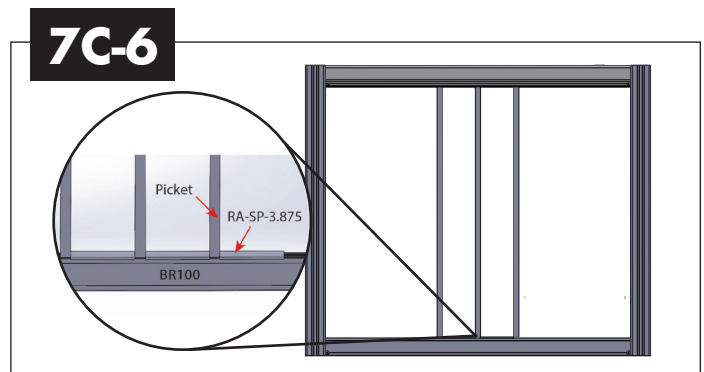
7C-3. Divide the width between the gate posts by two (2) and mark this location. This will be your midpoint.



7C-4. First install a picket at the midpoint by sliding the bottom end of the picket into RA-PV-BOT and swing the other end into the RA-PV-TOP.



7C-5. Insert an RA-SP-3.875 to each side of picket on top and bottom rail mark this location. This will be your midpoint.



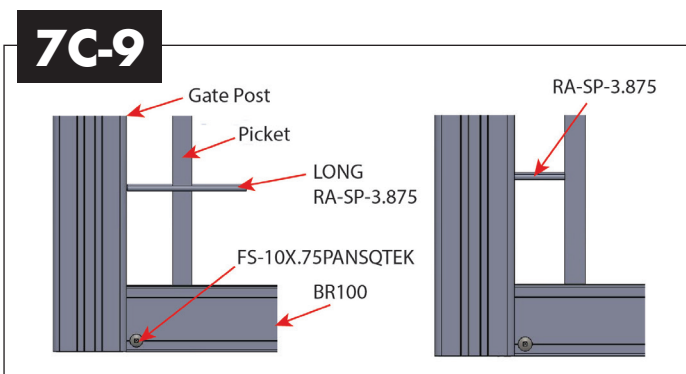
7C-6. Install the next picket and slide towards the picket located at the midpoint. Do not secure pickets or spacers at this time. Add an RA-SP-3.875 to side of newly installed picket.

## 7C-7

7C-7. Continue installing pickets and spacers using this method.

## 7C-8

7C-8. Tap all pickets into place using the rubber mallet. Ensure the gap between the gate post is equal on both sides.

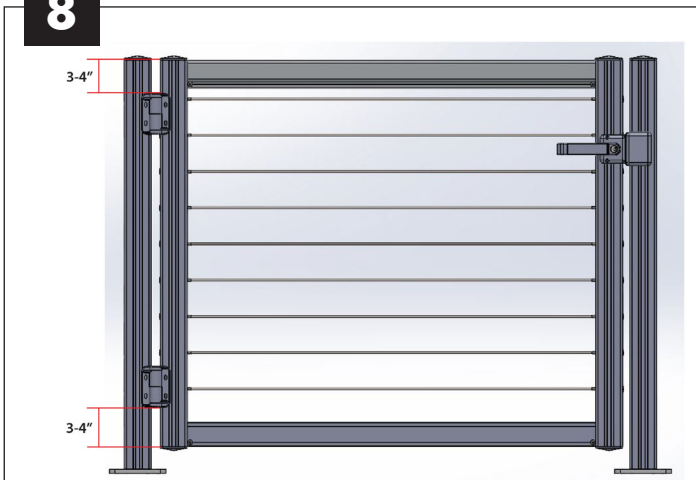


7C-9. Once the gap between the gate post and the picket is too small to fit a full-size RA-SP-3.875, using the Aviation Snips to cut the RA-SP-3.875 to fit inside the gap, and snap into place.

**Important Note:** For the final result, a spacer should be touching the gate post. You may have to align a spacer at the midpoint instead of a picket.

## Hinge and Latch Installation

**8**



- 8-1. Place hinges about 3-4" away from the end of the posts.
- 8-2. Attach the gate hinges using 4 #10x.75 screws on each side of the hinge.
- 8-3. Attach latch to opposite side of hinge, refer to the latch provided installation instructions for more attachment details.

## Final Installation Examples

**TR100**



**Cable**

**Picket**

**Glass**

**TR600**



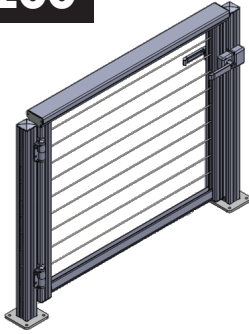
**Cable**

**Picket**

**Glass**

## Final Installation Examples Cont.

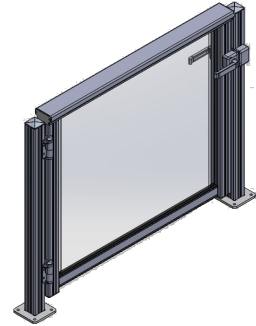
### TR200



Cable

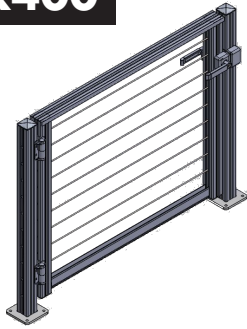


Picket



Glass

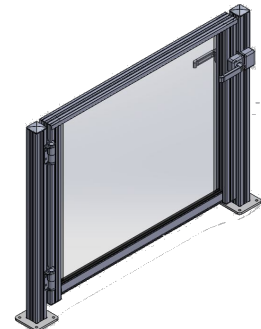
### TR400



Cable

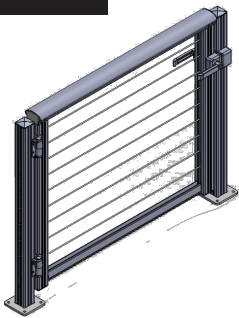


Picket



Glass

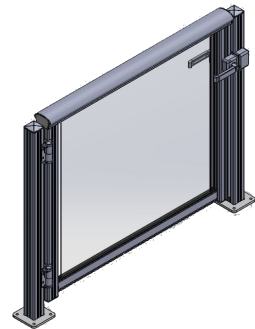
### TR999



Cable



Picket



Glass