RAILING INSTALLATION INSTRUCTIONS
SERIES 200 & SERIES 999

RECOMMENDED MATERIALS

1. PENCIL
2. TAPE MEASURE
3. LEVEL
4. SQUARE
5. SPEED SQUARE
6. STRING LINE
7. DEAD BLOW HAMMER
8. RUBBER MALLET
9. DRILL
10. IMPACT DRIVER
11. ELECTRIC MITER SAW WITH A 10" CARBIDE BLADE SPECIFICALLY FOR CUTTING ALUMINUM
12. DRILL BITS = 9/64, 11/64, 1/4, 3/8"
13. SCREW DRIVER BITS = #2 PHILLIPS AND A T-30 ALLEN (SOCKET) HEAD BIT.
14. SCREWDRIVER BIT HOLDER

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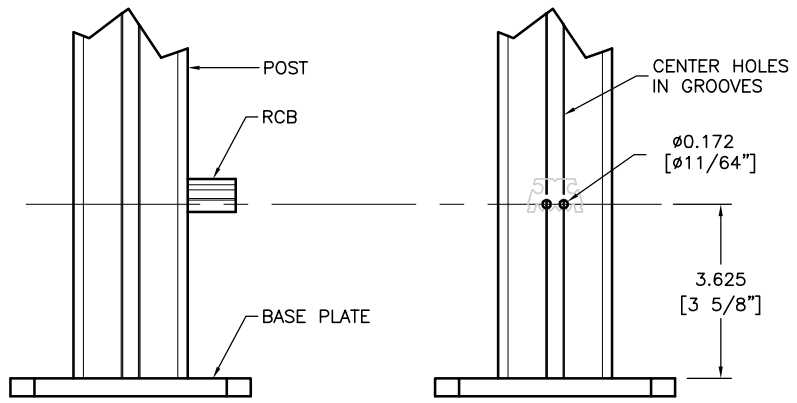
1 RAIL CONNECTING BLOCKS (RCB)

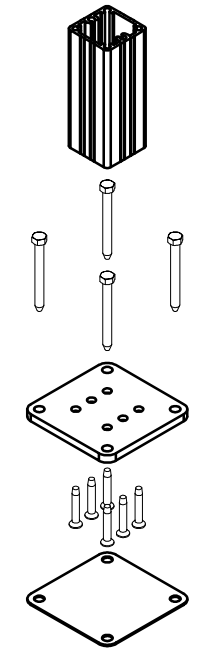
1. DRILL 11/64" PILOT HOLES OR USE #16 DRILL BIT ALONG INDEX LINES.
2. ANCHOR BLOCK INTO POST WITH #10 X 1 1/2 STAINLESS STEEL SCREWS.
3. RCB GUIDE AVAILABLE UPON REQUEST.



2 POST LAYOUT

MAXIMUM SPACING BETWEEN POSTS:
- 6'-0" – WITH PICKET INFILL
- 5'-0" – WITH CABLE INFILL (WITH INTERMEDIATE PICKET)
- 4'-0" – WITH GLASS INFILL

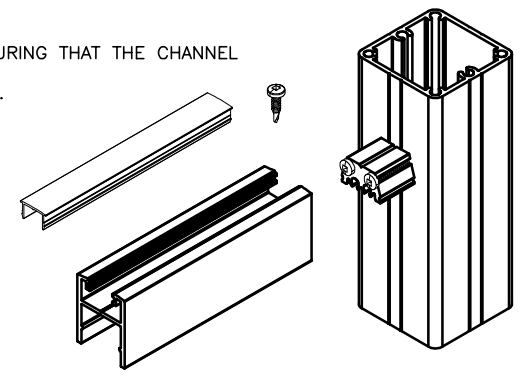
1. INTERMEDIATE POSTS ARE SPACED EVENLY BETWEEN END AND CORNER POSTS. 135° CORNER POSTS ARE AVAILABLE.
2. ANCHOR POSTS WITH 3/8" STAINLESS STEEL LAG SCREWS (LAG SCREWS NOT INCLUDED). SCREWS MUST ANCHOR INTO 4" OF WOOD.
3. WHEN INSTALLING 3/8" LAG SCREW INTO BASEPLATE, INSERT THROUGH 3/8" SS WASHER, FOR NYLON CAP TO SNAP OVER BOLT HEAD. (SAPA RECOMMENDED CONNECTION DETAILS AVAILABLE ONLINE)



3 BOTTOM RAIL ATTACHMENT

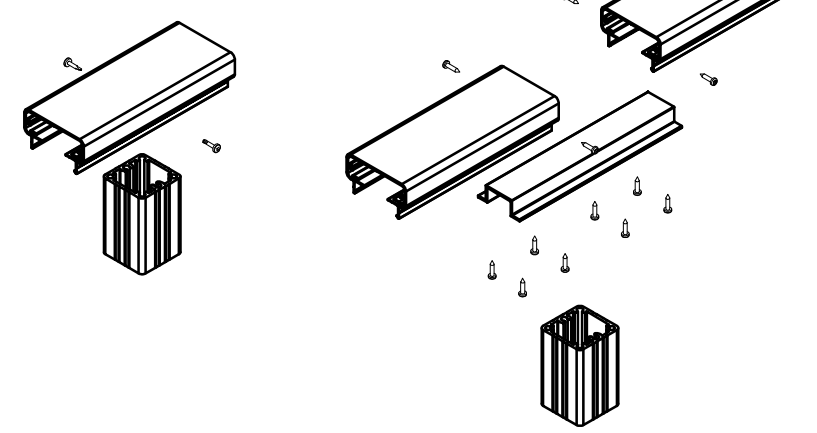
NOTE: INSTALL POSTS BEFORE CUTTING BOTTOM RAILS.

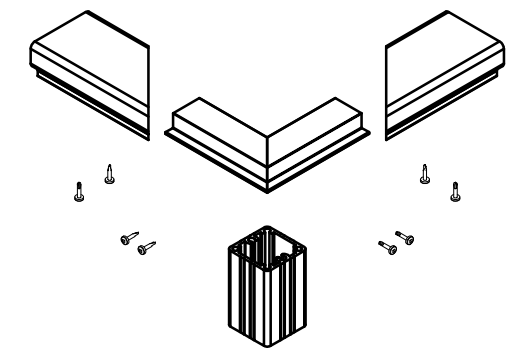
1. MEASURE AND CUT BOTTOM RAILS TO FIT BETWEEN POSTS.
2. ATTACH RAILS TO THE RAIL CONNECTING BLOCKS USING TWO #10 X 3/4" SELF DRILLING HEX SCREWS. USE BOTTOM V-GROOVE AS A SCREW GUIDE.
3. INSTALL BOTTOM RAIL FIRST INSURING THAT THE CHANNEL WITH RIDGES IS FACING UPWARD.



4 TOP RAIL ATTACHMENT

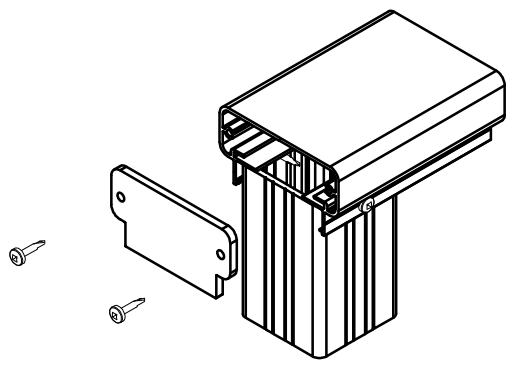
1. TOP RAIL IS USED IN LONGEST LENGTHS PRACTICAL, LONGER RAILS WILL CAPTURE MORE POSTS AND ADD STRENGTH TO THE SYSTEM.
2. TO JOIN A STRAIGHT CONNECTION, BUTT JOINT OVER THE CENTER OF A POST. REINFORCE THE JOINT WITH 8 #10 X 3/4" SCREWS, FASTENED THROUGH PRE-DRILLED HOLES, TO A SPLICE CENTERED BETWEEN THE RAILS. ATTACH TOP RAIL TO THE POST WITH 4 #8 X 1/2" SCREWS.
3. AT CORNERS, TOP RAIL CAN BE MITERED, OR WELDED CORNERS CAN BE USED AND BUTT JOINTED TO THE TOP RAIL ON EACH SIDE OF CORNER. 90° AND 135° WELDED CORNERS ARE IN STOCK.





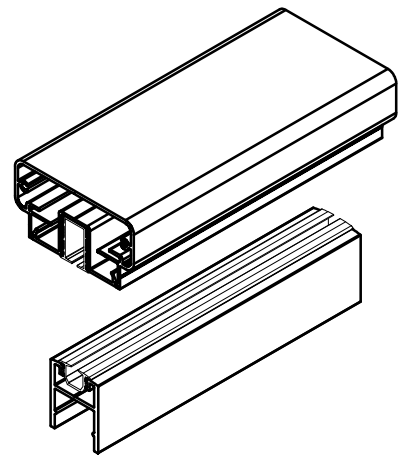
5 TOP RAIL END PLATE

1. TOP RAIL CAN BE ANCHORED TO STRUCTURES WITH AN EXTENDED END PLATE.
2. WHEN TERMINATING TOP RAIL AT A POST, CAP THE END OF THE RAIL WITH AN END PLATE.



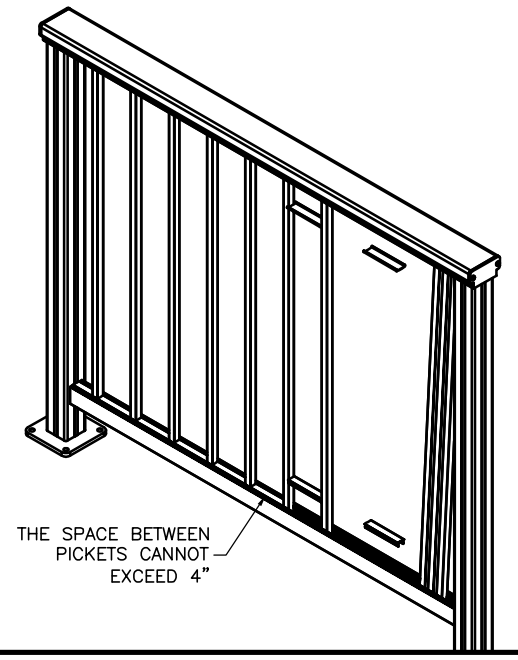
6 INSTALLING GLASS VINYL

1. CUT THE TOP VINYL FOR THE GLASS 3" SHORTER THAN THE TOP RAIL FOR THE RAIL CONNECTING BLOCKS.
2. INSTALL TOP VINYL AND BOTTOM VINYL.



7 PICKETS & SPACERS

1. INSERT PICKET VINYL INTO VINYL CHANNEL IN BOTH BOTTOM AND TOP RAILS.
2. PICKET SPACERS ARE USED TO EVENLY SPACE THE PICKETS. FOR PROPER BALANCE BETWEEN POSTS, MAKE ANY NECESSARY LENGTH ADJUSTMENTS TO THE FIRST AND LAST PICKET SPACERS. IF NECESSARY, USE A RUBBER MALLET TO SNAP SPACERS INTO PLACE.
3. INSTALL PICKETS BY SNAPPING THE TWO ADJUSTED LENGTH PICKET SPACERS FLUSH WITH THE POST ON THE TOP AND BOTTOM RAILS.
4. SLIDE ONE END OF A PICKET INTO THE BOTTOM RAIL AND SWING THE OTHER END INTO THE TOP RAIL CHANNEL. PUSH THE PICKET FLUSH AND SNAP ON TWO SPACERS.
5. IT IS NECESSARY TO INSTALL THE LAST THREE PICKETS BEFORE THE SPACERS. SHIFT THE PICKETS AROUND TO ALLOW SPACER INSTALLATION, THE LAST TWO SPACERS INSTALLED WILL BE THE OTHER TWO CUSTOM LENGTH SPACERS.



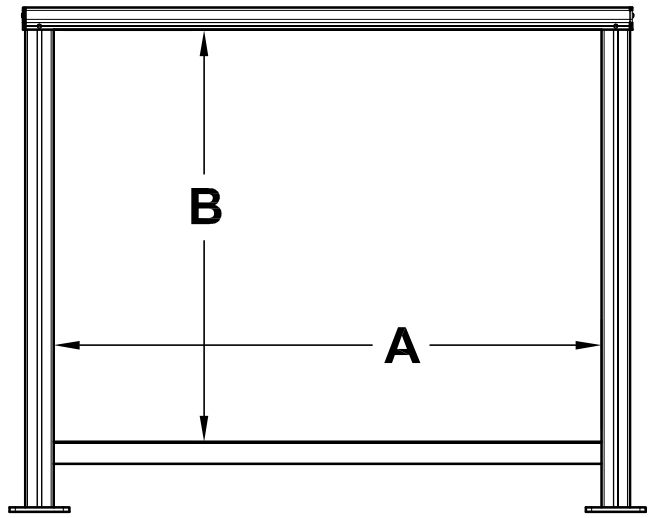
8 MEASURING GLASS

(A) GLASS WIDTH = MEASURE FROM THE INSIDE OF EACH POST. THEN DEDUCT 3" TOTAL FROM YOUR MEASUREMENT. THIS WILL ALLOW FOR 1 1/2" BETWEEN POSTS AND THE GLASS. tHIS IS NECESSARY FOR WIND TO PASS THROUGH YOUR SYSTEM.

(B) GLASS HEIGHT = MEASURE FROM THE INSIDE OF THE TOP RAIL TO THE INSIDE OF THE BOTTOM RAIL. THEN ADD 3/4" TO YOUR MEASUREMENT. THIS ADDITION WILL ALLOW THE GLASS TO SIT IN THE GLASS VINYL.

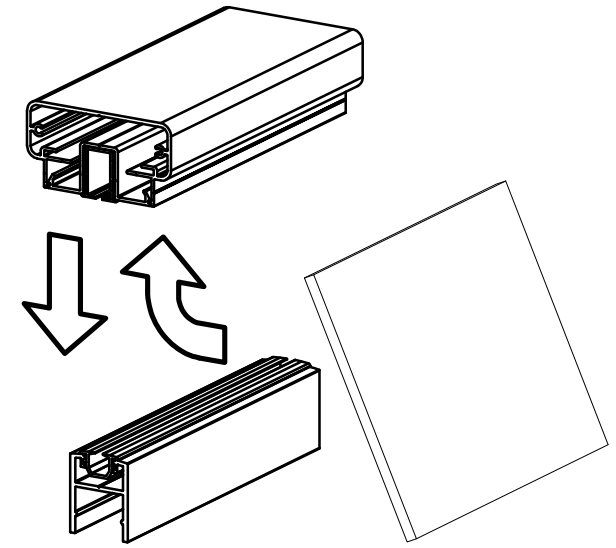
GLASS WIDTH = A - 3"

GLASS HEIGHT = B + 3/4"



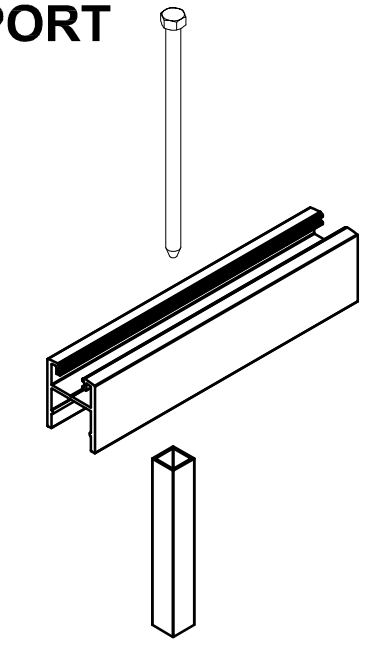
9 INSTALLING GLASS

1. WET THE FLEXIBLE SURVACE OF THE TOP AND BOTTOM VINYL.
2. CENTER THE GLASS IN THE OPENING.
3. INSERT THE GLASS INTO THE TOP VINYL.
4. MOVE THE BOTTOM EDGE OF THE GLASS OVER THE BOTTOM RAIL AND LOWER INTO BOTTOM VINYL.



10 INTERMEDIATE BOTTOM SUPPORT

1. DRILL A 5/16" HOLE IN THE WEB OF THE BOTTOM RAIL.
2. INSERT THE INTERMEDIATE BOTTOM RAIL SUPPORT INTO THE BOTTOM CHANNEL OF THE BOTTOM RAIL.
3. SECURE LAG SCREW THROUGH THE DRILLED 5/16" HOLE AND CENTER OF THE INTERMEDIATE BOTTOM SUPPORT.



11 FASCIA MOUNT DIAGRAM