

1. Measure and cut rail sections to length.

a. Insure newels or columns to which rail will be mounted are plumb and sturdy enough to support rail.

b. Measure span at top and bottom rail locations.

c. Cut all vinyl portions of rail (and rail top cap w/aluminum supplemental support which is pre-attached), to required length.

2. Determine baluster layout and assemble rail/baluster section. (Note: check local building codes for maximum spacing allowed).

a. Pre-drill for balusters through both the bottom rail and the lower section of the top rail.

b. Secure each baluster with one screw through the lower section of top rail, and two through the bottom rail to preclude baluster from rotating after installation. (#8A $\times 2-1/4$ " Phillips head stainless steel screws are recommended and available through Intex in bags of 150).

3. Prepare aluminum reinforcements.

a. Cut aluminum rail reinforcements to length, 1/4" shorter than the vinyl rails. (1/2" shorter for rails used in stair applications).

b. Attach mounting brackets to both ends of each aluminum rail reinforcement, using four $#8A \times 1-1/4$ " Phillips head stainless steel screws supplied. Lubricate the threads with oil or soap to avoid binding or stripping screws.

c. Locate crush blocks provided to bottom of one aluminum rail reinforcement, spacing no greater than 32" from the end, or between crush blocks.

d. Drill a 3/16" hole through the aluminum rail reinforcement, and secure each crush block using a screw. (#8A x 2-1/4" Phillips head stainless steel screws are recommended and available through Intex in bags of 150).

4. Install rail

a. Position bottom aluminum rail reinforcement, with crush blocks attached, between newels or columns, centered in newel or column face, and secure each end with two #10A x 3" Pan head stainless steel screws supplied.

b. Position vinyl rail/baluster assembly between newels or columns and seat fully down on aluminum rail reinforcement.

c. Seat remaining aluminum reinforcement into lower section of top rail.

d. Insure rail is centered on face of newel or column and secure each end with two #10A x 3" Pan head stainless steel screws supplied.

e. Drill a 3/16" hole through the aluminum reinforcement over every third baluster (note: offset to avoid the screw which is into the top of each baluster) and secure the aluminum reinforcement to the rail/baluster assembly using screws. (#8A x 2-1/4" Phillips head stainless steel screws are recommended and available through Intex in bags of 150).

f. Locate rail cross-section drawing matching the rail type you are installing to determine caulk location for applying rail top cap.

g. Apply an exterior grade caulk as indicated and seat the top cap onto the lower section of the top rail. (for 5" and 7" rail, use Velcro straps supplied to secure until caulk cures)

