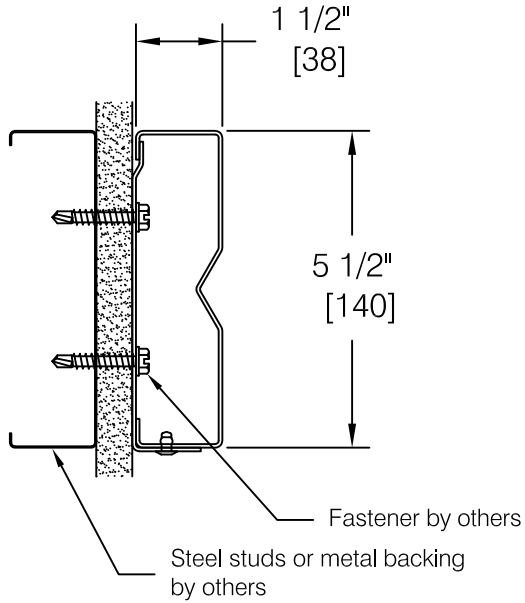
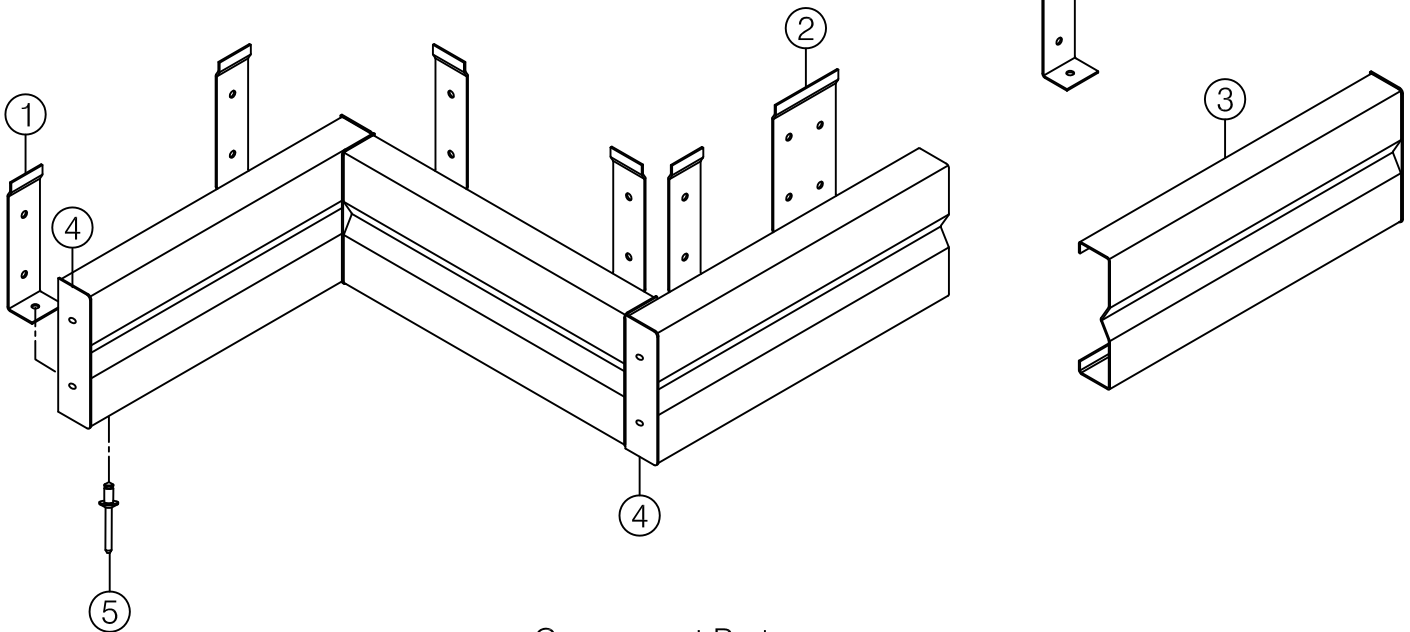


Protector Series 2182



This installation instruction is applicable to:

2182 Stainless Steel Crash Rail



Component Parts:

- 1) Mounting bracket
- 2) Splice
- 3) Crash rail
- 4) End cap
- 5) Pop rivet

Step 1: Determine top of crash rail height and snap a chalk line 5 9/16" below to locate bottom of mounting brackets, see **fig 1** and **fig 2**.

Important: Store material in a clean dry place where the temperature is maintained above 50°F (10°C). Walls and rooms should be maintained at a minimum of 65°F (18°C) for at least 48 hours prior to installation. Acclimate materials to normal building conditions for at least 24 hours before cutting and installing.

Step 2: All crash rail is pre-cut and pre-formed with end caps installed at the factory. The only additional work required is to transfer the pop rivet holes from the mounting brackets to the crash rail. Contact factory if it is necessary to make any other adjustments.

Step 3: Layout crash rail according to location drawings provided with shipment. The location drawings indicate a number and letter "identifier" for each section of material. This identifier is marked on the inside surface of each section of crash rail, see **fig 3**.

Step 4: Use layout of crash rail to determine placement of mounting and splice brackets. Splice brackets must be located wherever two crash rails are butted end to end. Mounting brackets are located 1" minimum in from the end of any crash rail with an end cap and a maximum of 32" spacing between them thereafter see **fig 2**.

Note: Use the mounting brackets as a template to mark the location of the mounting holes on the wall.

Step 5: After marking holes mount brackets to wall with the appropriate hardware according to wall construction.

Important: Use caution when drilling mounting holes in wall so that proper bracket alignment is maintained. Tighten brackets to wall, use a level to ensure brackets are plumb.

Suggested hardware:

- Drywall: Toggler® brand toggle bolts
- Masonry: Plastic Alligator® insert

Step 6: Remove peel-off protective film from front surface of stainless crash rail.

Step 7: Begin to hang crash rail by hooking top of rail onto top of brackets and swing crash rail down until it rests on top of bracket leg protruding out from wall.

Important: To ensure the best fit at butt joints begin installation at butt joints and work out to ends.

Step 8: After crash rail has been hung on mounting brackets use the hole in the bottom of the mounting brackets to locate and drill the pop rivet hole into the crash rail, use a #11 drill (Ø.191"). Install supplied stainless steel pop rivet into bracket and crash rail.

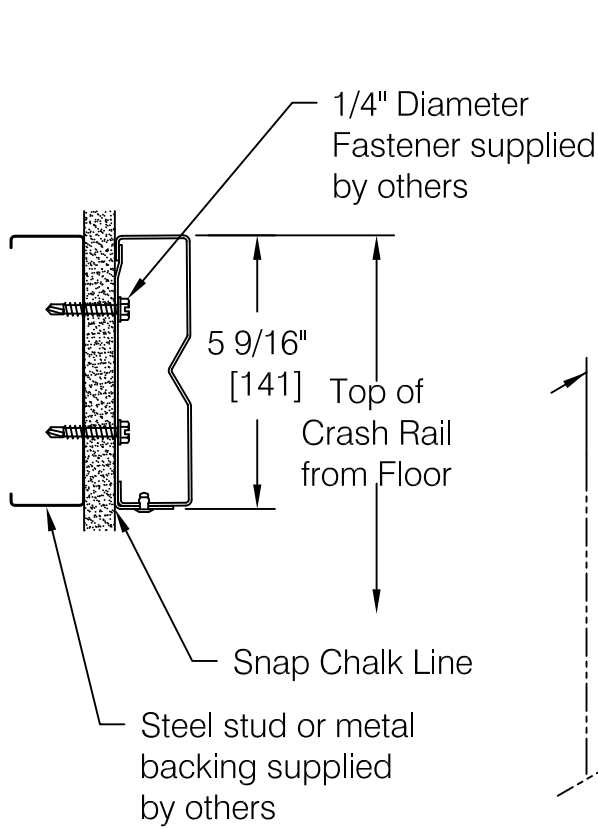


fig 1

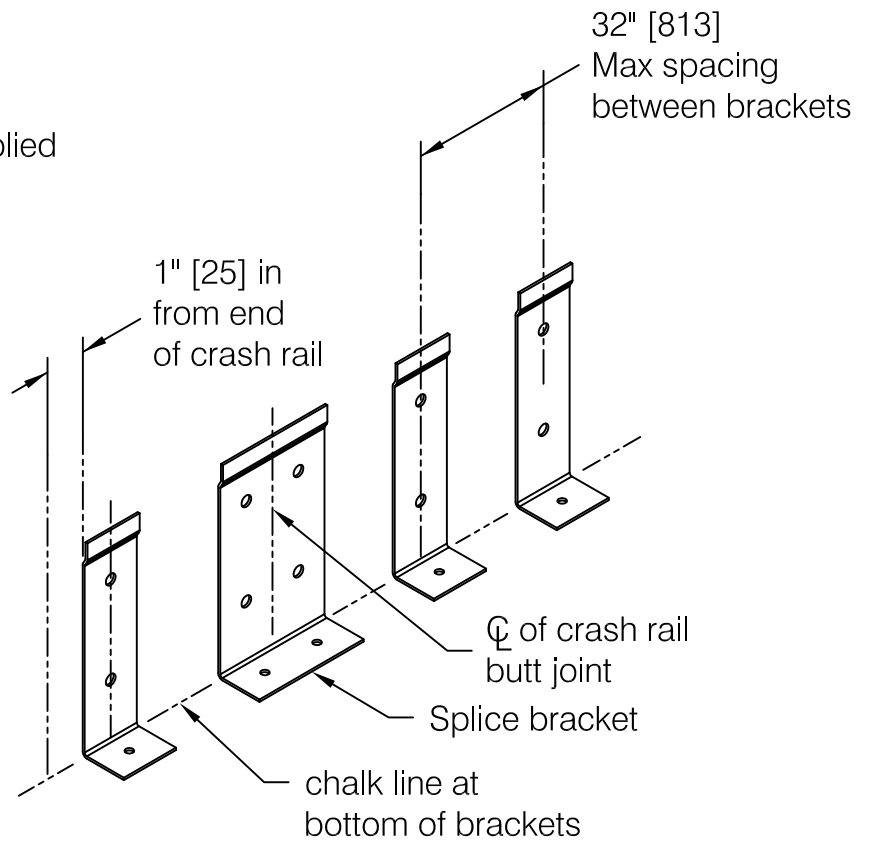
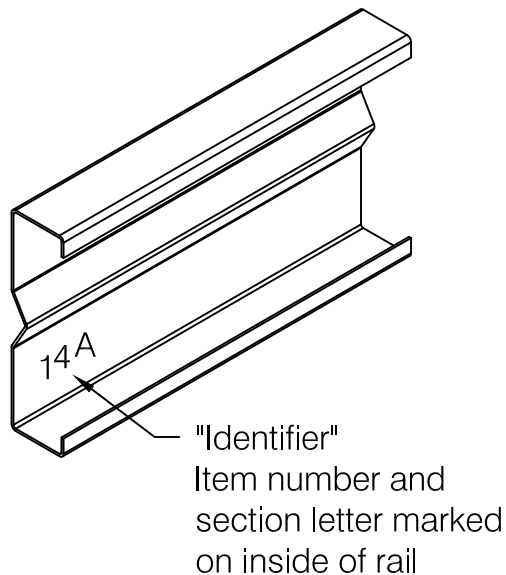


fig 2



Coordinate with location drawings for installation location

fig 3

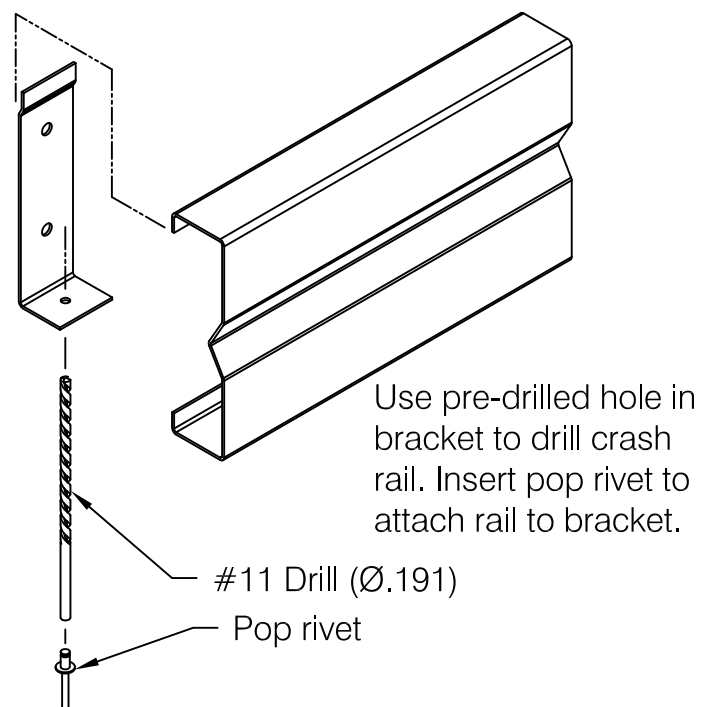


fig 4

Guidelines For Field Measurement

Step 1: The 2182 series crash rail is manufactured in accordance with field dimensions provided by the customer. All crash rail is pre-cut, pre-formed at the factory and should require no further modification. Accuracy of field measurements is crucial to the success of final installation. Adhere to these guidelines when field measuring for 2182 series crash rail.

Step 2: All dimensions must represent actual field conditions from wall to wall, wall to obstruction, or obstruction to obstruction as noted below and pictured in the figures on this page. Do not adjust field measurements for clearance purposes or for any other reason.

Important: All dimensions must be taken at the intended height of installation, see **fig C**. All dimensions must be rounded to the nearest 1/16".

Step 3: The figures below represent situations commonly encountered when field measuring. These figures are not intended to represent all possible field conditions. Use these figures as a guideline for measuring to door openings, from corner to corner, from obstruction to obstruction, or for any combination of the above.

Important: Some dimensional limitations exist. For example, the shortest length of crash rail is limited by the dimensional combination of two brackets and two end caps. It is best to supply dimensions for all areas where crash rail is desired and allow the factory to advise if any feasibility issues exist.

Fig A: Dimensions taken from door jambs to corners and from corners to corners.

Fig B: Dimensions taken to an obstruction that is intended to interrupt the crash rail.

Fig C: Dimensions taken at the proper height above the floor.

Fig D: Dimensions taken at a condition where the crash rail is to be terminated short of the available wall space.

Fig E: Dimensions taken at a condition where the crash rail will cover available wall space.

Step 4: Factory will reduce field measurements to allow clearance around doors and obstructions. Factory will deduct 1" at each of these locations. Contact factory if a different deduction or no deduction is desired.

Important: Do not take clearance deductions in the field. Supply actual field measurements as indicated in **step 3** above. Failure to do so may result in product at an incorrect length!

