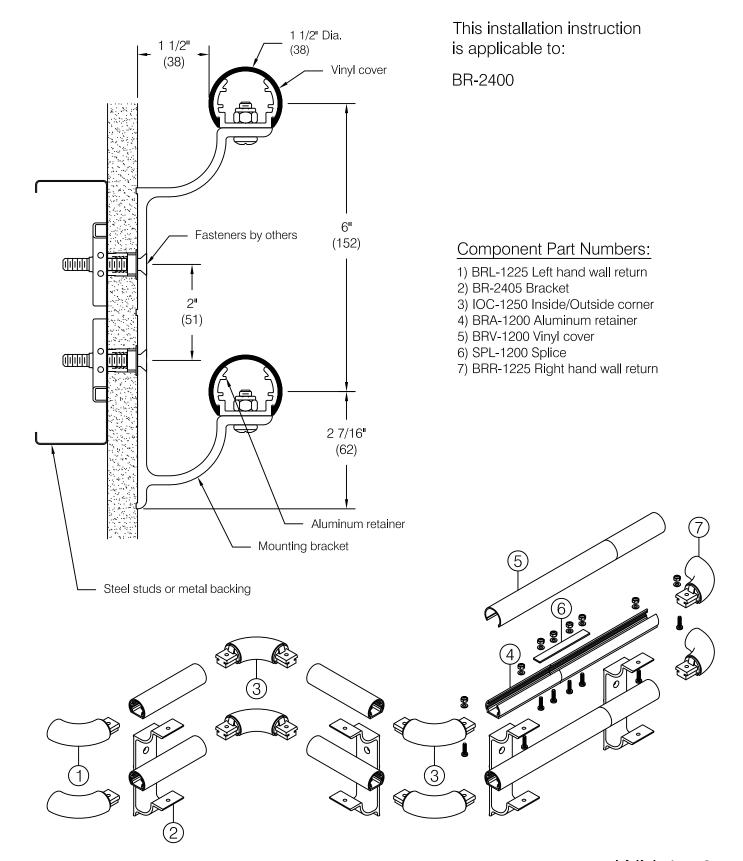
# **Pro·Tek® Installation Instruction**

## **BR-2400 Series Handrail**



#### **BR-2400 Handrail Installation Instructions**



- Step 1: Determine top of handrail height and snap a chalk line 3 3/4" below for centerline of upper mounting hardware, see fig 1.
- **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: Cut aluminum retainer. See Cutting Adjustment Diagrams and Schedule for adjustments to aluminum retainer length at wall returns, inside corners and outside corners. Refer to Minimum Layout Configurations and Clearance With Adjoining Construction for additional information.
- Important: All cuts must be square and deburred
- **Step 3:** Layout aluminum retainer "face up", mark and drill bracket mounting hole locations.

#### Bracket mounting holes must be spaced:

- Not to exceed 32" on center
- 1 1/2" to 6" from end of aluminum retainer at returns and corner accessories
- A minimum of 4" from end of retainer at splices to avoid interference with splice hardware (shown in fig 5)
- To align with metal studs (on metal stud construction) or preferably with horizontal metal backer plate (by others)

Note: Use groove in retainer to locate centerline for drilling, see fig 2.

- Step 4: Locate and drill the bracket mounting holes in wall construction using the aluminum retainer as a template or by careful measurement. Choice of hardware will dictate hole diameter. Use the bracket as a centerline reference between upper and lower mounting holes.
- Step 5: Insert molded accessories into end of retainer, press firmly to ensure molded part is seated squarely against the end of the retainer. Drill accessory mounting holes using the accessory as a template, see fig 3.
- Step 6: Attach molded returns, outside corners and inside corners to retainer with accessory seated firmly and squarely while tightening. Fasten with 1/4" machine screw, flat washers and nylon lock jam-nut provided.

Caution: Do not use lock washers, use flat washers only. Install a flat washer between nut and molded tab. Tighten to 10 ft-lbs maximum torque, see **fig 4**.

- **Step 7:** Attach brackets to retainer using 1/4" machine screw, flat washers and standard nylon lock nut provided. Do not tighten until rail has been mounted in place and all brackets are secured to wall.
- Step 8: Mount assembly to wall with the appropriate hardware according to wall construction. See step 9 for splicing information. Finish tightening brackets to rail fasteners with 10 ft-lbs maximum torque.

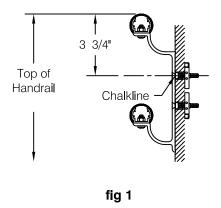
  Suggested wall mount hardware:
  - Drywall: Toggler<sup>®</sup> brand toggle bolts
     Masonry: Plastic Alligator<sup>®</sup> insert
- Step 9: Refer to fig 5 for splicing of aluminum retainer as required on longer handrail lengths. Locate splice joints a minimum of 4" from bracket locations to allow for clearance of splice hardware. For best results offset butt joints in cover from splice in aluminum retainer. Match drill splice plate and aluminum retainer as shown and secure with 1/4"-20 fasteners provided.
- **Step 10:** Measure between accessories (corners and returns) and cut vinyl cover. The cover is not supplied with square cut ends. All ends must be cut square by installer.

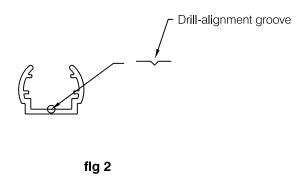
Important: All cuts must be square and deburred

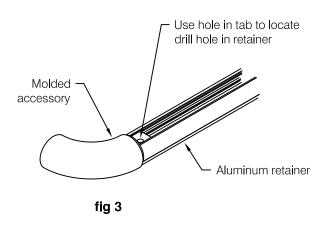
**Step 11:** Snap the cover in place over the aluminum retainer. Install cover to span butt joints in retainer.

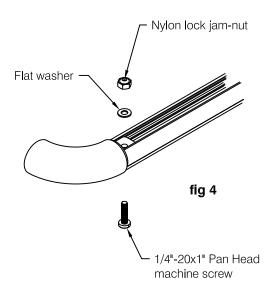


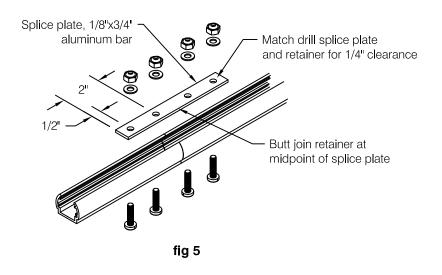






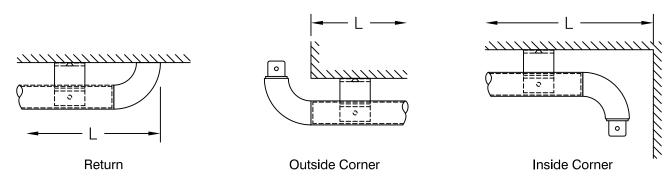








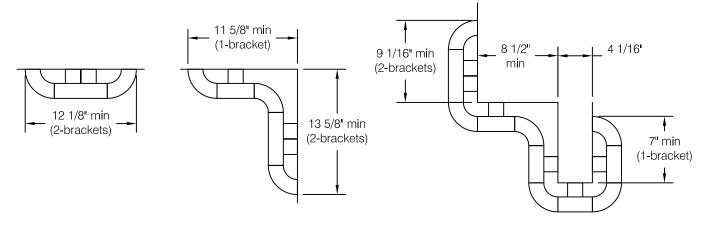
#### **Cutting Adjustment Diagrams and Schedule**



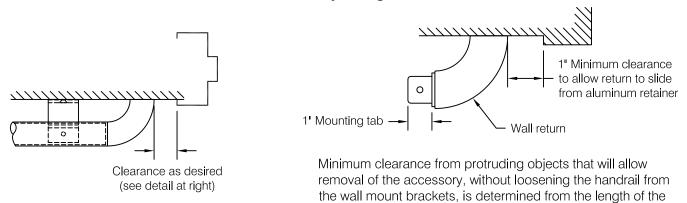
	Aluminum Retainer	Vinyl Cover
Return	L - 3 3/16"	L - 3 1/16"
Outside Corner	L <b>-</b> 1/8"	L - 0"
Inside Corner	L - 4 5/8"	L - 4 1/2"

Important: Install aluminum retainer and molded accessories before cutting the snap-on cover.

## **Minimum Layout Configurations**



### **Clearance With Adjoining Construction**



mounting tab as shown.