

Installation Instructions

HR12/G2 BioBlend®-HR12 Wood Handrail, With Insert - Stock Length

Please read all instructions before installing.

Material must be stored, installed and used in environmentally controlled conditions.

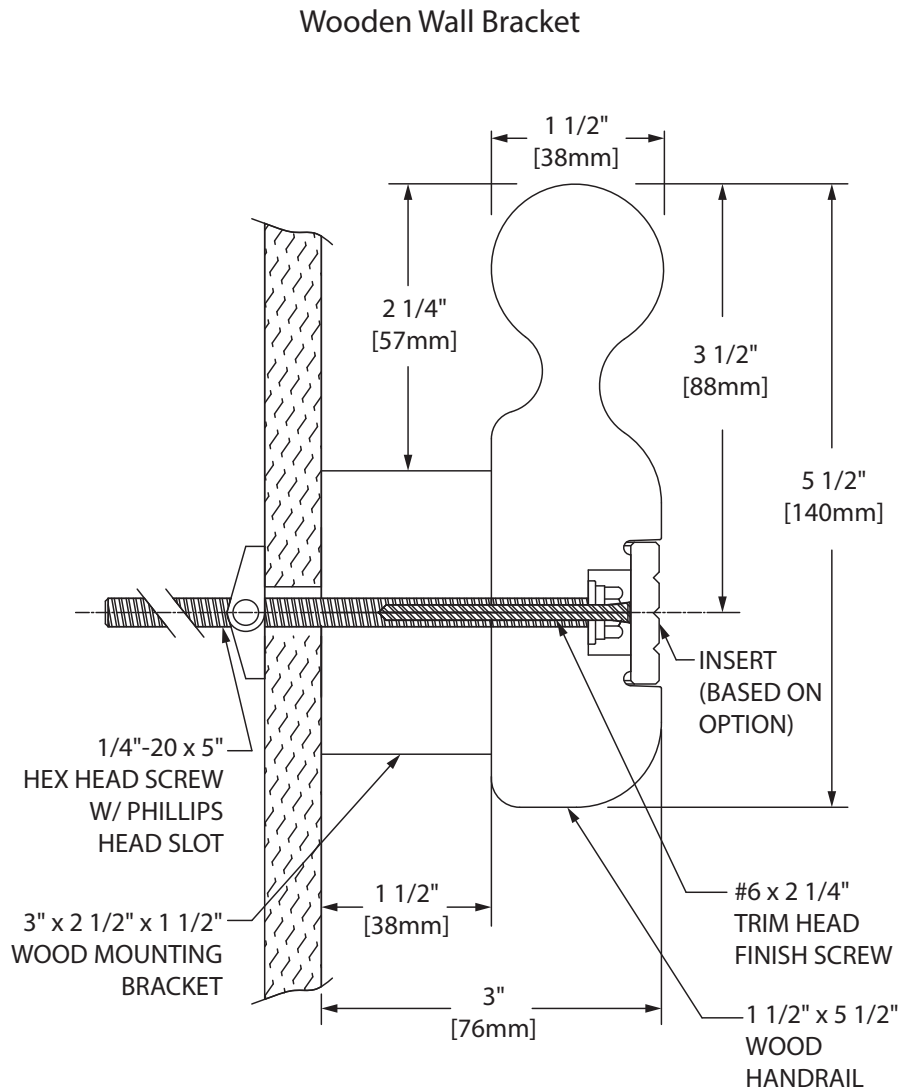
Important

1. Install product in environmentally controlled conditions.
2. Acclimate materials 24 hrs before installation. Maintain temperature controlled environment after installation.
3. Installers should be familiar with the installation of fine finished wood products.
4. Install in accordance with manufacturer's installation instructions. Failure to do so will void the warranty.

Installation tips

1. Wood is a natural material, therefore component color may vary. Sort the parts by color (light to dark) before use.
2. When storing straight lengths of material, lay product flat on supported surface. Do not lean the rails or lay them on unsupported parallel saw horses.

Section View



RECOMMENDED TOOLS

Safety Glasses, Tape Measure, Level, Chalk Line, Power Drill/Nailer, Drill Bits, Socket or Hex Drive Set, Phillips Head Screwdriver and a Radial Arm Saw or Power Miter Box with Carbide Tipped 60-80 Tooth Blade

IPC.684/REV.2

Installation Instructions

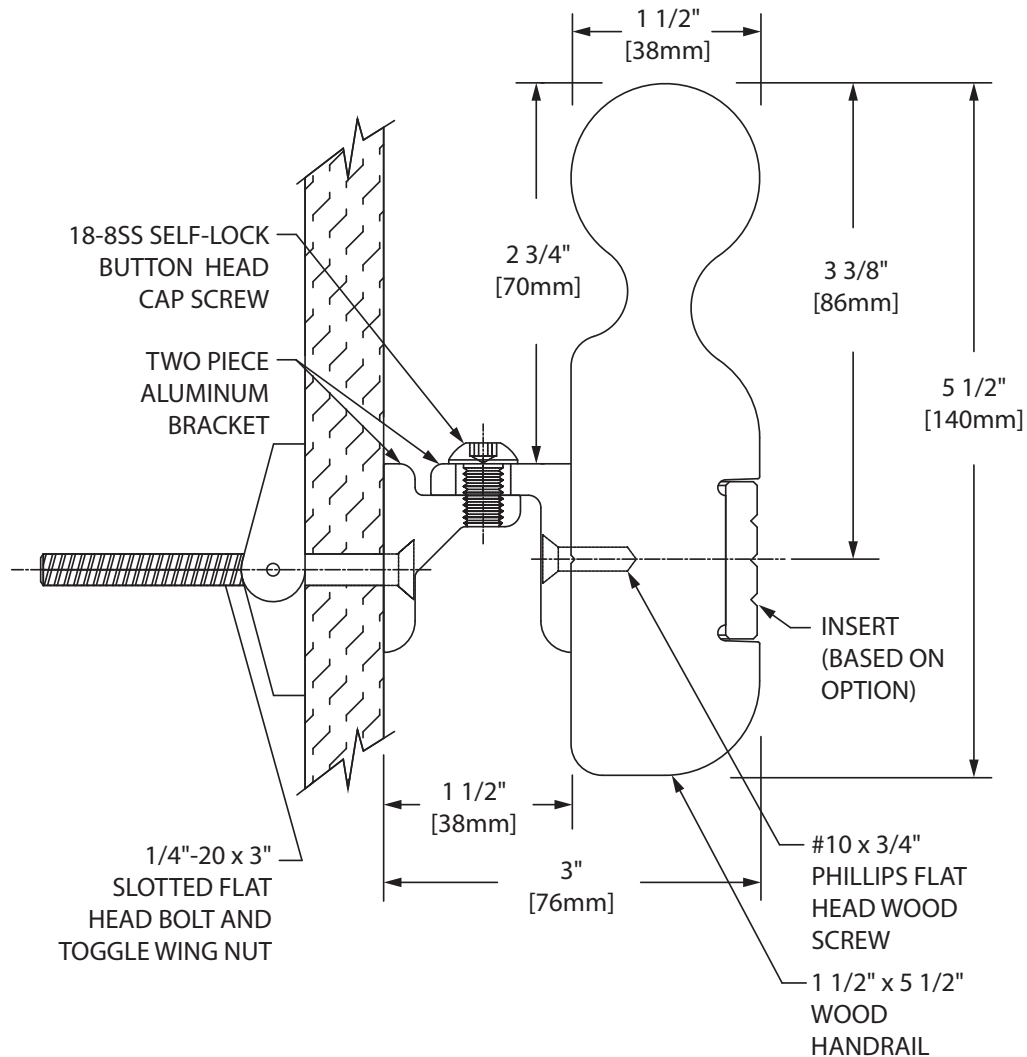
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Section View Cont.

Optional Aluminum Wall Bracket



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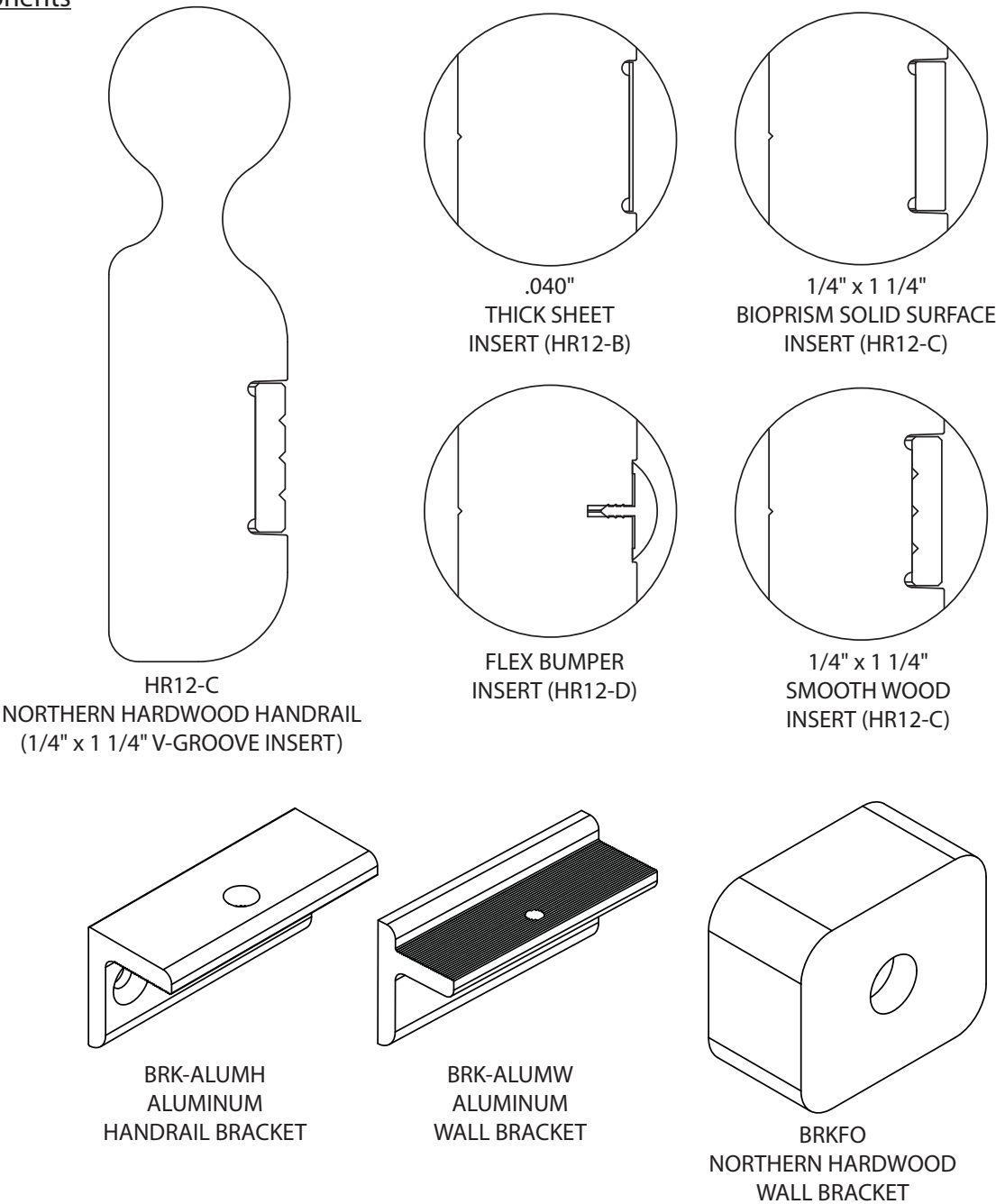
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Components



Fasteners

Wall Condition	Specified Fasteners	Inpro part #
Gypsum Wall	1/4"-20 x 5" Phillips Hex Head Toggle Bolt, Lockwasher and Toggle Wing Nut	HWK-801D
Alum Bracket Hardware	#10x3/4" Phillips Flat Head Screw, 1/4-20x3" Slotted Flat Head Bolt, Wing Nut, 18-8SS Cap Screw	HWK-BRKALUM-D

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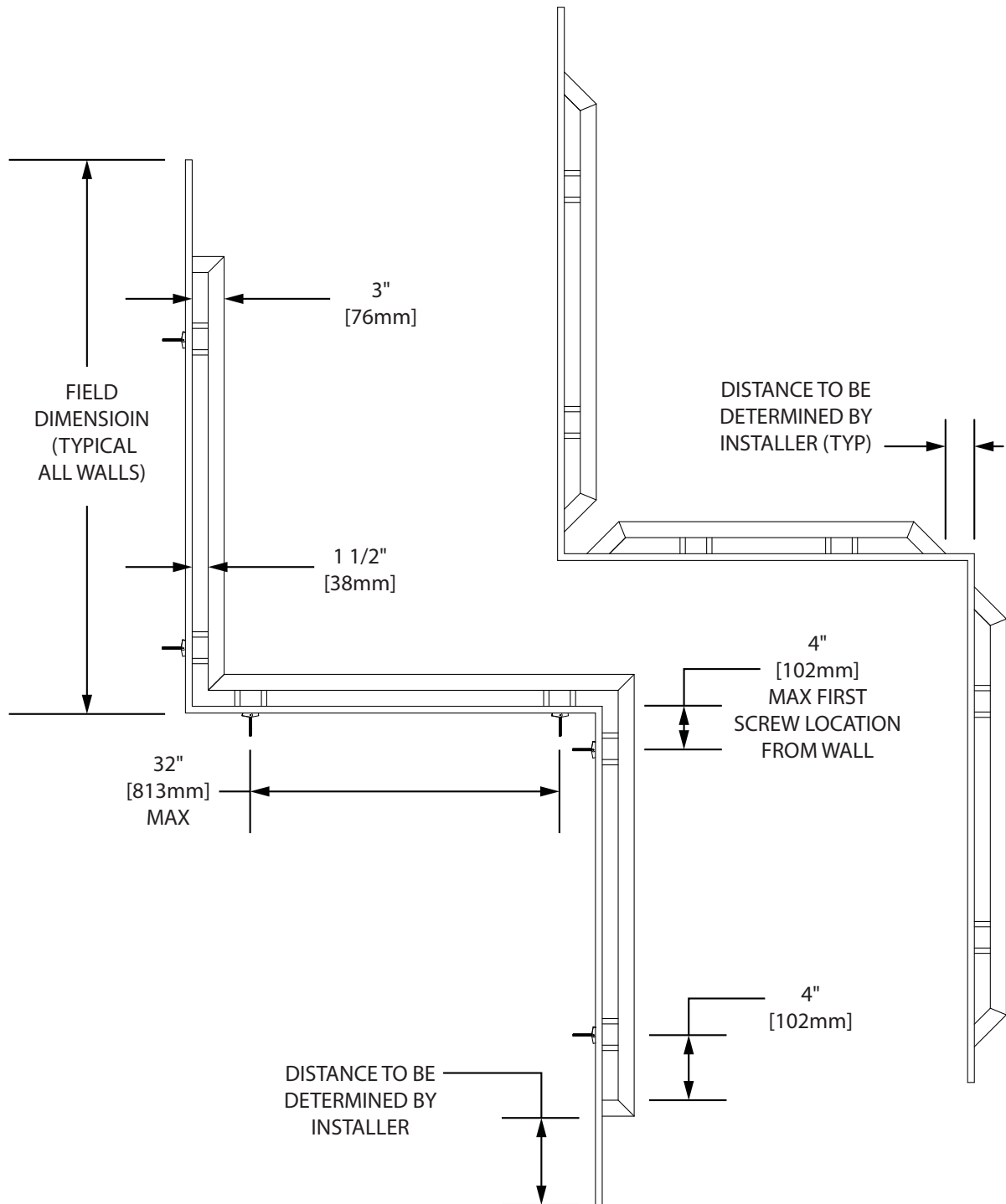
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Layout View



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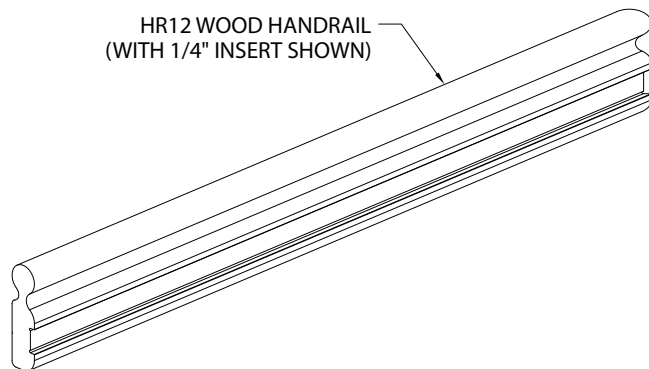
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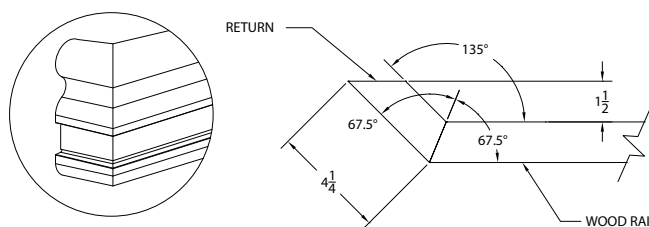
FIG. 1



Note: All boxes and components are marked to coincide with the floor plan drawings. Layout and identify the components needed for each section to be installed. Handrails ship in 8'-16' (2.44m - 4.88m) lengths.

1. Determine height of handrail on wall. Measure 3-1/32" (77mm) below that point and snap chalk line. Cut the handrail to required length, leaving 3" (76mm) allowance for 135° returns, 1-1/2" (38mm) allowance for 90° returns, 1-1/2" (38mm) for inside corners and 3" (76mm) for outside corners. SEE FIG. 1

FIG. 2a

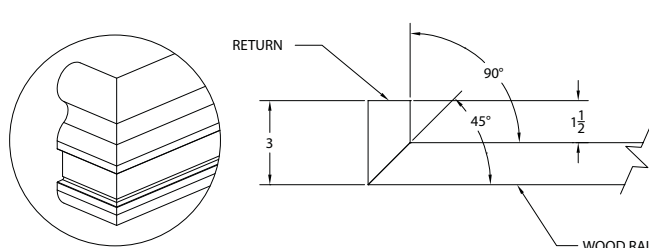


2. Inside corners, outside corner and returns

a. 135° Returns: Return piece is to be cut so the front of a piece is 4-1/4" (108mm) long with a 45° cut on the side that meets the wall and a 67-1/2° angle on the side that mates with the rail length. Glue returns and pin nail to the rail length. SEE FIG. 2a

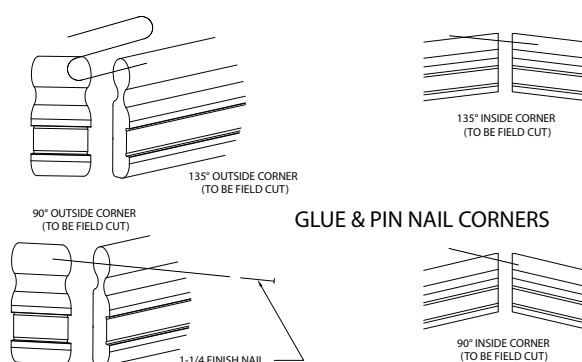
b. 90° Returns: Return piece is to be cut so the front of a piece is 3" (76mm) long with a straight cut on the side that meets the wall and a 45° angle on the side that mates with the rail length. Glue returns and pin nail to the rail length. SEE FIG. 2b

FIG. 2b



c. Inside and outside corners: Miter cut the rail in the proper direction. Inside corners: Join the two miter cut pieces of rail before mounting them to the wall. Apply glue to the mating surfaces and pin nail the two pieces together with four 1-1/4" finish nails. Wipe off excess glue with damp cloth. Outside corners: Attach one section to the wall (See steps 3 and 4 for installation). Apply glue to the mating surface and pin nail the two pieces together with four 1-1/4" finish nails. Wipe off excess glue with damp cloth. SEE FIG. 2c

FIG. 2c



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FIG. 3

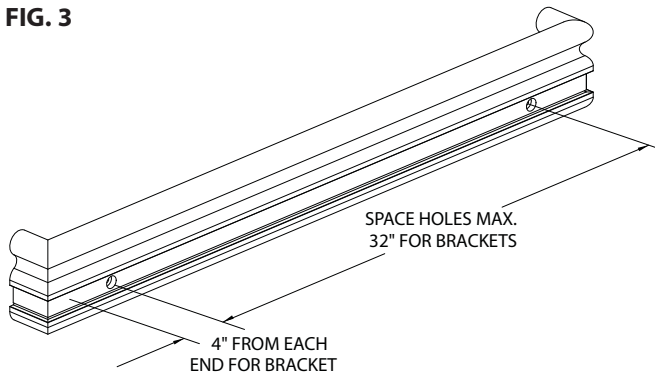


FIG. 4

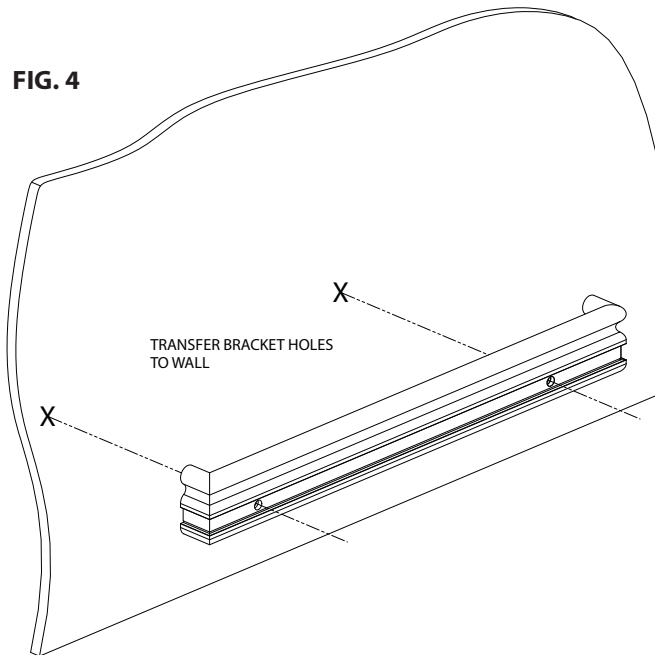
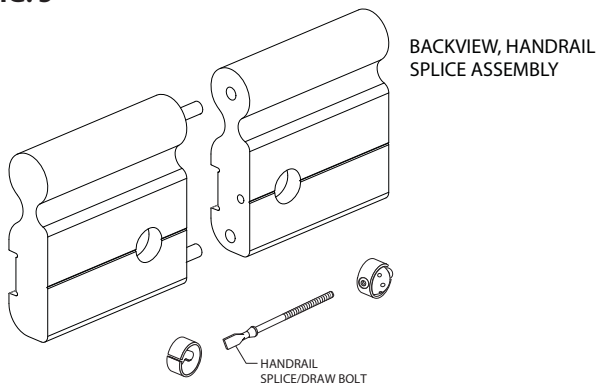


FIG. 5



WOOD BRACKET INSTALLATION:

3. Determine the location of the brackets on the rail. Brackets should be 4" (102mm) from each return/corner and 4" (102mm) on either side of a draw bolt joint and spaced a maximum of 32" (813mm).

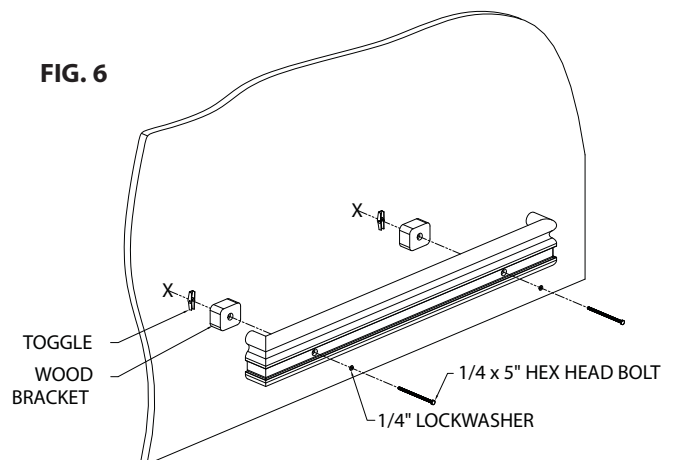
4. Drill 5/16" (8mm) holes for the brackets through the center of the channel for the decorative insert. Counter bore the hole to recess the head of the bolt. SEE FIG. 3

5. Transfer the bracket holes to the wall. Drill holes with a 3/4" (19mm) drill bit for toggle bolts (metal studs), 5/32" (4mm) drill bit for wood screws (wood studs) or 1/2" (13mm) drill bit for lead anchors (masonry construction). SEE FIG. 4

6. Join longer sections of the handrail with draw bolt splices and dowels, before mounting rail to the mounting brackets. Use the draw bolt jig and bits to drill holes for the draw bolt assembly in the rail sections. Apply glue to both surface pieces to be joined and into the dowel holes. Insert dowels into holes and the unassembled parts of the draw bolt into the holes. Tighten the draw bolts with tightening tool. SEE FIG. 5

7. Position the brackets on the back of the handrail, at each mounting hole, and insert the appropriate fastener with lock washer through the front of the handrail and into the bracket. If using toggle wings or lead anchors, attach these to the back of the handrail. Mount the handrail and bracket assembly into the holes on the wall. Level the handrail while tightening it to the wall. SEE FIG. 6

FIG. 6



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FIG. 7

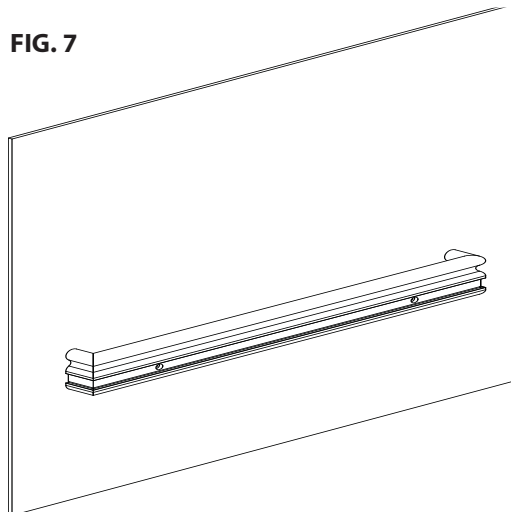
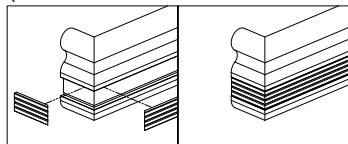
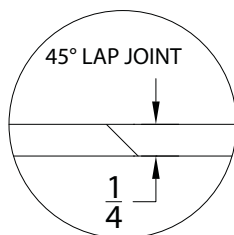
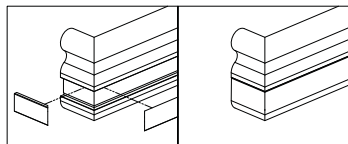


FIG. 8

1/4" THICK INSERT
(DECORATIVE V-GROOVES SHOWING)



1/4" THICK INSERT



8. Fill any holes in the wood with the putty from the touch up kit. Clean up any wood glue with a damp cloth. Remove any surplus materials and debris upon completion of the installation.

INSTALLATION OF THE 1/4" THICK INSERT. SEE FIG. 8

Note: Wood Insert can be installed with decorative v-grooves visible or hidden.

1. Determine the length of the insert. Miter cut inside, outside corners and the pieces for returns. If longer lengths are needed join them with a lap joint.
2. Apply a small amount of PL Premium adhesive in the channel on the handrail. Position the insert in the channel and press in place. Remove any excess adhesive immediately. Tape the insert in place with painters tape until the adhesive cures.

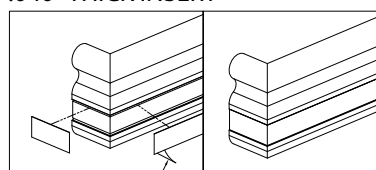
INSTALLATION OF THE .040" THICK SHEET INSERT.
SEE FIG. 9

1. Determine the length of the insert. Cut inside, outside corners and the pieces for returns. If longer lengths are needed join them with a butt joint.
2. Adhere the insert with the factory applied adhesive backing. Remove the release liner position the insert in the channel and press in place.

INSTALLATION OF FLEX BUMPER INSERT. SEE FIG. 10

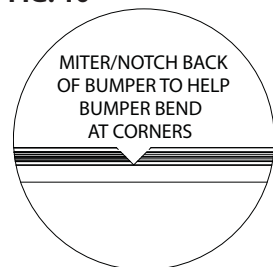
FIG. 9

.040" THICK INSERT

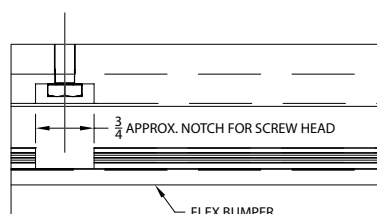
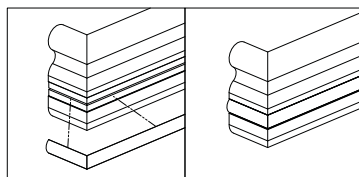


ADHESIVE BACKING

FIG. 10



FLEX BUMPER INSERT



1. Cut Flex Bumper to the required length. Miter cut the back of the Flex Bumper to help the bumper bend at corners and returns. Notch bumper to clear fastener head.
2. Squeeze a small amount of the instant adhesive into the bumper slot on the front of the wood wall guard.
3. Work a four-foot area of wall guard at a time since the glue will set up quickly. Do not allow glue to touch exposed wood surface.
4. Push the bumper into the slot. A rubber mallet may help press the bumper into the slot.

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FIG. 11a

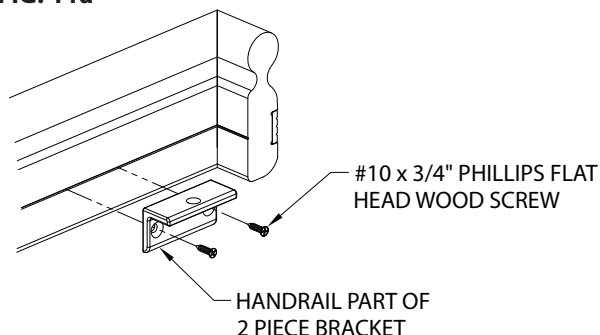


FIG. 11b

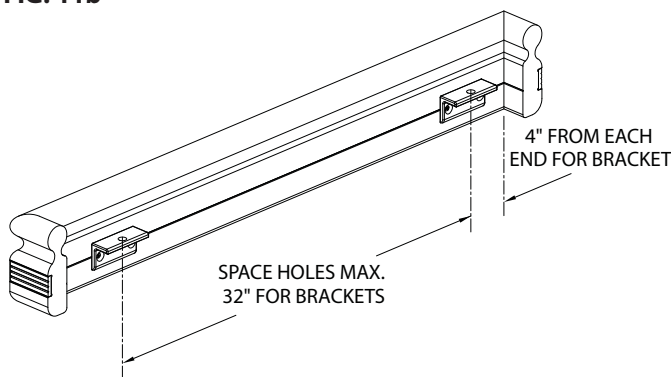


FIG. 11c

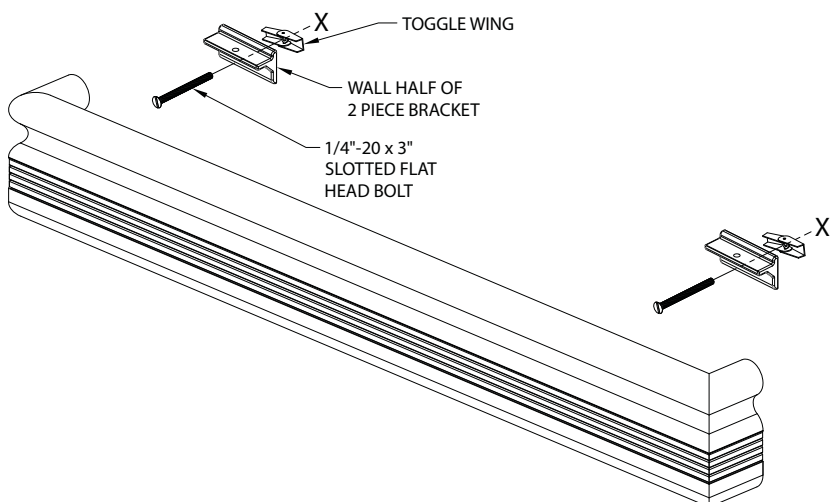
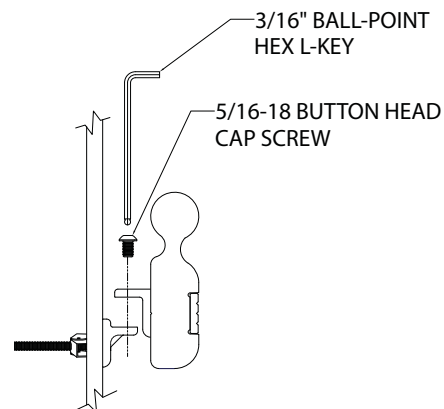


FIG. 11d



ALUMINUM TWO-PIECE BRACKET INSTALLATION

1. Attach the handrail part of the two piece bracket to the back of the handrail into the "v-groove" with $\frac{3}{4}$ " screws (2 per bracket). NOTE: FASTENERS ARE SELF DRILLING, DO NOT DRILL PILOT HOLES. Brackets should be 4" (102mm) from each end and spaced a maximum of 32" (813mm). SEE FIG. 11a & 11b

2. Hold the handrail with the handrail brackets attached, up to the chalk line and mark each bracket location on the wall.

3. Position the top edge of the wall bracket on the chalk line and align it with the bracket marks. Transfer the wall bracket holes to the wall. Drill holes with a $\frac{3}{4}$ " (19mm) drill bit for toggle bolts (metal studs), $\frac{5}{32}$ " (4mm) drill bit for wood screws (wood studs) or $\frac{1}{2}$ " (13mm) drill bit for lead anchors (masonry construction). SEE FIG. 11c

4. Level and mount brackets to wall. Tighten fasteners to secure it to the wall. Fasten the handrail to the wall brackets with the 5/16-18 x $\frac{1}{2}$ " button head cap screw. Tighten screw with the 3/16" Ball-Point Hex L-Key. SEE FIG. 11d

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