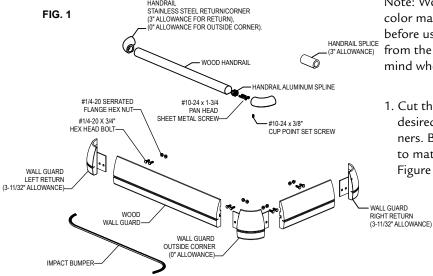
Installation Instructions 3500WWB Handrail

Please read all instructions before installing handrail.

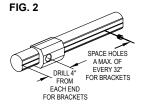
Install product in environmentally controlled conditions. Acclimate the handrail to room temperature 24 hours before installation. When storing straight lengths of materials, lay product flat on a supported surface. Do not lean the rails or lay them on unsupported parallel saw horses.



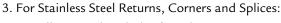
Note: Wood is a natural material therefore component color may vary. Sort the parts by color (light to dark) before use. Parts may appear different when viewed from the left or the right (metamerism). Keep this in mind when sorting parts.

 Cut the wood handrail and wood wall guard to the desired length leaving allowances for returns and corners. Break or chamfer edges on straight wood pieces to match return/corner edges. Finish as needed. See Figure 1.

> Handrail Allowances" Returns - 3" Outside Corners - 0" Wall Guard Allowances: Return - 3-11/32" Outside Corners - 0"



2. Drill 7/8" deep holes for brackets in the wood rail for threaded inserts using an 11/32" drill bit and insert guide for hole placement. Screw threaded inserts into the handrail with 6mm power bit or hex key. Holes should be 4" from each return and spaced a maximum of 32" O.C. See Figure 2.



- a. Drill 1 1/4" deep holes for splines using a 5/32" drill bit and a spline guide for hole placement. Attach splines to handrail. See Figure 3a.
- b. Attach returns, corners and splices to handrail by sliding component over the spline and tighten with set screw. See Figure 3b.
- 4. For Wood Returns and Corners: Drill holes for wood dowels using a 25/64" drill bit and a dowel guide for hole placement in each section of rail. Glue and clamp the handrail and return/corner assembly until the glue is set. Align the surfaces of the rail and returns/corners.

Note: Joining wood rail to wood rail without using a stainless steel splice, follow instructions in step 4. See Figure 4.

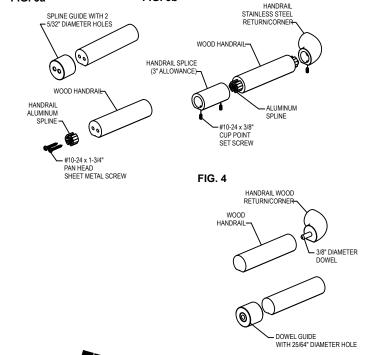


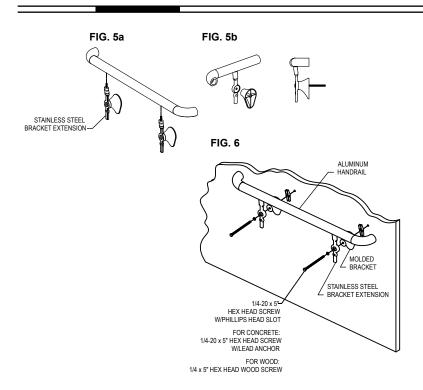
FIG. 3b

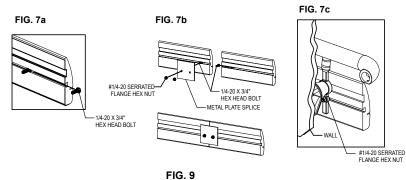
IPC.652/REV.1

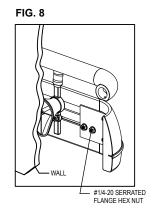


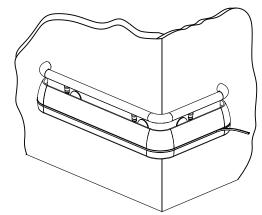
FIG. 3a

Installation Instructions 3500WWB Handrail









- 5. Screw brackets extensions into the threaded inserts on the handrail and align bracket extensions. See Figure 5a.
 - Orientation of bracket extension is critical. See Figure 5b.
- 6. Snap a chalk line on the wall 4-7/16" below the top of the handrail. Drill ¾" holes for toggle bolts (drywall/metal stud installation), ½" holes for lead anchor (concrete wall installation) or 1/8" pilot hole (wood screw into wood studs). Attach the molded bracket and stainless steel bracket extension/handrail assemble to the wall. Figure 6
- 7. Slide the hex head of the $\frac{4}{20}$ x $\frac{3}{4}$ " bolts into the channel on the back of the wood wall guard. See Figure 7a.
 - Slide them into position so they align with the holes in the bracket extensions. With lengths longer than 12', use a metal plate splice and ¼-20 x ¾" bolts to join sections. See Figure 7b. Attach the wood wall guard to the bracket extension using a serrated flange hex nut at each location. See Figure 7c.
- 8. Attach wall guard returns and corners to the straight lengths using 1/4-20 x 3/4" hex head screws and nuts. See Figure 8.
- 9. Cut impact bumper to the required length. Squeeze a small amount of the instant adhesive into the bumper slot on the front of the wood wall guard. 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. Push the bumper into the slot. A rubber mallet may help press the bumper into the slot. See Figure 9.

