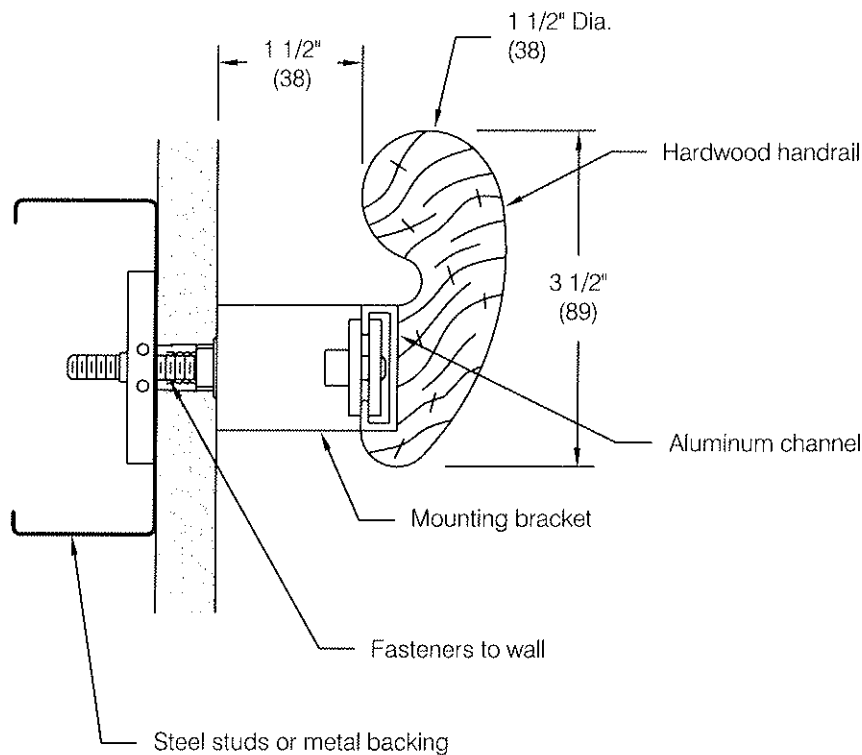
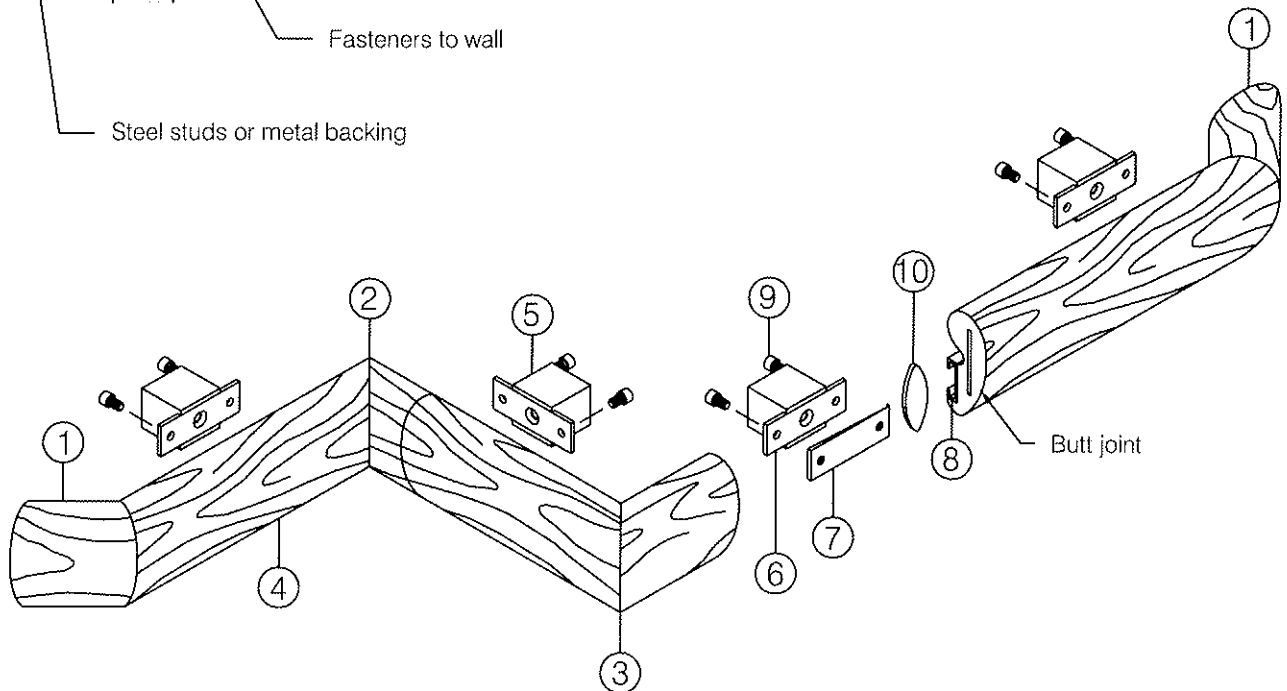


## BR-3500 Series Handrails



This installation instruction  
is applicable to:

BR-3500



### Component Part Numbers:

- |                                  |   |
|----------------------------------|---|
| 1) Pre-Fabricated Wall Return    | 6) BKT-3500-WP Washer Plate             |
| 2) Pre-Fabricated Inside Corner  | 7) BKT-3500-NP Nut Plate                |
| 3) Pre-Fabricated Outside Corner | 8) BRA-3500 Aluminum Channel            |
| 4) BRW-3500 Wood Handrail        | 9) 1/4"-20 x 3/8" Socket head cap screw |
| 5) BKT-3500 Wood Bracket         | 10) Wood Biscuit                        |

**Step 1:** Determine top of handrail height and snap a chalk line 2 1/2" below for centerline of 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 mounting channel to accommodate length of recess along back of handrail, see **fig 2**. The aluminum channel must be cut to fit between pre-fabricated returns, corners, and butt joints. Make sure the channel is cut to a length that will not interfere with handrail butting tightly at splice joints.

**Important:** All cuts must be square and deburred

**Step 3:** Layout aluminum channel open "face up", mark and drill fastener hole locations for #8 flat head sheet metal screws. Using the drill groove as a guide locate holes along the centerline of the channel approximately 12" on center, see **fig 3**. Countersink so that fastener will not interfere with movement of nut plate when mounting handrail to wall, see **fig 4**.

**Step 4:** Determine the number of handrail mounting brackets required for each section of handrail, see **Step 5**. Slide that number of nut plates into the aluminum channel, see **fig 5**.

**Step 5:** Locate and drill bracket mounting holes in wall construction. Make sure spacing will not result in interference between the nut plate and pre-mitered wall returns and corners.

**Bracket mounting holes must be spaced:**

- Not to exceed 32" on center
- 2 3/8" to 4 1/2" on center from wall return miter joints, see **fig 7**
- 1/4" to 4 1/2" on center from inside corner miter joints, see **fig 7**
- 3 7/8" to 8" on center from outside corner miter joints, or to leave clearance for corner guards (if applicable), see **fig 7** and **fig 8**
- To align with horizontal backer plate or vertical studs (metal or wood) in non-masonry wall construction

**Step 6:** Fasten wood bracket and washer plate to wall using 1/4" diameter flathead fasteners. See **fig 6**. Select hardware according to wall construction.

**Suggested hardware:**

- Drywall: Toggler® brand toggle bolts with flathead machine screw fastener.
- Masonry: Plastic Alligator® insert with flathead sheet metal or lag bolt thread fastener.

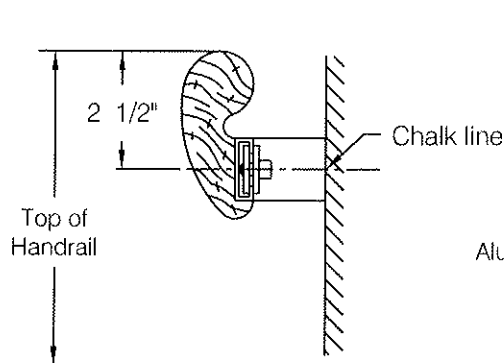
**Step 7:** Fasten aluminum channel to hardwood handrail using the #8 flathead sheet metal screws provided. Pre-drill wood rail if desired.

**Important:** If pre-drilling for fastener use caution not to drill through finished face of handrail. Make sure nut plates have been slid into channel before fastening aluminum to wood rail, see **Step 4**.

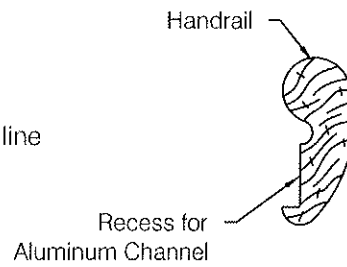
**Step 8:** Hold wood rail in place and align nut plate with bracket and washer plate assembly. Use 1/4"-20x3/8" socket head cap screws provided to secure nut plate to washer plate, see **fig 9**. Do not tighten until all nut plates have fasteners installed loosely in place. See **step 10** for installation of handrail at butt joints.

**Step 9:** Tighten cap screws with an Allen wrench.

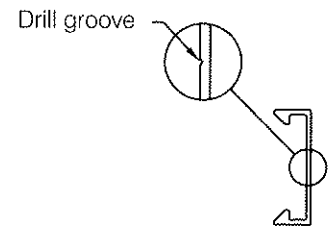
**Step 10:** Install wood biscuit at splice joints using water soluble carpenter glue, see **fig 10**. Apply additional glue to adjoining ends of handrail using caution to prevent excess glue from squeezing out of the joint. Install the adjacent handrail section pressing firmly to keep the butt joint tightly together while the rail is secured. Wipe off any excess glue using a damp towel. Continue with installation of remaining sections as described above.



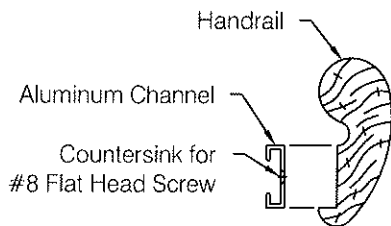
**fig 1**



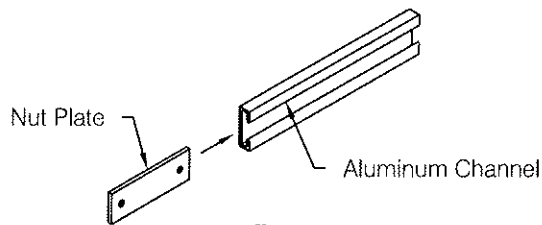
**fig 2**



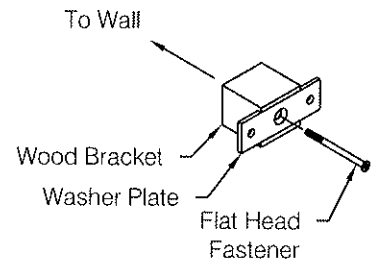
**fig 3**



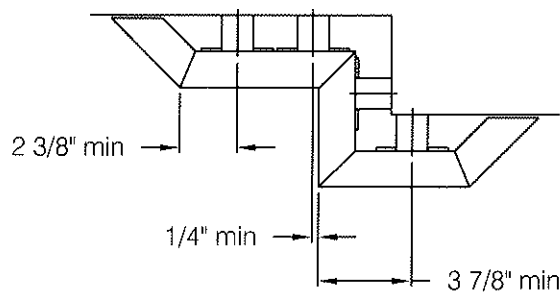
**fig 4**



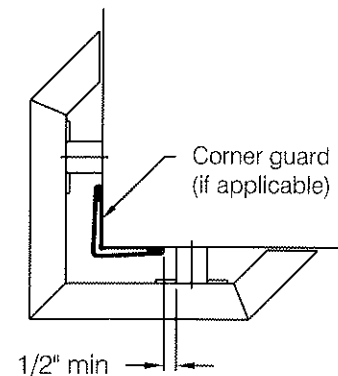
**fig 5**



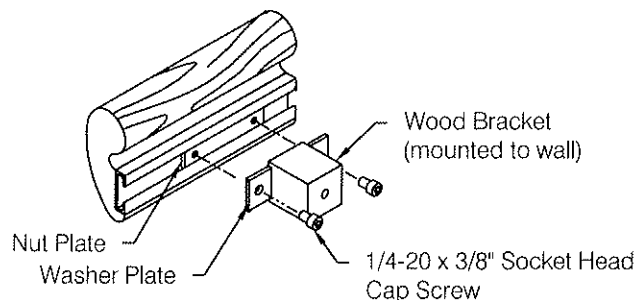
**fig 6**



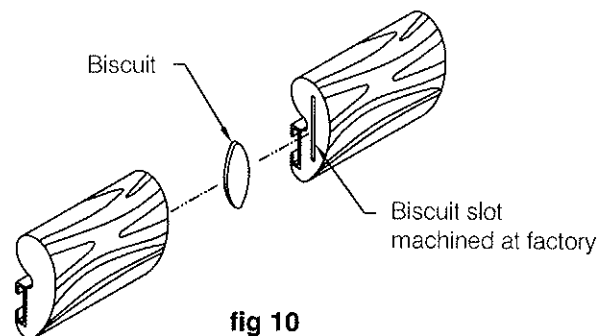
**fig 7**



**fig 8**



**fig 9**



**fig 10**

## Minimum Layout Configurations

