



AMERICAN FLOOR PRODUCTS COMPANY, INC.

AFco-USA

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INSTALLATION INSTRUCTIONS

Impact Protection Systems

WOOD HANDRAIL: **DAKOTA® (WG-2109)**

- Step 1:** Consists of a wood handgrip, aluminum alignment channel, machined wood accessories, and molded vinyl wall brackets. The aluminum alignment channel provides alignment between adjacent sections of handgrip and between handgrip and machined accessories. In addition, the aluminum alignment channel provides support at butt joints. Refer to **fig. 1** for a view of the system components (see CAD details on back for all figure references).
- Step 2:** If the required handrail exceeds a single handgrip length it will be necessary to butt join sections end-to-end. The handgrip must be cut so butt joints are located between 2" and 6" from a wall bracket. The aluminum alignment channel must be joined away from the handgrip joint see **fig. 2**. All ends must be checked for squareness before assembly.
- Step 3:** The aluminum alignment channel must extend past the handgrip at all accessory and splice locations. See **fig. 3** for adjustments to aluminum and handgrip length at wall returns and inside/outside corners.
Note: All aluminum cuts must be square and deburred.
- Step 4:** Determine top of handrail height and snap a chalk line 2-7/16" below that height to mark centerline of mounting hardware, see **fig. 4**.
- Step 5:** Layout wood handgrip and insert aluminum retainer with flat surface exposed. Follow joining instructions outlined in steps 2 and 3 above. The aluminum should be clamped or held in place with a limited number of countersunk wood screws (not supplied) placed away from bracket locations.
*Note: All wood cuts must be square and deburred using 120 grit sand paper being careful not to damage finish Color the perimeter of all unfinished ends of the wooden handrail using a stain pen or touch-up stain, see **fig. 5**.*
- Step 6:** Mark and drill bracket mounting holes using a #16 drill bit to act as a pilot hole for the #12 sheet metal screws provided. The pilot holes should be drilled between 7/8" and 1-1/8" deep from the aluminum surface into the wood being careful not to puncture the visible surface. After drilling the pilot holes increase the hole diameter in the aluminum to clear the #12 fastener using a 1/4" drill. Either remove the aluminum to open the holes or drill in place being careful to drill the aluminum only.
Mounting holes/ brackets must be:
- Located at each accessory, see **fig. 7**.
 - spaced 32" on center, or less.
 - 2" - 4" from butt joints.
 - To align with horizontal metal stud/plate (by others) or metal studs (on metal stud construction).
- Note: Mounting holes must be located on the aluminum centerline or justified up to 1/16" toward the edge that will face the wall when installed. All holes should be located along the same line regardless of the dimension.*
- Step 7:** Install wall return and corner accessories using the extra width provided in the aluminum channel recess groove to align them with the main rail. The groove depth of the rail and accessory are machined to leave the same height of material above the aluminum channel. In the event there is a height alignment problem use shim material to adjust the rail or fitting height to the same level. Clamp the fitting in place, drill, countersink and install two flathead wood screws as indicated in **fig. 6**. Drill for a mounting bracket as described in step 6.
- Step 8:** Install the molded brackets using the screws provided. Leave the brackets loose to allow for adjustment when mounting to the wall.
- Step 9:** Locate and drill handrail bracket mounting holes in wall construction to align with the hole spacing used to mount the brackets on the handrail. Choice of hardware will dictate hole diameter.
- Step 10:** Mount assembly to wall with the appropriate hardware according to wall condition.
Suggested hardware:
Drywall: Toggler® brand toggle bolts
Masonry: Plastic Alligator® insert
- Step 11:** Attach sections together by drilling and countersinking for flathead wood screws at each joint.

Specifications subject to change without notice.



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Installation Instructions: DAKOTA[®] (WG-2109)

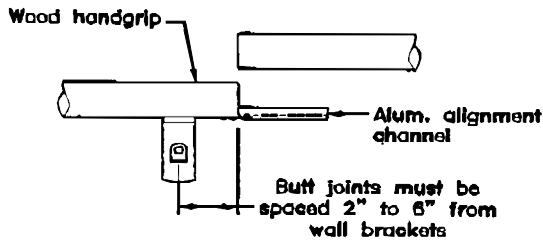
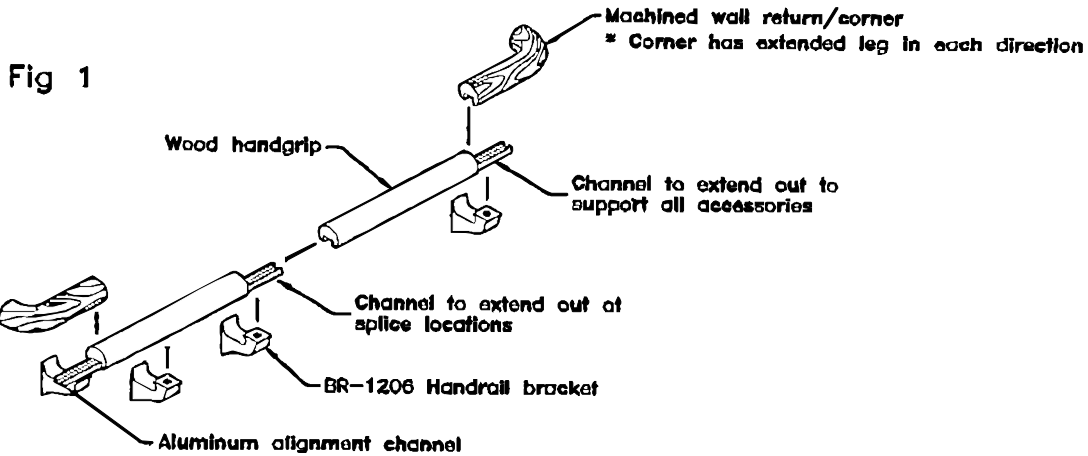


Fig 2

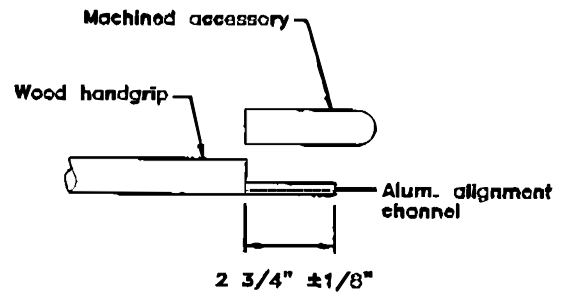


Fig 3

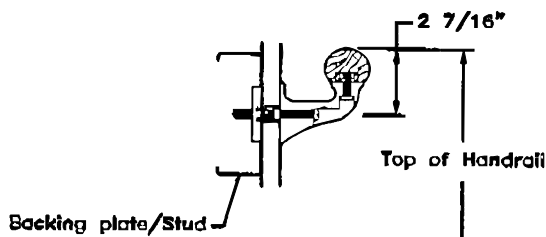


Fig 4



Fig 5

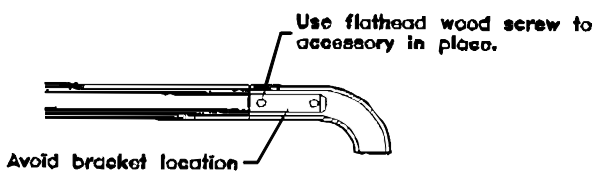


Fig 6

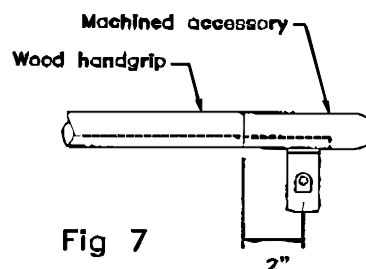


Fig 7