

# Age Craft

## MANUFACTURING

### Residential Railing Installation Instructions

#### Tools Needed:

Hammer, hacksaw, #2 Phillips tip screwdriver, level, electric or hammer-drill (see application), 1/8" drill bit, 1/4" drill bit, 5/32" drill bit, 13/64" drill bit, 7/16" socket and ratchet, tape measure

**STEP 1** Mark location on floor of all newel posts (must be 1 1/2" to 3" in from edge) or porch columns (must be 3" to 3 1/2" from edge). For maximum strength of railing do not space posts further than 5' apart.

Note\* for column installation if an adjustment is needed in column height we recommend taking 1/2 of adjustment from each end of column to insure that the spacing of the scrolls stays equal (for example, to take 9" off total height, take 4 1/2" off top and 4 1/2" off bottom)

**STEP 2** Install newel post or column as below:

**Column:** after any height adjustments are made place mounting-plates on post ends. Set column in place keeping 3" to 3 1/2" from edge. To prevent wind lift on light weight structures (i.e. aluminum awnings) secure columns to carrier plates with #10 x 1/2" painted stainless steel screws (use 5/32" drill bit)

**Newel post:** place newel in desired position and attach to floor

If mounting surface slopes or is uneven use shims under the flange or base

The bottom of each newel post flange is marked with drilling locations, pre-drill those marked holes with 1/4" steel drill bit

**If floor is wood:** Drill 1/8" hole in flooring and fasten with stainless steel lag screws (9646)

**If floor is concrete:** Mark location to drill on cement. Using 5/16" masonry bit drill holes 1 1/2" deep. Insert plastic bantam plug (9648) into holes and position post or column. Use stainless steel lag screws (9646) to anchor securely. Be sure to plumb the post when tightening

**Masonry installation of newel post:** to secure newel posts, sink a 33-1/2" long, .050" outside diameter pipe (same as a 3/4" pipe) into a 3" hole. Fill hole with quick set cement. Be sure pipe sets up plumb. Pipe must extend 30 1/2" above ground. When cement is hard, slip newel post over pipe. Push down until flange rests on the cement base. Then fasten as described above.

#### Step 3 connecting the rail

When cutting rail section, as with columns, cut equally from each end to keep picket spacing equal.

**Level applications:** Mark and cut railing sections to fit snugly between newel post/ column and/ or wall. Install top rail fittings to post/column using 5/32" bit and #10 x 1/2" painted screws to provide 30" rail height. Slip rail section over upper rail fitting and mark location for bottom fittings. Secure all rail ends to fittings by drilling 13/64" hole through top and bottom rail into fitting. Use binding post and screw provided to secure rail to fittings.

**Sloped or stair applications:** Carefully measure distance between top and bottom posts following the slope of the steps or ramp. Deduct 3" from this measurement. Slide top and bottom utility connectors into rail ends. Drill

13/64" holes in top and bottom rails through to the utility connector, secure with binding post and screw. Follow level application attachment.

## **USING CROSSOVER KIT**

In instances where rail span is 6' or over we recommend using a crossover kit to maintain rail strength. See installation below:

**Straight crossover kit:** (level applications) Locate the center picket in the rail section and remove it by drilling out the top and bottom rivets with a 13/64" drill bit. Measure 3/4" to each side of the center of the hole in the bottom rail and mark. Cut this 1 1/2" out of the bottom rail to accommodate post. Cap should be secured to post with metal screws from factory. Slide post into opening and cap into top rail. Secure cap to top rail by drilling with 13/64" bit and using binding post and screw. Attach rail fittings to post and bottom rail of section as in level application of rail installation above.

**Step crossover kit:** (sloping applications) Locate the center picket in the rail section and remove it by drilling out the top and bottom rivets with a 13/64" drill bit. Measure 2 1/4" to each side of the center of the hole in the bottom rail and mark. Cut this 4 1/2" out of the bottom rail to accommodate post. Measure and adjust the height of the newel post provided with crossover kit. Slide crossover cap on to post and secure with sheet metal screws furnished (use 5/32" drill bit) Slide post into opening and cap into top rail. Secure cap to top rail by drilling with 13/64" bit and using binding post and screw. Follow sloped or stair application and attach utility connectors to bottom rail and post.

## **ATTACHING TO BUILDING**

To connect rail section directly to wall, lag an extra picket to the wall and attach railing directly to picket using a 13/64" drill bit and binding post and screw at top and bottom rail. This eliminates missing mortar joints and creasing siding.

## **INSTALLING STUB SHOE**

Extended pickets are furnished with rail sections of 4' or longer. Slide stub shoe (9684) on bottom of extended picket and attach to floor with screws enclosed in package.

## **ATTACH LAMBS TONGUE**

Set slot on back of lambs tongue in desired position. Mark at top of slot on post. Drill 5/32" hole. Insert #10 x 1/2" screw, allowing 1/8" clearance between screw head and post. Slide slot on exposed screw. Secure at bottom of lambs tongue with #10 x 1/2" screw.

## **FASTENING SCROLLS**

Drill 5/32" holes in pickets to match scrolls. Fasten to picket with #10 x 1/2" screws. Heart, diamond (when ordered assembled) and oak scrolls may be placed between pickets that are 6" on center. Heart or diamonds may be placed on either side of a picket spaced at either 4" or 6" on center. Oaks may not be used on any opening smaller than 5 1/2".

## **INSTALLING HANDRAIL**

Fasten 9696 wall brackets using 9646 lag screws (for wood wall) or in conjunction with bantam plugs (9648) for masonry installation. Brackets should not be placed more than 3' apart. To attach handrail to brackets, drill through both handrail and bracket top with 13/64" drill bit. Secure with binding post and screws.