

Melton Classics, Inc.  
DuraClassic Balustrade Installation Instructions  
5-1/2" #310 & 7-7/8" #300 SYSTEMS

**A. PARTS AND SUPPLIES NEEDED FOR INSTALLATION**

**Included:**

**The following will be provided for each 10' section of rail purchased:**

- 2 3" x 1 1/2" L Brackets
- 4 1 3/4" Blue Screws for anchoring the L Brackets (2 per L Bracket) to the Newel Cap, Column or Wall
- 4 3/8" Threaded rods (36-1/2" for #310 Balusters and 38-1/2" for #300 Balusters)
- 3 3/8" Concrete Anchors, Washers and Hex Nuts (wood installations will use 3/8" zinc coated threaded inserts in place of the concrete anchors)

**The following will be provided for each Newel Post purchased:**

- 1 1-1/2" Channel Iron
- 1 3/8" Threaded Rod (36-1/2" for 12" Newel Post and 38-1/2" for 18" Newel Post)
- 1 3/8" Concrete Anchor and Hex Nut (wood installations will have a 3/8" zinc coated threaded insert in place of the concrete anchor)

**Note:** Threaded Rods are not used for stair installations. **Please see Stair Installation Instructions.** A 3/8" Toggle Nut should be used in place of the concrete anchors or threaded inserts for **Roof Installations** so as not to penetrate the sub surface.

**Not Included:**

The following will need to be purchased before beginning installation. Materials can be purchased at Home Depot, Lowe's or most home improvement centers.

- Sub-Rail** Pressure treated 2x4 for #310 rail system or 2x6 for the #300 rail system cut the length of of the rail for each tip rail section.
- Screws** 1" Coarse screws for anchoring the L Bracket to the sub rail. You will need 2 coarse screws for each L Bracket.
- Adhesive** Premium grade heavy-duty sub floor adhesive
- Sealant/Caulk** Premium grade Elastomeric Latex Sealant such as DAP Dynaflex 230
- Bondo** (Optional) Used to fill in rail seams if necessary or for any repairs.

**B. PREPARATION**

**General:** SPECIFY WHETHER INSTALLATION IS ON A CONCRETE OR WOOD SURFACE AND IF THERE ARE ANY STAIR OR ROOF TOP INSTALLATION WHEN ORDERING SO THAT THE CORRECT INSTALLATION HARDWARE IS PROVIDED. Each installation will vary slightly. Read the Installation Instructions

completely. Consult your representative if you have any questions BEFORE starting your installation.

**Cutting:** Use a masonry blade where cuts are required on the top and bottom rail. Use a grinder with metal grinding wheel for a flush finish.

**Seams:** Our rails come in varied lengths cut to order to avoid seams, however if your installation necessitates a seam in the rail you can use car “bondo” to fill in the seam. Follow the instructions on the can and sand smooth. Use the Dynaflex 230 to fill in any gaps.

**Adhesive:** For all attachments it is recommended that a premium grade sub floor adhesive be used. Follow the directions for the adhesive used as not all products have the same drying times. Remember to not skimp on adhesive, apply adhesive generously.

**Sub-Rail:** Use pressure treated 2x4’s for the #310 rail system and 2x6’s for the #300 rail system cut the length of the rail for each top rail section. The sub-rail is used to help secure the balusters to the top rail.

**Painting:** Application of a high quality exterior primer such as Kilz or Zinsser 123 is recommended followed by a premium grade of exterior topcoat. Follow paint manufacturers instructions concerning use within temperature ranges for best results.

**Custom:** Rail sections for stairs and radiuses are priced separately. For stair installations the newel post base as well as the top and bottom of the baluster extended to allow for angle cuts. Radius rail sections are made per a furnished template.

**Warranty:** Melton Classics, Inc. warrants that for the lifetime of ownership, our product is free from defects in material and workmanship. Our liability under this warranty is limited to replacement if the defective product and does not include labor or any other incurred cost. Improper installation voids this warranty.

### **C. INSTALLATION OF STRAIGHT RAIL AND NEWEL POSTS (see separate instructions for Stairs and Half newel Posts)**

1. **IMPORTANT – FLOOR SUB SURFACE SHOULD BE FINISHED BEFORE INSTALLATION**  
Lay out the complete balustrading system, allowing for the newel posts, the balusters and the top and bottom rails. Make sure the spacing of the balusters and height of the completed system adheres to local code requirement and use guidelines.
2. Mark the placement for the center of each baluster and newel post on the concrete or wood surface. A threaded rod and concrete anchor will not be needed for each baluster however, **EACH NEWEL POST AND THE FIRST AND LAST BALUSTER FOR EACH RAIL SECTION MUST HAVE A ROD AND CONCRETE ANCHOR.** Space the remaining concrete anchors equally among the remaining balusters. Drill an  $1\frac{1}{16}$ ” hole for the concrete anchor at

the center of each placement. Wood installations will use a  $\frac{3}{8}$ " zinc coated threaded insert in place of the concrete anchor. Drill a  $\frac{1}{2}$ " hole a little deeper than the insert and use a  $\frac{7}{16}$ " Allen Wrench to set.

3. Install the newel posts before installing the rails or balusters. The newel post consists of 3 pieces: the base, the center post and the cap. The top of the base has an inside ledge while the bottom of the base does not. Apply a heavy bead of the sub floor adhesive to the bottom of the base and adhere the base to the concrete or wood surface. It is very important that the **BASE IS LEVELED** before going any further. The base should be centered over the anchor. Run a bead of adhesive along the top inside ledge of the base. Place the non-cutout side of the center post on the base ledge and center the post in the base. Note, the cutouts on the center post should be facing up. Caulk the gap between the base and center post with the Dynaflex 230 sealant. Screw a  $\frac{3}{8}$ " threaded rod into the concrete anchor (or  $\frac{3}{8}$ " threaded insert for wood installations). Drill a  $\frac{3}{8}$ " hole in the channel iron that will line up with the threaded rod. Set the channel iron into the column cutouts. Secure the rod to the channel iron with a hex nut. Run a bead of adhesive along the outer top edge of the center post as well as around the inside ledge of the cap. Place the newel cap on top of the center post and slide into place. See figure (A). See separate instructions for installing half newel posts.
4. Mark and drill a  $\frac{3}{4}$ " to 1" hole in the bottom rail to match the spacing of the baluster drillings for the threaded rod and concrete anchors (or  $\frac{3}{8}$ " threaded inserts for wood installations). **REMEMBER TO MEASURE TWICE AND DRILL ONCE.**
5. **IMPORTANT:** Before securing bottom rail to concrete cut 1- $\frac{1}{4}$ " half round drainage holes at the base of each bottom rail section at the point where the bottom rail connects to the newel post, column or wall. There should be a drainage hole on **BOTH ENDS** and on **BOTH SIDES** of the bottom rail where the rail connects to the newel post, column or wall. You will also want to drill additional drainage holes on both sides of the bottom rail at any other low areas or where deemed necessary.
6. Screw the  $\frac{3}{8}$ " threaded rods through the bottom rail into the concrete anchors (or  $\frac{3}{8}$ " threaded inserts for wood installations). Not all balusters will need a rod however, **THE FIRST AND LAST BALUSTER FOR EACH RAIL SECTION MUST HAVE A ROD AND CONCRETE ANCHOR.** Attach the other rods to the remaining anchors or threaded inserts.
7. Spot glue approximately every 18" on the bottom sides of the bottom rail and place the bottom rail over the rods. It is **VERY IMPORTANT** to leave a  $\frac{3}{16}$ " gap between the rail and newel post, column or wall. These expansion joints will be caulked with the Dynaflex 230. Similar to any product subject to hot and cold weather conditions you may experience contractions and expansions in the rail which may require occasional touch ups.
8. Before installing the balusters, line them up in the proper direction as baluster molds may vary. **BALUSTERS MUST BE LINED UP WITH THE SEAMS POSITIONED ON THE SAME SIDE AND POINTING IN THE SAME DIRECTION.** Run a continuous bead of the adhesive around the bottom of the baluster and put the balusters in place. See figure(B).

9. Prepare the sub-rail by marking and drilling  $\frac{3}{8}$ " holes that align with the threaded rods. The end of the sub-rail should fit flush against the newel post cap, column or wall. Run a bead of adhesive around the top of the balusters. Center the sub-rail over the baluster and adhere the sub-rail to the balusters by snugly fastening the washers and hex nuts to the threaded rods.  
CAUTION – DO NOT OVER TIGHTEN.
10. Attach the L Brackets to each end of the sub-rail using two 1" Coarse Screws (not included) for each L Bracket. Attach the top of the L Bracket by pilot drilling two holes in the newel cap, column or wall using a  $\frac{5}{32}$ " drill bit and using the two 1- $\frac{3}{4}$ " Blue Screws (provided).  
IMPORTANT – APPLY ADHESIVE TO THE BOTTOM OF THE L BRACKET WHERE IT ATTACHES TO THE SUB-RAIL AND POST. See Figure ( C ).
11. Run a bead of adhesive along the channel underneath the top rail as well as along the outside edge of the baluster tops. It is VERY IMPORTANT to leave a  $\frac{3}{16}$ " gap between the rail and newel post, column or wall. These expansion joints will be caulked with the Dynaflex 230. Slide the top rail into place over the sub-rail and the baluster tops.
12. To finish, lightly sand the rails and newel posts. Install optional synboard underneath the top rail between the balusters. Caulk the seams, the  $\frac{3}{16}$ " expansion joints and connecting points with the Dynaflex 230. It is recommended that a high quality exterior primer such as Kilz or Zinsser 123 should be applied to the rails, newel posts and balusters followed by a premium grade of exterior topcoat. Follow the paint manufacturers instructions concerning their products use within temperature ranges for best results. Do not use paint or solvents containing acetone.

### HALF NEWEL POST INSTALLATION INSTRUCTIONS

**The following will need to be purchased before installation:**

The channel iron, threaded rod, concrete anchor and hex nut is **not needed** for the half newel post. The materials that are needed can be purchased at Home Depot, Lowe's or most home improvement centers.

For each half newel post you will need:

2" x 6" x 18" Pressure treated board to secure center of half post to the wall

8- $\frac{1}{4}$ " x 3" Blue Tapcon Phillip Head Screws

1. **Read installation instructions in step C.3. above before proceeding.** Installation of the half newel post is similar to the full newel post with the exception of the center post. **Be sure to level the half base.** Locate the position of the half base against the wall. Apply a generous amount of adhesive around the bottom and cut side of the base and adhere the base to the floor surface and wall.
2. Locate and mark the position of the center post on the wall. Place the 2x6x18" board on the wall so that it will be centered in the cavity of half center post. Secure the 2x6x18" pressure treated board to the wall using 4 each  $\frac{1}{4}$ "x3" blue tapcon screws. **Remember to counter sink and pilot drill the holes with a  $\frac{3}{16}$ " bit and apply a generous amount of adhesive to the**

**back of the board.** Attach half center post to board by first applying a generous amount of adhesive to the cut side of the post. Counter sink and pilot drill  $\frac{3}{16}$ " holes on both sides of the post and attach to the side of the board using the  $\frac{1}{4}$ "x3" blue tapcon screws. Use 2 screws each on both sides.

3. Secure the half newel cap to the half center post by applying a generous amount of adhesive all around edges of the half cap and half center post.

**The following will be provided for each Extended Newel Post Purchased:**

- 1 1- $\frac{1}{2}$ " Channel Iron
- 1  $\frac{3}{8}$ " Concrete Anchor and Hex Nut (wood installations will have a  $\frac{3}{8}$ " zinc coated threaded insert in place of the concrete anchor)

**Not Included:**

Threaded rods, concrete anchors, washers and hex nuts are **not needed** for installing the balusters on stair installations. The materials that are needed can be purchased at Home Depot, Lowes, or most home improvement centers. For each extended newel post you will need and rail section:

$\frac{3}{8}$ " Threaded Rod – 4' in length for the extended posts – 1 rod for each extended post

Dry concrete mix for the extended posts

$\frac{1}{4}$ "x4" Tapcon Phillip Head Screws to attaché bottom rail – 4 screws for each rail section

$\frac{3}{16}$ "x2- $\frac{1}{2}$ " Tapcon Phillip Head Screws to attach extended balusters – 4 screws for each baluster

Threaded rods are not used for stair installations

1. **Read installation instructions in C above before proceeding.** Temporarily position the bottom extended post at bottom of stairs and the top post at top of stairs. Place the bottom rail along side the posts and mark the vertical position on the rail to determine the angle cut, **remembering to leave the  $\frac{3}{16}$ " gap for expansion on both rail ends.** You will next need to determine the height needed for the extended newel base. Temporarily slide bottom rail back in place and position against the top and bottom bases so that the base level above the rail is the same at both ends. Mark the extended base for cutting. Use a masonry blade for cutting the rail and base.
2. It is important that the bases are level, square and stable before installing. After cutting base to correct height install the base and center post as described in step C.3. above. **DO NOT** install the cap at this point. The extended bases require a strong and stable installation as the grade of the stairs will force more weight onto these posts. To help secure the bottom extended newel post, pack the post with a **dry concrete mix** before attaching the newel cap. The concrete should come to the top of the center post. Be sure to use a **dry** concrete mix to minimize leaching between the base and floor surface, which could result in staining the floor surface.
3. Attach the bottom rail to the top and bottom base by counter sinking and pilot drilling a  $\frac{3}{16}$ " angle hole in the bottom rail. Using a  $\frac{1}{4}$ "x4" blue tapcon screw on each side and at both ends secure the bottom rail to the newel bases.
4. Temporarily place the sub-rail to determine the correct height. This is needed to determine the angle cutting on the balusters. Making sure the balusters are in a level vertical position, mark

and cut top and bottom of balusters. REMEMBER, place the baluster seams in the same direction before cutting. The balusters should be cut equally so that the reveal is the same at the top and bottom of the baluster.

5. To attach the balusters to the bottom rail first mark the baluster positions on the rail so that the balusters are spaced equally along the rail. Starting with the top baluster, counter sink and pilot drill two  $\frac{5}{32}$ " holes on the front side of the baluster bottom (side facing the bottom newel post). Because of the bottom post, the last baluster should be screwed in from the side rather than the front of the baluster. Apply a heavy bead of adhesive to the bottom of the baluster and screw the baluster and screw the balusters into the rail using the  $\frac{3}{16}$ "x2- $\frac{1}{2}$ " tapcon screws.
6. Follow steps C.( & 10. above for installation of the sub-rail including the L Baskets but excluding the threaded rods, washers and hex nuts. Attach the balusters to the sub-rail by pilot drilling two  $\frac{5}{32}$ " holes through the sub-rail and into the top of the balusters. Apply a heavy bead of adhesive to the top of the baluster and screw the balusters into the sub-rail using the  $\frac{3}{16}$ "x2- $\frac{1}{2}$ " tapcon screws.
7. Place the top rail along side the posts and mark the vertical position on the rail to determine the angle cut, **remembering to leave the  $\frac{3}{16}$ " gap to expansion on both rail ends.** Run a bead of adhesive along the channel underneath the top rail as well as along the outside edge of the baluster tops. Slide the top rail into place over the sub-rail and the baluster tops.