

PC Xtreme Railing System

Review all contents of your railing kit prior to starting your railing project — if missing any pieces — please contact Premium Composites at 605.738.2484

- 1 Hand rail
- 1 Bottom rail
- 1 Pre-drilled retainer
- 1 Support block
- 1 Support block retainer
- 2 Pre-drilled balusters
- 15 Balusters (6' kit)
- 20 Balusters (8' kit)
- 1 Hardware kit (see below)

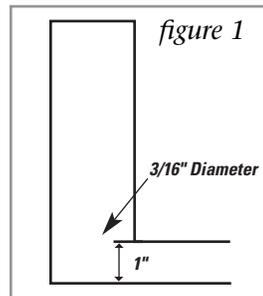


HARDWARE KIT CONTENTS:

- (6) 3" - #8 wood screws for attaching end balusters to post
- (8) 1" - #8 wood screws for attaching top retainer, support retainer and support block
- (31) 1 3/4" - #8 wood screws for attaching balusters to top retainer and bottom rail

1 INSTALLING THE POST SLEEVES

Determine sleeve height prior to installation. Trim sleeve to length (for a 36" rail kit project, a 40" post sleeve is customary). Slide sleeve over pressure treated 4"x4" post. Finally, slide the post skirt/trim over the sleeve. Note: Use only plum pressure treated 4"x4"s. Warped, cracked or damaged pressure treated 4"x4"s need to be replaced.



NOTE
If using optional post skirt one inch from the post sleeve bottom edge, drill a 3/16" hole. (Figure #1)
(Center Left to Right)

2 RAILING MEASUREMENTS

Measure the distance between the post sleeves to determine the length of the railing. Be sure to measure both the top rail and the bottom rail distance as they may not be equal. Measure the top rail/retainer from its centerpoint. Trim each end of the top rail/retainer equally while maintaining the correct overall length. Repeat these steps for the bottom rail using the bottom rail measurement determined previously.

2A

CUTTING RAILS TO LENGTH: TAKE TIME TO MEASURE AND AVOID RUINING HANDRAIL MATERIAL

TAKE YOUR TIME, and plan your cuts. Use a pencil to mark the cuts on the horizontal railing parts. Make marks on masking tape if you prefer, because composite doesn't mark easily. Set the end balusters in place and test to be sure they will fit in the remaining space.

The right way to shorten a section of railing by 7" would be to first cut one full baluster interval from the retainer and bottom rail (that's 5 1/4"), and then remove the remaining amount (1 3/4") by cutting half that length (7/5") from each end. That would leave 3 1/8" of open space at each end of the railing section ... well within the code-required maximum of 4" and still big enough to look similar to spacing between balusters.

To be sure there is enough room to attach the end spindles, leave at least two inches from the end of the rail to the side of the baluster. Since each baluster is about 1 1/4" wide, that's a minimum of 2 5/8" from the end of the rail to the center of the baluster screw hole. *Be careful and check your measurements and calculations several times if necessary. With handrails it's easy to make mistakes.*

IMPORTANT SAFETY NOTE

The 4" maximum between balusters is determined by building codes, and is meant to prevent little children from getting their heads stuck between balusters.

3 ATTACHING THE BALUSTERS TO THE BOTTOM RAIL

Place the bottom rail on a dean flat surface. Screw the balusters to the bottom rail, the channel of the bottom rail has screw holes and indentations for the flat screw heads (Figure #2) Thus creating a flat surface once the #8 - 1 1/2" flat head screws are installed.

Take care to install both end balusters at eachend of the bottom rail, as the end balusters are used to install the actual fully constructed railing section. (see note to the right)

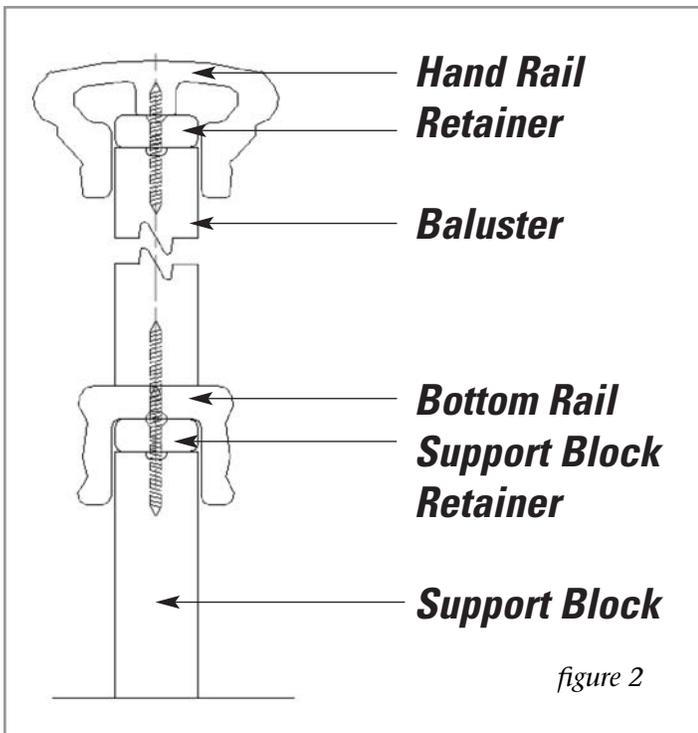
NOTE

Take time to set up a proper working surface (two saw horses and a sheet of plywood), it will make set up of the rail systems more manageable and save installation time.



NOTE

Two balusters are marked as "End balusters". These two balusters have been pre-drilled for installation to each end of the hand rail. These balusters serve to mount the railing to the post sleeve. If trimming occurred to the rails, you may need to drill pilot holes for the placement of the end balusters.



4 ATTACHING THE BALUSTERS TO TOP RETAINER

After attaching the bottom rail, attach the top retainer to the balusters using #8 - 1 1/2" flat head screws, the top retainer rail has screw holes with indentations on top for the flat screw heads. (Figure #2) Thus creating a flat surface once the #8 - 1 1/2" flat head screws are installed. Take care to install both end balusters at each end of the bottom rail, as the end balusters are used to install the actual fully constructed railing section.

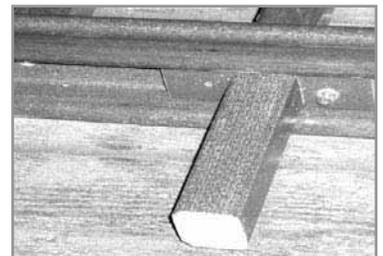
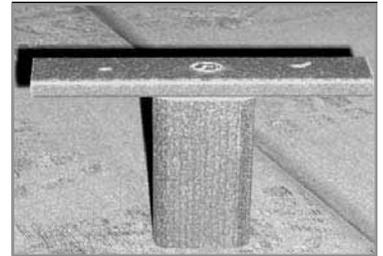
Installed Exotics® Rail End View

5 ATTACH SUPPORT BLOCK RETAINER TO SUPPORT BLOCK

Trim support block to length (if needed) and attach the support block retainer to support block using a 1 1/2" screw. Center the support block and retainer on the bottom rail of the completed rail section, then attach the completed support block assembly to the underside groove of the bottom rail with two included 1" screws. Place rail section between posts on 2" X 4" blocks to acquire the desired rail eight. Measure at the center of the bottom rail to the deck surface to determine the desired support block height.

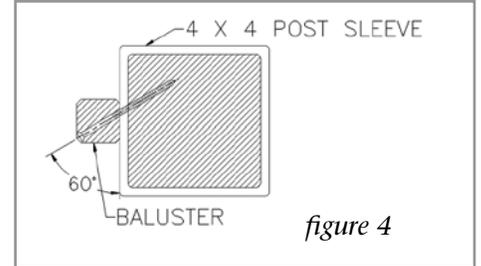
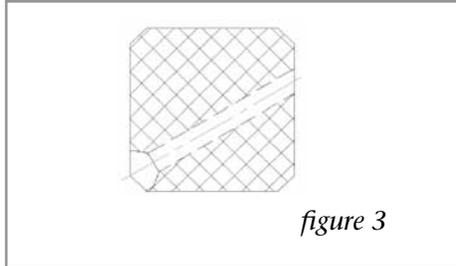
NOTE

Figure out the desired rail height and trim the support block so that the support block rests firmly on the deck surface.



6 RAILING INSTALLATION

Balance the completed railing section on 2" X 4" blocks to insure proper height from the deck surface. Attach the section to the post sleeves using the included 3" composite screws. (Figure #3) (Figure #4)



7 ATTACH THE TOP RAIL TO THE TOP RAIL RETAINER

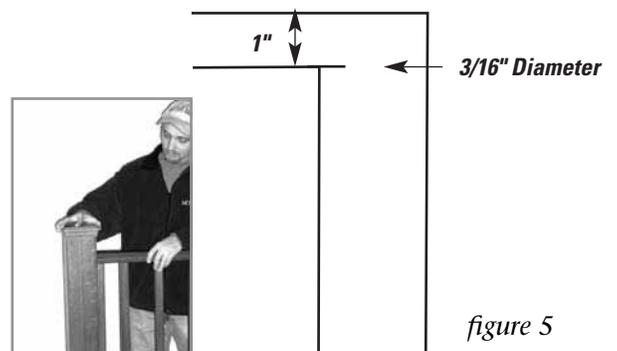
Slide the top hand rail over the top retainer. Using the remaining holes in the top retainer, screw into the under side of the top hand rail with the #8 - 1" pan head screws. (see photos)



8 INSTALL POST CAPS

Using the included template, drill a 3/16" hole centered left to right on the post sleeve and one inch down from the top edge. Align the remaining "bump" on the cap's underside with the side of the post with the hole just drilled and slide the cap over until the "bump" snaps into the hole. (Figure #5)

One inch down from the post sleeve's top edge, drill a 3/16" hole centered left to right.



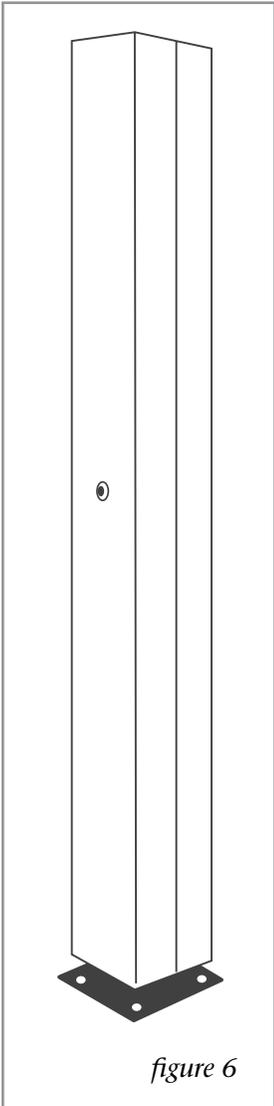


figure 6

9 POST SUPPORTS AVAILABLE FOR EXISTING DECKS

Premium Composites offers post supports (sold separately) that can be used for wood or concrete decks, porches, patios, docks and/or stairs. They install easily simply bolt to an existing surface, using 5/16" concrete anchors or 5/16" lag bolts or carriage bolts, depending on application. (Figure #6)

9A CONCRETE APPLICATION (SURFACE MOUNT)

Layout post supports for proper alignment. With all supports facing the same direction, mark the 4 holes for drilling. Drill the 4 holes in the concrete for a 5/16" concrete anchor bolt (see your local supplier for proper hardware). Cut the post sleeve to proper length and install over the post support.

NOTE

Make sure post supports are facing the same way for all applications. Double check your layouts before drilling holes.

9B WOOD APPLICATION (SURFACE MOUNT)

Layout post supports for proper alignment, trace the 4 holes from the bottom support plate prior to drilling the 4 holes in the deck. Use a 5/16" lag, screw or carriage bolts (see your local supplier for proper hardware). Depending on application, some reinforcement of the deck may be necessary. Cut the post sleeve to proper length and install over the post support.

NOTE

Reinforce from joist to joist on the under side of the existing structure to insure sufficient strength to support railing system.



STAIR RAILING INSTALLATION GUIDE

1 PREPARING RAILS AND BALUSTERS

Measure the distance of the pre-installed stair rail post sleeves. Cut retainer, hand rail and bottom rail to same pitch as stairs (Figure #1).

Cut both ends of the balusters at the same angle in the same direction as the bottom rail and retainer (Figure #2). Be sure to make clean square cuts during this operation, using a carbide tipped saw blade will assist with this process.

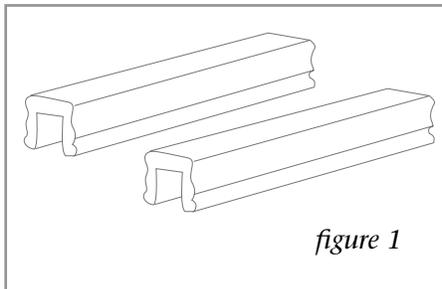


figure 1

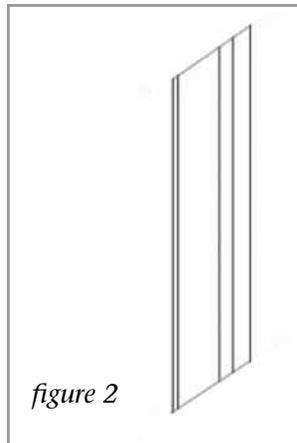


figure 2

2 PREPARING BOTTOM RAIL

For a stair rail installation, the bottom rail holes will need to be re-drilled to match the required stair angle. Using the a 3/16" carbide tipped bit, you will also need to drill holes at each end of the bottom rail and retainer.

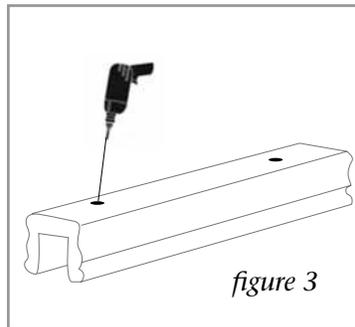


figure 3

TIP
Use a drill guide to ensure accuracy.

3 STAIR RAIL SECTION ASSEMBLY

Place the retainer on a clean flat surface. Align the end of each baluster with the pre-drilled holes in the retainer and bottom rail. Using the #8 - 1 1/2" stainless wood screws (provided), fasten the balusters to the retainer and bottom rail through the pre-drilled holes. Place the top rail over the retainer. Once the top rail is in place, fasten the top rail to the retainer through the pre-drilled holes in the retainer using the #8 - 3/4" stainless wood screws. This should result in a secure fit between the top rail and the retainer (Figure #4).

NOTE

Two balusters are marked as "End balusters". These two balusters have been pre-drilled for installation to each end of the hand rail. These balusters serve to mount the railing to the post sleeve. If trimming occurred to the rails, you may need to drill pilot holes for the placement of the end balusters.

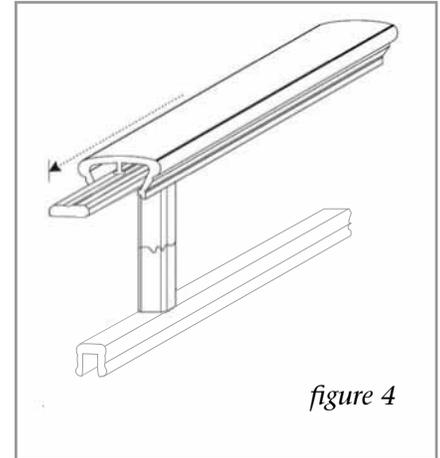


figure 4

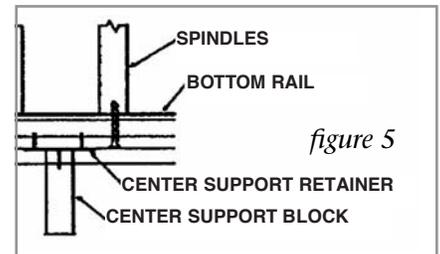


figure 5

4 SUPPORT BLOCK ASSEMBLY

Fasten the 4" support block retainer to the 6" support block using one of the 1" - #8 stainless wood screws (provided). Once the support block is mounted to the center hole of the retainer, trim the support block the correct length (Figure #5).

Next mount the support block retainer assembly to the underside of the bottom rail. Determine the center point of the bottom rail and pre-drill holes using the two outside holes on the retainer as a guide. Fasten retainer using two remaining 1" - #8 stainless wood screws.

NOTE

To ensure your desired rail height, measure the distance at the centerpoint of the rail section, from the inside bottom rail to the deck for the support block installation.

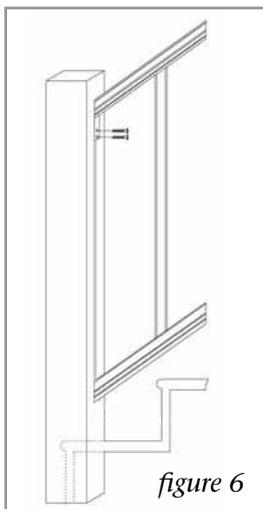


figure 6

5 ATTACH THE ASSEMBLED RAILING

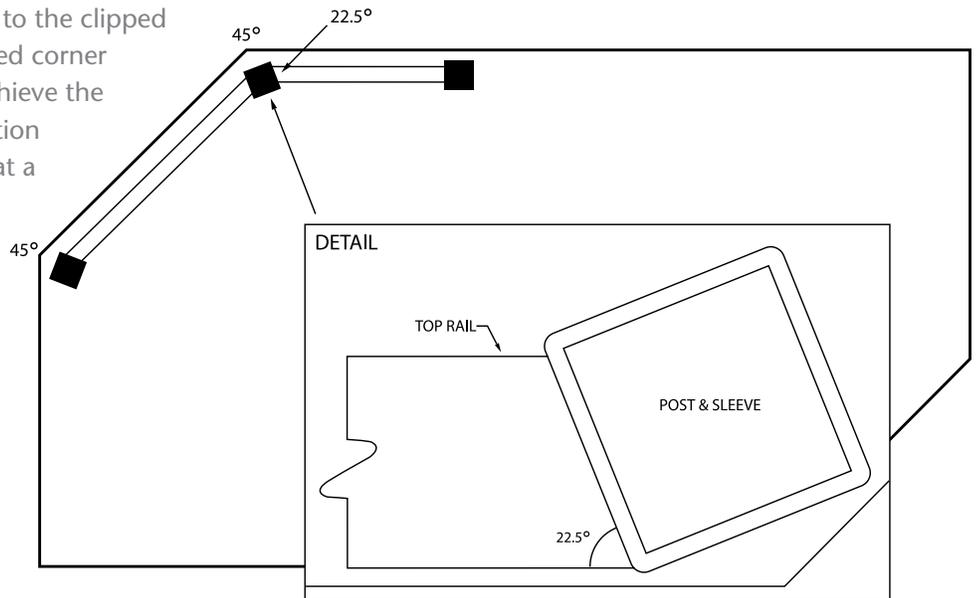
Take the assembled stair rail and place it into the opening. Make sure the minimum spacing allowed by local code (4" from the nose of the stair tread to the bottom of the rail) is maintained. Make sure the railing is plumb and square, or matches the width dimensions previously taken. Clamp the stair rail section at each end baluster post. Pre-drill 1/8" holes and attach the rail section with 311 wood screws at each end.

45 DEGREE INSTALLATION

Only applicable for a clipped corner style deck and/or any place a 45 degree angled cut railing is needed.

1 NEW CONSTRUCTION WHERE POST HAS NOT BEEN SET

New Construction where post has not been set
Middle of post set on an angle to the clipped corner. Every post on the clipped corner must be set on an angle. To achieve the 45 degree angle - each rail section attaching to post must be cut at a 22.5 degree angle ($2 \times 22.5 = 45$ degree angle post).



2 EXISTING APPLICATIONS WHERE POST IS PRE-SET

When a post has been pre-set and cannot be changed only a "Birds Mouth Cut" will work.

