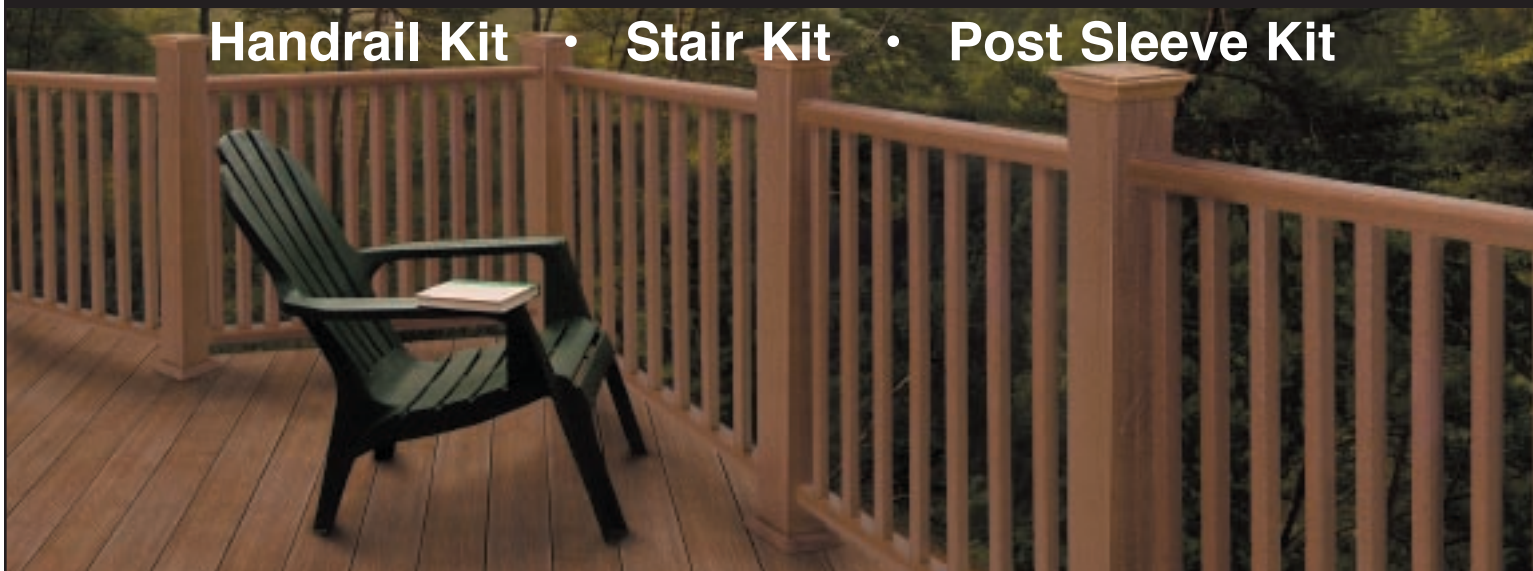


UltraDeck® Designed for Living.™

UltraDeck Fusion® Handrail System Installation Guide

Handrail Kit • Stair Kit • Post Sleeve Kit



Kit Contents

Handrail Kit

- (1) Upper Handrail
- (1) Lower Rail
- (1) Handrail Insert
- (15) Spindles
- (1) Lower Rail Support Block
- (1) Bag of Screws

Stair Kit

- (2) Lower Rails
- (1) Handrail Insert
- (13) Spindles
- (1) Lower Rail Support Block
- (1) Bag of Screws

Post Sleeve Kit

- (1) Post Sleeve
- (1) Ring Base
- (1) Post Cap

Upper Handrail
3-9/16"



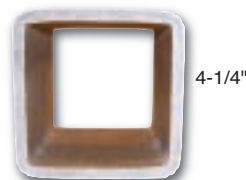
Handrail Insert



Lower Rail
2-9/16"



Post Sleeve
4-1/4"



Spindle & Support Block
1-3/16"



Installation Tools

Building a deck is a rewarding project you can do with few tools. As with any project, be sure and use all necessary protection, i.e. eyewear, safety boots. Here is a list of items you might need to complete your deck:

- Safety glasses
- Fasteners
- Circular saw (with carbide blade) or chop saw
- Drill
- Square and level
- Hacksaw
- Tape measure
- Construction calculator
- Chalk line

Note: Please check local building codes and regulations before starting your project.

UltraDeck Fusion® Railing Instructions

Step 1. Post Sleeve installation

1" up from the bottom edge of the post sleeve, locate center and drill a 3/16" hole, one hole per post sleeve. Slide the ring base over the post sleeve until the locking dimple on the inside of the ring base snaps into the drilled hole. Slide post sleeve over the 4x4 post. See Figure 34.

Step 2. Sizing Upper Handrail, Handrail Insert, & Lower Rail

Measure the distance between the post sleeves and cut the upper rail, lower rail and handrail insert to this length.

Step 3. Spindle Preparation

Mark your spindle spacing on the insert and lower rail according to local building codes. Using a 1/8" drill bit, pre-drill holes in the insert and lower rail where each spindle will be attached. Two spindles will need to be pre-drilled for attaching the completed rail to the post sleeves. Using a 1/8" drill bit, drill holes in two spindles 3-1/2" from the top, 3-1/2" from the bottom, and in the center of the spindles. These holes should be drilled at approximately 60 degrees to allow enough room to drive the 3" composite deck screws through the post spindles into the post sleeve and post. These spindles will be referred to as **Post Spindles**. See Figure 37.

Step 4. Handrail Assembly

Bore the center on each end of the spindle with a 1/8" drill bit to accept #10 3-1/2" deck screws. Slide spindles into the profile of the handrail insert from the end and begin attaching spindles working from the center toward the outside using quality #10 3-1/2" deck screws. Make sure to install the **Post Spindles** flush on the ends of the assembly. Position the lower rail so the spindles will rest on the top side of the rail. Secure the spindles to the rail from the underside using quality #10 3-1/2" deck screws. Slide the upper rail on to the handrail insert. From the underside recessed channel of the handrail insert, attach the upper handrail using 8 #4 3/4" screws (18pcs. sku 233-0309; 100 pcs. sku 233-0134). Equally space screws along the length of the handrail using four screws on each side. See Figure 35.

All rail spans over 3' require a spindle support block centered under the rail assembly. Check local building codes and cut the support block to the height required to meet local code. To install the support block on the rail system, cut a 6" piece of handrail insert, slide the support block into the handrail insert and secure it with a quality deck screw. Center the handrail insert into the profile of the lower handrail. See Figure 36.

Step 5. Rail Unit Installation

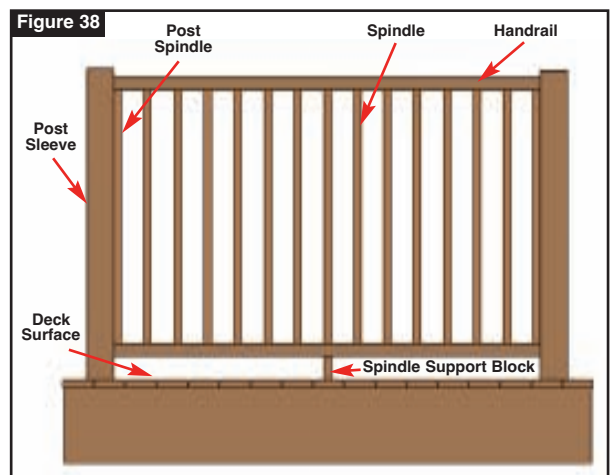
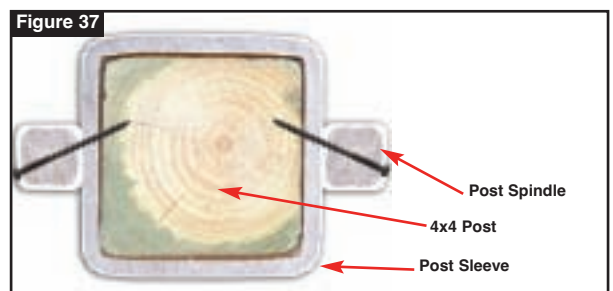
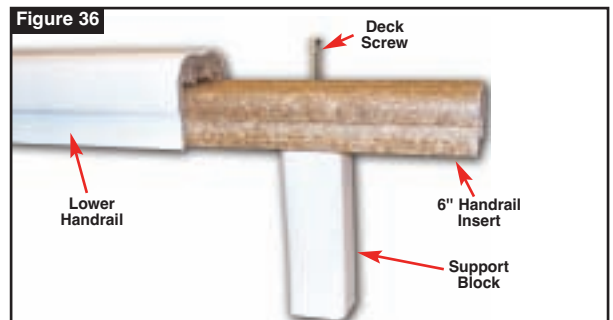
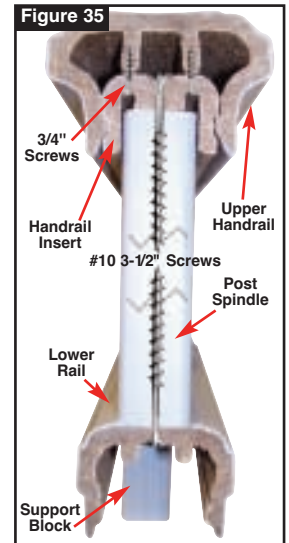
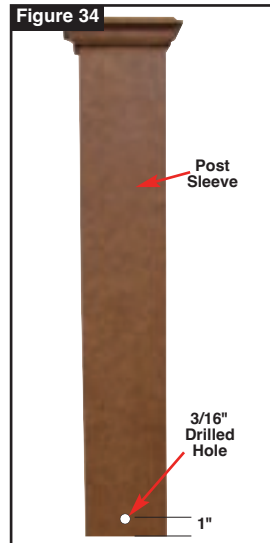
Place the completed rail section between the posts and temporarily support rail unit on 2x4 blocks, trimmed to length, to ensure proper height from the deck surface. Secure the rail to the post sleeves using (6) #10 3" composite deck screws through the pre-drilled holes in the **Post Spindles**.

Step 6. Install Post Caps

Align post cap with the top of the post sleeve and slide into position. If desired, use a silicone adhesive caulk to secure post cap to sleeve.

Step 7. Stair Kits

When using components for stair rail it may be necessary to cut angles to match stair slope.



Note: UltraDeck Fusion® railing systems feature the same high quality materials and manufacturing process as UltraDeck Fusion® decking. The post sleeve kits include post sleeve, ring base, and post cap; handrail/stair rail kits include handrail, handrail insert, spindles, lower rail, lower rail support block, and screws. 4' post sleeve and 6' handrail/stair rail kits are available in white only. Black, gray and cedar post sleeve and rail components are also available.