



## Transformer Base Flat Shoe Instructions for the 9121, 9141 and 9191

Contents of package: 2 flat shoes,  
2 sockets, 2 axles, 2 dowels

We recommend watching the installation video at [www.TheTransformerSystem.com](http://www.TheTransformerSystem.com) before starting.

Please read these instructions entirely before starting.

Use these shoes on open treads, landings and balconies. These shoes are packaged with a short 5/8" diameter dowel and baluster socket and are two per package.

Always do the prep work and installation for the base shoes first.

Remove the old balusters by cutting completely through the balusters with a saw. After cutting the baluster remove the bottom and top of the baluster by turning the pieces of the cut baluster counter clockwise. Finish nails will usually release from the baluster and remain in the wood and must be removed with pliers. If the baluster has been installed with a lag screw then the bottom of the baluster will unscrew.

After removing the balusters there will be a hole in the tread, landing tread, or flooring where the old baluster was attached. This hole will vary in size but is usually a 3/4" hole if the baluster used had a dowel on the bottom of the baluster. If the baluster was installed with a metal screw dowel or some other method then alternate installation methods should be used to install The Transformer System which will be covered later in this instruction sheet. If the hole in the tread is larger than the included dowel then you may need to cut your own dowel. If you have an unusual installation situation check the resources on our website or contact us by using our website's Live Chat, or call Customer Service at 800-745-5931.

### Old Baluster Installed with Wood Dowel

Check the size of the hole by putting the included short dowel in the hole. The proper depth to install the dowel is just slightly below the surface of the tread up to 1/16" below the surface is sufficient. If the hole in the tread is deeper than the dowel is long, which is likely, then be careful to apply epoxy (we recommend Crown Heritage Epoxy) completely around the inside edges of the hole and insert the dowel so that it is not deeper than 1/16" below the surface. If the hole is too shallow for the plug to be recessed or flush then drill out the hole until it is the right depth. Note: Other strong wood glues may be used but epoxy is best because it forms a strong bond and sets up quickly.

After the dowel has been installed and the epoxy cured, then drill a 13/64" hole in the center of the dowel.

### Old Baluster installed with Metal Double Lag Dowel

When removing the old baluster, make sure you unscrew the old baluster from the tread.

Sometimes the double lag screw stays in the tread when the baluster is unscrewed - if this happens remove the lag screw with pliers. If the baluster you are replacing was installed with a metal double lag screw then you may be able to install the baluster socket directly into the tread without drilling another hole. However, if the hole is 3/16" or larger then you should drill out the hole and install a dowel with epoxy in the hole so that your installation will be strong. Then drill a 3/16" hole to receive the baluster socket screw.

*Installation Tip: If you are replacing square top balusters, do not install the baluster socket until you have drilled the corresponding hole in the handrail.*

Now insert the baluster socket, which was included with the shoe and turn it down until the bottom is flush with the tread or floor. Now you are ready to measure and cut the baluster.

Now carefully raise the baluster approximately 5/8" until the bottom of the baluster clears the slot in the baluster socket. Tighten the baluster socket set screw against the baluster. Now put the axle into the slot in the baluster socket.

Now unscrew the baluster and baluster socket up into the handrail up to **3/8" and NO MORE**. This will give you a tight fit if you have cut the baluster to the correct length.

For more detailed instructions visit our website at [www.TheTransformerSystem.com](http://www.TheTransformerSystem.com).

### WARRANTY:

*Crown Heritage conditionally guarantees its products to be free from defective material or workmanship for one (1) year. The Transformer System of iron balusters and shoes is made with close specifications to work correctly. Using a competitor's balusters will void the warranty.*

### REGISTER YOUR PRODUCT:

*To activate your warranty and to receive updates and notices of new products which will enhance your installation please register this product at [www.TheTransformerSystem.com](http://www.TheTransformerSystem.com).*