

OAK SPIRAL STAIR KIT INSTALLATION MANUAL

Effective January 1, 2014



If you have any questions, please call the location that your Stair Kit was purchased from:

Broomall, Pennsylvania
Ontario, California

1-800-523-7427
1-800-382-IRON (4766)

Venice, Florida
Houston, Texas

1-800-648-6990
1-800-438-IRON (4766)

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TABLE OF CONTENTS

OAK SPIRAL STAIR KIT:

Warranty, Safety, and Finishing Guidelines	1
Standard Oak Spiral Stair Kit Layouts.....	2
Oak Spiral Stair Kit Assembly Procedure.....	3
In-Between Spindle Installation	10
Optional Balcony Rail and Post Installation	11
Optional Well Railing Installation	12
Optional Top Landing Gate Installation.....	16

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WARRANTY, SAFETY, AND FINISHING GUIDELINES

WARRANTY

The Iron Shop provides a five year warranty on materials and workmanship, beginning on the day you receive delivery of the Stair Kit. **OAK SPIRAL STAIR KITS ARE NOT FOR EXTERIOR USE.** The stair must be installed in accordance with the installation instructions. All wood parts must be finished with three to four coats of a quality polyurethane varnish within 30 DAYS of receipt. You must check all stair dimensions and orientation before finishing the stair with stain or polyurethane, because The Iron Shop cannot correct or replace any parts once they have been finished.

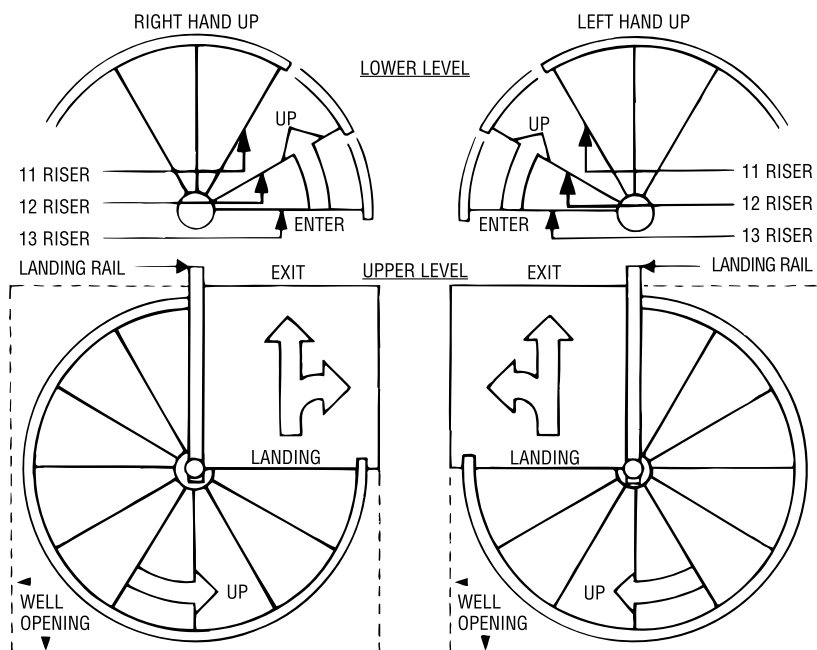
- Read the instructions through thoroughly before starting the installation.
- Prohibit use and access of the stair from the top and bottom until the entire installation is complete.
- Protect all open sides of the well opening, or edge of balcony or loft, with railings or partition walls to prevent anyone from falling into the stair well.
- Do not stand or walk on the stair until all of the treads and landing have been secured in place.
- Some hardware may vary slightly from description due to manufacturing variations. However, this will not affect assembly. Please consult customer copies for hardware breakdown.
- When using the included wrench, a great amount of leverage is generated. Make sure to place the wrench on the lower third of the nut to be tightened, being careful that the wrench does not slip off.
- Do not store or install the stair in any area subject to dramatic changes in temperature and humidity; this can cause swelling, checking, drying, or cracking of the wood components.
- Do not permit the stair to come in contact with water.
- It is the customer's responsibility to advise us of any and all building codes or special requirements for your Stair Kit from The Iron Shop. As manufacturers of quality stairs since 1931, we can design a stair to meet almost any requirements.
- Following these guidelines will provide you with many years of use and enjoyment of your Oak Spiral Stair Kit. Failure to do so will void your warranty.

If you have any questions, please do not hesitate to call us. See the front cover for our toll-free phone numbers.

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STANDARD OAK SPIRAL STAIR KIT LAYOUTS



Important Note: Your Kit is custom cut to fit your floor-to-floor height. It is therefore extremely important that you supplied us with the exact finished floor-to-finished floor height. We also needed to know whether your stair will be assembled "left hand up" (handrail is to your left as you enter the stair from the lower level) or "right hand up" (handrail is to your right as you enter the stair from the lower level).

Minimum Finished Well Opening Requirements: Carefully check your planned location to make certain you can provide at least the minimum well opening dimensions required for your stair diameter.

Finished Well Opening

4'0" Diameter Stair.....	4'2" x 4'2" Minimum
4'6" Diameter Stair.....	4'8" x 4'8" Minimum
5'0" Diameter Stair.....	5'2" x 5'2" Minimum
5'5" Diameter Stair.....	5'8" x 5'8" Minimum
6'0" Diameter Stair.....	6'2" x 6'2" Minimum

NOTE: If a layout was provided by The Iron Shop for your specific installation, it should be used. If you have any layout questions, please call The Iron Shop location where the Kit was purchased prior to installation.

Standard Oak Spiral Stair Kit Specifications

Specifications by Kit Diameter

	4'0" DIAMETER	4'6" DIAMETER	5'0" DIAMETER	5'5" * DIAMETER	6'0" * DIAMETER
LANDING DIMENSION	2'1" x 2'1"	2'4" x 2'4"	2'7" x 2'7"	2'10" x 2'10"	3'1" x 3'1"
TREAD & LANDING THICKNESS	1"	1"	1"	1"	1½"
UNDER TREAD SUPPORTS (GUSSETS)	1	1	1	2	2
HUB DIAMETER	5¾"	5¾"	5¾"	6½"	6½"
STANDARD HANDRAIL (H X W)	2½" x 1¾"	2½" x 1¾"	2½" x 1¾"	2½" x 1¾"	3½" x 1¾"
STANDARD DESIGN SPINDLES INCLUDED (PER TREAD)	1	1	1	3 OR 4	3 OR 4

Standard Specifications — All Kit Diameters

Spindles (Stair Rail).....	1¼" x 1½"
Spindles (Landing Rail)	1¼" x 1¼"
Top Rail (Landing Rail)	2½" x 1¾" wide
Bottom Rail (Landing Rail)	1" x 1½" wide
Landing Rail Post.....	2⅝" diameter
Landing Rail Height	3'0"

*Includes double in-between spindles or triple in-between spindles depending on model ordered.

California Residents: L.A. City Fabricator License #1150, L.A. City Plan #125.

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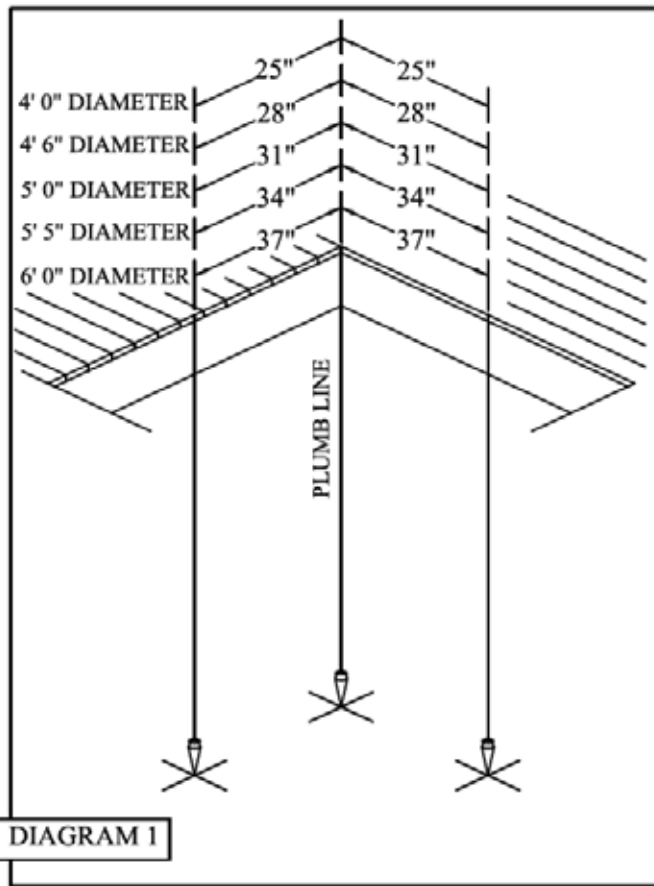
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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

NOTE: The following instructions are for standard kits only. Special order and non-standard kits may require alterations. Call the location where the kit was purchased with any questions regarding your installation.

STEP #1: LOCATION OF THE STEEL CENTER POLE WITH BASE PLATE

SEE PAGE 2 to determine your minimum well opening size. Decide which corner the landing will fasten to. Measure out from the corner on each side and mark along the edge of the well. Plumb down from these two marks and mark the floor. Then plumb down from the corner of the opening where the landing will be located and mark the floor. **SEE DIAGRAM 1**



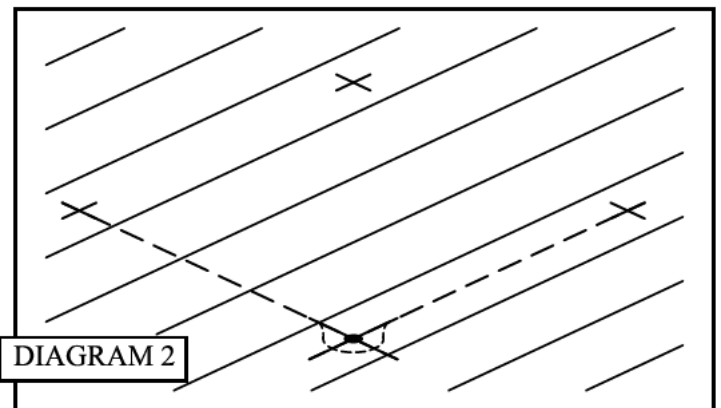
Turn the oak landing upside down and align it with your plumb marks. Trace the center hole of the hub and an outline of the landing on the floor. (If you have a special shaped or non standard landing, this is not possible.)

SEE PHOTO 1

PHOTO 1



Remove the landing. Draw a large "X" on the floor. Check to make sure that the center point is 25" for a 4'0" diameter, 28" for a 4'6" diameter, 31" for a 5'0" diameter, 34" for a 5'5" diameter, and 37" for a 6'0" diameter, measured perpendicular from the plumb points. **SEE DIAGRAM 2**



STEP #2: MOUNTING THE CENTER POLE

Carefully stand the center pole with the base plate centered over the "X". Trace the four screw holes on the floor. If your floor is wood, drill $\frac{7}{32}$ " pilot holes and fasten the plate with four $\frac{5}{16}$ " x $1\frac{1}{2}$ " lag screws.

Someone should hold the center pole until steps #3, #4, #5 and #6 are completed.

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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

If the floor is concrete, use the $\frac{3}{8}$ " carbide tip masonry bit provided and bore holes 2" deep. Clean out the holes and insert four plastic anchors into the holes. Fasten the plate with the four $\frac{5}{16}$ " x $1\frac{1}{2}$ " lag screws. **SEE PHOTO 2**

PHOTO 2



STEP #3: SETTING THE WOOD BASE COVER

Carefully lower the wood base cover with the large recessed surface facing down. Let the wood cover rest on the floor.

STEP #4: IDENTIFYING THE BOTTOM TREAD

Refer to the layout provided with your order, and identify the hub height of the bottom tread with the corresponding hub height. Carefully lower the bottom tread over the center pole so that hub sits into the pocket of the wood base cover. **SEE PHOTO 3**

STEP #5: STACKING THE TREADS

Carefully lower the remaining treads over the center pole, making sure that the hubs fully sit into the pocket of the tread below. **SEE PHOTO 4**

PHOTO 3



PHOTO 4



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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

STEP #6: ATTACHING THE LANDING

Carefully lower the wood landing over the threaded rod so that it fully seats in the pocket of the top tread. Turn down the special 1½" to 1" reducing nut over the threaded rod so that it is hand tight. Fit the wood landing into the designated corner of your well opening or against the face of your balcony or loft edge. Level the landing in both directions. Mark up from the bottom edge 1" and drill three holes on each side of the landing lip if it fits into a corner. If the landing will be mounting against a balcony or loft edge, drill four holes on the correct lip of the landing. Use a ⅝" drill bit for pilot hole through the landing and into the mounting surface behind it. Then drill a ⅞" hole through the landing lip only, counterbore a ⅜" deep hole with a ½" drill bit. Use the #12 x 3" flat head screws to attach the landing. Make sure all the screws are hitting solid wood and are holding tight. **SEE PHOTO 5**

PHOTO 5



STEP #7: ATTACHING THE TOP SPINDLE

If you have a balcony rail, install the balcony rail post instead of the top main spindle (SEE PAGE 11).

Attach a main spindle to the back of the top spiral tread using the #12 x 2½" screws through the bottom two mounting holes (make sure the spindle has the taper toward the center pole and the bevel faces up the stair). Rotate the top tread so that the spindle touches the face of the landing. Plumb the spindle in both directions. Attach the spindle to the landing by drilling ⅝" pilot holes through the spindle into the landing. Use a #12 x 2½" screw through the upper hole and a #10 x 1½" screw through the lower hole. **SEE PHOTOS 6 AND 7**

PHOTO 6



PHOTO 7



HINT: A little soap on the screw threads will ease this operation.

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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

STEP #8: ATTACHING THE SPINDLES

Attach a main spindle to the front of the top tread through the upper two holes using #12 x 2½" screws. Rotate the next tread so that it makes contact with the front of the spindle. Make sure the spindle is plumb and the tread is level. Attach the spindle to the tread through the lower two holes using #12 x 2½" screws. Continue to attach the main spindles to the face of the treads while carefully rotating them into place. Make sure the spindles remain plumb and the treads remain level. **SEE PHOTO 8**

PHOTO 8



After installing the last main spindle, completely tighten the reducing nut with the wrench provided. **SEE PHOTO 9**

PHOTO 9



NOTE: When using a wrench of this length, a great amount of leverage is generated; make sure to place the wrench on the lower third of the nut being tightened. Be

careful that the wrench does not slip off the nut as you completely tighten it.

STEP #9: INSTALLING THE STARTING POST

Attach the steel starting post base flange to the bottom of the starting post. Temporarily screw the starting post to the front of the bottom tread with two #12 x 2½" wood screws. Plumb the spindle in both directions and trace the location of the two mounting holes in the floor. Detach the starting post from the tread and the steel base plate from the starting post. **SEE PHOTO 10**

PHOTO 10



For wood floors: Drill ⅝" pilot holes and attach the steel base plate to the floor with #10 x 2" wood screws.

For concrete floors: Bore 2" deep holes with a ⅜" masonry bit. Insert plastic plugs and attach the steel base plate to the floor with ⅝" x 1½" lags.

Place a 5" x 1" high wood cover over steel base plate. Carefully glue dowel and screw the starting post back into the metal base plate and reattach post to the bottom tread with the #12 x 2½" wood screws.

NOTE: If you purchased the optional bottom post **SEE PAGE 8** for installation detail.

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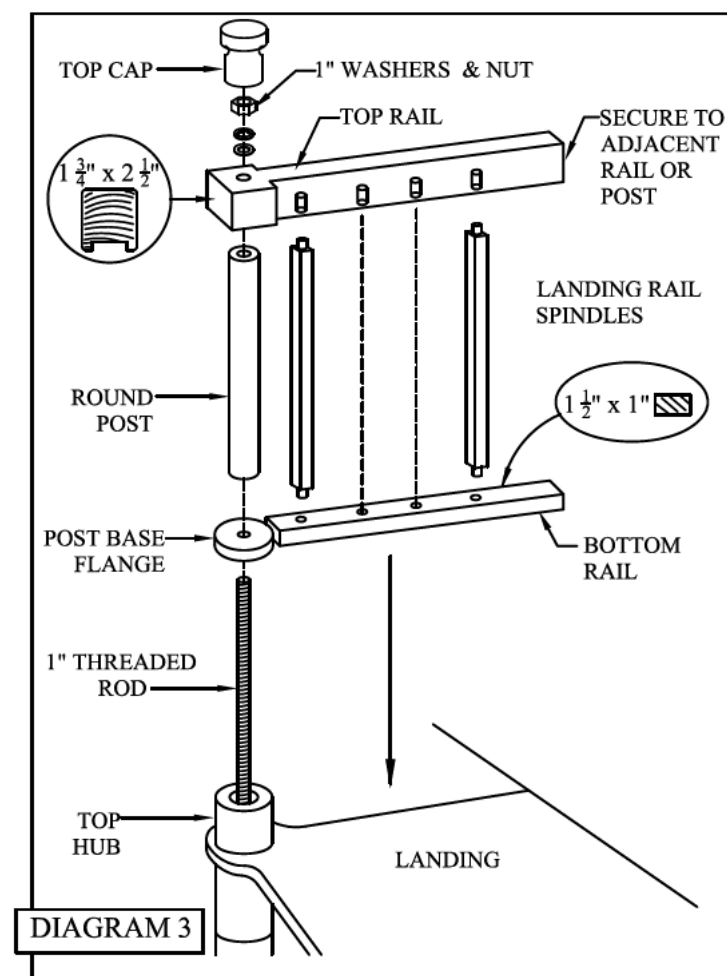
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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

STEP #10: INSTALLING THE LANDING RAIL

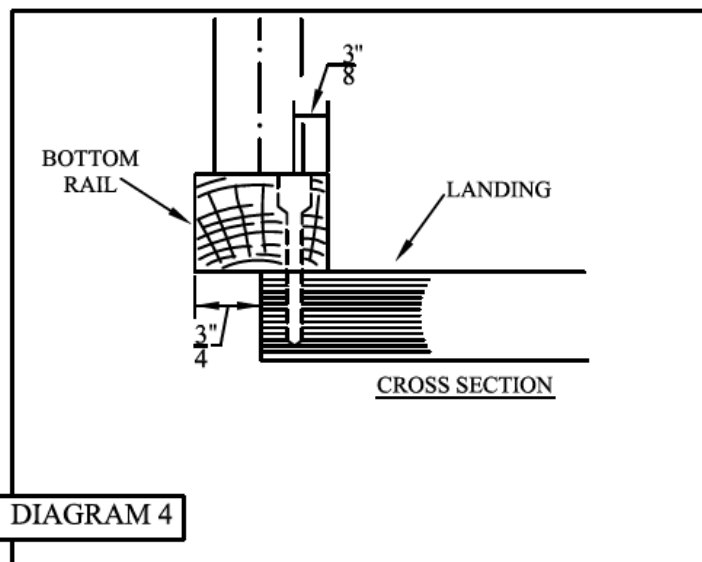
Turn the 1" threaded rod into the special reducing nut on the top of the landing until the rod is 37½" above the landing. Slide the top hub and the post base flange over rod followed by the 29¼" high round post. Refer to your cut sheet and identify the landing rail top and bottom. Place the landing rail top handrail over the threaded rod. Secure with the 1" washer, 1" lock washer and 1" nut; do not tighten at this time. Place the bottom rail on the edge of the landing so that the spindle hole closest to the post is in line with the spindle hole in the top rail. Glue each end of the landing rail spindles and insert them into the top and bottom rails. You may have to loosen the top nut to fit the spindles. **SEE DIAGRAM 3**

The bottom rail extends halfway over the landing and requires two holes to be drilled on the edge of the landing.



Drill a 1/8" pilot hole through the rail and into the landing. Be careful not to drill deeper than 7/8" into the landing. Enlarge the holes in the bottom rail to 7/32" and then counterbore 3/8" deep with a 3/8" drill bit. Secure with two #10 x 1½" flat head screws. **SEE DIAGRAM 4**

NOTE: It is necessary to secure the end of the top rail to an adjacent wall, post or part of an additional well railing.



STEP #11: INSTALLING THE SPIRAL HANDRAIL

NOTE: If your kit came with the optional balcony rail, install the balcony rail post before installing the handrail.

(A) Find the section of handrail that has the top end without the rail bolt access holes or special stud bolt and place this section on top of the spindles, starting at the top of the stair, allowing two to three inches of overhang past the top spindle.

(B) Loosely secure the next section of handrail (if your rail has two sections, it is the section with the stud bolt at the upper end; if your rail has three sections, it is the section with the stud bolt at the upper end and an access hole at the lower end) by having a helper hold the top section while you engage the threaded stud in the ball nut. Make sure that the threaded end of the ball nut is facing the stud bolt and turn the ball nut using the small wrench provided. The rail should be resting on the spindles. If you have three sections, attach the third section in the same manner.

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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

(C) Check the location of the access holes under the rail to make certain that none are blocked by spindles (or if your kit has in-between spindles, check the location of the access holes where the in-between spindles will mount) and shift the rail up or down to position the access holes so they are accessible and not where a spindle will screw to the handrail. Make certain that you leave two inches of overhang at the top of the handrail, making sure the end of the handrail is cut square. Spread a thin film of glue on an end cap and center it on the end of the handrail. Drill a $\frac{1}{8}$ " pilot hole and screw on the cap using a #10 x 2" wood screw.

(D) Check the top spindle for plumb and drill a $\frac{1}{8}$ " pilot hole through the hole on top of the spindle into the handrail. Keep pressure on top of the spindle so that the rail remains seated on the spindle. Secure with #10 x $1\frac{1}{2}$ " wood screws. Continue attaching the spindles working down to the first handrail joint. Continue to check that the spindles remain plumb. **SEE PHOTO 11**

(E) Examine the first handrail joint. It may be necessary to align the joint by removing the stud bolt and recutting the end of the handrail. Spread a thin film of glue on the end of the next section and rethread the ball nut. Tighten completely, making certain that the next section is seated on the top of the spindles. Continue this process with the remaining spindles.

(F) Trim the bottom of the handrail 2" past the bottom spindle, cutting the end square. Install the bottom end cap in the same manner as the top end cap. (If you purchased scroll handrail ends or a large bottom post, see notes below.)

(G) Fill any imperfections with an oak type plastic wood filler. Sand smooth once the filler dries. Go over the entire railing with a fine sandpaper to remove any marks. Make sure that there are no sharp edges or splinters. Sand all edges smooth.

NOTE: Installing optional scroll handrail ends.

Hold the scroll ends adjacent to the handrail so that the ball end of the scroll clears the spindle and mark the handrail for length. Cut the end of the handrail, making sure it remains square. Mark the center of the end of the handrail and drill a $\frac{5}{32}$ " pilot hole. Spread a thin film of

glue on the end of the handrail and attach the scroll end by fully tightening the hanger bolt that is attached to the scroll. **SEE PHOTO 12**

PHOTO 11



PHOTO 12



NOTE: Installing optional bottom post.

Place the bottom post so that it sits tight to the front of the bottom tread, just inside the handrail. Making sure the post is plumb, mark the handrail and carefully cut it so that it fits tight to the post. Install the post to the front of the tread using #12 x $2\frac{1}{2}$ " wood screws making sure post is plumb in both directions and mark holes in the floor.

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OAK SPIRAL STAIR KIT ASSEMBLY PROCEDURE

For wood floors: Drill $\frac{5}{32}$ " pilot holes and attach the base plate to the floor with #10 x 2" wood screws.

For concrete floors: You have to remove the post from the treads to drill holes. Bore 2" deep holes with a $\frac{3}{8}$ " masonry bit. Insert plastic plugs and attach the base plate to the floor with $\frac{5}{16}$ " x 1 $\frac{1}{2}$ " lags. Reinstall the post to the front of the tread. **SEE PHOTO 13**

Measure down from the top of the post to the top of the handrail. Transfer that dimension to the opposite side of the post and then measure down an additional 1 $\frac{1}{4}$ " and drill a $\frac{7}{32}$ " through the post only. Counterbore a 2" deep hole into the post with a $\frac{1}{2}$ " drill bit. Spread a thin film of glue on the end of the handrail and attach with a #12 x 2 $\frac{1}{2}$ " wood screw. Glue in a $\frac{1}{2}$ " wood button to fill the hole. **SEE PHOTO 14**

PHOTO 13



STEP #12: FINISHING THE STAIR

Glue and insert $\frac{1}{2}$ " wood buttons to cover the holes in the main spindles where they attach to the treads as well as holes in the mounting lips of the top landing. Use $\frac{3}{8}$ " wood buttons to cover the holes where the spindles attach to the handrail and the landing rail attaches to the landing.

Fill any imperfections with an oak color plastic wood filler. Sand smooth once the filler dries. Remove any marks or dirt spots with fine sandpaper.

You may stain the stair to change the color or clear finish in a natural color. We recommend three to four coats of polyurethane varnish, regardless of finish.

PHOTO 14



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IN-BETWEEN SPINDLE INSTALLATION

INSTALLING THE IN-BETWEEN SPINDLES

All in-between spindles come longer than required so they can be cut to an exact length on site. To measure, hold a spindle so that the top of the spindle is up tight against the bottom of the handrail inside the recessed channel. Keep the bottom of the spindle against the outside edge of the tread, centered with the predrilled hole. Check that the spindle is plumb. The spindle should be slightly longer than the space. Mark the bottom of the spindle and cut to size. Place the bottom pilot hole in the spindle over the hole in the tread and recheck for plumb. Spread a thin film of glue on the underside of the spindle and secure at the bottom with a #12 x 2½" wood screw. Secure the spindle at the top with a #10 x 1½" wood screw. Repeat this procedure for the remaining in-between spindles. Glue and insert ½" wood buttons to cover the holes under the treads. Use ⅜" wood buttons to cover the holes where the spindles attach to the handrail. **SEE PHOTO 1**

Fill any imperfections with an oak color plastic wood filler. Sand smooth once the filler dries. Remove any marks or dirt spots with fine sandpaper.

PHOTO 1



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OPTIONAL BALCONY RAIL AND POST INSTALLATION

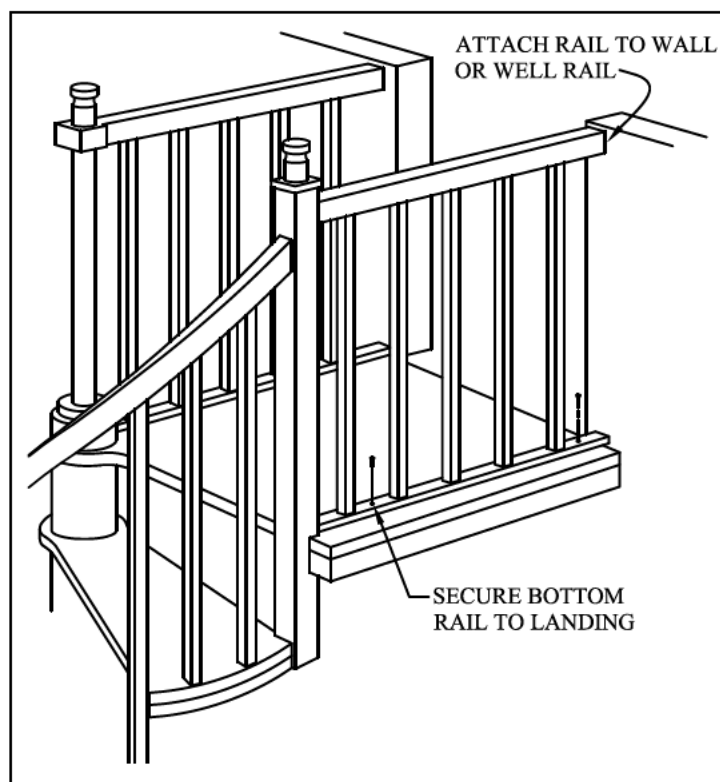
INSTALLING OPTIONAL BALCONY RAIL AND POST

Attach the top post to the back of the top spiral tread using #12 x 2½" wood screws through the bottom two mounting holes in the post. Rotate the top tread so that the notch in the post fits over the face of the landing. Plumb the post in both directions. Drill ⅝" pilot holes into the landing through the post's upper holes. Attach the post to the landing using #12 x 2½" wood screws.

NOTE: *Installing the wood handrail to the top post.*

Mark the top section of the preformed wood handrail in line with the top post and carefully cut so that the handrail is tight to the post and sits on the main spindles and they remain plumb. Measure down from the top of the post to the top of the handrail. Transfer that dimension to the opposite side of the post and then measure down an additional 1½" and drill a ⅝" pilot hole through the post and into the end of the handrail. Then drill a ⅞" hole through the post only. Then counterbore a 2" deep hole using a ½" drill bit. Apply a thin film of glue to the end of the handrail and attach to the post using a #12 x 2½" wood screw. Secure the handrail to the main spindles using #10 x 1½" flat head screws, making sure the spindles remain plumb in both directions. Install the remainder of the handrail following the procedure found on page 8.

Identify the balcony rail top and bottom using the cut sheet provided. One end of the top rail has a hole in the underside of the top rail to mount to the post. Glue each end of the 1¼" wood spindles and insert them into the top and bottom rails. Apply a thin film of glue to the end of the top rail and screw to the post through the bottom hole using a #10 x 2" wood screw. Cover the hole with the ⅞" wood plug provided. Plumb the balcony rail in both directions and drill two ⅛" pilot holes through the bottom rail and into the landing. Be careful not to drill deeper than ⅞" into the landing. Enlarge the holes in the bottom rail to ⅞", then counterbore the holes ⅜" deep using a ⅜" drill bit. Secure the bottom rail to the landing using #10 x 1½" wood screws. Plug the holes with ⅜" wood buttons.



NOTE: *It is necessary to secure the end of the top rail to an adjacent wall, post or part of an additional well railing.*

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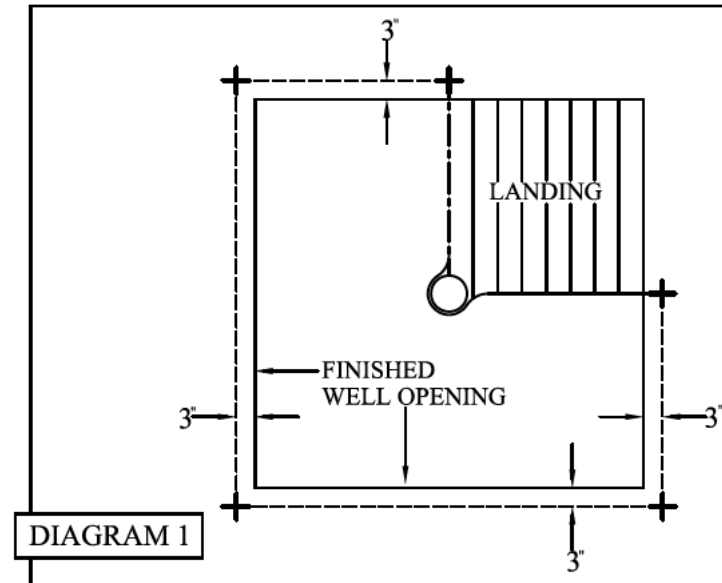
OPTIONAL WELL RAILING INSTALLATION

INSTALLING OPTIONAL WELL RAILING

NOTE: All well railings are centered 3" from the edge of the well opening or balcony edge.

STEP #1:

All end, corner, or line posts are held 3" from the edge of the well opening or balcony. **SEE DIAGRAM 1**



STEP #2:

If you are connecting the well railing to the landing rail of the stair, slide a section of $\frac{5}{8}$ " threaded rod through the hole of the landing rail. Temporarily thread a steel post base plate to the bottom of the threaded rod. Placing the base plate on the floor, plumb the threaded rod, making sure the centerline of the threaded rod is $2\frac{1}{2}$ " from the end of the bottom rail of the landing rail. Carefully drill $\frac{1}{8}$ " pilot holes in the floor and secure the steel base plate with #10 x 2" wood screws. Loosen the threaded rod from the base plate and lift it so that you can fit the oak cover plate over the steel base plate. Fit the oak post over the base plate cover before carefully lowering the threaded rod through the post, tightening the rod to the base plate. Make sure you leave 1" of the threaded rod exposed so that you can tighten the washer, lock washer and $\frac{5}{8}$ " nut. **SEE PHOTOS 1, 2, AND 3**

PHOTO 1

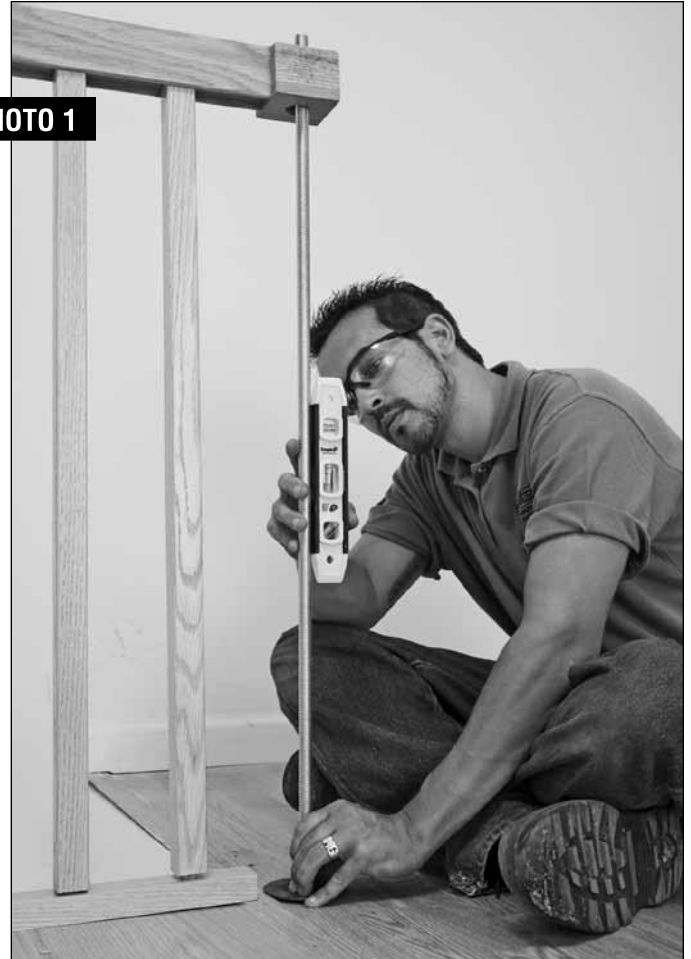


PHOTO 2



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OPTIONAL WELL RAILING INSTALLATION

PHOTO 3



STEP#3:

Install all posts as previously described.

STEP #4:

TO INSTALL RAILING SECTION(S) BETWEEN TWO POSTS

Install the bottom rail to fit between the oak base plate covers. Drill, counterbore, and screw the bottom rail to the floor with the #10 x 2" flat head screws. Glue the doweled end of the number of the spindles required for that section and insert them into the bottom rail holes. Glue around the top doweled end of the spindle and lower the handrail, making sure that each spindle seats correctly. Make sure the rails are level and the spindles are plumb. Attach the top rail to the previously installed rail using supplied rail bolt and nut.

TO INSTALL RAILING SECTION(S) BETWEEN POST AND WALL

When rails are attaching to walls, they are provided longer than required (at wall end) and must be cut to fit on site. To determine the length required, measure from the inside of the oak post base cover to the wall and cut the bottom rail to that length. Drill, counterbore, and screw the bottom rail to the floor with #10 x 2" flat head screws. Temporarily install the spindle closest to the wall in the bottom rail and plumb. Measure from the center of the top dowel of the spindle to the wall, then mark the corresponding end of the top rail with this measurement. Take an additional $\frac{7}{8}$ " from this mark to allow for the oak rosette and cut the top rail at this mark. Attach the rosette to the top rail using a #10 x 2" flat head screw. Glue the doweled end of the number of spindles required for that section and insert them into the bottom rail holes. Glue around the top doweled end of the spindles and lower the top rail, making sure that each spindle top seats correctly.

Make sure the rail is level, and the spindles are plumb. At the post side, attach the top rail to the previously installed rail using the supplied rail bolt and nut. Attach the rosette to the wall using #10 x 2½" flat head screws.

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OPTIONAL WELL RAILING INSTALLATION

TO INSTALL RAILING SECTION(S) BETWEEN TWO WALLS

When rails are attaching between two walls, they are provided longer than required (at both ends) and must be cut at both ends. Measure the space between the two walls, take this measurement and center its overall length on the bottom rail provided, so that there is an equal amount of excess at each end. It is important that the length cut off the bottom rail is equal on both sides. Drill, counterbore, and screw the bottom rail to the floor with #10 x 2" flat head screws. Temporarily install the spindle closest to the wall in the bottom rail, and plumb. Measure from the center of the top dowel of the spindle to the wall, and mark the corresponding end of the rail with this measurement. Take an additional $\frac{7}{8}$ " from this mark to allow for the oak rosette and cut the top rail at this mark. Attach the rosette to the top rail using a #10 x 2" flat head wood screw. Repeat the above procedure for the opposite end of the top rail. Glue the doweled end of the number of spindles required for that section and insert them into the bottom rail holes. Glue around the top doweled end of the spindles and lower the top rail, making sure that each spindle top seats correctly. Make sure the rail is level, and the spindles are plumb. Attach the rosettes to the walls using #10 x 2½" flat head screws. **SEE PHOTOS 4, 5, AND 6**



PHOTO 4



PHOTO 5



PHOTO 6

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OPTIONAL WELL RAILING INSTALLATION

STEP #5:

Make sure all the nuts holding down the rail posts are completely tightened. Glue and set the oak top caps as required. Glue and set the $\frac{3}{8}$ " wood cover buttons into the bottom rail. Glue and set the $\frac{7}{8}$ " oak plugs to cover the rail bolt holes in the top rail. Fill any imperfections in the rails and spindles with an oak type plastic wood filler. Sand smooth once the filler dries. Remove any marks or dirt spots with fine sandpaper. ***SEE PHOTO 7***

You may stain the stair to change the color or clear finish in a natural color. We recommend three to four coats of polyurethane varnish, regardless of finish.

PHOTO 7



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OPTIONAL TOP LANDING GATE INSTALLATION

STEP #1:

The top landing gate mounts between the center pole and the top spindle. The top of the gate should be even in height with the top of the landing rail. All brackets are attached using #10 x $\frac{3}{4}$ " flat head brass screws. Use a $\frac{1}{8}$ " drill bit for the pilot holes. **SEE DIAGRAM 1**

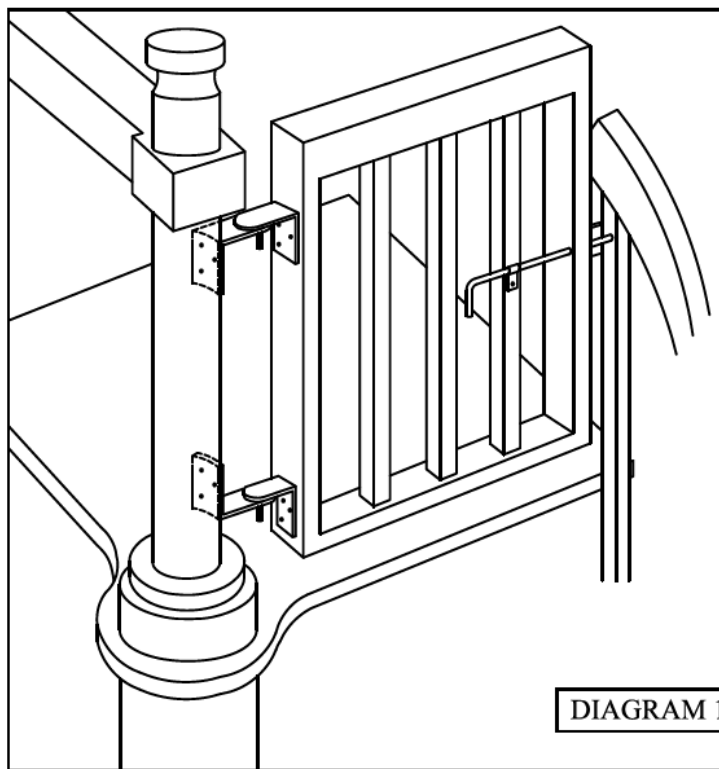


DIAGRAM 1

Attach the gate hinge pins to the gate body. Temporarily remove the hinge pin screws until installation is completed. **SEE DIAGRAM 2**

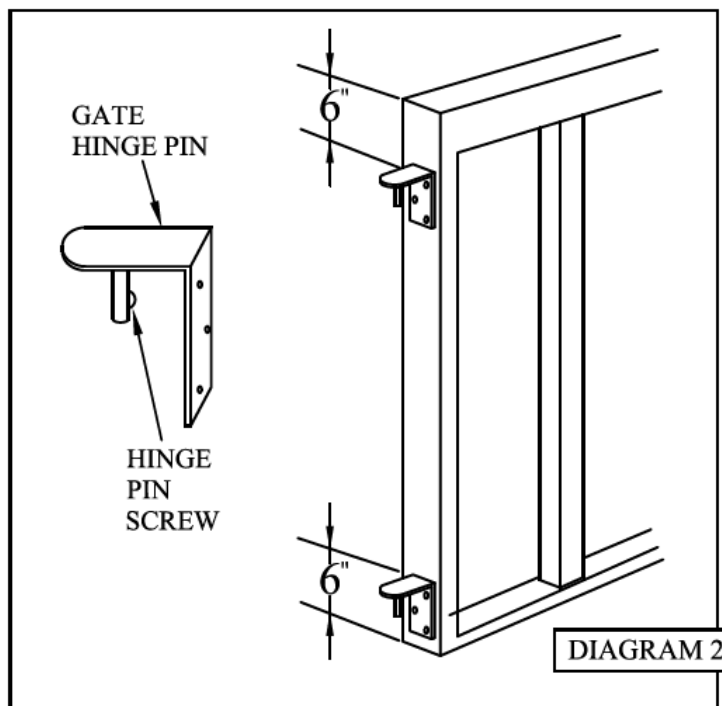


DIAGRAM 2

STEP #2:

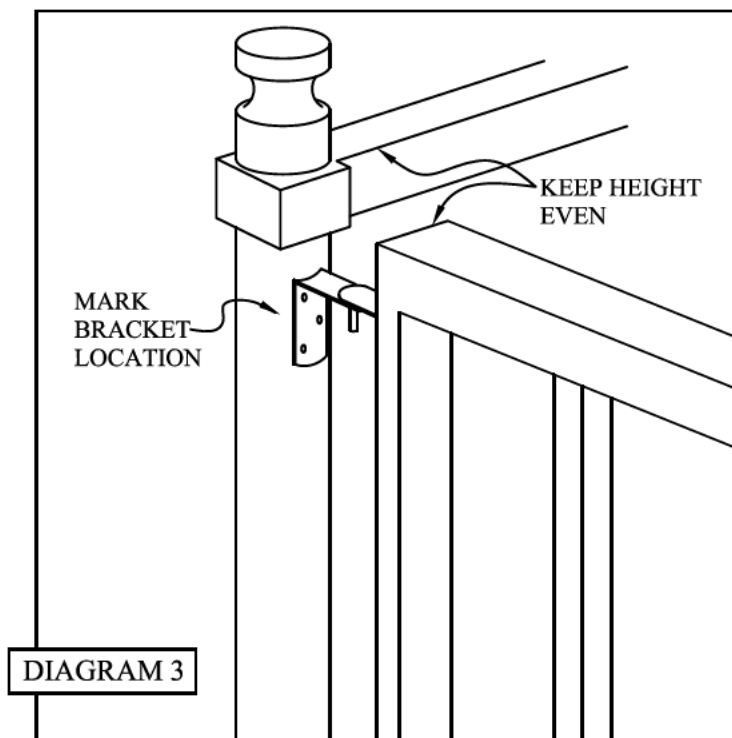
Attach the gate hinge support brackets to the center pole top post. Hold the gate even in height (36" high) with the top of the landing rail, slide a hinge support bracket into location and mark the hole location on the center post. Attach the top bracket then replace the gate to mark for the bottom bracket. Before marking the bottom bracket location be sure that the gate body remains plumb.

SEE DIAGRAM 3

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OPTIONAL TOP LANDING GATE INSTALLATION



STEP #3:

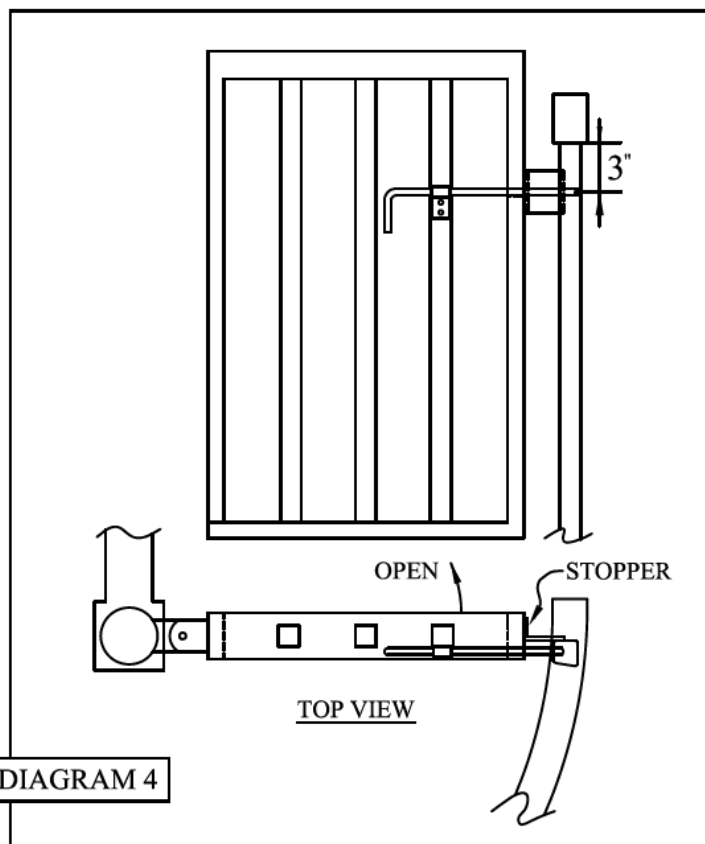
The gate slide bolt is installed 3" below the bottom of the stair top handrail. Attach the slide bolt bracket to the first spindle in from the outside edge of the gate. The slide bolt goes through the outside frame of the gate. Mark this hole location by sliding the bolt over until it touches the side and mark its location (make sure that the bolt slides freely). **SEE DIAGRAM 4**

STEP #4:

The bolt is kept in a hole made in the top stair spindle that is $\frac{3}{8}$ " in diameter and $\frac{3}{4}$ " deep. Mark the hole location by placing the gate in the closed position and sliding the bolt until it contacts the spindle. **SEE DIAGRAM 4**

STEP #5:

Install the gate stopper on the back side of the gate to prevent the gate from opening into the stair. **SEE DIAGRAM 4**



Fill any imperfections in the rails and spindles with an oak type plastic wood filler. Sand smooth once the filler dries. Remove any marks or dirt spots with fine sandpaper. You may change the color or clear finish in a natural color. We recommend three to four coats of polyurethane varnish, regardless of finish.

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OAK SPIRAL STAIR KIT INSTALLATION MANUAL



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