SPIRAL STAIR INSTALLATION GUIDE

Salter

-Wood Tread Covers

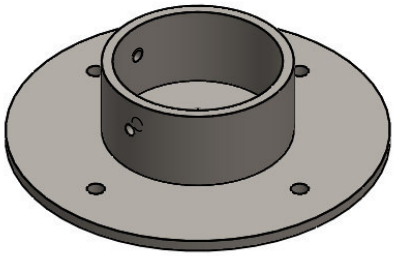
-Continuous Sleeve

-Aluminum Handrail

-Primed or Powdercoated

PARTS

1



BASEPLATE

2

BOTTOM BALUSTER

3

MAIN BALUSTER

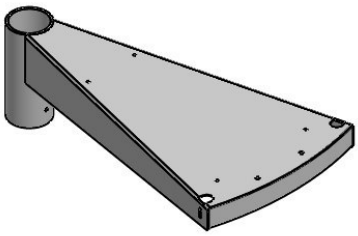
4

CENTER BALUSTER

5

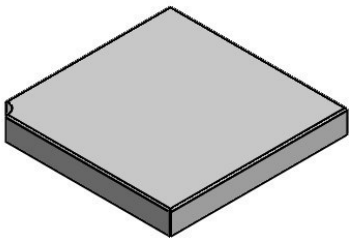
CENTER COLUMN

6



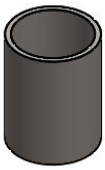
TREAD

7



PLATFORM

8



FILLER HUB

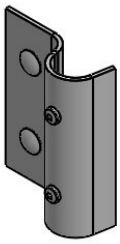
9

COLUMN EXTENSION

12

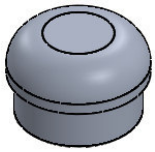
ALUMINUM HANDRAIL

13



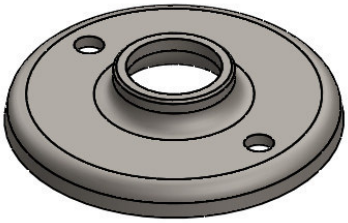
TOP BALUSTER BRACKET

15



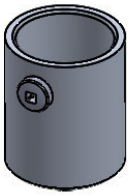
ALUMINUM HANDRAIL END CAP

16



BOTTOM BALUSTER BRACKET

17

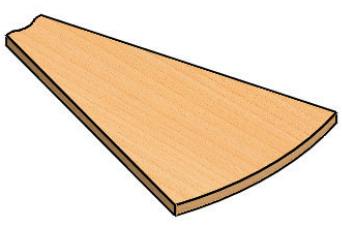


CENTER BALUSTER CUP

20

WOOD PLATFORM COVER

21



WOOD TREAD COVER

22

PLATFORM RAILING

HARDWARE

INCLUDED IN PACKAGE(S): W3039847 W3046179

A 

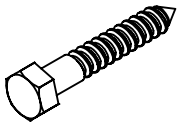
5/16"-18 x 5/16" SOCKET SET SCREW

INCLUDED IN PACKAGE(S): W3046179

B 

5/16" FLAT WASHER

INCLUDED IN PACKAGE(S): W3046179

C 

3/8" x 2" LAG SCREW

INCLUDED IN PACKAGE(S): W3079402 W3039847 W3043922

D 

1/4" FLAT WASHER

INCLUDED IN PACKAGE(S): W3039847 W3046179 W3043922

E 

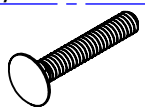
1/4" LOCK WASHER

INCLUDED IN PACKAGE(S): W3043922 W3079402 W3039847

F 

1/4"-20 HEX NUT

INCLUDED IN PACKAGE(S): W3039847 W3079402

G 

1/4"-20 x 1-1/2" CARRIAGE BOLT

INCLUDED IN PACKAGE(S): W3043922

H 

1/4"-20 x 3/4" CARRIAGE BOLT

INCLUDED IN PACKAGE(S): W3043922

I 

#10 x 3/4" SQ. DRIVE D&T

INCLUDED IN PACKAGE(S): W3079404

N 

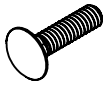
#10-12 x 3/4" WOOD SCREW

INCLUDED IN PACKAGE(S): W3039193

O 

#10-16 x 3/4" SELF DRILLING SCREW

INCLUDED IN PACKAGE(S): W3039193

P 

1/4"-20 x 1" CARRIAGE BOLT

INCLUDED IN PACKAGE(S): W3046891

R 

#12-1" BALUSTER SCREW

CC 

#12-11 x 1" WOOD SCREW

STOP!

READ BEFORE STARTING INSTALLATION

WOOD HANDLING

UNFINISHED TREADS AND HANDRAILS ON THE JOB SITE WILL ABSORB MOISTURE FROM THE AIR. THESE MUST BE SEALED WITHIN 1 WEEK TO AVOID ADVERSE AFFECTS ON THE WOOD.

NEARBY PLASTERING, TILE WORK, CEMENT OR BRICKWORK INTRODUCE ENOUGH WATER IN THE IMMEDIATE ENVIRONMENT FOR THE WOOD TO BE AFFECTED.

IF NEEDED, STORE THE WOOD PROVIDED IN A COOL, DRY AND STRUCTURALLY STABLE LOCATION.

WOOD FINISHING

A. SAND ALL WOOD SURFACES BEFORE APPLYING ANY STAIN OR POLYURETHANE. NEARLY ALL PROBLEMS WITH FINISHING OCCUR DUE TO IMPROPER SANDING PRIOR TO STAIN OR POLYURETHANE APPLICATION. TREADS MAY RUB TOGETHER, OR AGAINST OTHER SURFACES DURING HANDLING AND TRANSPORTATION. THIS MAY CREATE "SHINY SPOTS" WHICH PREVENT AN EVEN FINISH. TAKE PRECAUTIONS WHEN TRANSPORTING TREADS.

B. SAND ALL WOOD SURFACES WITH 100 TO 220 GRIT RATING.

C. APPLY A STAIN IF ANY COLOR OTHER THAN THE NATURAL FINISH IS DESIRED.

D. THREE COATS OF SEALER MUST BE APPLIED TO ALL WOOD SURFACES. INADEQUATE FINISHING OF ALL SIX SIDES OF A TREAD (WHICH INCLUDES THE BOTTOM) WILL ALLOW MOISTURE TO BE ABSORBED.

E. CHECK WITH YOUR PAINT SPECIALTY DEALER FOR FURTHER INSTRUCTIONS IF NEEDED.

PLATFORM & BASE INSTALLATION:
CONTINUOUS SLEEVE WITH TREAD COVERS

1. WHILE ALL TREADS ARE ON THE GROUND, PARTIALLY THREAD SETSCREWS INTO EACH TREAD AND PLATFORM SLEEVE.

2. ATTACH THE BASEPLATE (1) TO THE CENTER COLUMN (5) WITH SET SCREWS (A).

3. STAND CENTER COLUMN UP INSIDE WELL OPENING.

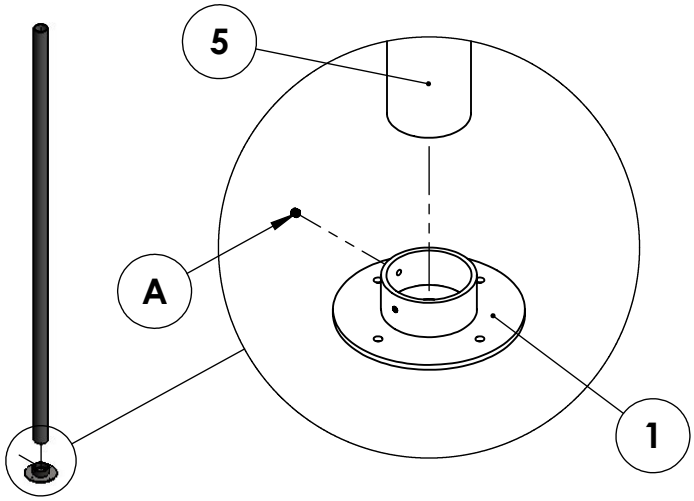
HARDWARE

PARTS ADDED

1 5

TOOLS NEEDED

(INCLUDED)



4. LOCATE THE TREAD WITH THE SHORT HUB AND SLIDE IT OVER CENTER COLUMN, FOLLOWED BY THE REMAINING TREADS (6).

6. SLIDE FILLER HUB (8) OVER CENTER COLUMN LAST. THIS WILL SPAN THE GAP BETWEEN THE TOP TREAD AND PLATFORM.

7. SLIDE THE PLATFORM (7) OVER THE CENTER COLUMN. LAY THE WOOD PLATFORM COVER (20) ON THE PLATFORM AND POSITION PLATFORM TO WHERE THE TOP SURFACE OF THE WOOD COVER IS FLUSH WITH MOUNTING FLOOR SURFACE.

NOTE: HOLES MUST BE DRILLED THROUGH PLATFORM EDGE AS NEEDED TO INSTALL THE MOUNTING LAGS. IF CORNER MOUNT, ENSURE BOTH EDGES ARE BOLTED.

8. USE 3/8" x 2" LAG SCREWS (C) AND WASHERS (B) TO ATTACH PLATFORM TO MOUNTING SURFACE.

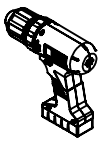
HARDWARE

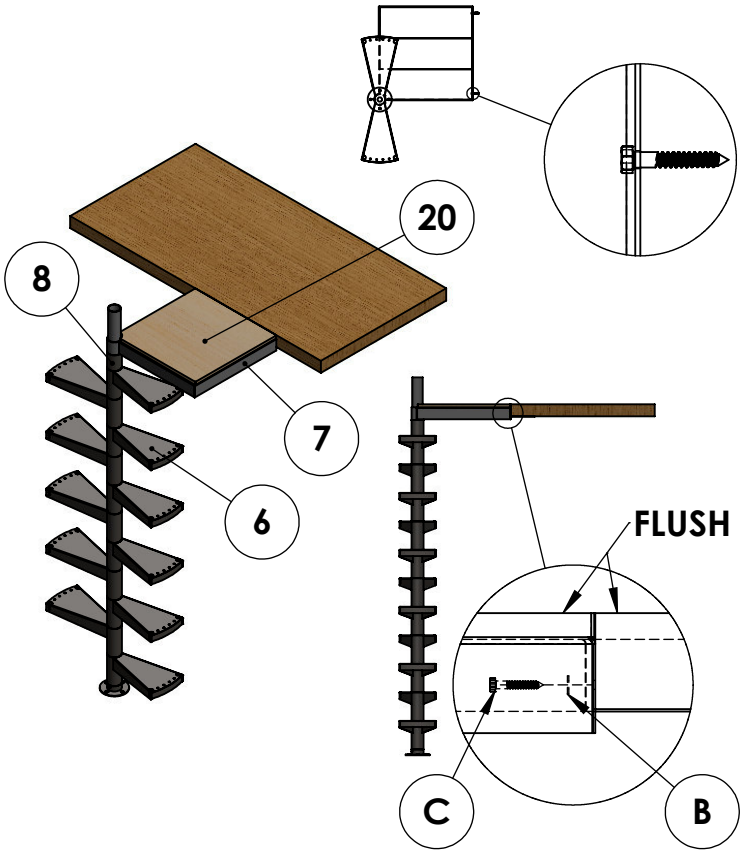
PARTS ADDED

6 7 8

20

TOOLS NEEDED





9. REMOVE PLATFORM COVER AND SET ASIDE.

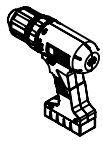
10. PLUMB CENTER COLUMN AND ATTACH BASEPLATE TO FLOOR WITH 3/8" x 2" LAG BOLTS (C) AND WASHERS (B). MASONRY FASTENERS WILL BE NEEDED IF INSTALLING ON CONCRETE.

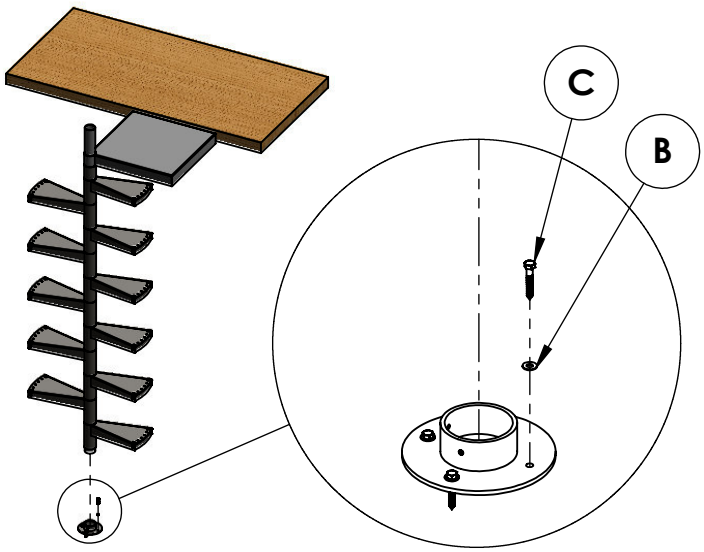
11. TIGHTEN PLATFORM SET SCREWS.

NOTE: STEPS 7 AND 8 REQUIRE ONE PERSON AT BASE TO KEEP COLUMN STEADY WHILE TWO PEOPLE HOIST AND HOLD PLATFORM IN PLACE. A FOURTH PERSON MAY THEN DRILL AND FASTEN PLATFORM.

HARDWARE

TOOLS NEEDED





CONTINUOUS TREAD, EXTENSION, AND BALUSTER INSTALLATION

1. SLIDE THE CENTER COLUMN EXTENSION (9) DOWN OVER THE CENTER COLUMN. INSERT AND TIGHTEN THE SET SCREWS (A).

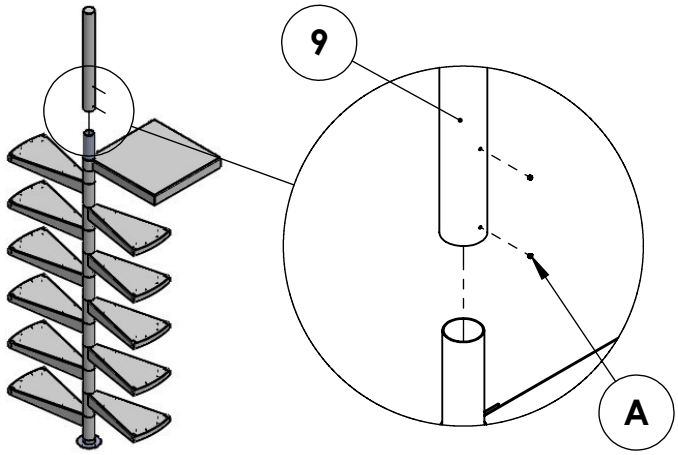
HARDWARE

PARTS ADDED

9

TOOLS NEEDED

(INCLUDED)

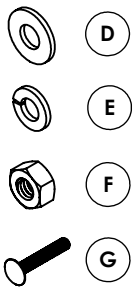


2. START INSTALLATION WITH THE TOP TREAD. PLACE A MAIN BALUSTER (3) IN THE HOLE CLOSEST TO THE PLATFORM. MOVE UP OR DOWN UNTIL THE BOTTOM OF BALUSTER IS POSITIONED FLUSH WITH THE BOTTOM EDGE OF THE PLATFORM (A1).

NOTE: MAIN BALUSTER WILL HAVE TWO DRILLED HOLES NEAR THE BOTTOM.

3. ATTACH THIS BALUSTER TO THE TREAD USING A 1/4"-20 x 1-1/2" CARRIAGE BOLT (G), NUT (F), WASHER (D) AND LOCK WASHER (E).

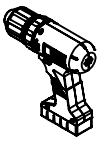
HARDWARE

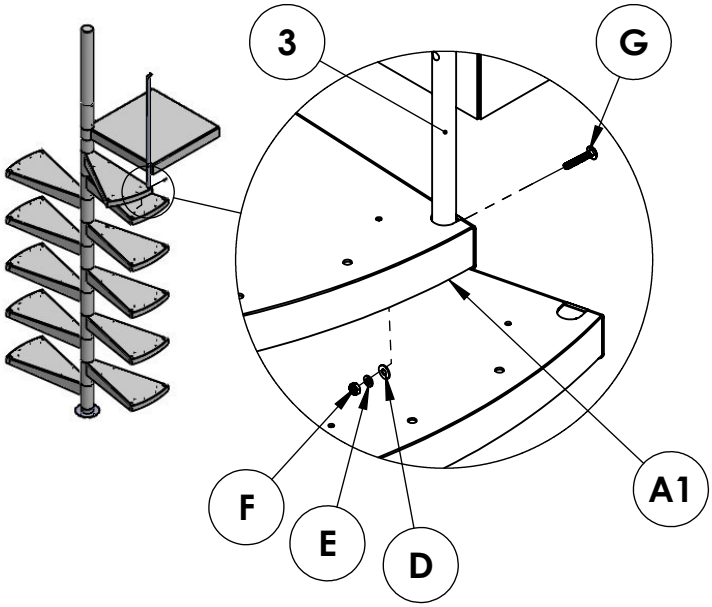


PARTS ADDED

3

TOOLS NEEDED



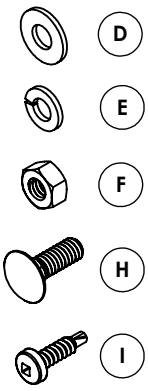


4. PLUMB THE TOP BALUSTER AND ATTACH TO THE FACE OF THE PLATFORM USING THE TOP BALUSTER BRACKET (13) WITH A 1/4"-20 x 3/4" CARRIAGE BOLT (H), #10 x 3/4" SQUARE DRIVE D&T (I), NUT (F), WASHER (D) AND LOCK WASHER (E).

NOTE: HOLES MUST BE PRE-DRILLED IN THE PLATFORM TO ATTACH TOP BALUSTER BRACKET (13).

5. CHECK THAT THE TREAD IS LEVEL AND THE BALUSTER PLUMB. TIGHTEN THE 5/16" SET SCREWS TO LOCK THE FIRST TREAD IN PLACE.

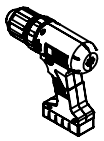
HARDWARE

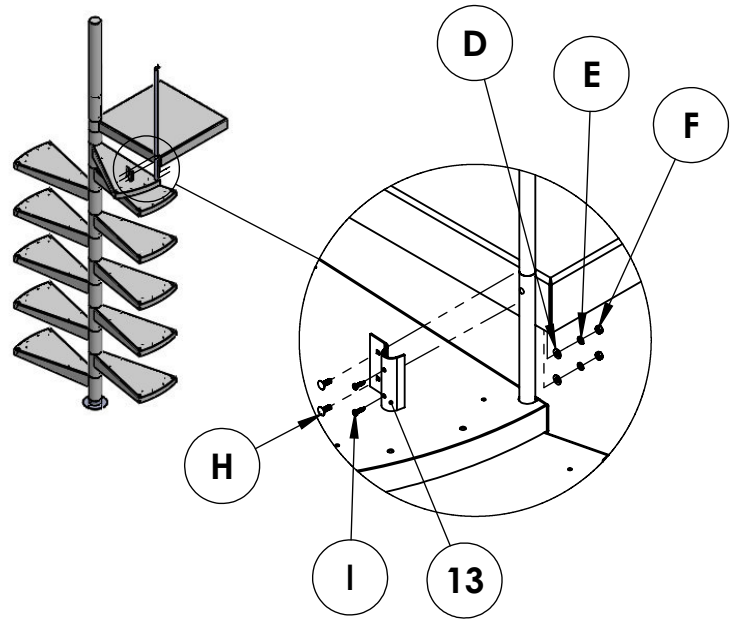


PARTS ADDED

13

TOOLS NEEDED





6. SPIN THE NEXT TREAD INTO POSITION BENEATH THE TREAD ABOVE. PLACE A MAIN BALUSTER (3) THROUGH THE UPPER TREAD AND INTO THE LOWER. MOVE UP OR DOWN UNTIL THE BOTTOM OF THE BALUSTER IS POSITIONED FLUSH WITH THE BOTTOM EDGE OF THE PLATFORM (A1).

7. SECURE BALUSTER TO BOTH TREADS WITH 1/4" x 1-1/2" CARRIAGE BOLT (G), NUT (F), WASHER (D) AND LOCK WASHER (E). ENSURE BALUSTER IS PLUMB.

8. TIGHTEN SET SCREWS IN TREAD SLEEVE.

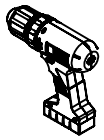
9. REPEAT STEPS 6-8 WITH REMAINING TREADS

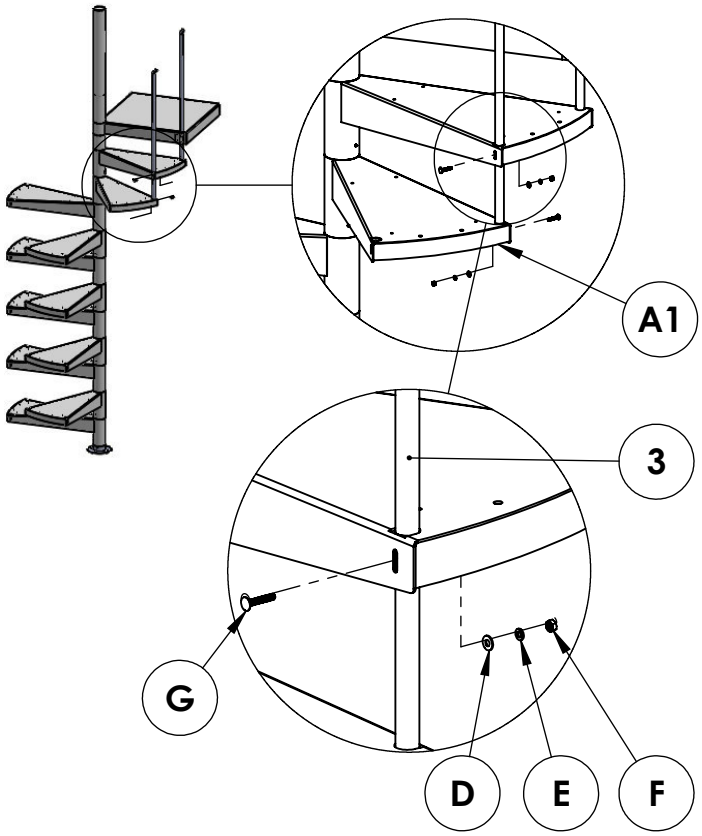
HARDWARE

PARTS ADDED

3

TOOLS NEEDED





10. TO SECURE THE BOTTOM BALUSTER (2), PLACE THE BOTTOM BALUSTER BRACKET (16) ON THE GROUND BELOW THE FIRST TREAD. PLACE THE BOTTOM BALUSTER THROUGH THE HOLE IN THE TREAD AND THROUGH THE BALUSTER BRACKET.

NOTE: BOTTOM BALUSTER WILL HAVE ONLY ONE DRILLED HOLE NEAR THE BOTTOM.

11. PLUMB THE BOTTOM BALUSTER AND FASTEN TO THE FIRST TREAD ACCORDING TO STEP 7.

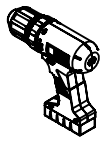
12. ENSURE THAT THE BALUSTER REMAINED PLUMB, THEN FASTEN BOTTOM BALUSTER BRACKET TO FLOOR WITH #12-11 x 1" WOOD SCREWS (CC). MASONRY FASTENERS WILL BE NEEDED IF INSTALLING ON CONCRETE.

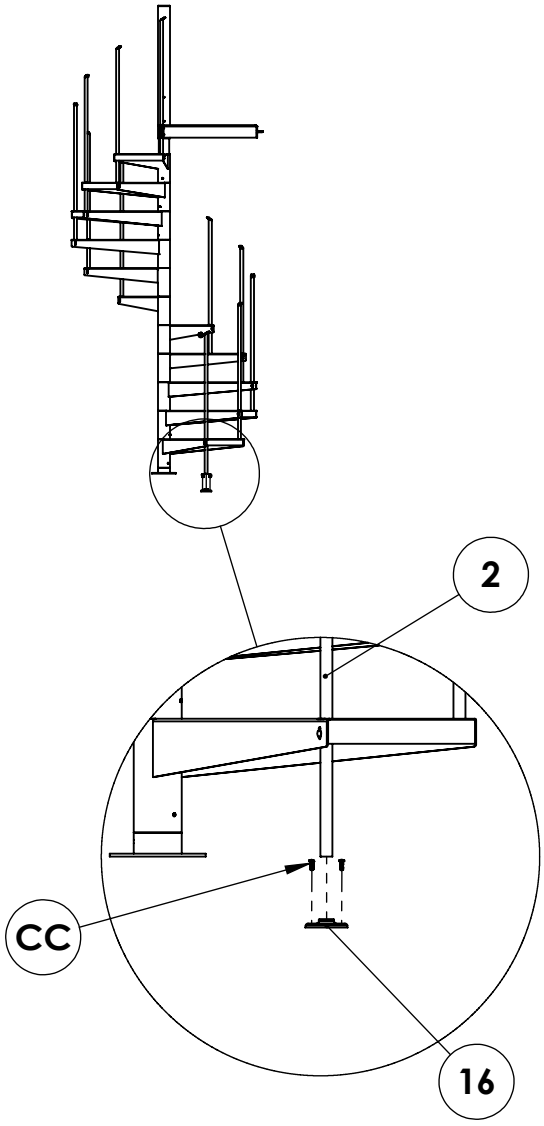
HARDWARE

PARTS ADDED

2 16

TOOLS NEEDED





ALUMINUM HANDRAIL FORMING

THE HANDRAIL IS SHIPPED IN A COIL THAT IS TYPICALLY BETWEEN 36" TO 48" IN DIAMETER. THE FIRST STEP TO FITTING THE HANDRAIL IS INCREASING THIS DIAMETER TO THE PROPER COIL DIAMETER LISTED BELOW.

STAIR DIAMETER	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
COIL DIAMETER	60"	65"	70"	75"	80"	85"

FOR EXAMPLE: IF INSTALLING A 3'-6" DIAMETER STAIR, THE HANDRAIL COIL DIAMETER SHOULD BE INCREASED TO 60".

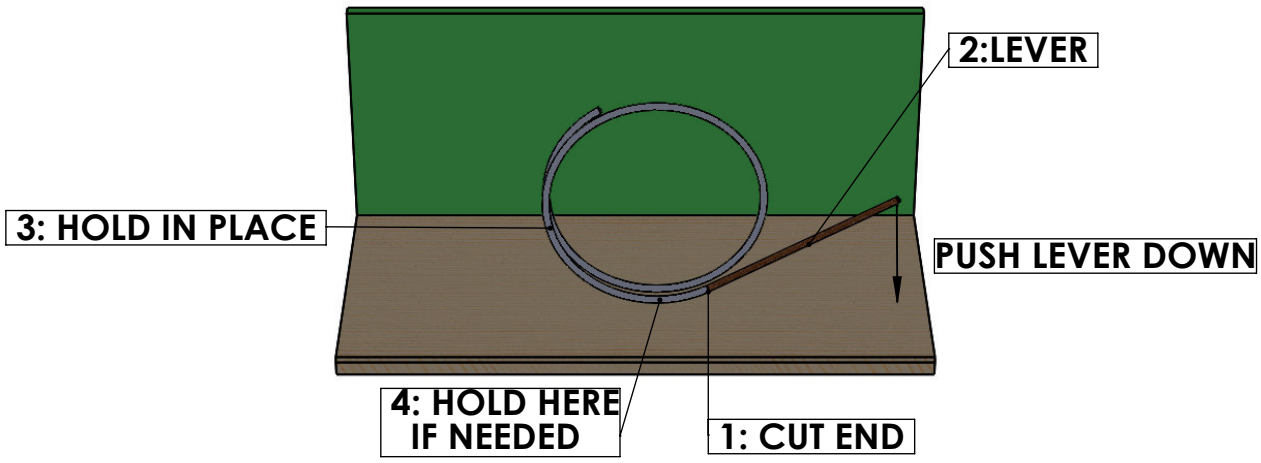
NOTE: THE COIL DIAMETER SHOULD BE GREATER THAN THE STAIR DIAMETER. THE HANDRAIL DIAMETER WILL SHRINK IN LATER STEPS WHEN BEING PULLED APART INTO A SPIRAL. THE LARGER COIL DIAMETER WILL ACCOUNT FOR THIS SHRINKING.

INCREASING THE COIL DIAMETER

1. ON A SOFT SURFACE SUCH AS CARPET, POSITION THE COIL AS DEPICTED BELOW. THE CUT END (1) SHOULD BE APPROXIMATELY 4"-6" OFF THE GROUND.

2. INSERT A LEVER (2) INTO THE CUT END. A BALUSTER INCLUDED WITH THE STAIRS OR A WOODEN HANDLE (SUCH AS A BROOM HANDLE) BOTH MAKE SUITABLE LEVERS.

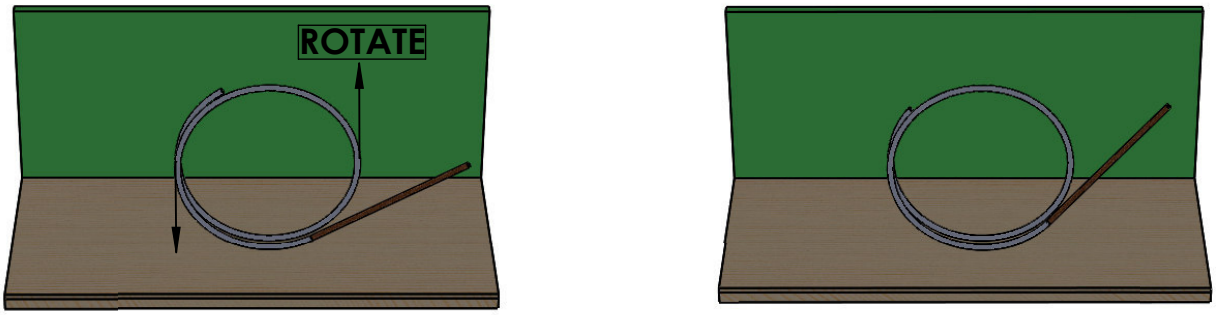
3. HOLD THE COIL IN PLACE ON THE SIDE OPPOSITE THE CUT END (3). PUSH THE LEVER DOWN UNTIL THE COIL BENDS SLIGHTLY. IT MAY BE NECESSARY TO BRACE THE COIL WHERE IT CONTACTS THE GROUND (4) TO PREVENT IT FROM SLIPPING WHILE BENDING.



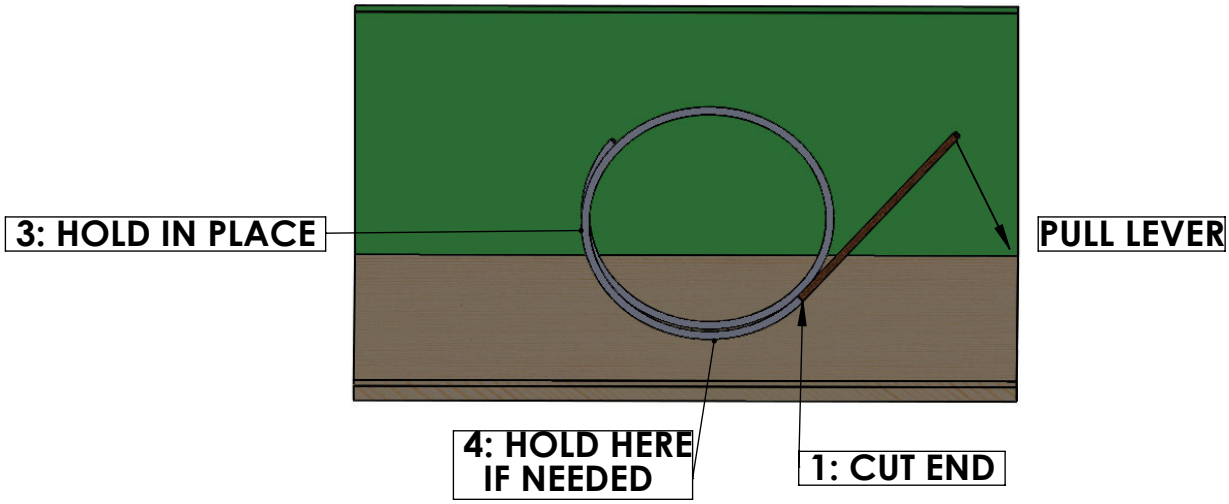
NOTE: THIS EXAMPLE DEPICTS A RIGHT HAND UP HANDRAIL. LEVER WOULD BE ON LEFT SIDE FOR A LEFT HAND UP HANDRAIL.

IMPORTANT: THE HANDRAIL IS BEST FORMED WITH A SERIES OF MANY SMALL ADJUSTMENTS. TO AVOID KINKS AND WARPED SECTIONS, DO NOT SHARPLY BEND THE HANDRAIL.

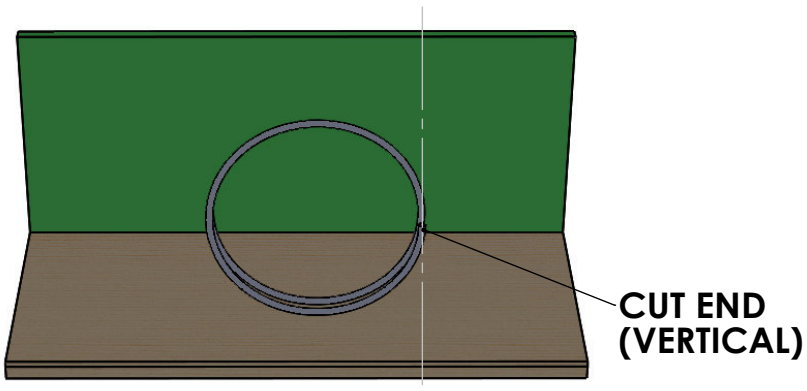
4. ROTATE THE HANDRAIL COUNTERCLOCKWISE (CLOCKWISE FOR LEFT HAND UP) APPROXIMATELY 20 DEGREES.



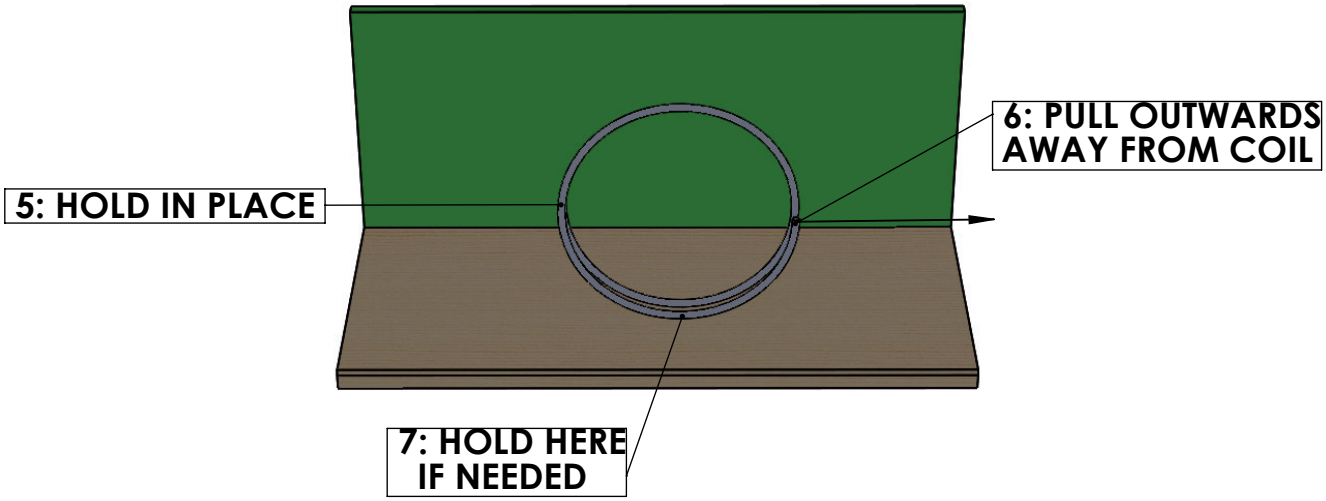
5. HOLD THE COIL IN PLACE ON THE SIDE OPPOSITE THE CUT END (3). PULL THE LEVER DOWN UNTIL THE COIL BENDS SLIGHTLY. IT MAY BE NECESSARY TO BRACE THE COIL WHERE IT CONTACTS THE GROUND (4) TO PREVENT IT FROM SLIPPING WHILE BENDING.



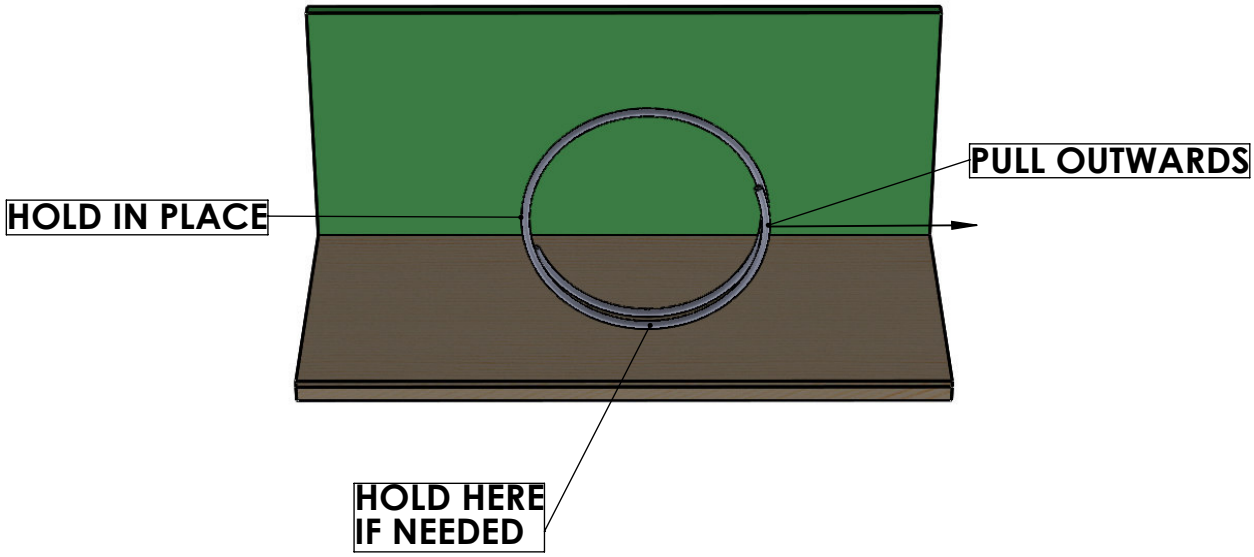
6. REPEAT STEP 5 UNTIL THE CUT END IS VERTICAL. IT SHOULD NOW BE LONG ENOUGH TO FORM BY HAND.



6. HOLD THE COIL IN PLACE (5). PULL THE UNSECURED SIDE (6) OUTWARDS AWAY FROM THE CENTER OF THE COIL UNTIL THE COIL BENDS SLIGHTLY. IT MAY BE NECESSARY TO BRACE THE COIL WHERE IT CONTACTS THE GROUND (7) TO PREVENT IT FROM SLIPPING WHILE BENDING.



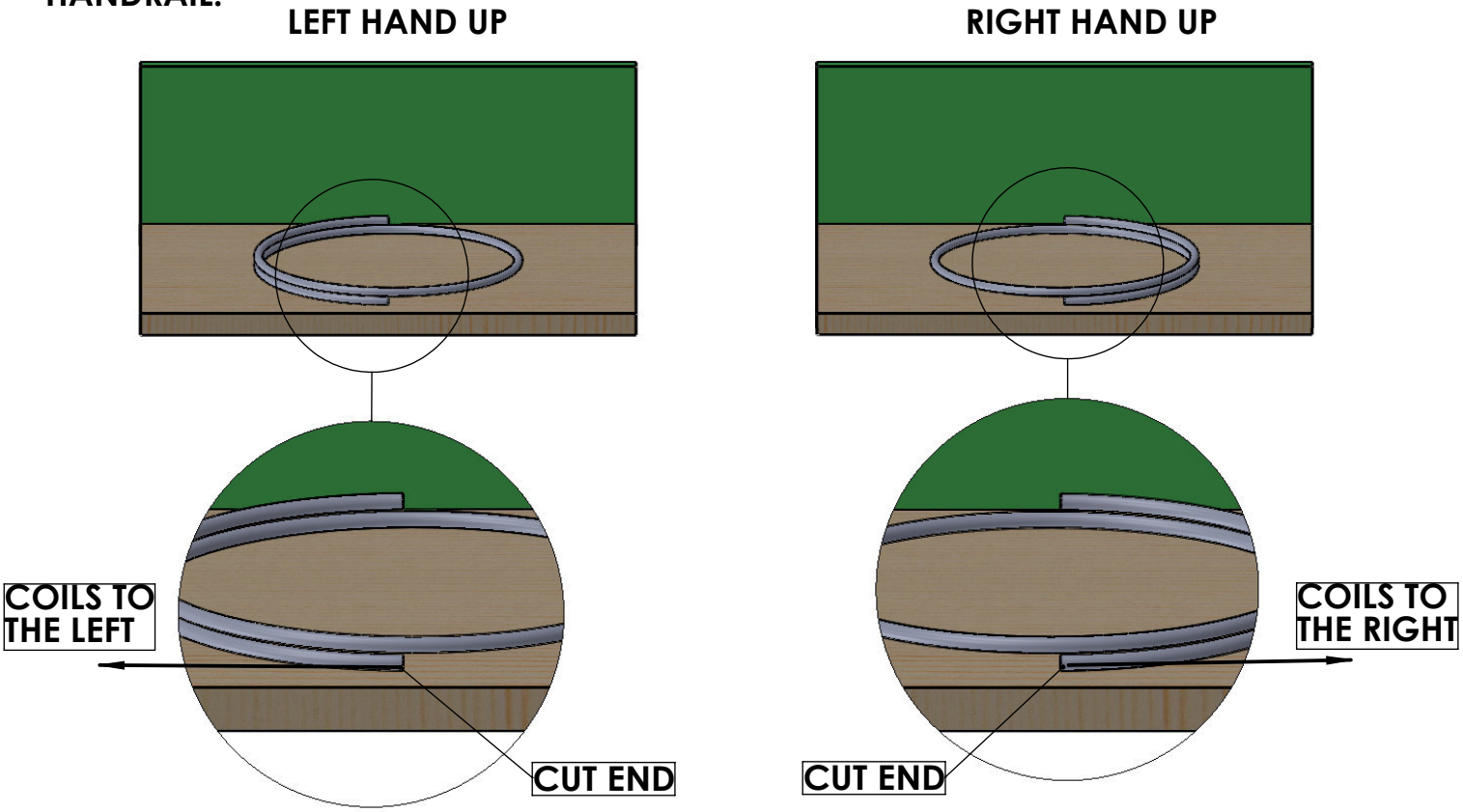
7. CONTINUE ROTATING THE COIL AND BENDING UNTIL THE WHOLE COIL HAS BEEN WORKED THROUGH. MEASURE THE COIL DIAMETER TO DETERMINE IF MORE ADJUSTMENT IS NEEDED. IF SO, REPEAT FROM THE BEGINNING .



NOTE: DO NOT TRY TO BEND THE HANDRAIL INTO SHAPE ON THE FIRST PASS THROUGH THE COIL. FOR BEST RESULTS, MAKE SMALL ADJUSTMENTS AND REPEAT THE PROCESS AS NEEDED.

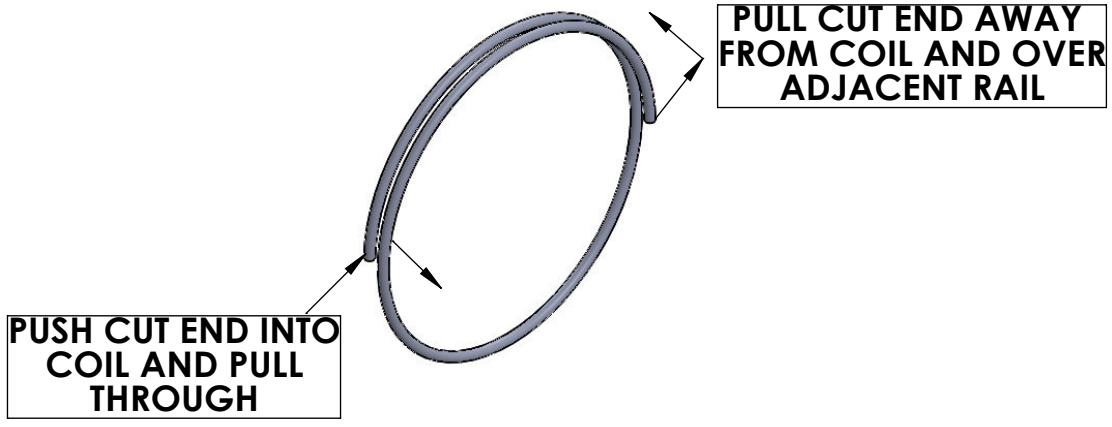
CHECKING THE HANDRAIL CURVATURE

1. LAY THE HANDRAIL DOWN AND FIND THE CUT END THAT CONTACTS THE GROUND. USE THE METHOD BELOW TO DETERMINE THE ORIENTATION OF THE HANDRAIL.



NOTE: IF THE HANDRAIL ORIENTATION MATCHES THE ORIENTATION OF THE STAIRS BEING INSTALLED, SKIP THE NEXT STEP.

2. STAND THE HANDRAIL UP. PUSH A CUT END TOWARDS THE CENTER OF THE COIL ENOUGH TO CLEAR THE ADJACENT RAIL. PULL THIS CUT END THROUGH THE COIL TO THE OTHER SIDE. THE OTHER CUT END MUST BE PULLED AWAY FROM THE CENTER OF THE COIL AND PUSHED OVER THE ADJACENT RAIL.

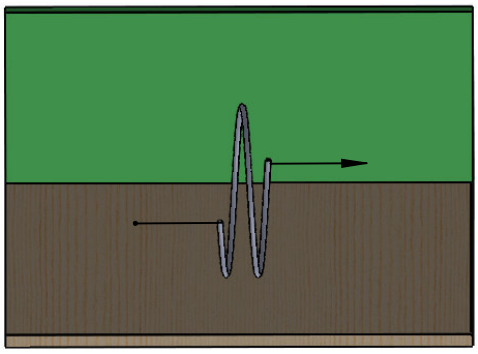


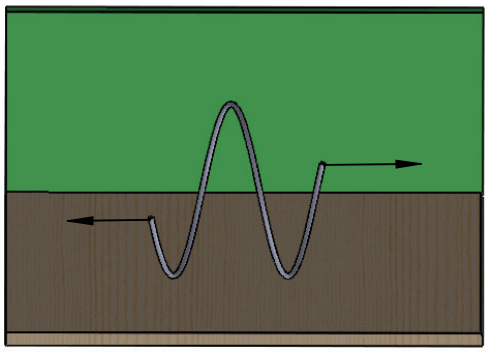
PULLING INTO A SPIRAL

1. DETERMINE THE END TO END LENGTH NEEDED BASED ON THE DIAMETER OF THE STAIR BEING INSTALLED.

STAIR DIAMETER	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
END TO END LENGTH	14'	13'	12'	11'	11'	10'

2. WITH A HELPER, PULL THE HANDRAIL APART TO THE DESIRED END TO END LENGTH. STOP PERIODICALLY TO INSPECT THE HANDRAIL FOR ANY KINKS THAT MAY BE FORMING.





ALUMINUM HANDRAIL INSTALLATION

1. THE ALUMINUM HANDRAIL (12) IS SHIPPED IN A FLAT COIL. IT CAN BE SHAPED BY HAND BY FOLLOWING THE GUIDE ON THE PREVIOUS PAGE.

2. AFTER SHAPING, DRY FIT THE RAIL TO THE BALUSTER TIPS.

NOTE: THE RAIL IS KINKED AT EACH END. THIS IS NORMAL, AND SHOULD BE CUT OFF AS EXCESS AFTER INSTALLATION.

3. WORKING WITH TWO PEOPLE, START AT THE TOP AND DRILL EACH #12-1" SCREW (R) THROUGH HOLE AT EACH MAIN BALUSTER. PUSH OR PULL RAIL AS NEEDED TO MATCH HANDRAIL TO BALUSTER TIP.

NOTE: IF THE HANDRAIL DOES NOT SIT FLUSH ON THE BALUSTER TIPS, THE BALUSTER TIPS CAN BE BENT UP OR DOWN AS NEEDED WITH AN ADJUSTABLE WRENCH TO BETTER MATCH THE ANGLE OF THE HANDRAIL. PLACE A RAG BETWEEN THE WRENCH AND BALUSTER TIP TO PREVENT SCRATCHES.

4. ONCE ATTACHED TO ALL BALUSTERS, CUT THE RAILING 3" ABOVE THE TOP BALUSTER AND 3" BELOW THE BOTTOM BALUSTER UNLESS YOUR BUILDING CODE CALLS FOR A LONGER LENGTH. BE SURE TO CUT HANDRAIL SQUARE.

5. USE THE SUPPLIED TWO-PART EPOXY TO BOND THE ENDCAPS (15) TO THE HANDRAIL.

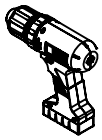
HARDWARE

R

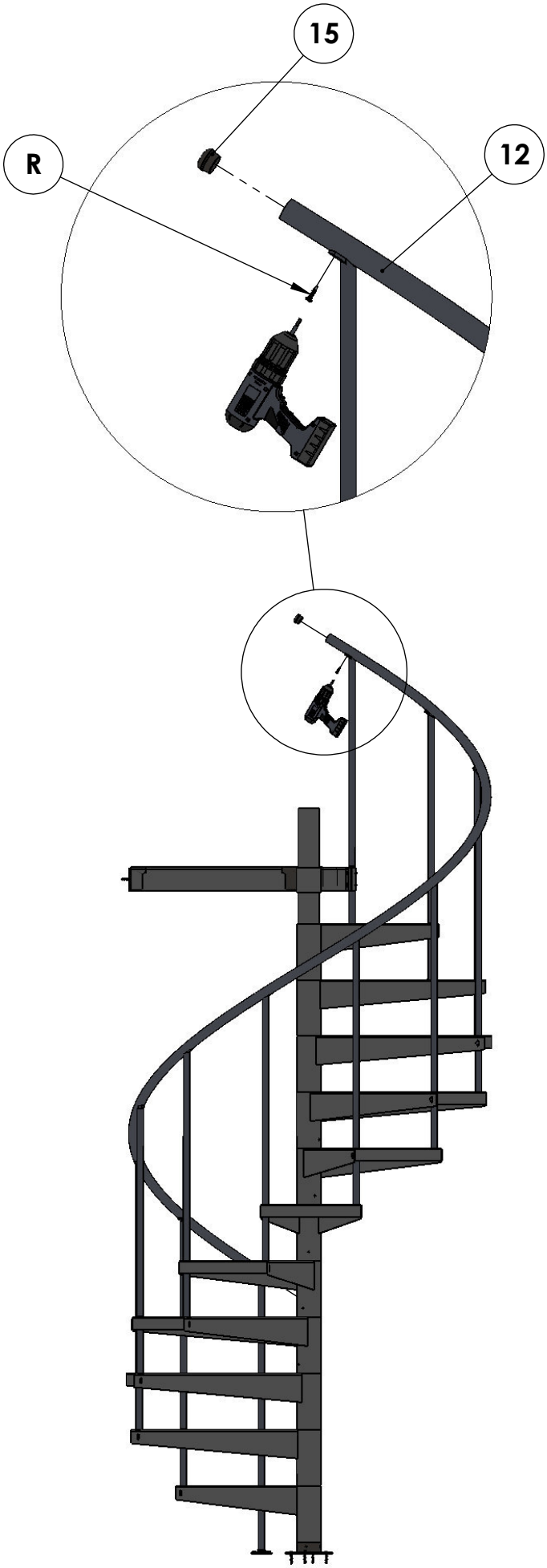
PARTS ADDED

12 15

TOOLS NEEDED



1/8" POWER BIT (INCLUDED)



WOOD TREAD COVER INSTALLATION

1. DRILL #10 PAN HEAD WOOD SCREWS (N) THROUGH THE PRE-DRILLED HOLES ON THE TREAD (6) AND INTO THE WOODEN TREAD COVER (21).

2. REPEAT FOR EACH TREAD.

3. DRILL #10 PAN HEAD WOOD SCREWS (N) THROUGH THE PRE-DRILLED HOLE ON THE PLATFORM (7) AND INTO THE WOODEN PLATFORM COVER (20).

NOTE: THE WOODEN TREAD COVERS MUST BE SEALED AND FINISHED ON ALL SIDES PRIOR TO INSTALLATION. THIS WILL PREVENT DAMAGE FROM MOISTURE AND MAINTAIN THE INTEGRITY OF THE TREAD.

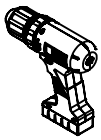
HARDWARE

N

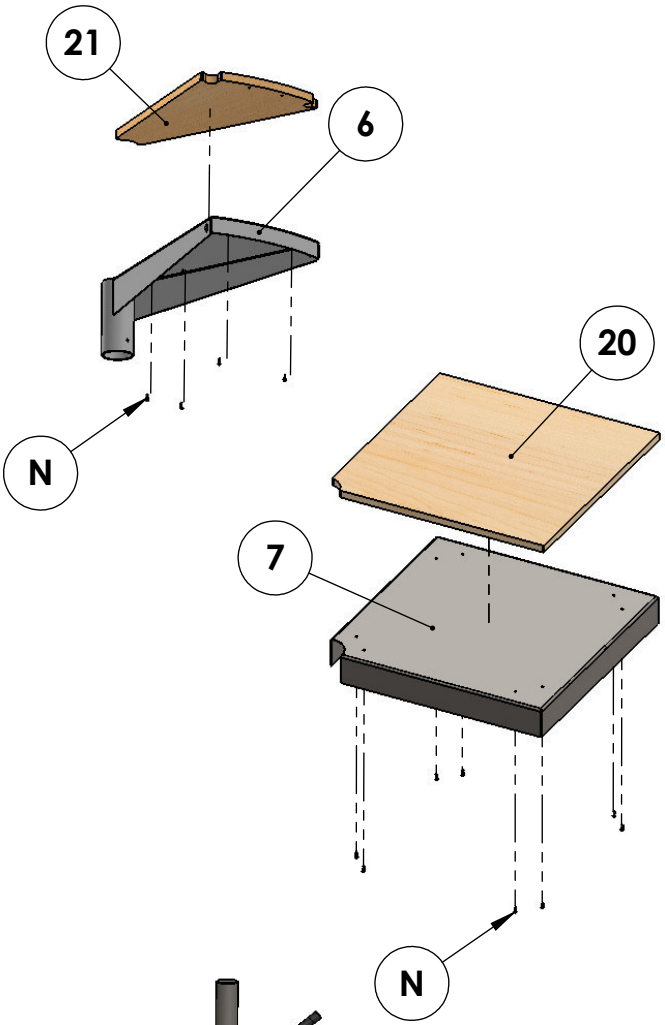
PARTS ADDED

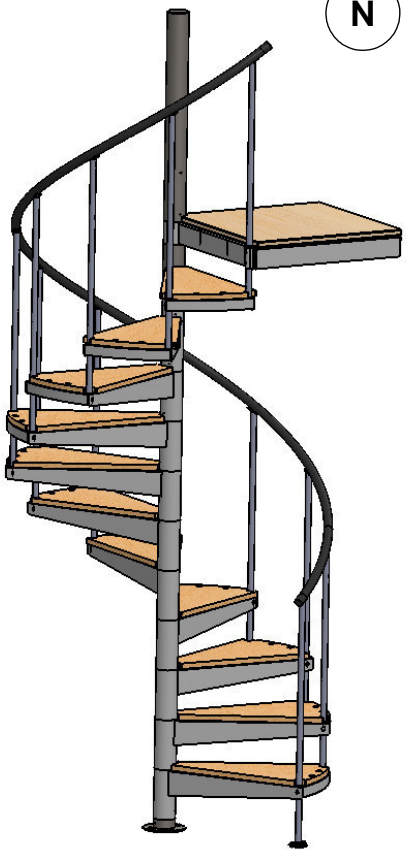
20 21

TOOLS NEEDED



1/8" POWER BIT (INCLUDED)





CENTER BALUSTER INSTALLATION:

ALUMINUM WITH WOOD TREAD COVERS

1. MEASURE EACH CENTER BALUSTER (4) FROM TIP (AT HANDRAIL) TO THE TOP OF THE CORRESPONDING TREAD. SUBTRACT 1/8" FROM THIS MEASUREMENT TO ACCOUNT FOR THE BALUSTER CUP.

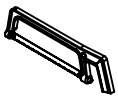
NOTE: IN STEP 1, DO NOT MEASURE TO THE TOP OF THE WOOD TREAD COVER. MEASURE TO THE METAL SURFACE BENEATH THE WOOD TREAD COVER.

2. WITH A SAW, CUT CENTER BALUSTER TO LENGTH.

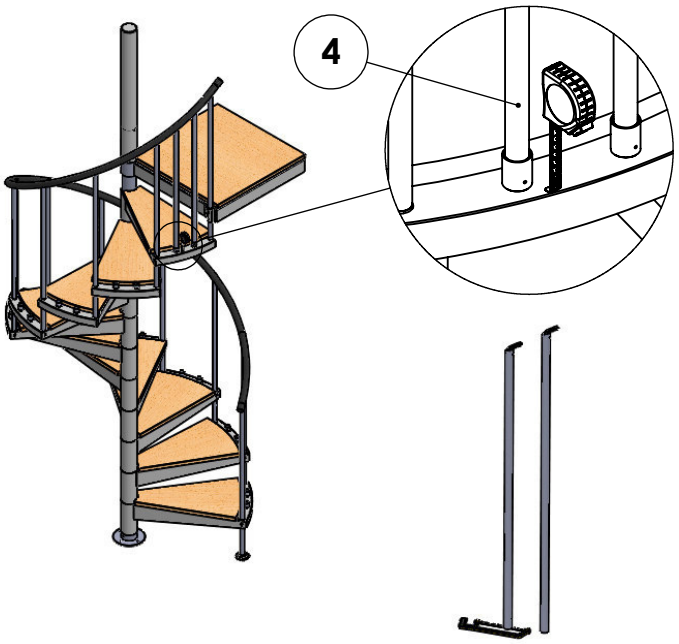
NOTE: DO NOT CUT ALL CENTER BALUSTERS TO THE SAME LENGTH.

PARTS ADDED

4



TOOLS NEEDED



3. SECURE CENTER BALUSTER CUP (17) TO BARE TREAD WITH #10-16 x 3/4" SELF DRILLING SCREW (O), 1/4"-20 x 1" CARRIAGE BOLT (P), 1/4" FLAT WASHER (D) AND 1/4"-20 HEX NUT (F).

4. TO FASTEN BALUSTER TIP TO HANDRAIL, USE:

1. A #10 x 1" SCREW (R) IF INSTALLING AN ALUMINUM HANDRAIL.

2. A #7 x 1-1/2" FILLISTER SCREW (Q) IF INSTALLING A WOOD HANDRAIL.

3. A VINYL HANDRAIL CLIP (J) AND SCREW (K) IF INSTALLING A VINYL HANDRAIL.

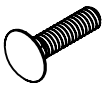
5. REPEAT STEPS 1-4 FOR EACH CENTER BALUSTER.

HARDWARE


D


F

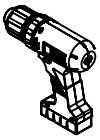

O

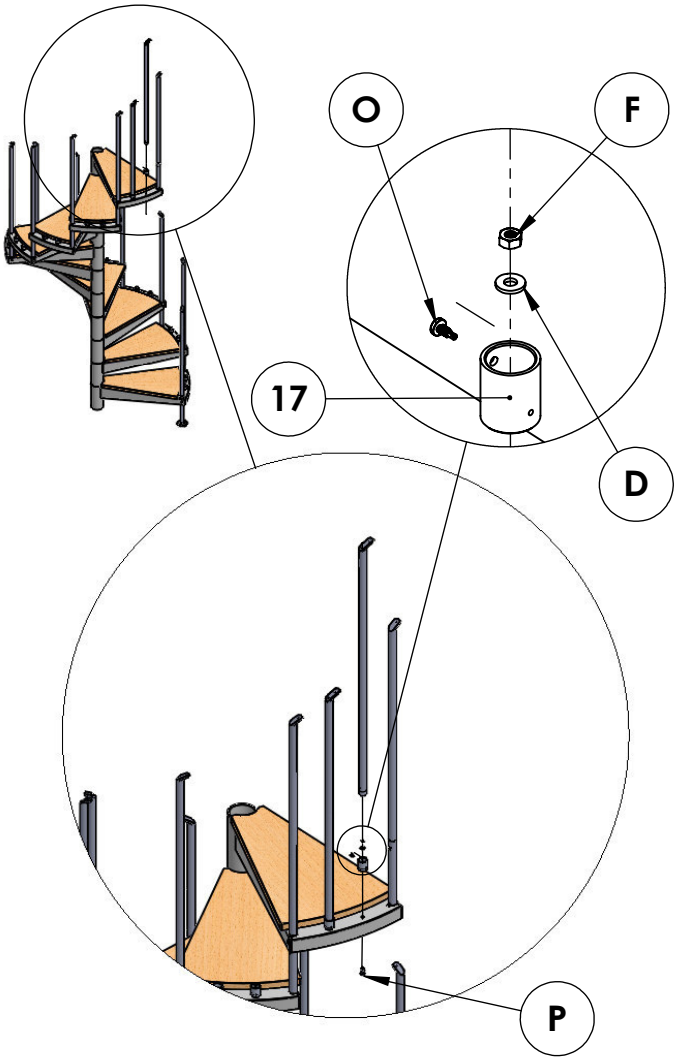

P

PARTS ADDED

17

TOOLS NEEDED





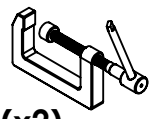
PLATFORM RAILING INSTALLATION

1. POSITION THE PLATFORM RAILING (22) AS NEEDED AND USE C-CLAMPS TO HOLD RAILING IN POSITION.

PARTS ADDED

22

TOOLS NEEDED



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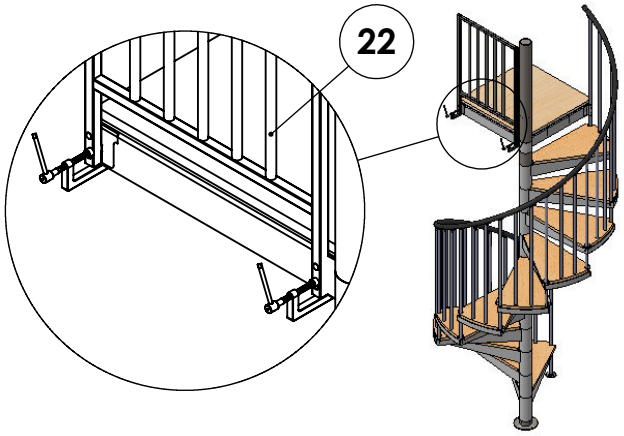
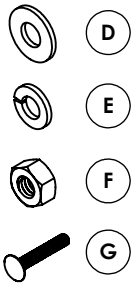


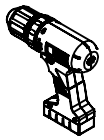
2. DRILL HOLES IN THE PLATFORM BY USING THE PRE-DRILLED HOLES ON THE PLATFORM RAILING AS A GUIDE.

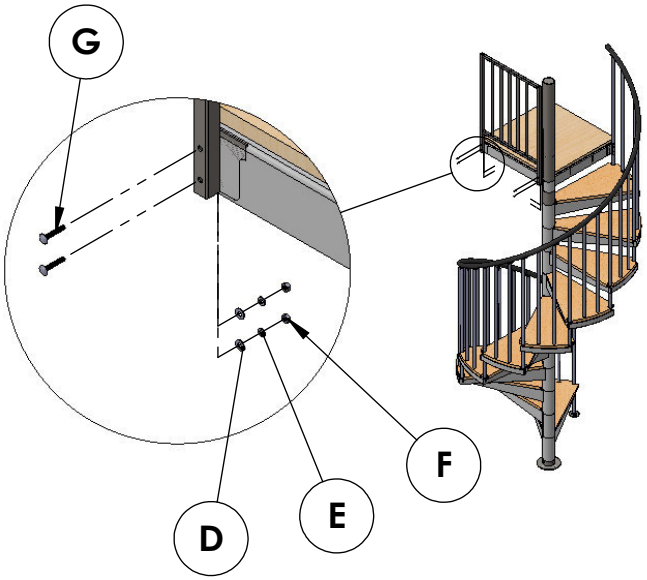
3. SECURE WITH 1/4" x 1-1/2" CARRIAGE BOLT (G), NUT (F), WASHER (D) AND LOCK WASHER (E).

HARDWARE



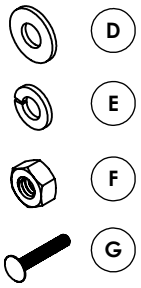
TOOLS NEEDED





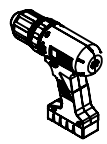
4. REPEAT PROCESS FOR SECOND PLATFORM RAILING IF APPICABLE.

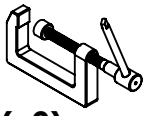
HARDWARE (IF NEEDED)



PARTS ADDED

TOOLS NEEDED





(x2)