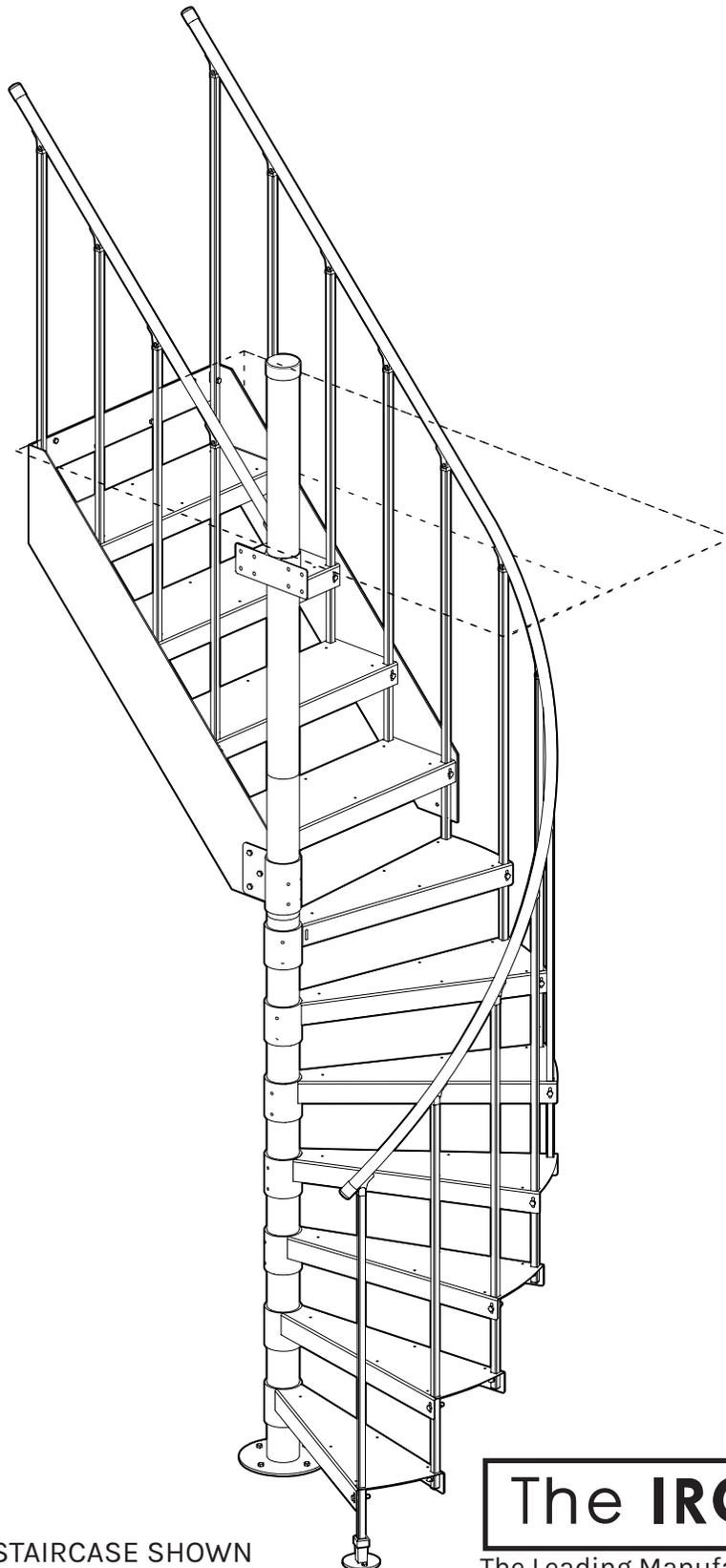


# COMBINATION SPIRAL STAIR INSTALLATION MANUAL

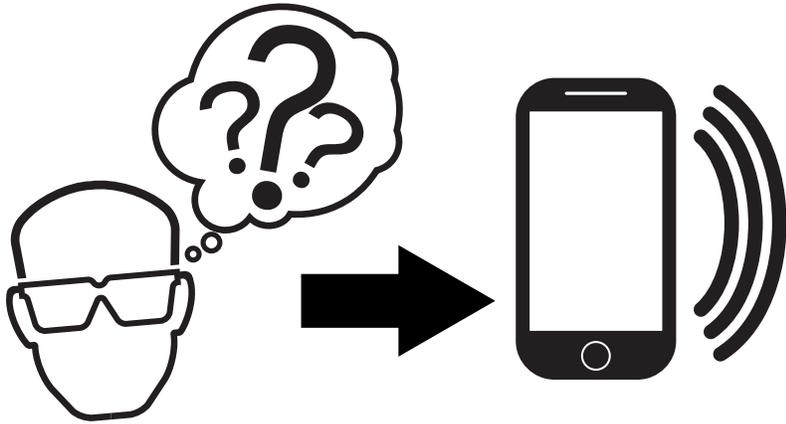
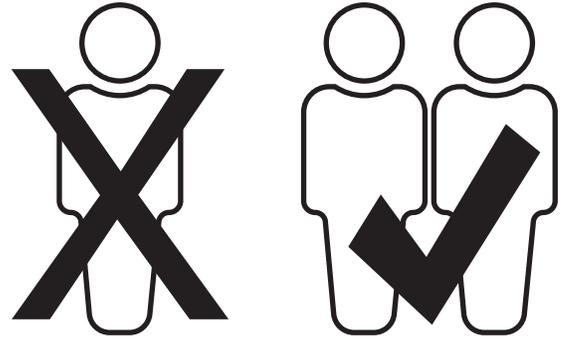
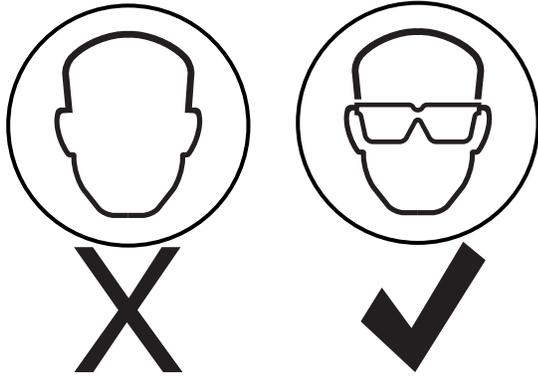
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2025 EDITION



\*12 RISER COMBO 4 STAIRCASE SHOWN

**The IRON Shop**  
The Leading Manufacturer of Spiral Stairs®

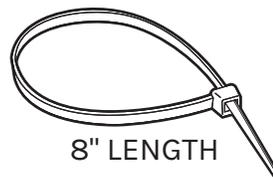
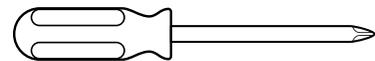
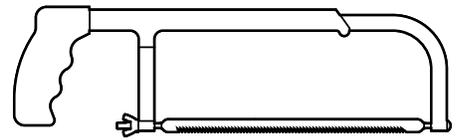
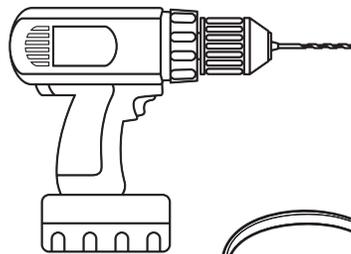
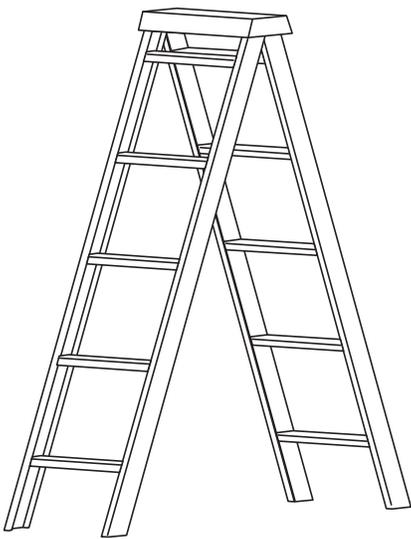


(800)-523-7427

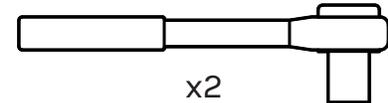


[www.TheIronShop.com](http://www.TheIronShop.com)

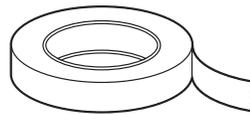
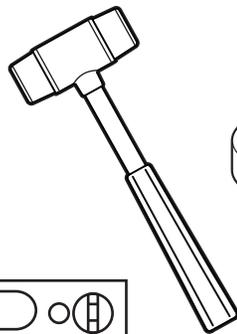
### TOOLS NEEDED FOR INSTALLATION



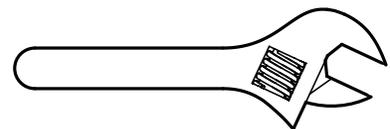
8" LENGTH



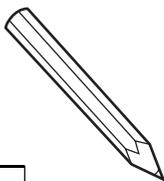
x2



MASKING TAPE

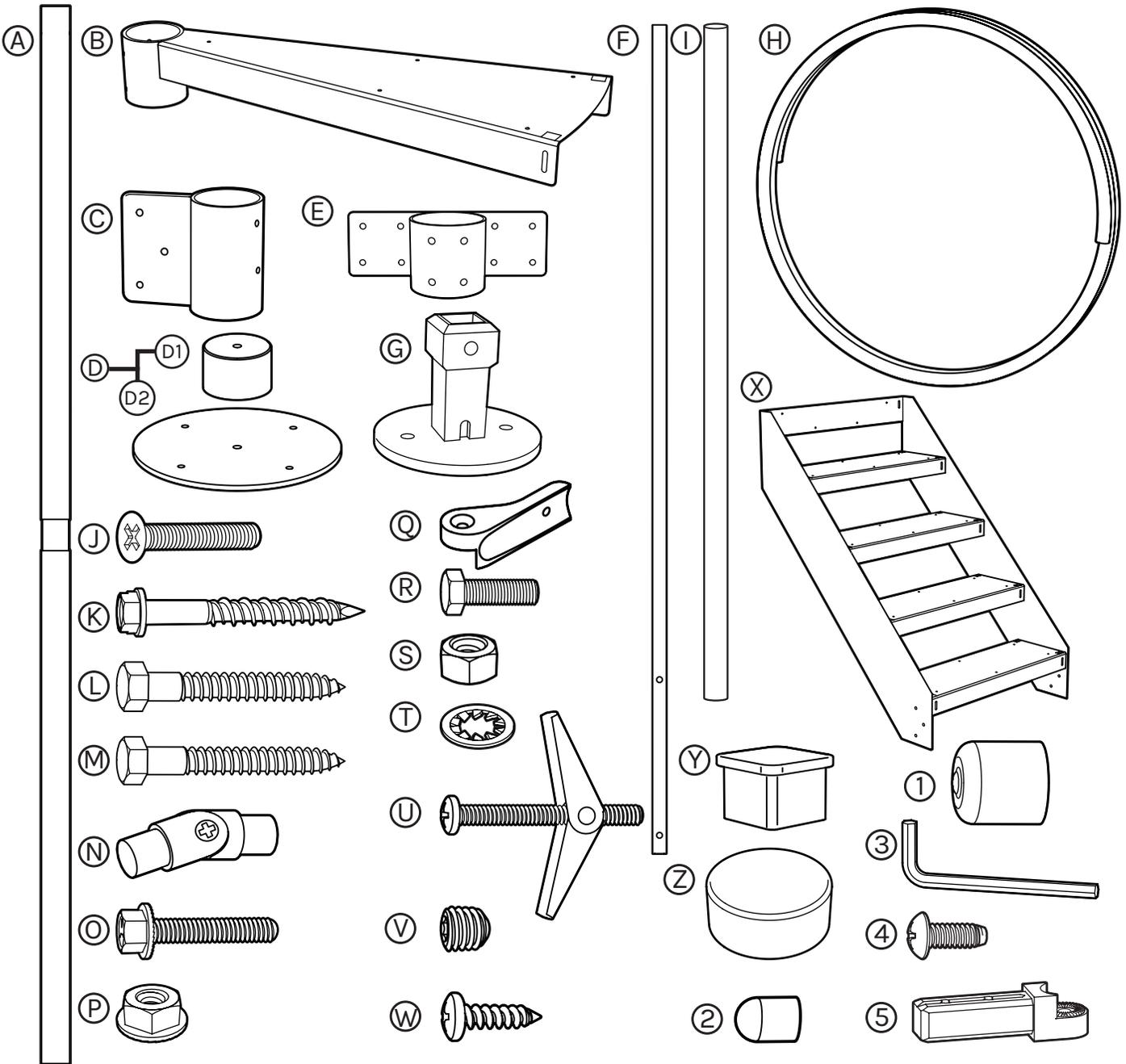


1/8", 7/16", 5/32", 7/32", 9/64"



3/16" MASONRY

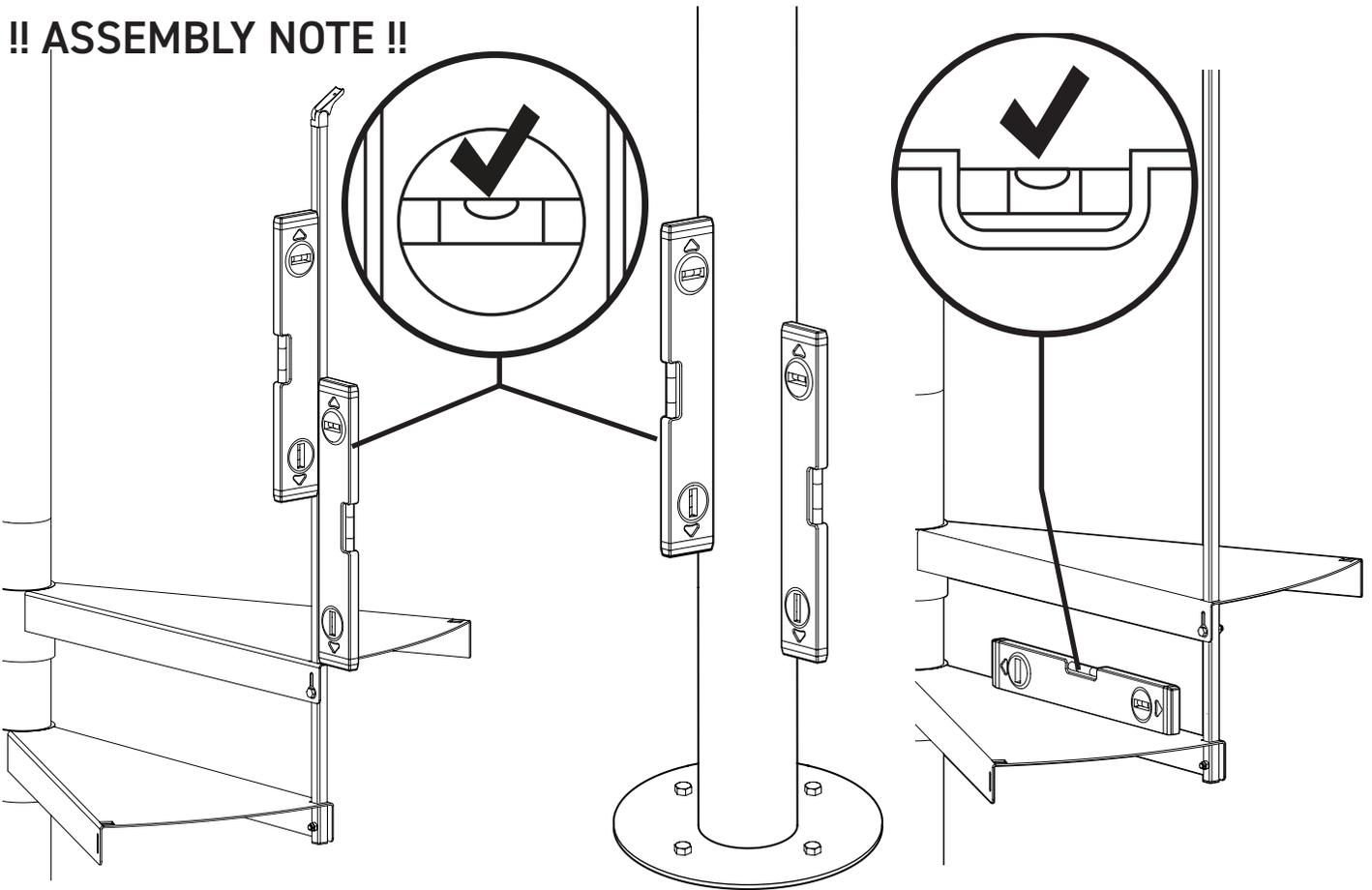
**INCLUDED**



**PLEASE REFER TO YOUR ORDER FORM FOR RISER HEIGHT AND PART QUANTITY.**

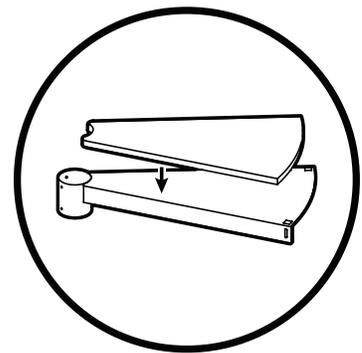
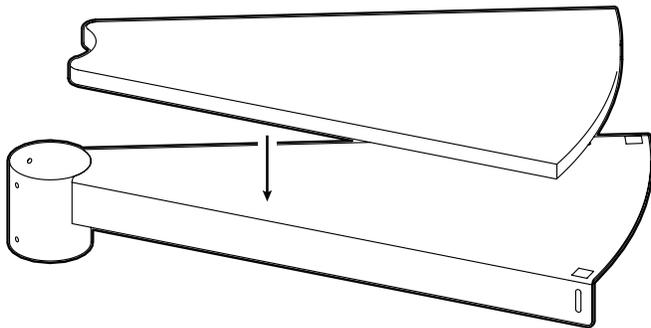
(A) Center Pole	(L) 5/16" x 2" Heavy Duty Lag Screw	(W) #10 x 3/4" Pan Head Sheet Metal Screw
(B) Tread	(M) 1/4" x 2" Heavy Duty Lag Screw	(X) Stair Lower Straight Run (Combo-4 Tread Shown, 5 Tread Also Available)
(C) Combo Bracket	(N) Handrail Pivot Fitting	(Y) Spindle Post End Cap
(D) Center Pole Base Plate	(O) 1/4" - 20 x 1-1/2" Hex Serrated Flange Bolt	(Z) Vinyl Pole Top Cap
(E) Flat Mount Bracket	(P) 1/4" - 20 Hex Serrated Flange Nut	(1) Vinyl Handrail End Cap
(F) Main Spindle	(Q) IRS-1 Flipper Head	(2) Rubber Cap for 1/4" "O" Bolts
(G) IRS-4 Tube Bottom Cup & Starter Post Base Plate	(R) 5/16 x 1" Hex Head Bolt	(3) Hex Key for 5/6" Set Screws
(H) Handrail Coil	(S) 5/16 Hex Nut	(4) #10-24 x 1/2" Round Head Thread Forming Screw
(I) Inside Straight Handrail	(T) 5/16" Lock Washer	(5) IRS 2 Adjustable Fitting
(J) #10-24 x 3/4" Flat Head Machine Screw	(U) #6-32 - 1-1/4" Machine Screw w/ Toggle Wing	
(K) 1/4" x 2-1/4" Hex-Washer Head Masonry Screw	(V) 5/16" - 18 5/16" Set Screw	

**!! ASSEMBLY NOTE !!**



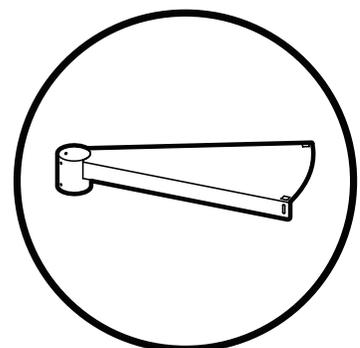
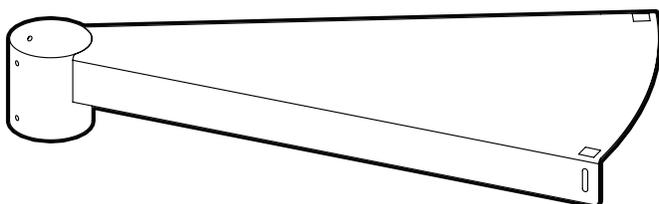
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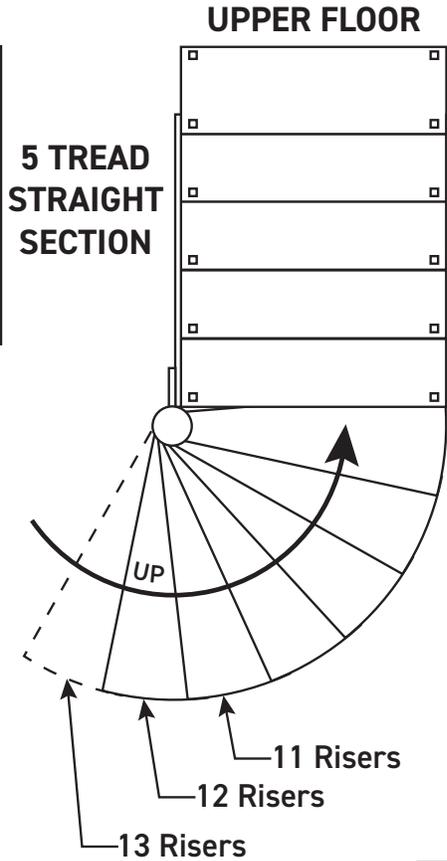
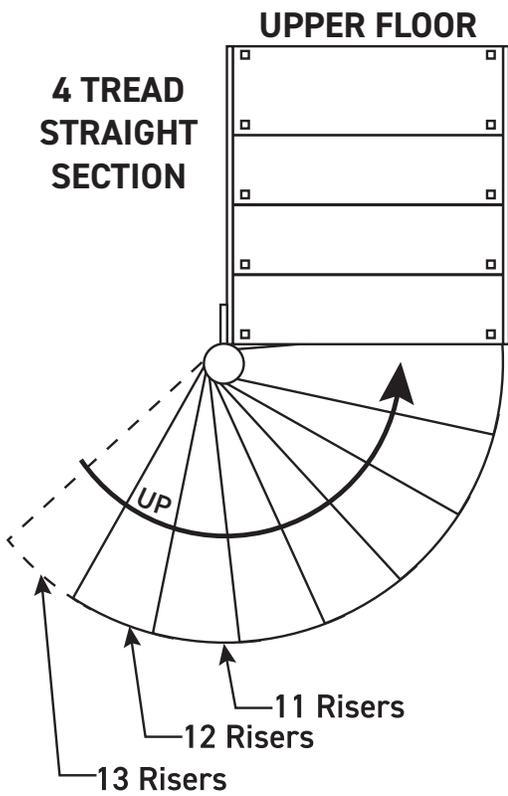
**WOOD COVERING**



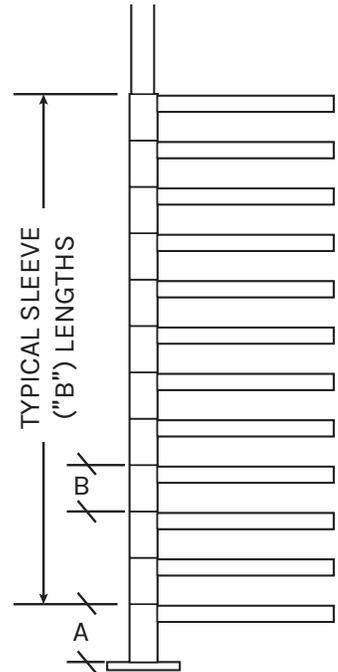
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**NO WOOD COVERING**

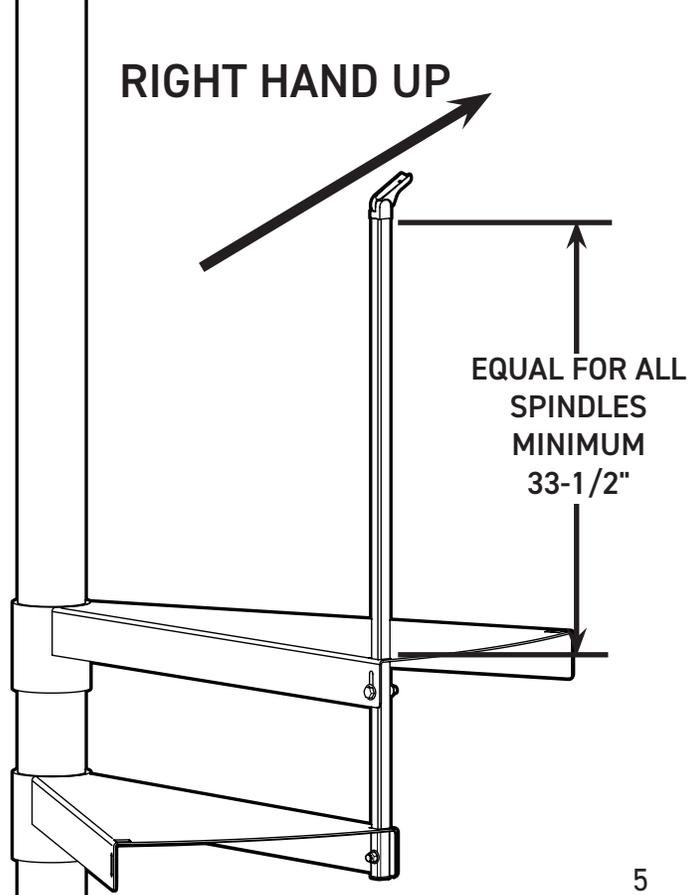
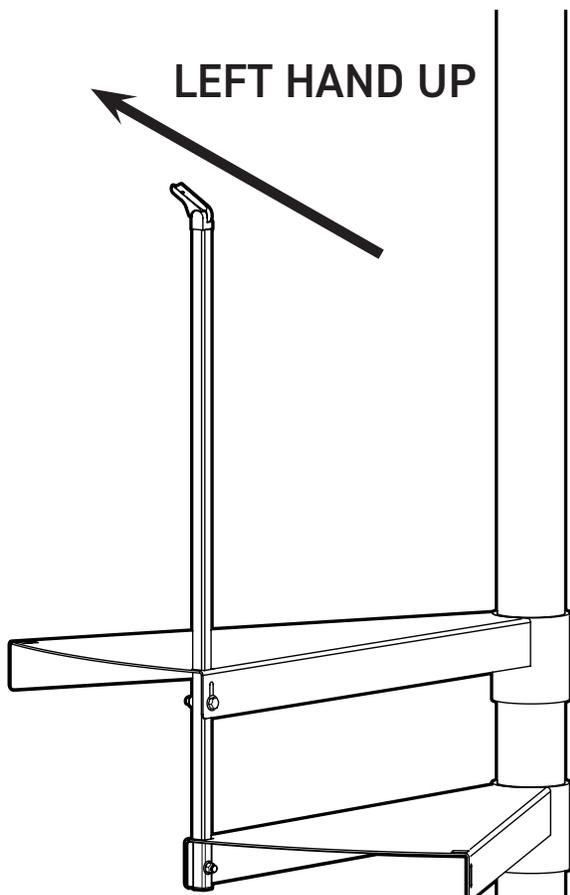




**CONTINUOUS SLEEVE TREAD SEQUENCE**

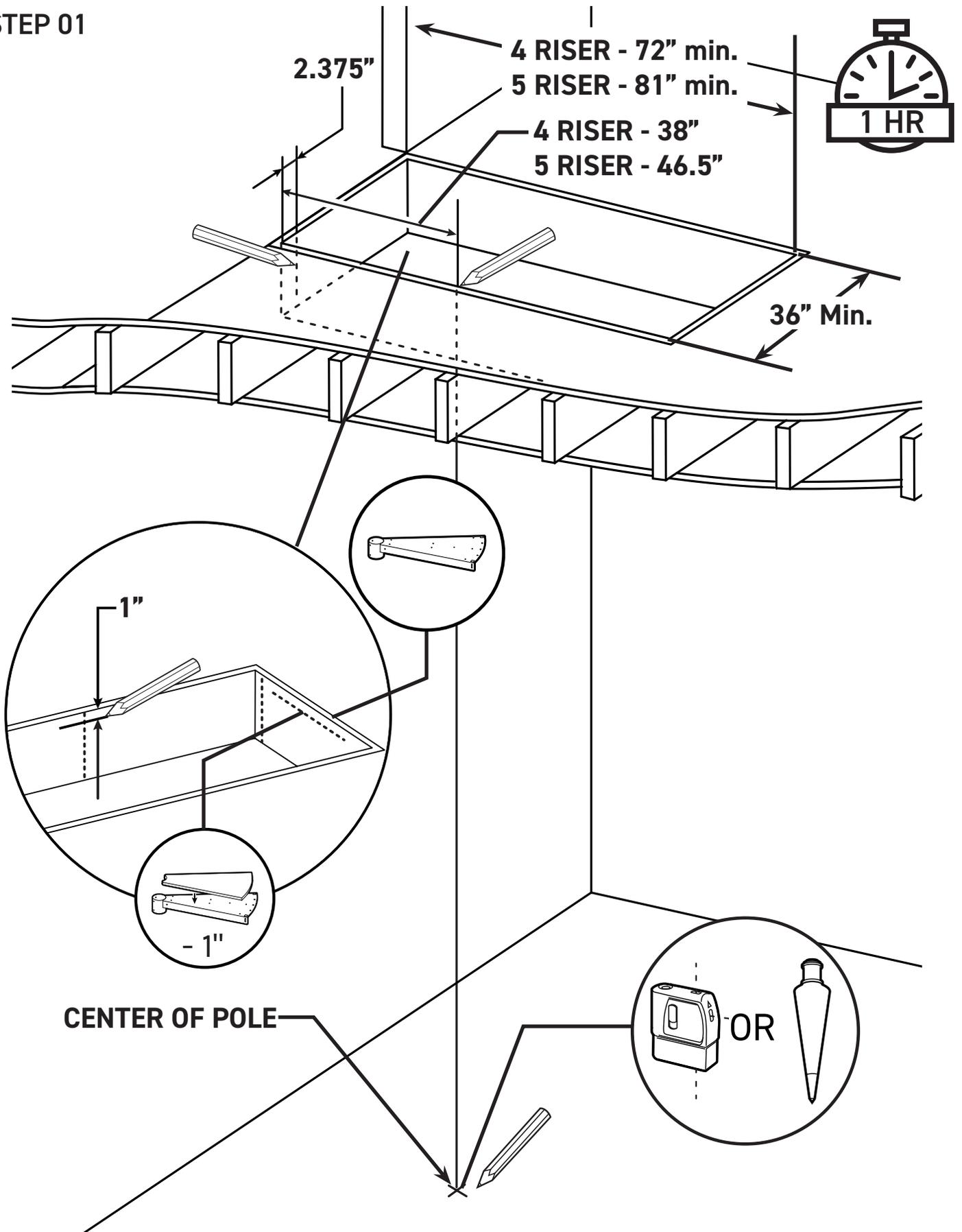


**BOTTOM SLEEVE LENGTH ("A") MAY VARY, SEE PACKING LIST.**



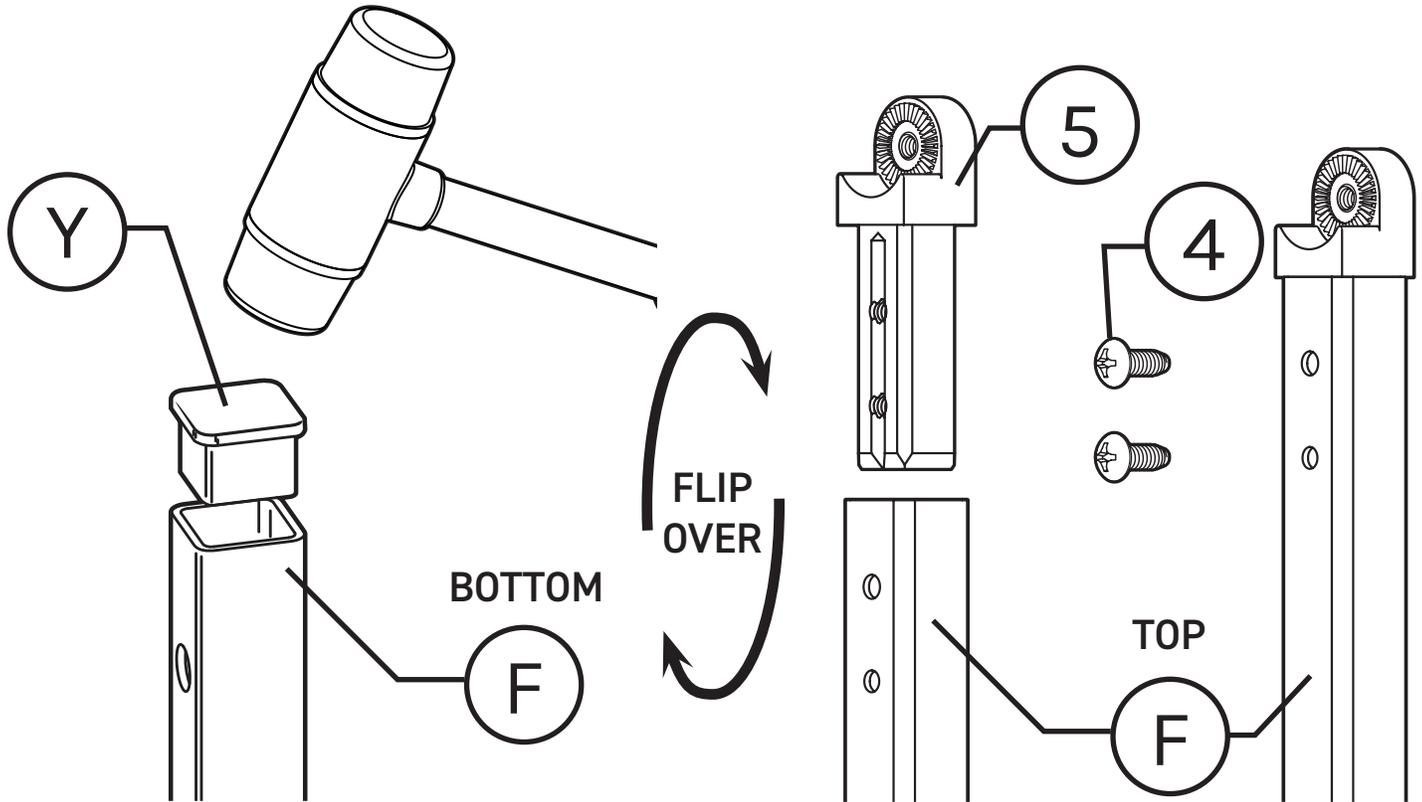
# SPIRAL STAIR INSTALLATION

STEP 01



STEP 02

**ASSEMBLY NOTE: DO NOT PLUG SPINDLES FOR OUTDOOR STAIRS. DRAINAGE REQUIRED.**



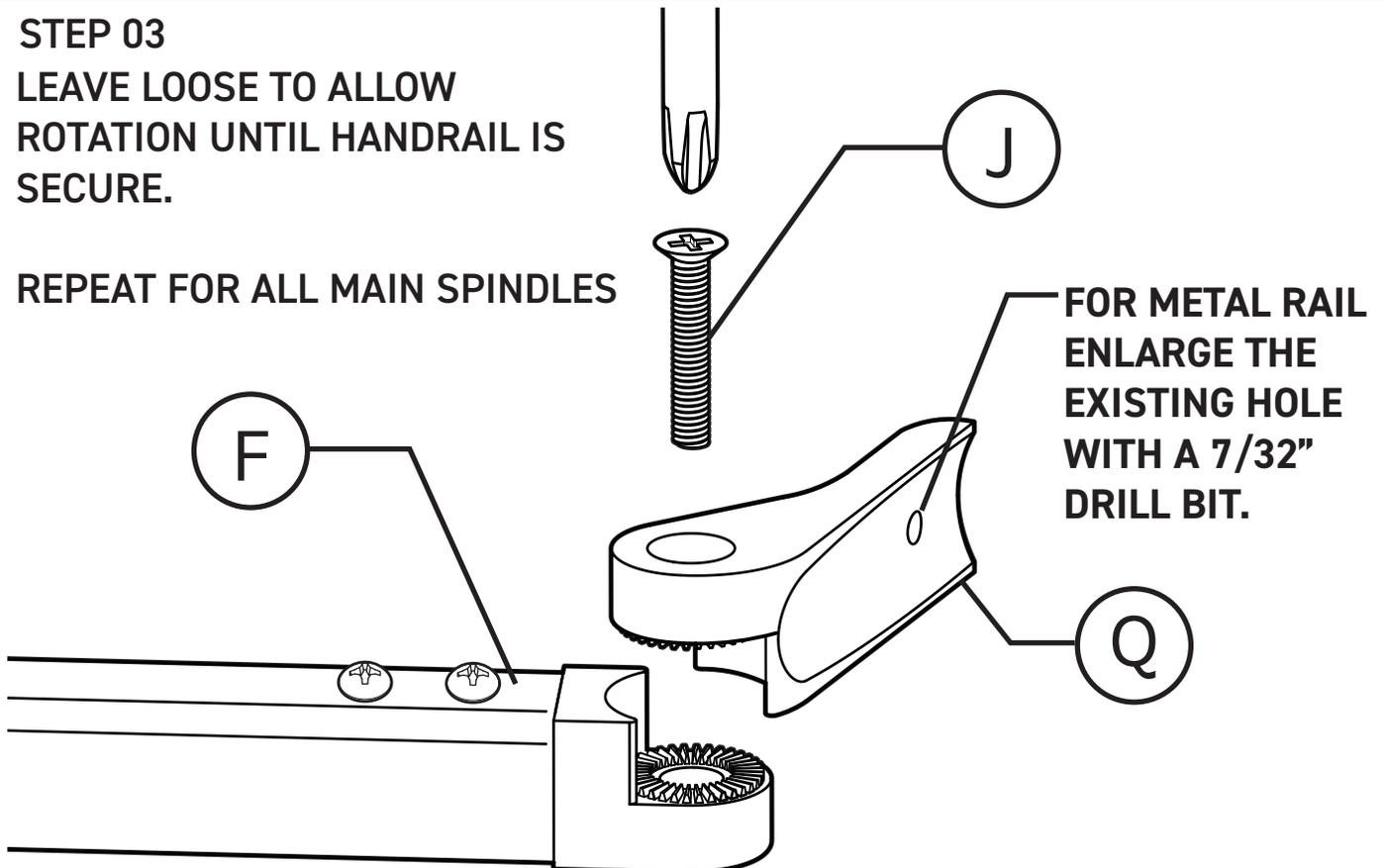
REPEAT FOR ALL BUT ONE MAIN SPINDLE

REPEAT FOR ALL MAIN SPINDLES

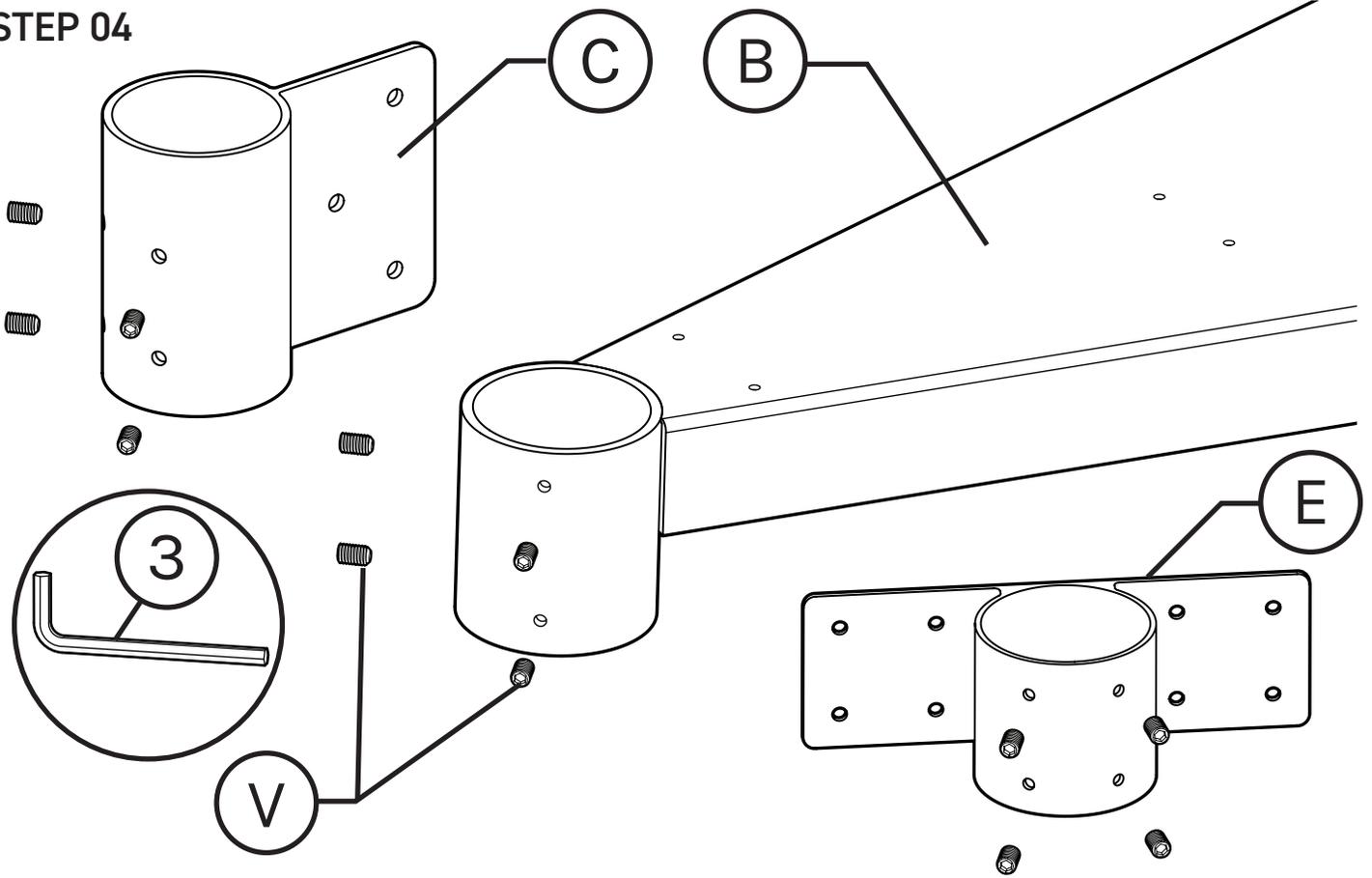
STEP 03

LEAVE LOOSE TO ALLOW ROTATION UNTIL HANDRAIL IS SECURE.

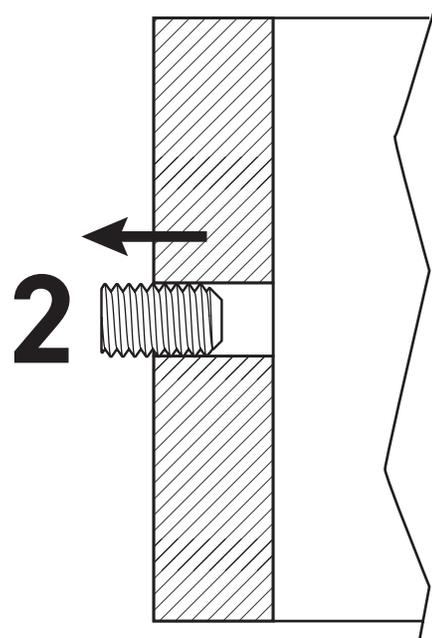
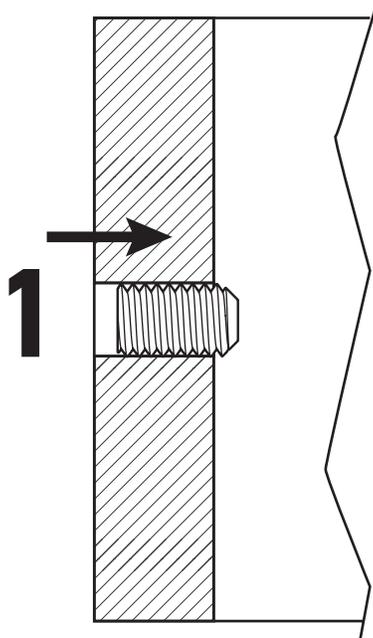
REPEAT FOR ALL MAIN SPINDLES



STEP 04



INSERT SET SCREW ALL THE WAY INTO THE TREAD, THEN BACK OUT 1/2 WAY

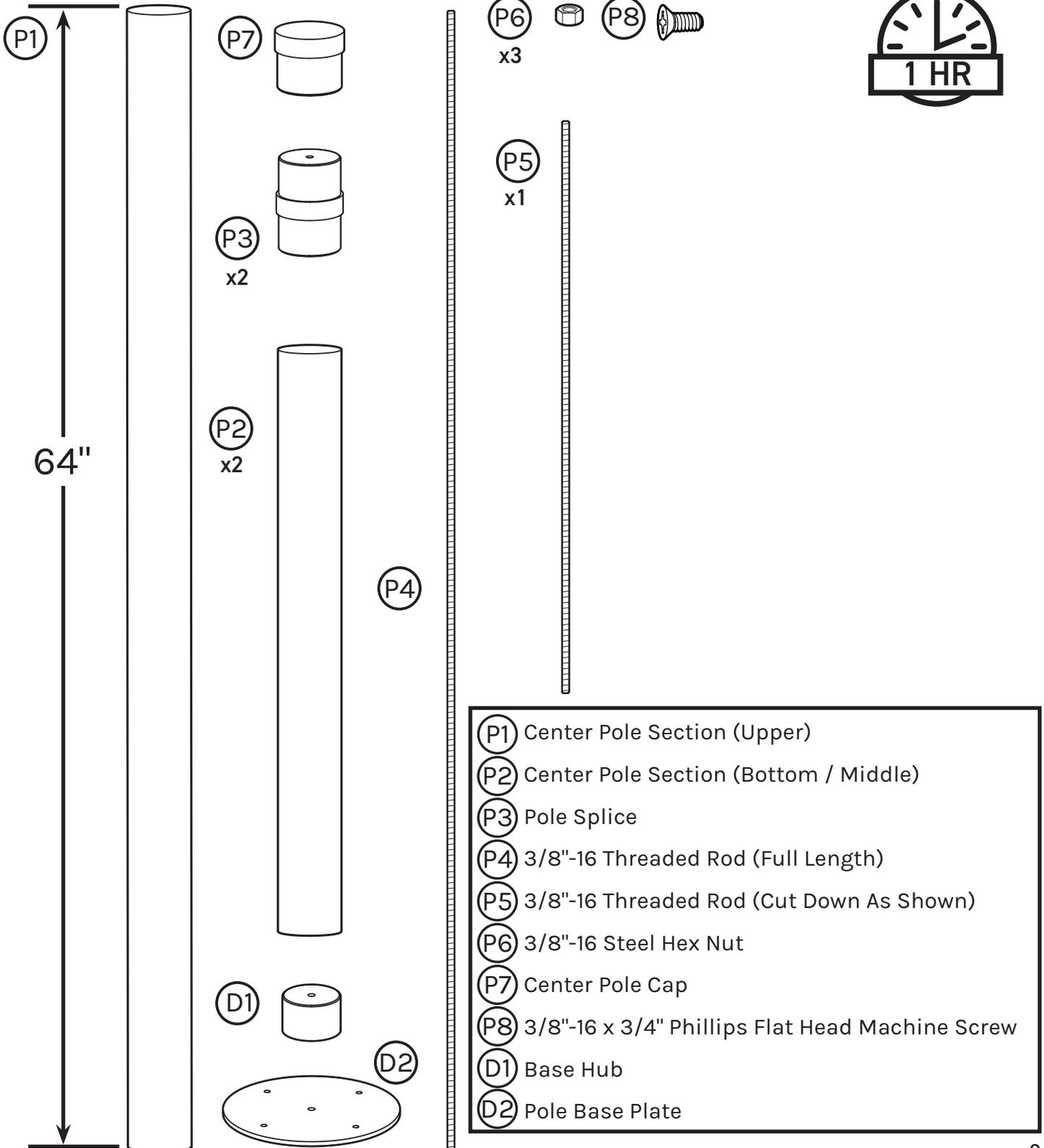


REPEAT STEP FOR ALL TREADS

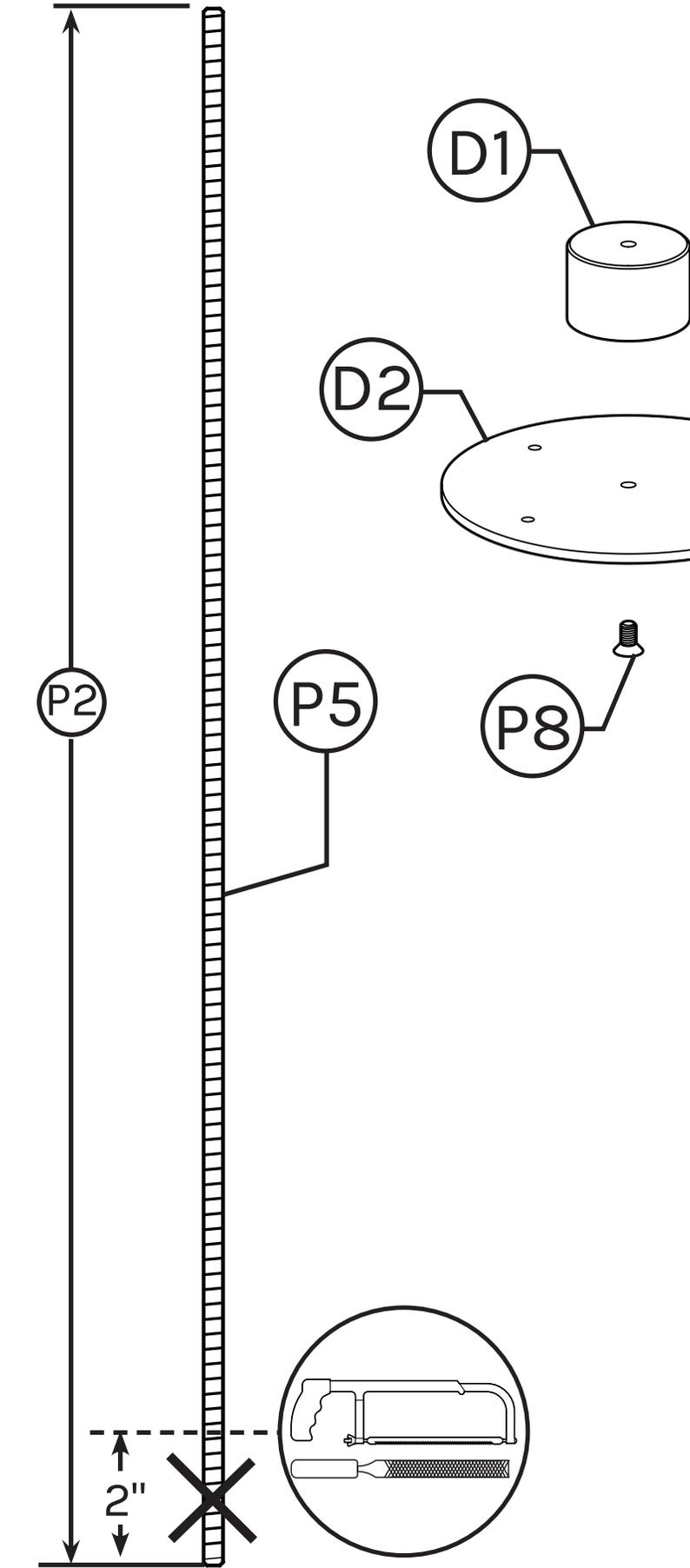
# CENTER POLE ASSEMBLY: FOR SINGLE PIECE CENTER POLE SKIP TO STEP 15.

IF YOUR STAIR IS ALUMINUM WITH A MULTI-PIECE POLE USE THE PROVIDED WHITE LITHIUM GREASE TO LUBRICATE THE POLE SPLICES PRIOR TO INSERTING THEM INTO THE CENTER POLE TUBES.

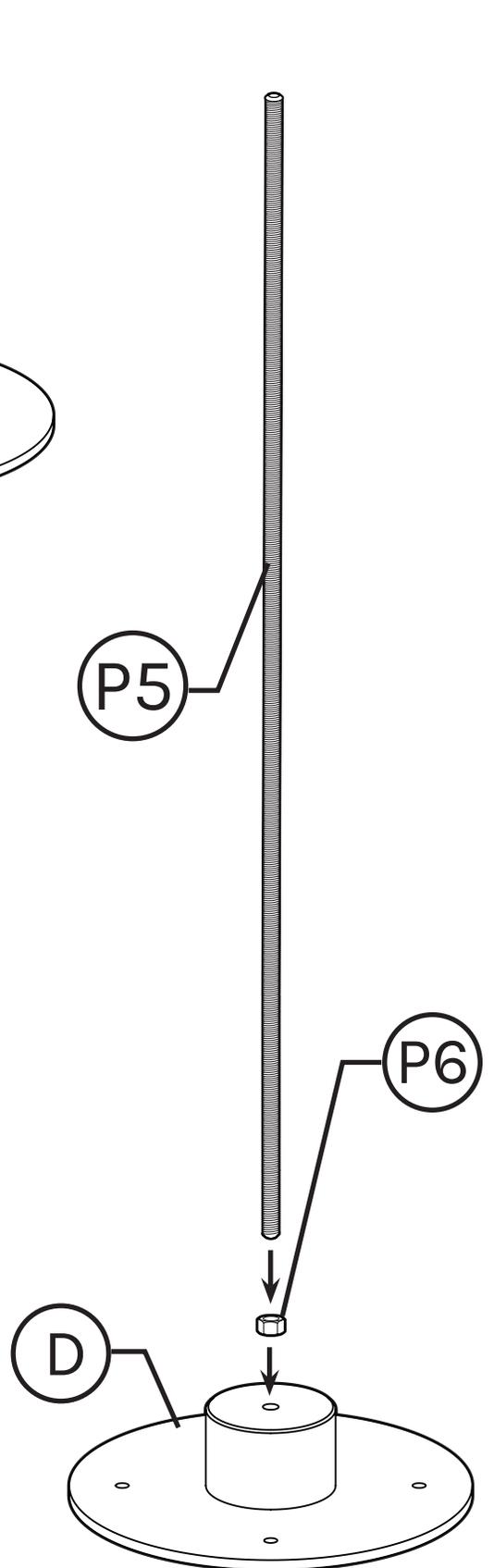
## PARTS



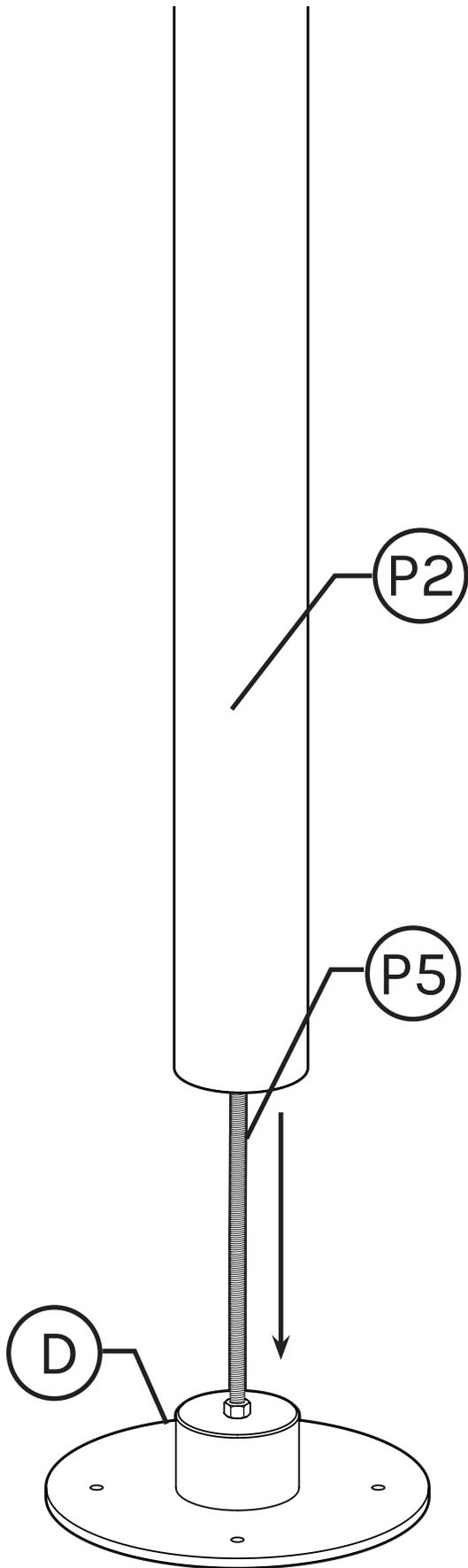
STEP 05



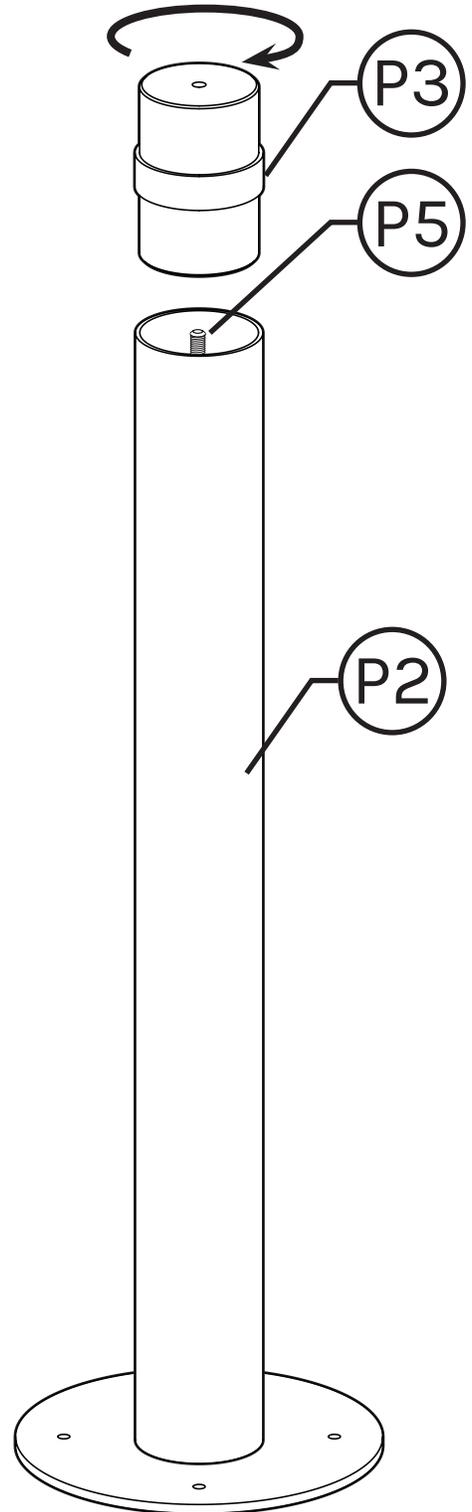
STEP 06



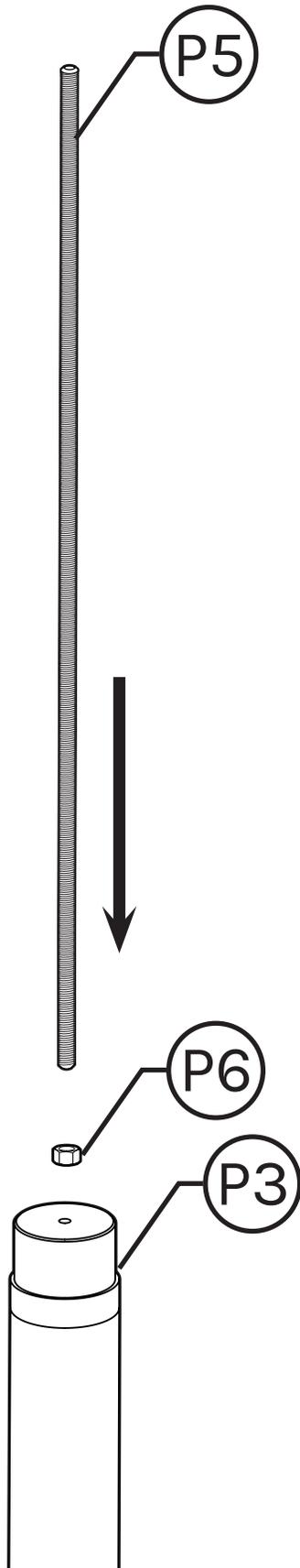
STEP 07



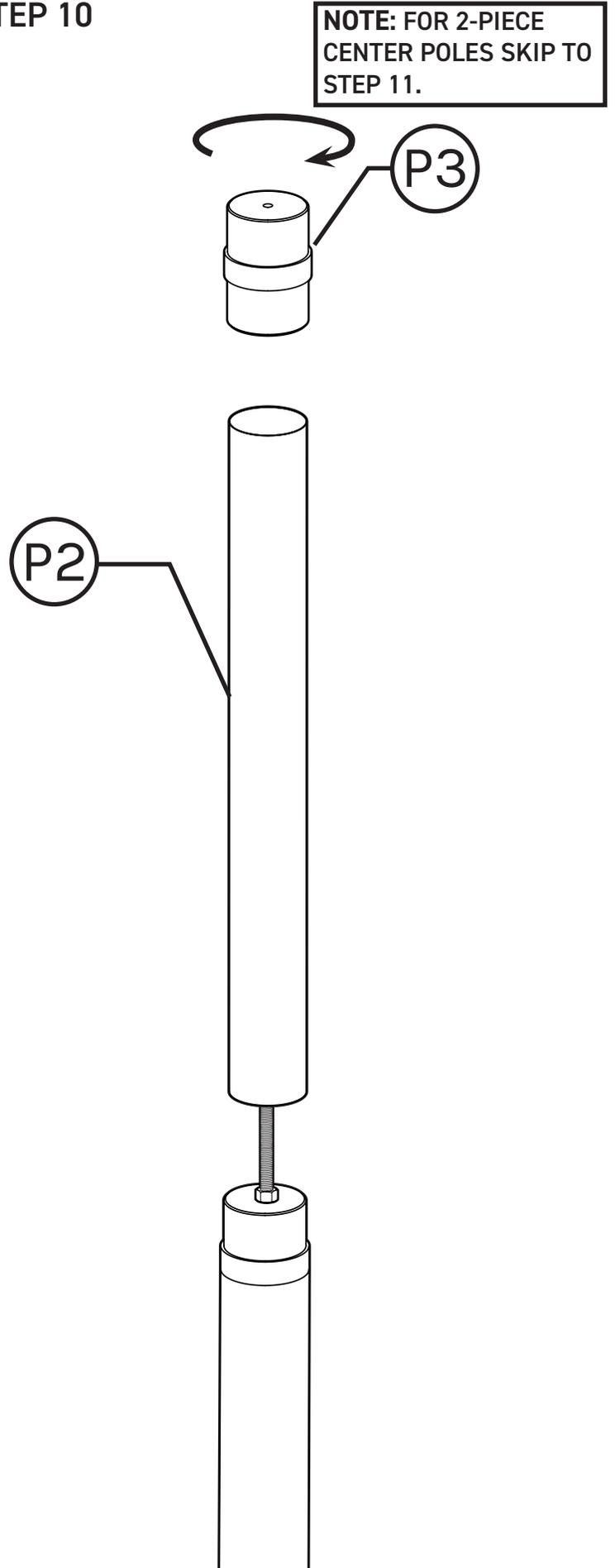
STEP 08



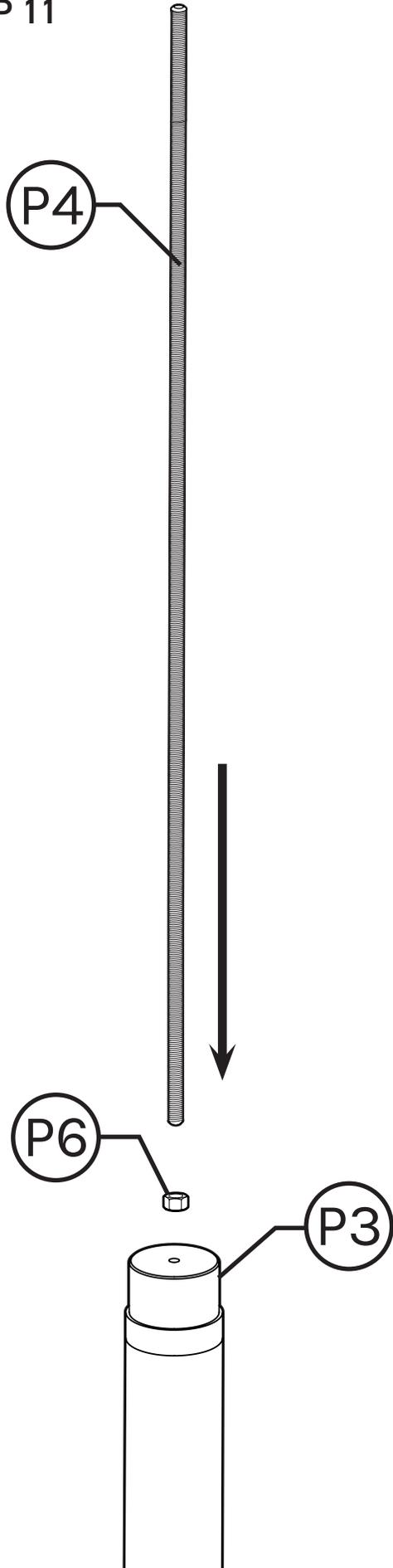
STEP 09



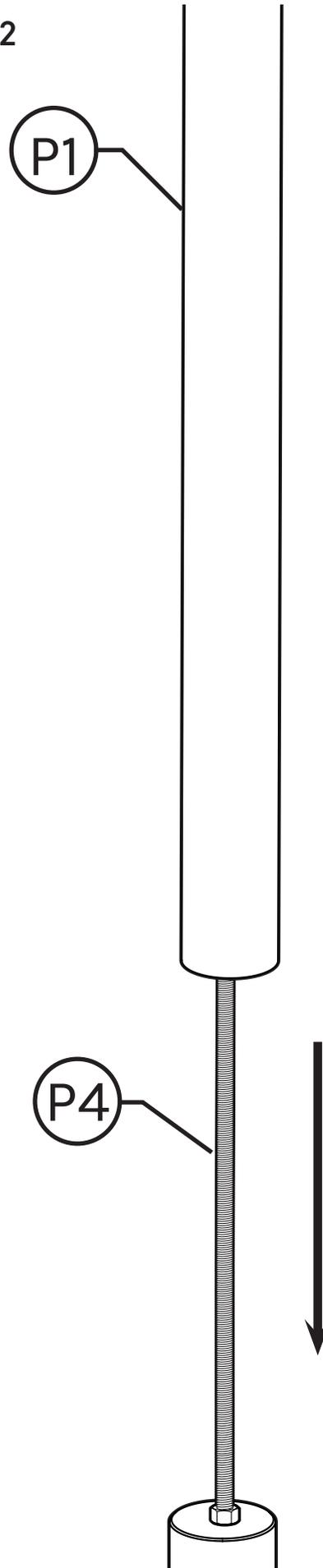
STEP 10



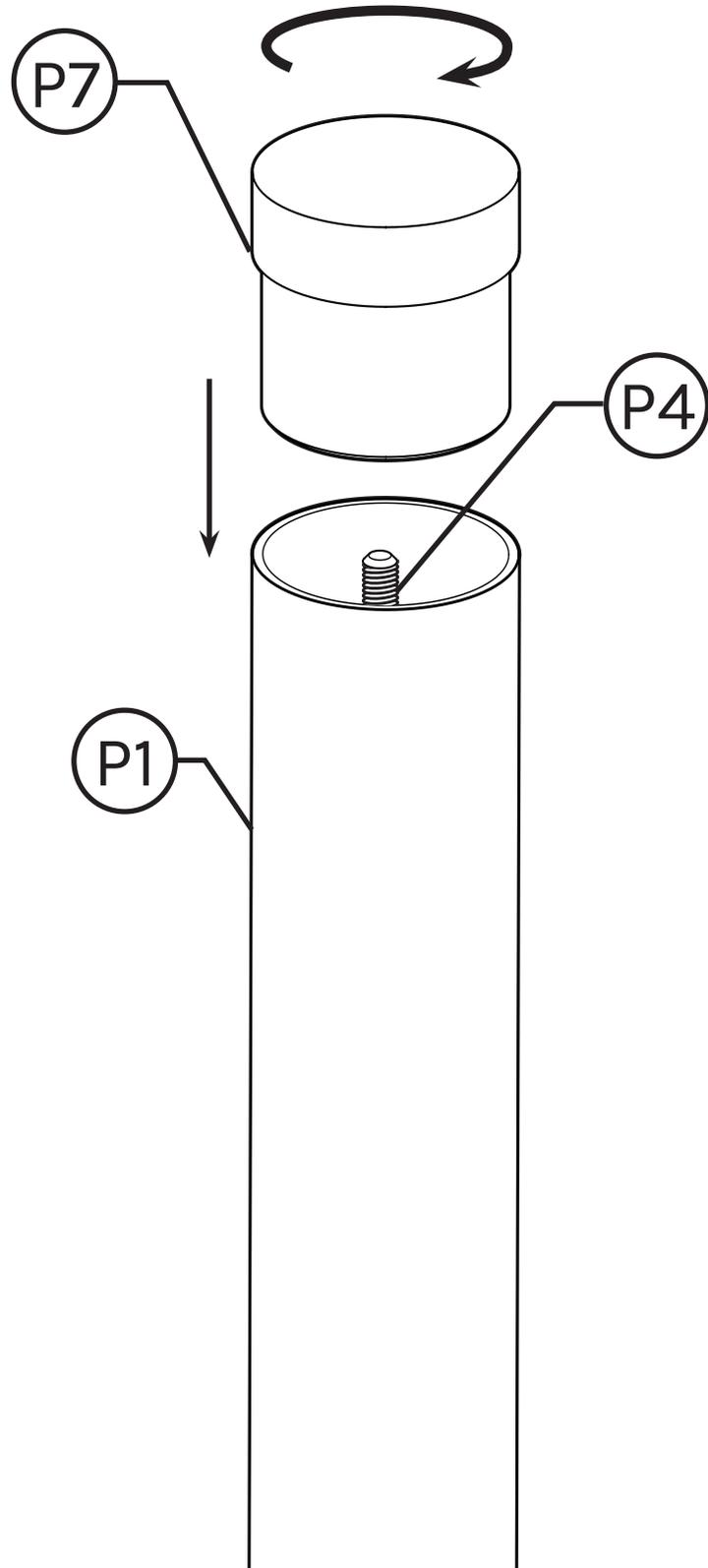
STEP 11



STEP 12



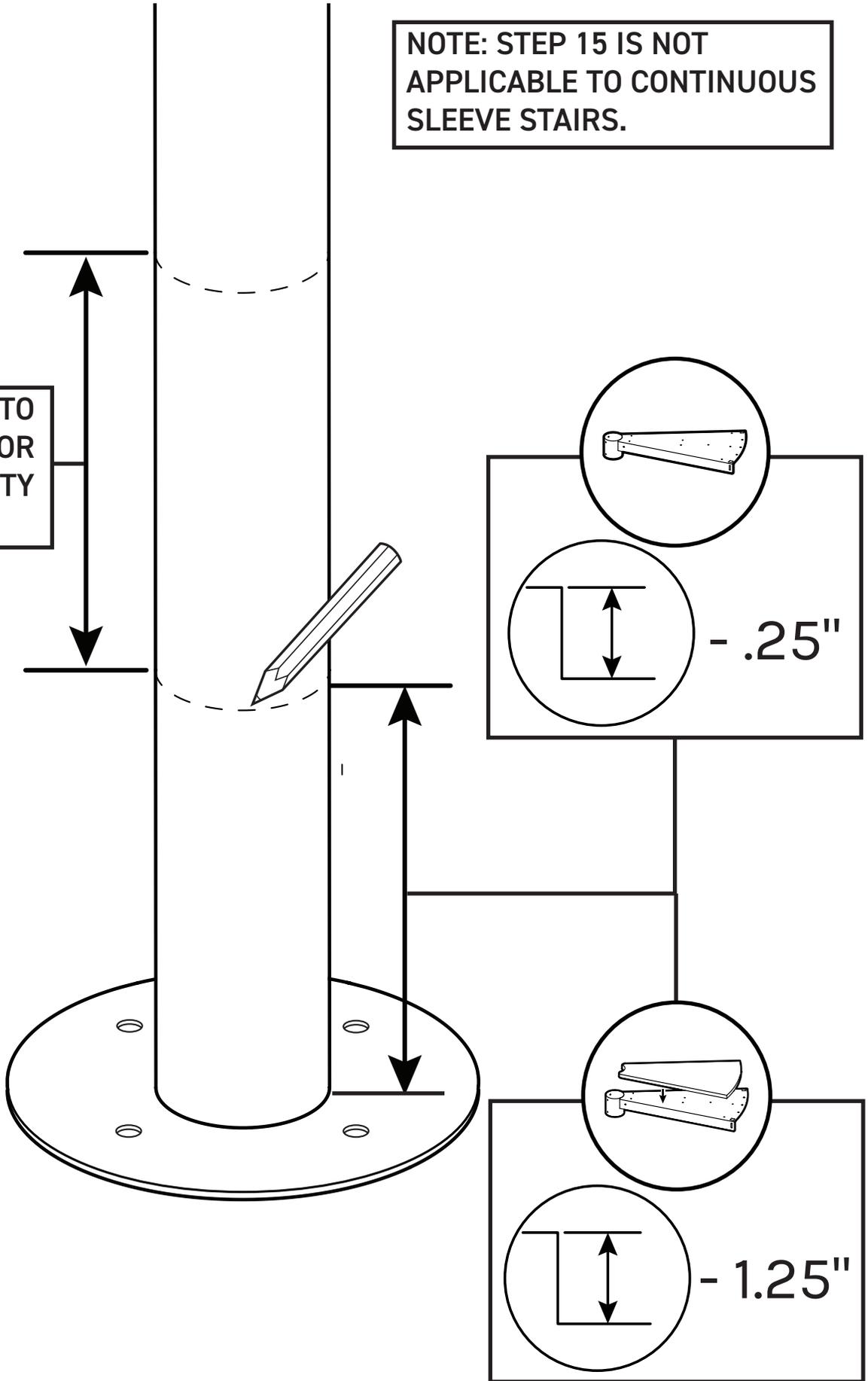
STEP 13



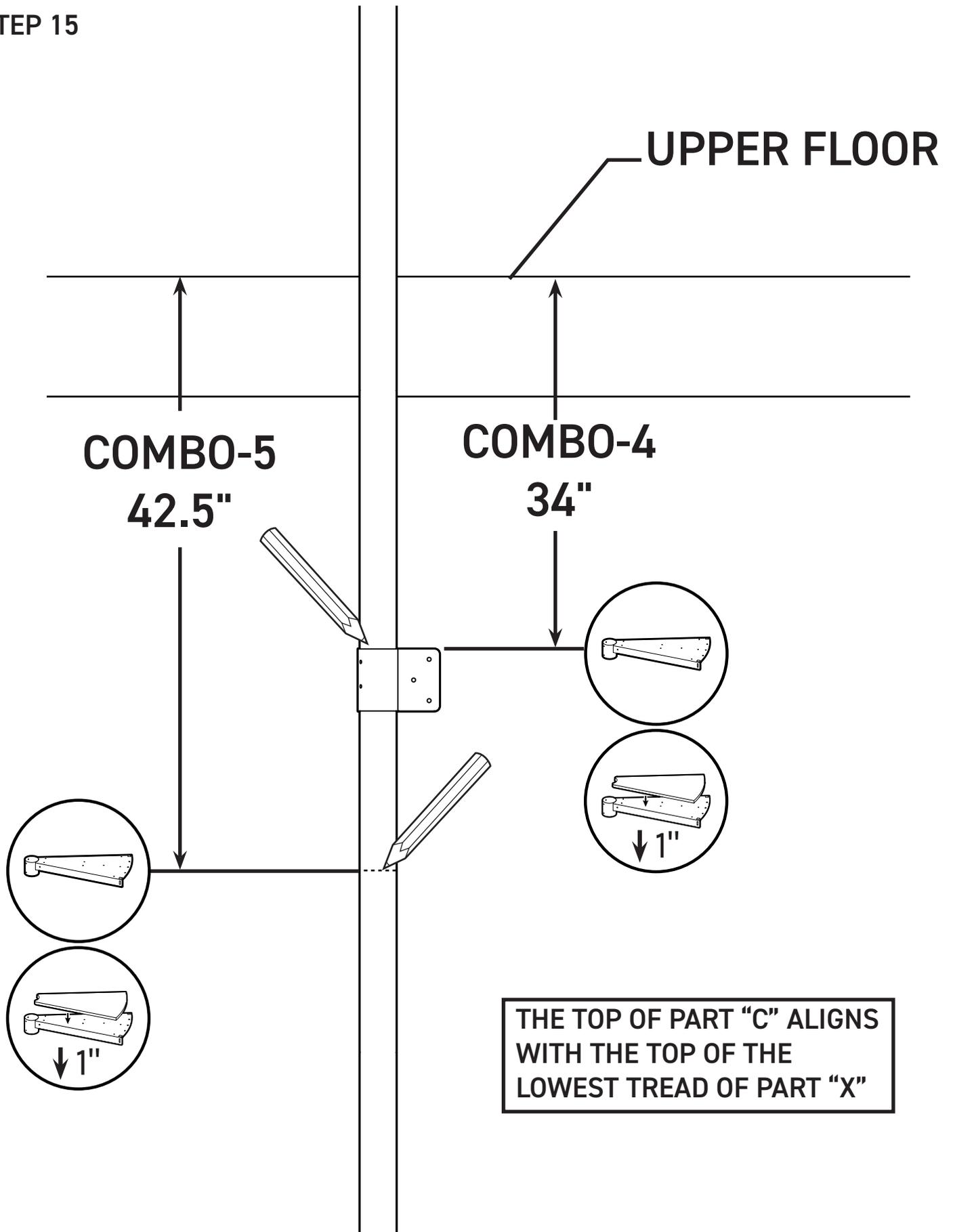
STEP 14

NOTE: STEP 15 IS NOT APPLICABLE TO CONTINUOUS SLEEVE STAIRS.

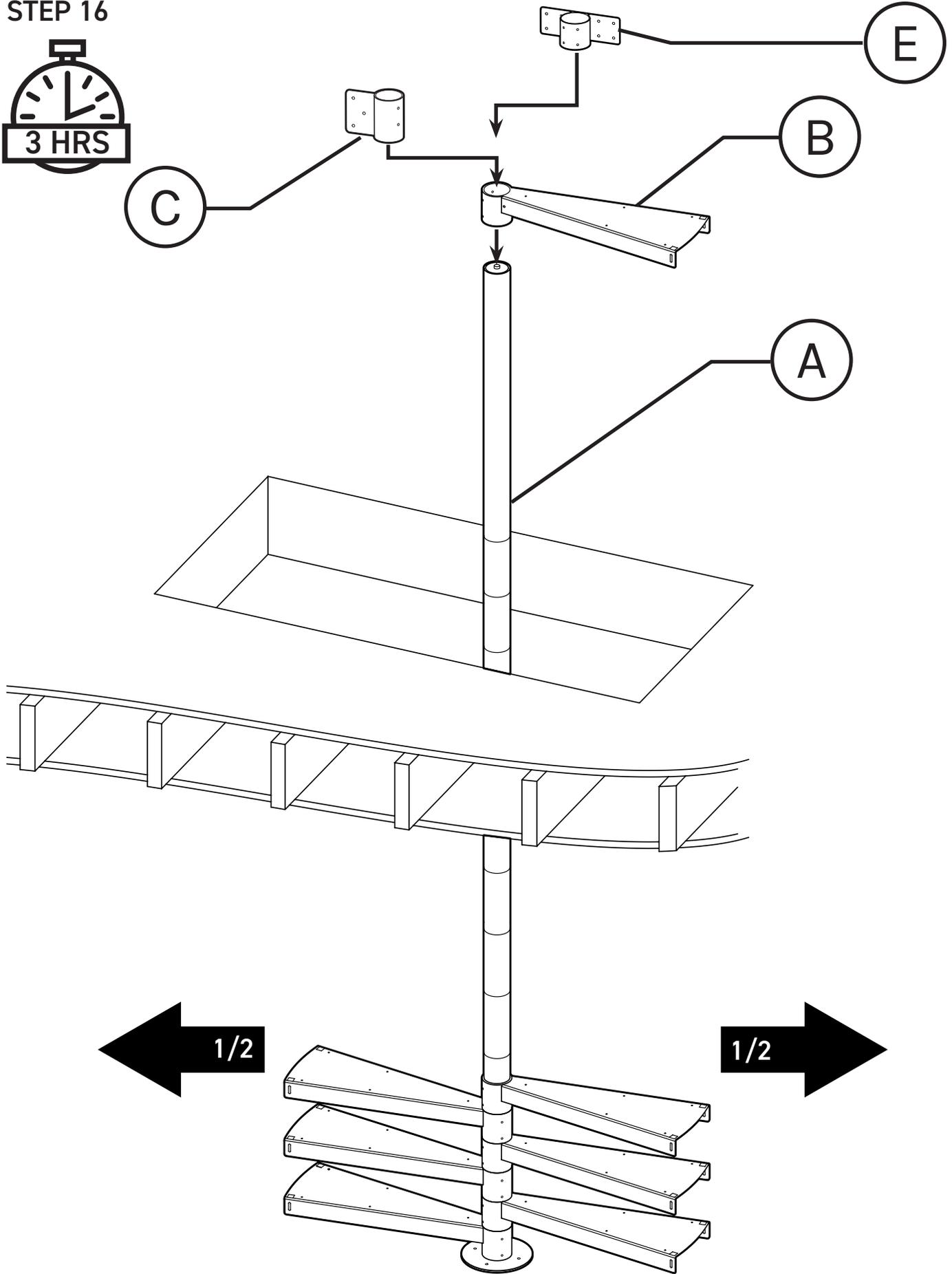
PLEASE REFER TO YOUR ORDER FOR RISER QUANTITY AND HEIGHT



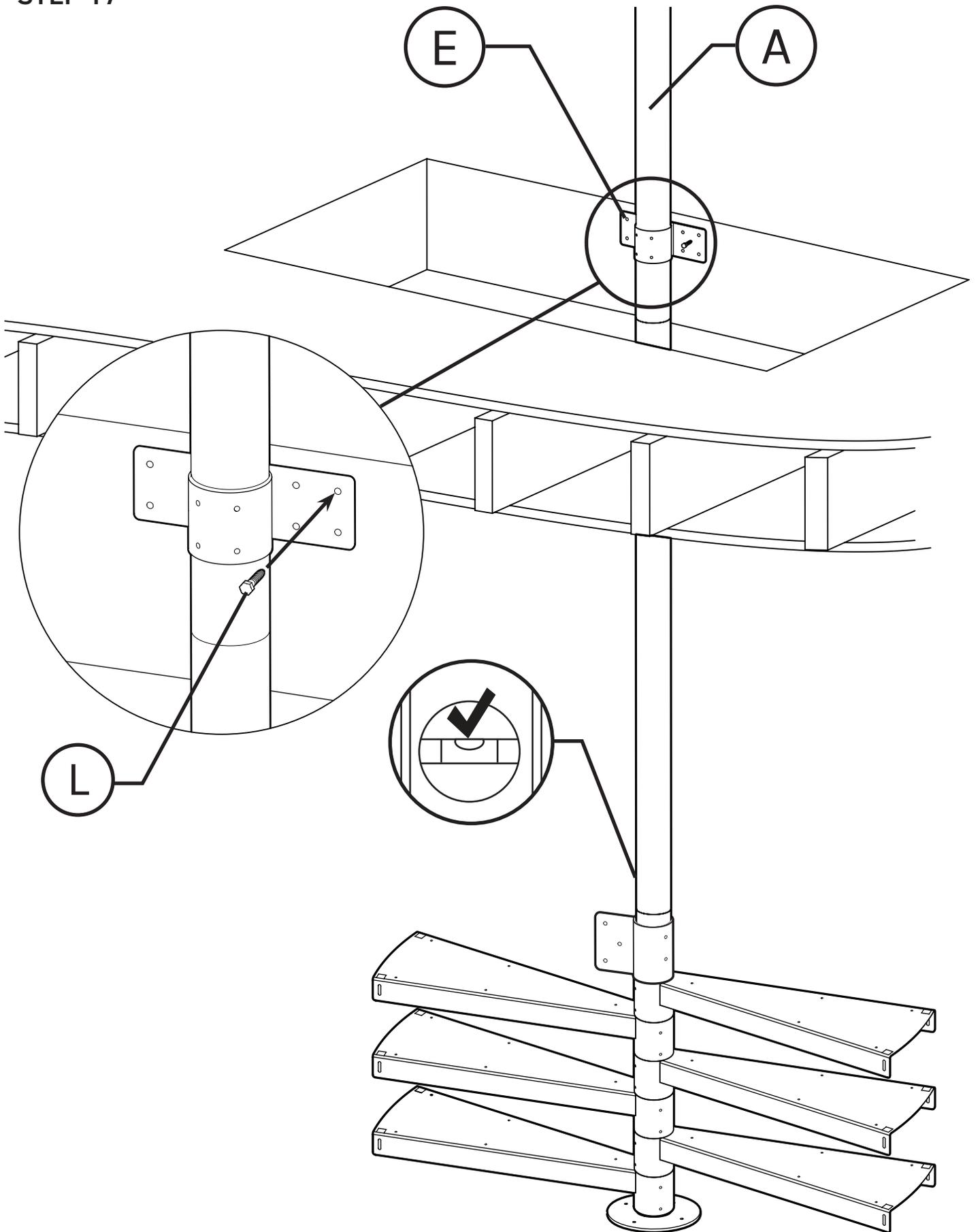
STEP 15



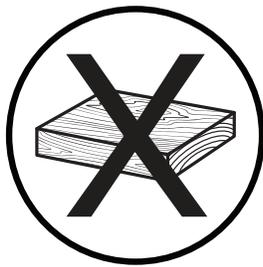
STEP 16



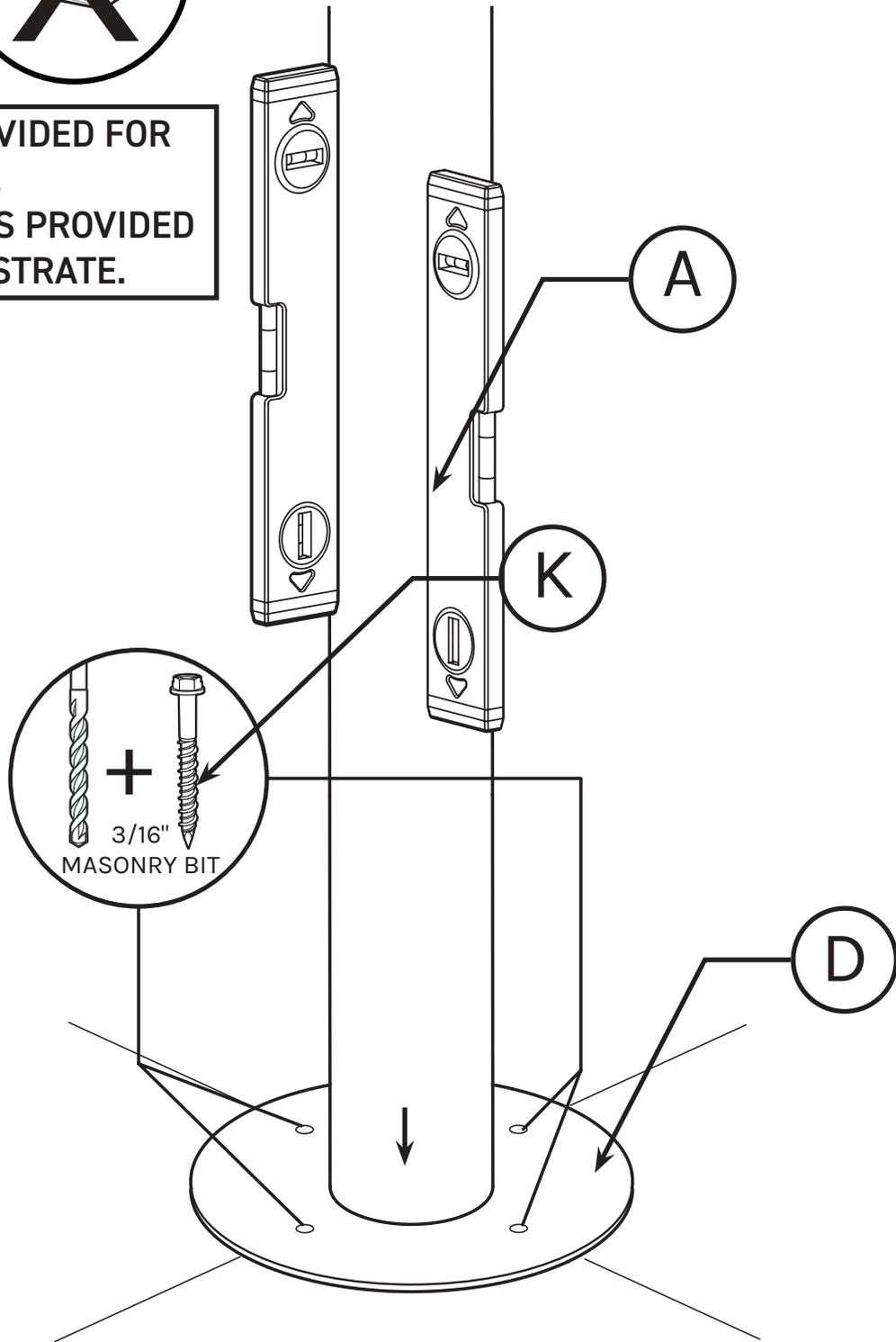
STEP 17



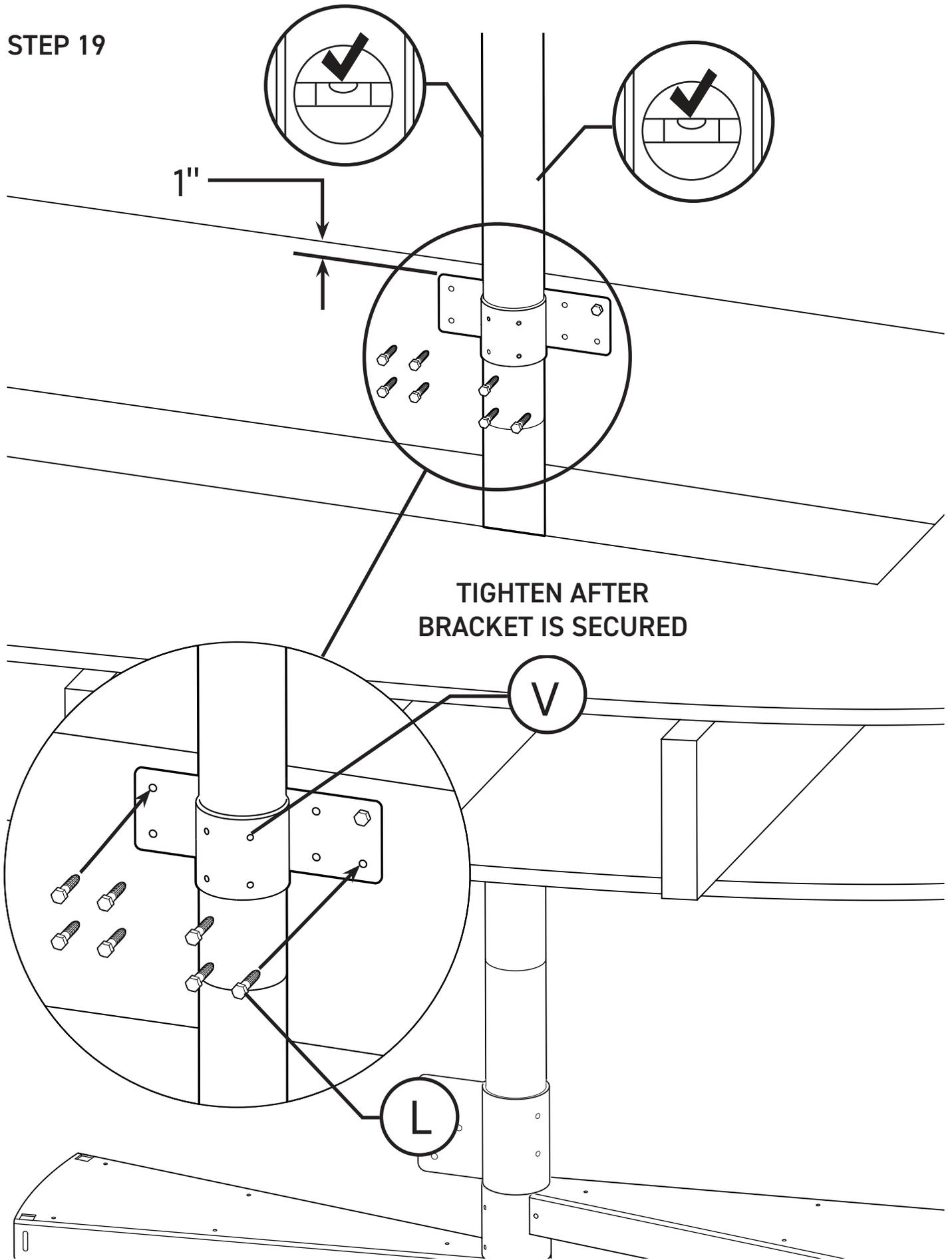
STEP 18



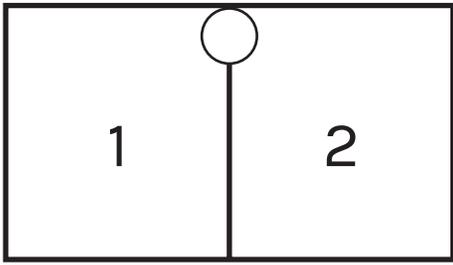
HARDWARE PROVIDED FOR CONCRETE ONLY.  
NO HARDWARE IS PROVIDED FOR OTHER SUBSTRATE.



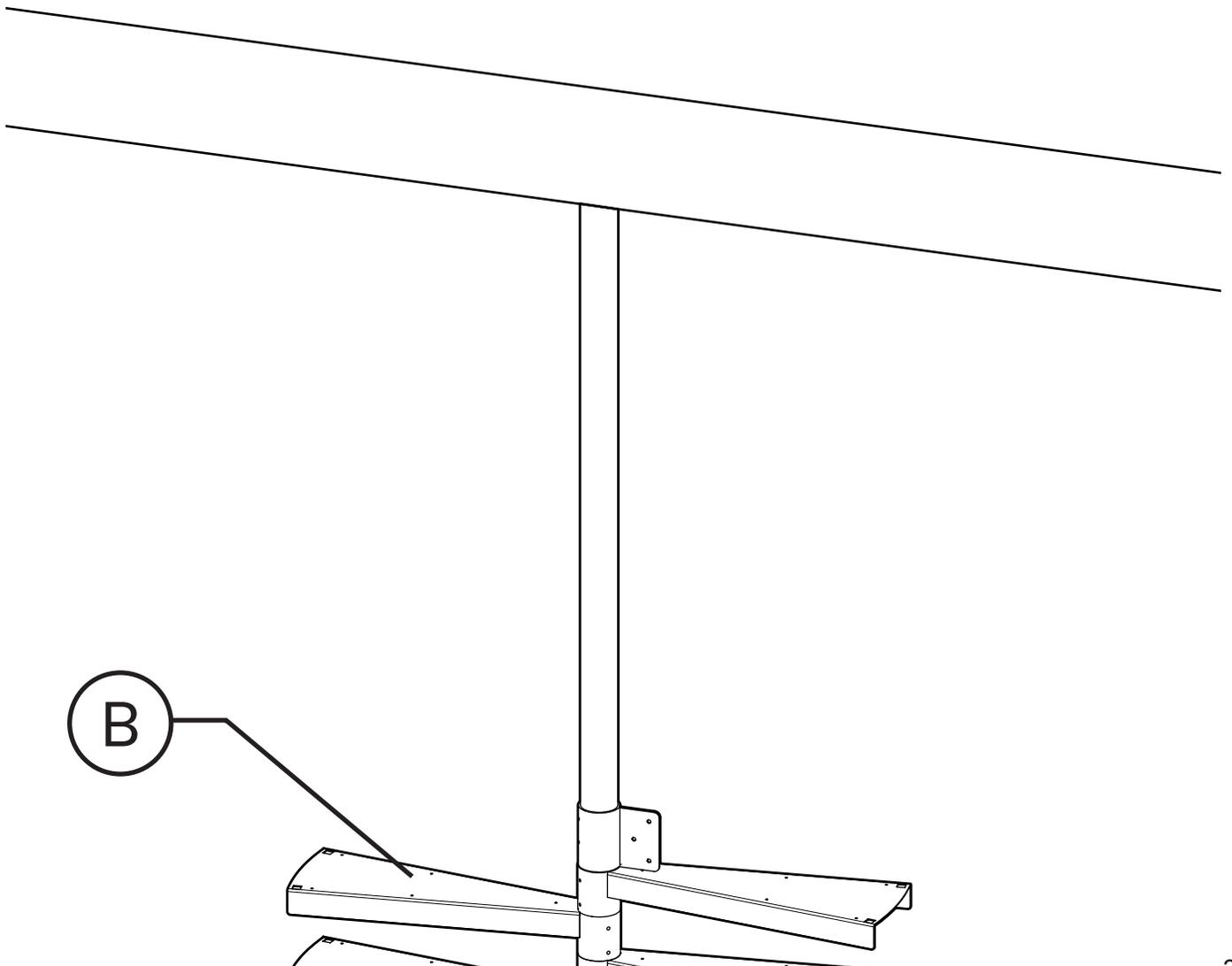
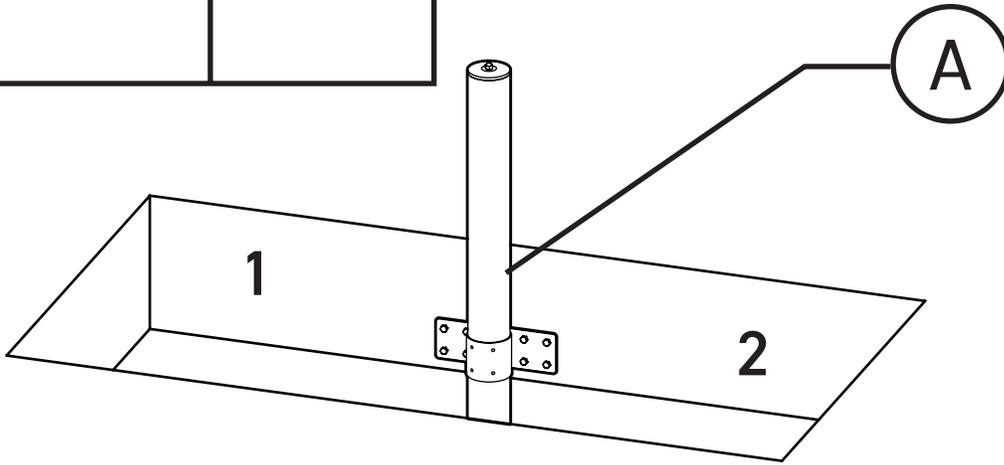
STEP 19



**STEP 20**

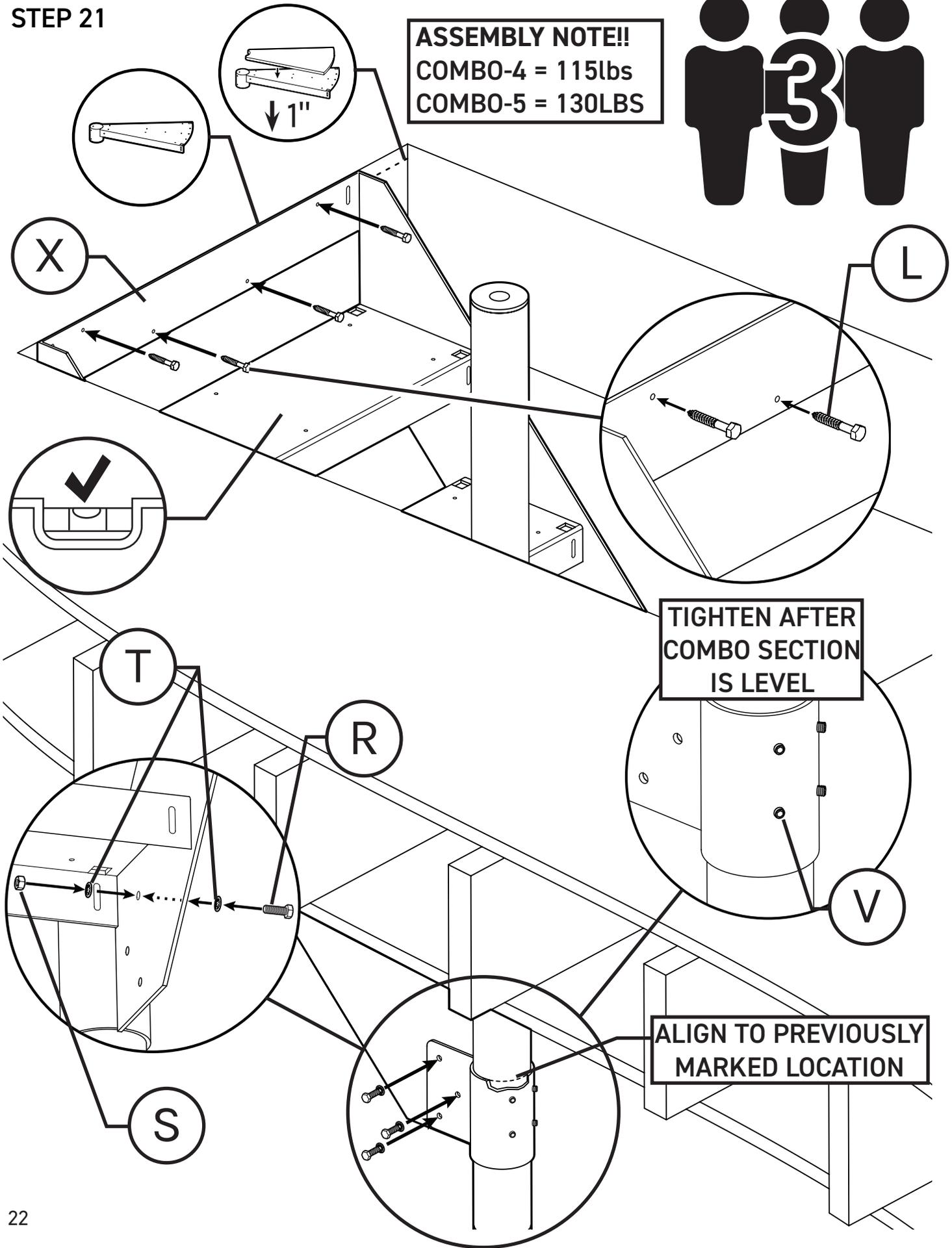


**STRAIGHT SECTIONS CAN BE POSITIONED ON EITHER SIDE OF THE CENTER POLE.**

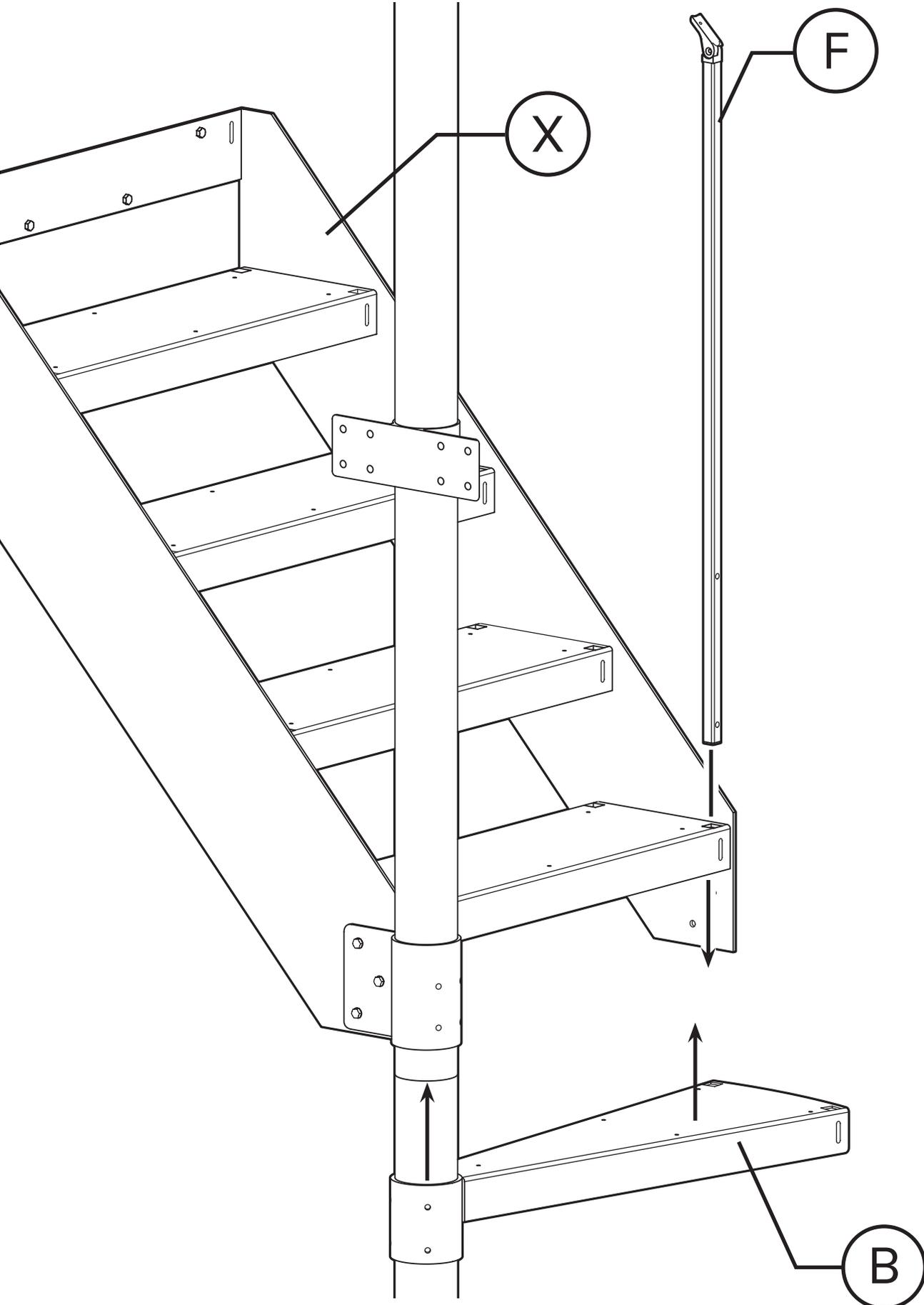


**STEP 21**

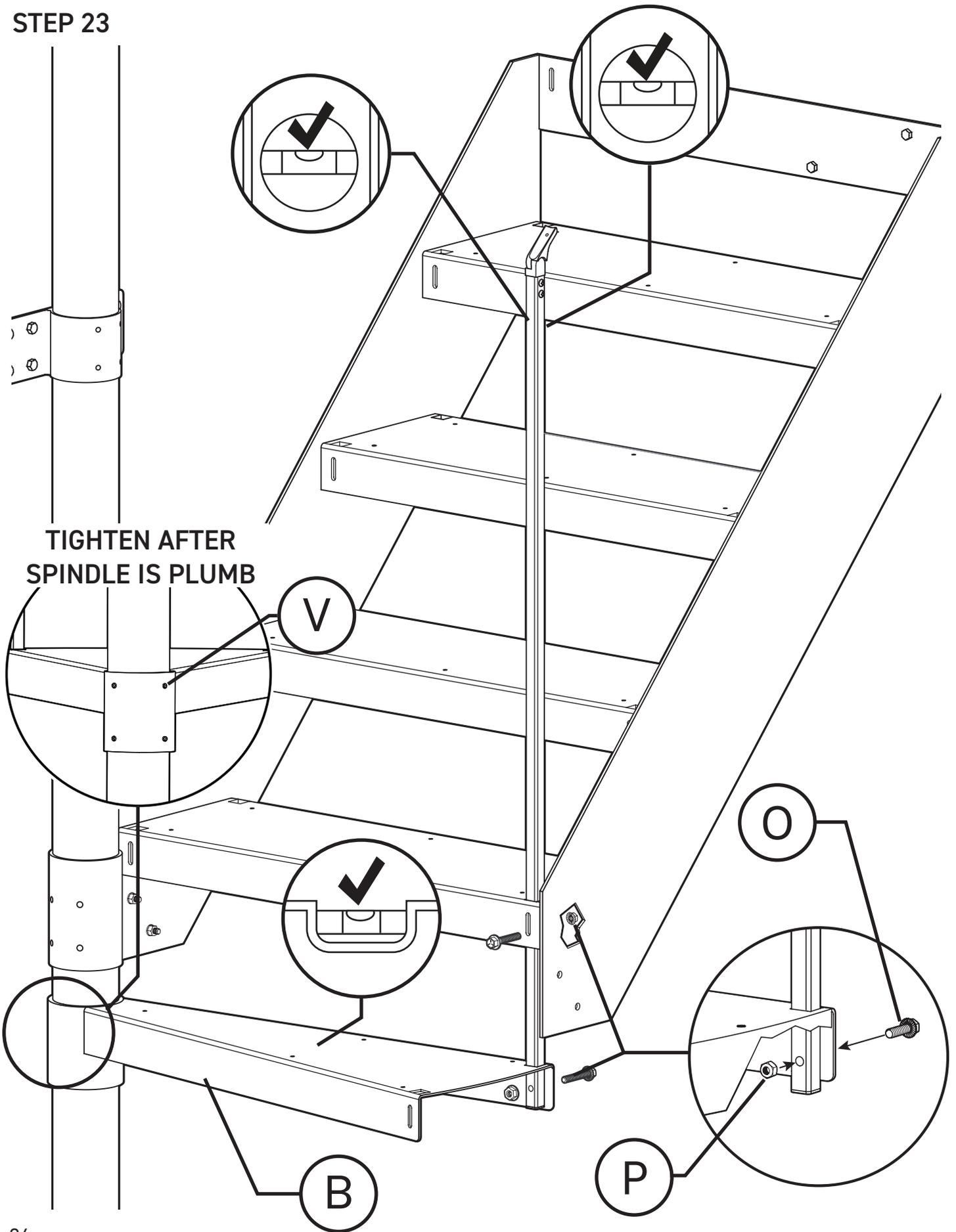
**ASSEMBLY NOTE!!**  
COMBO-4 = 115lbs  
COMBO-5 = 130LBS



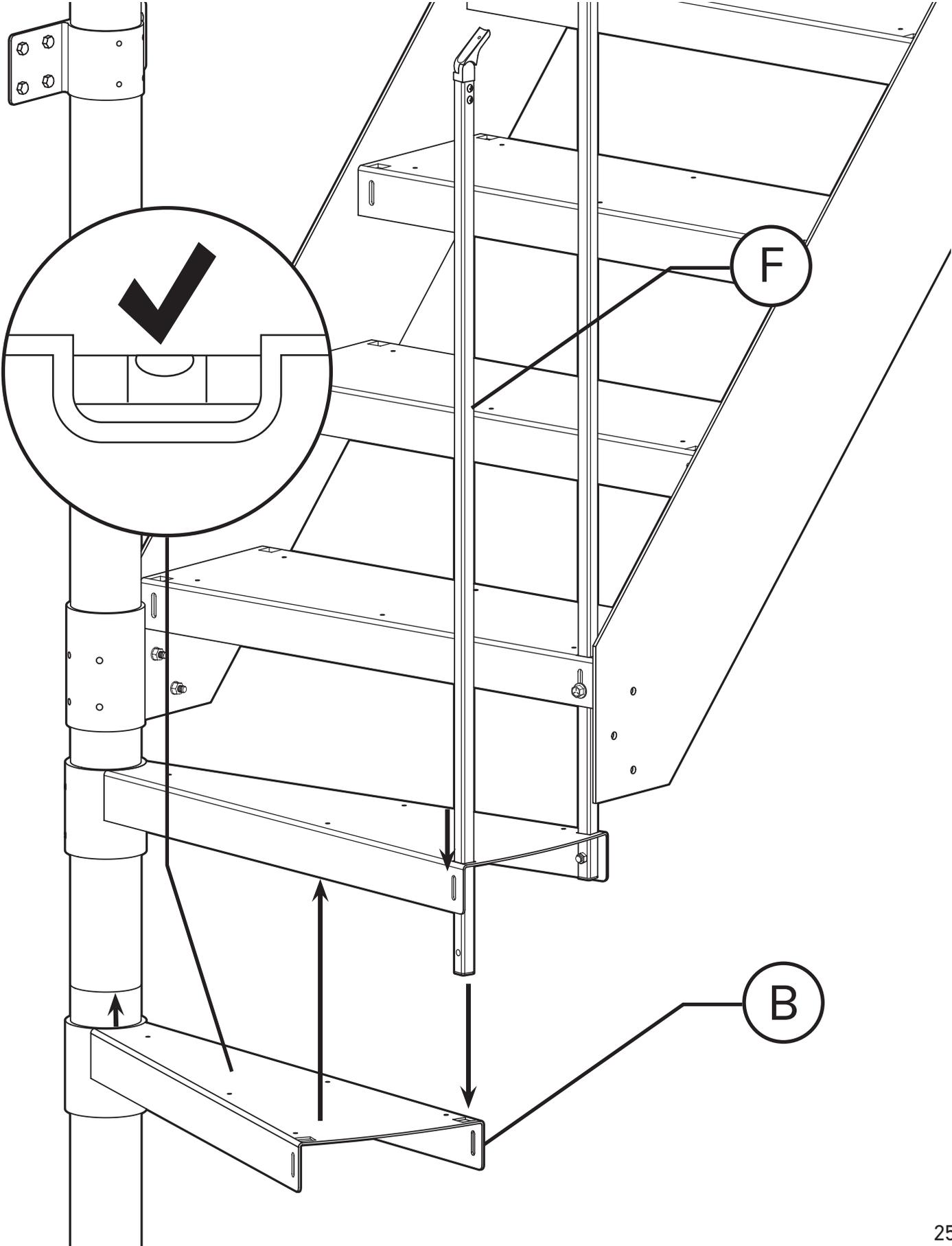
STEP 22



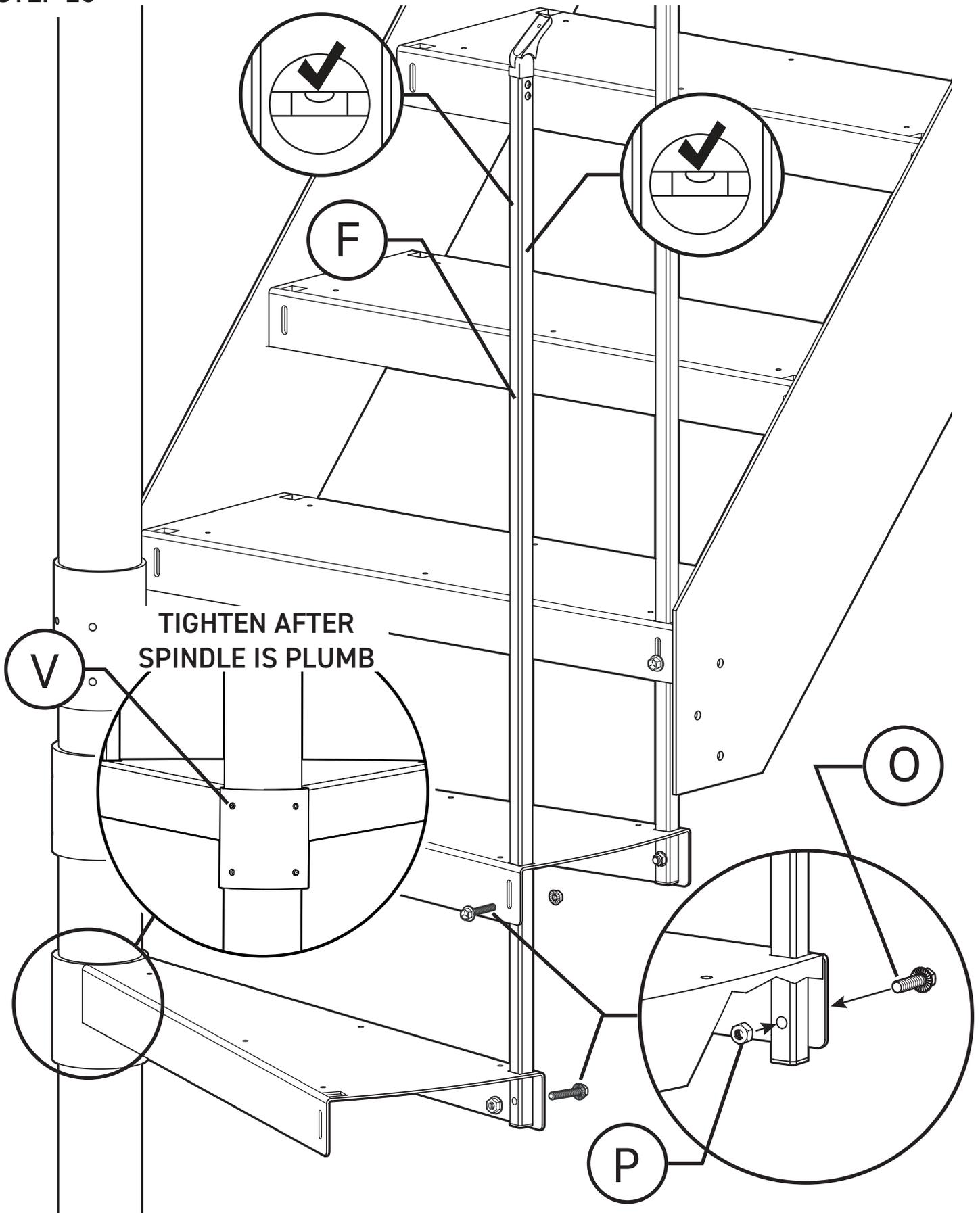
STEP 23



STEP 24

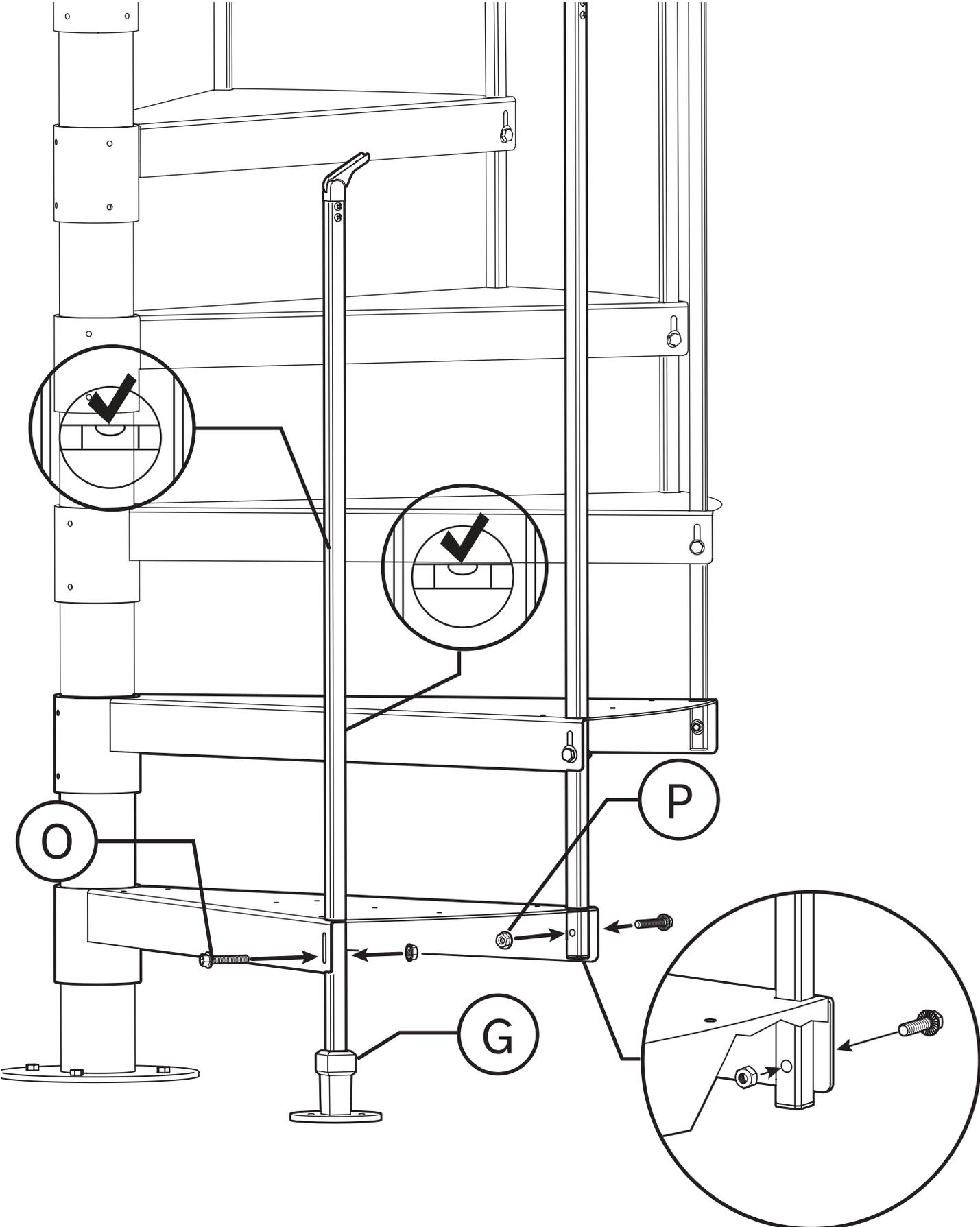


STEP 25

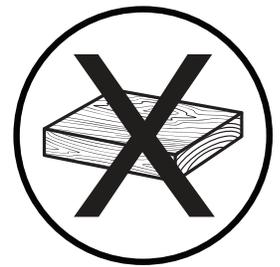
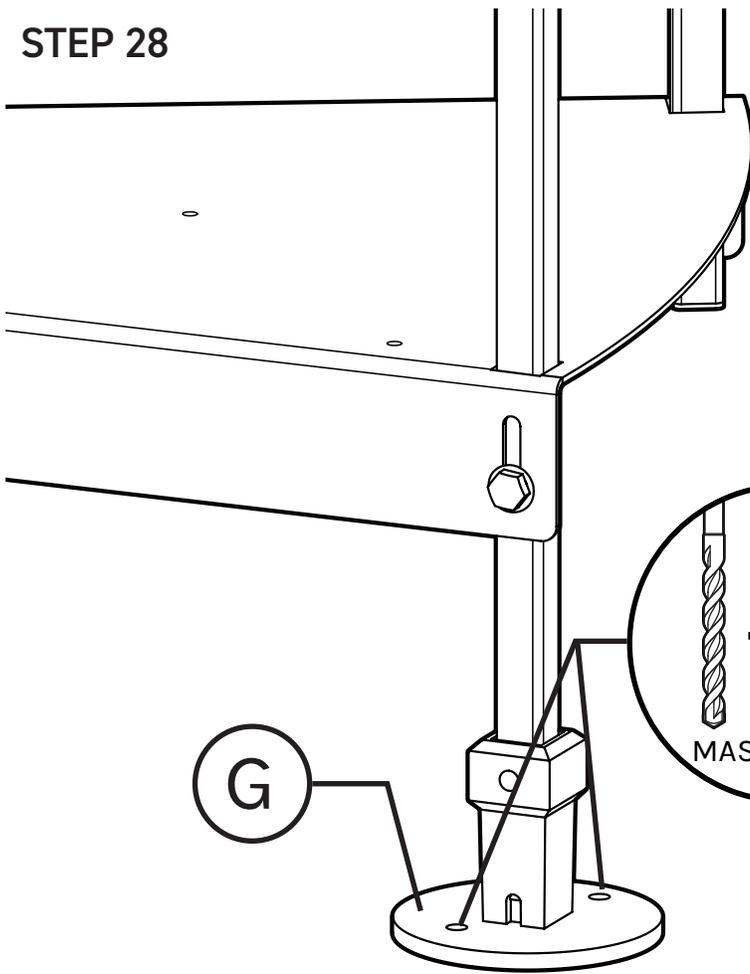




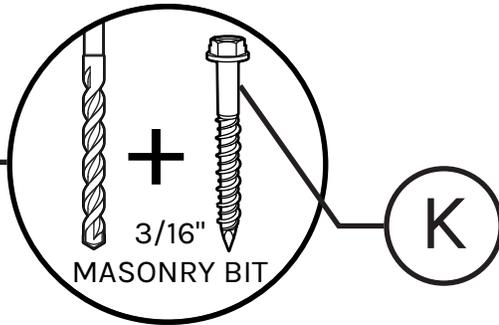
STEP 27



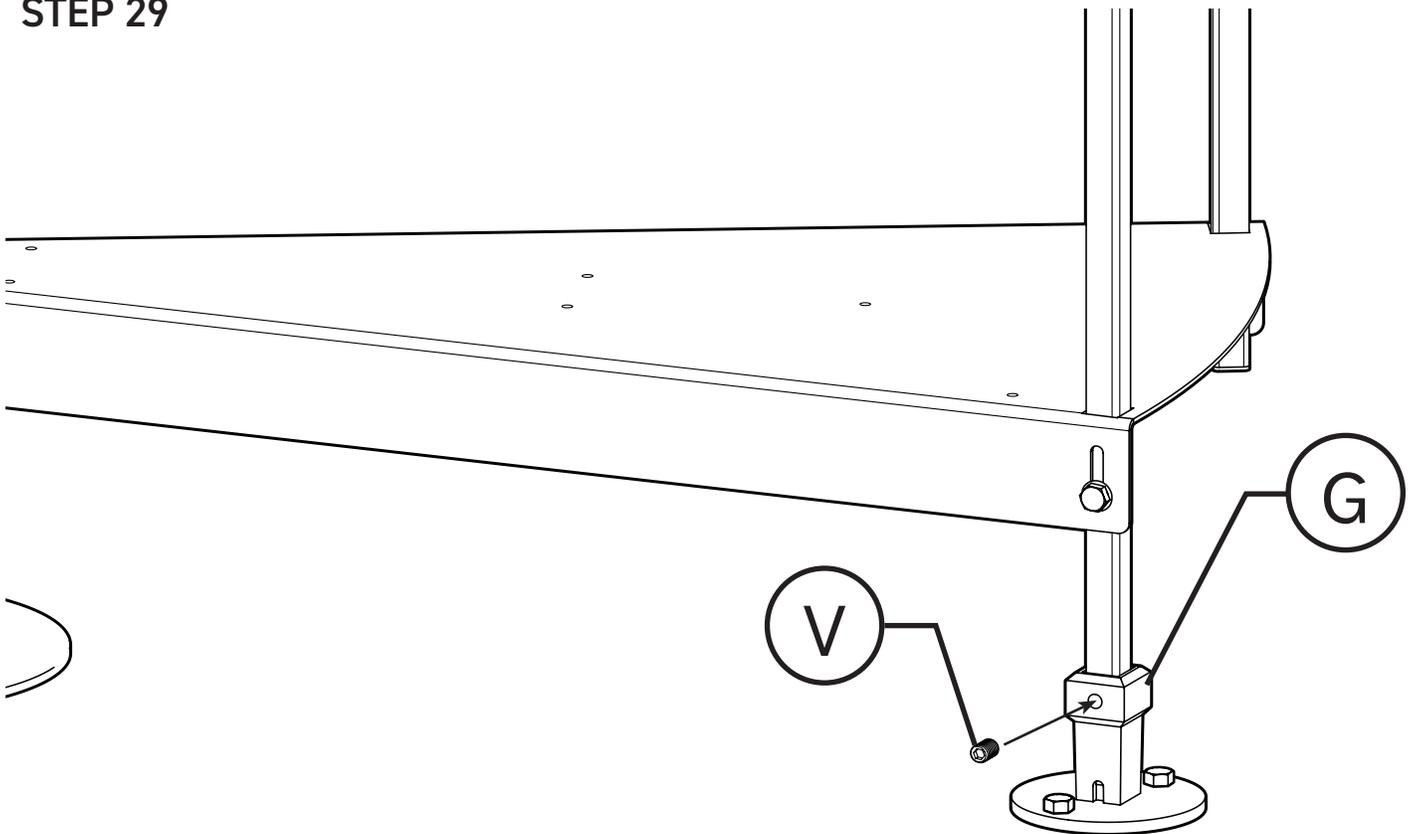
STEP 28



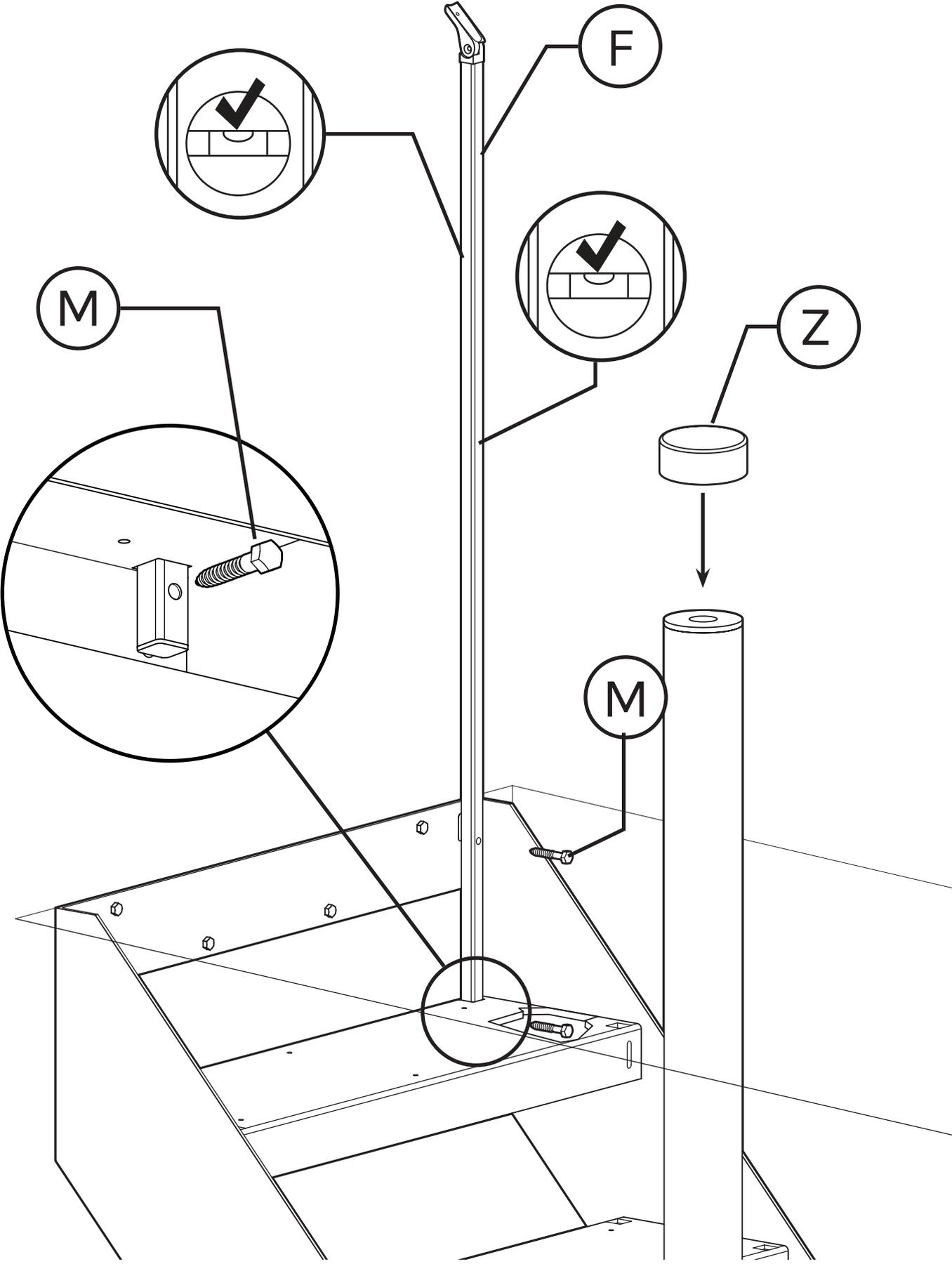
HARDWARE PROVIDED FOR CONCRETE ONLY.  
NO HARDWARE IS PROVIDED FOR OTHER SUBSTRATE.



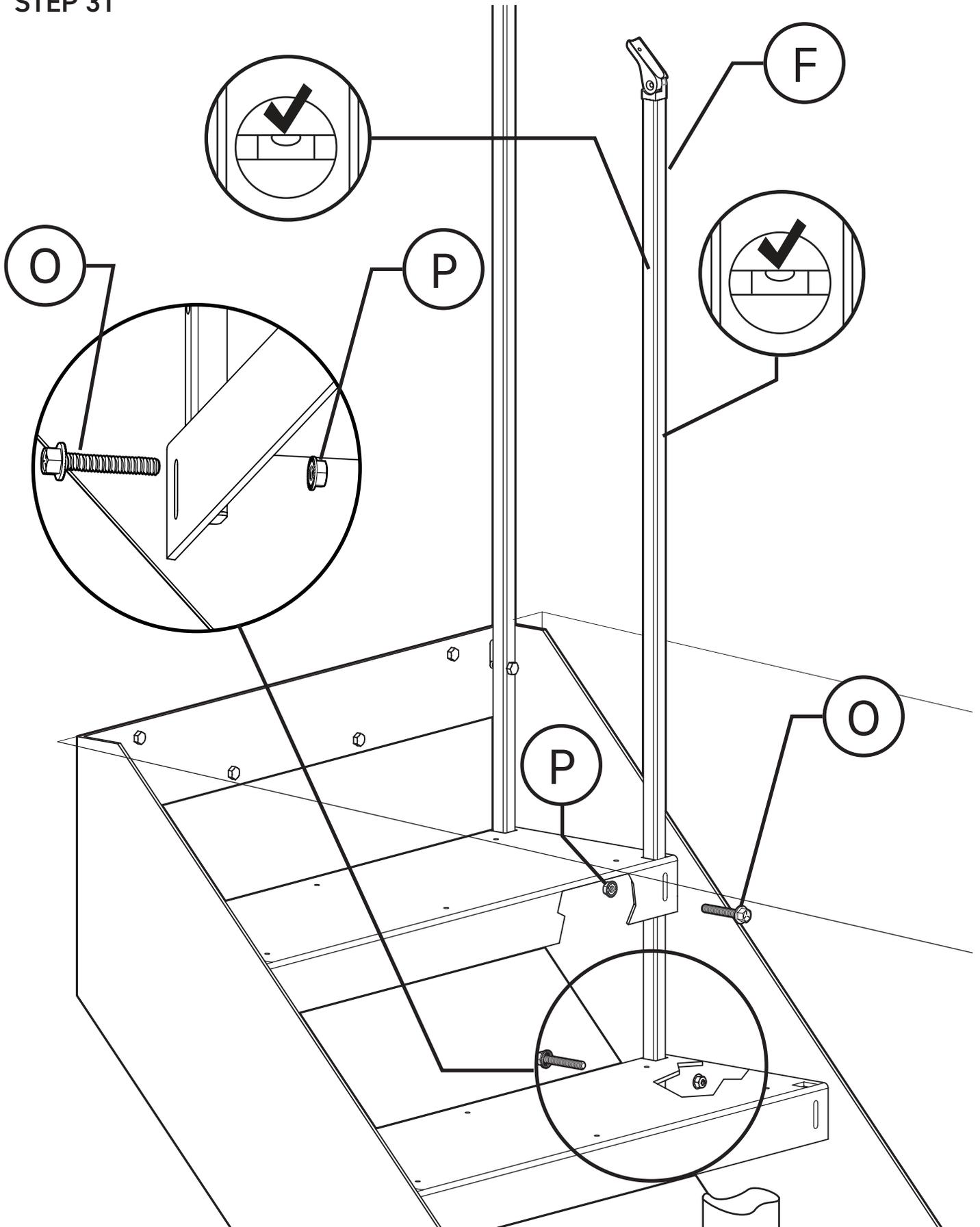
STEP 29



STEP 30



STEP 31

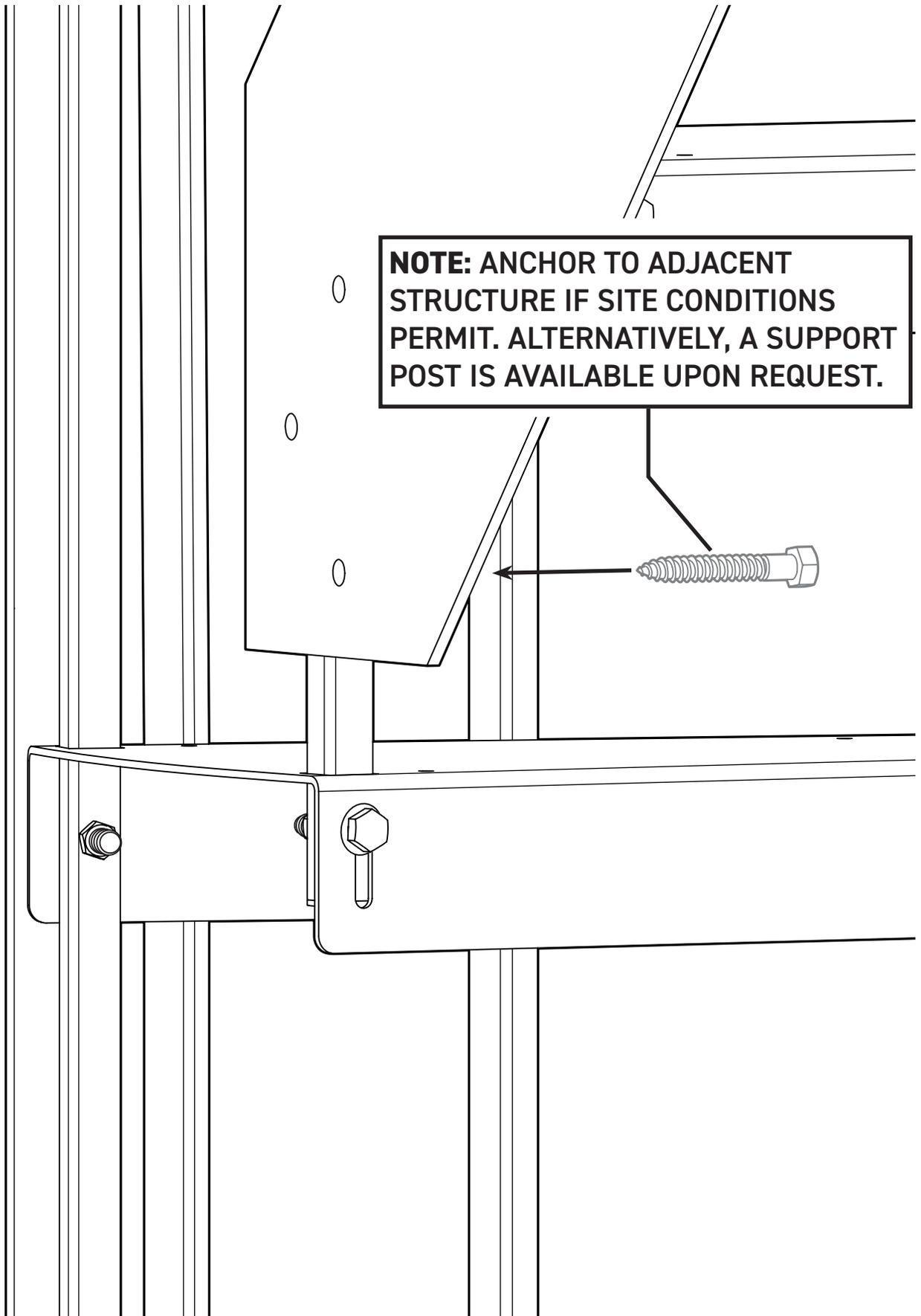


REPEAT STEP FOR ALL SPINDLES ON BOTH SIDES.

# LOWER SUPPORT INSTALLATION:

IF THERE IS NO ADJACENT WALL OR SUPPORT, CALL FOR AN OPTIONAL SUPPORT POST.

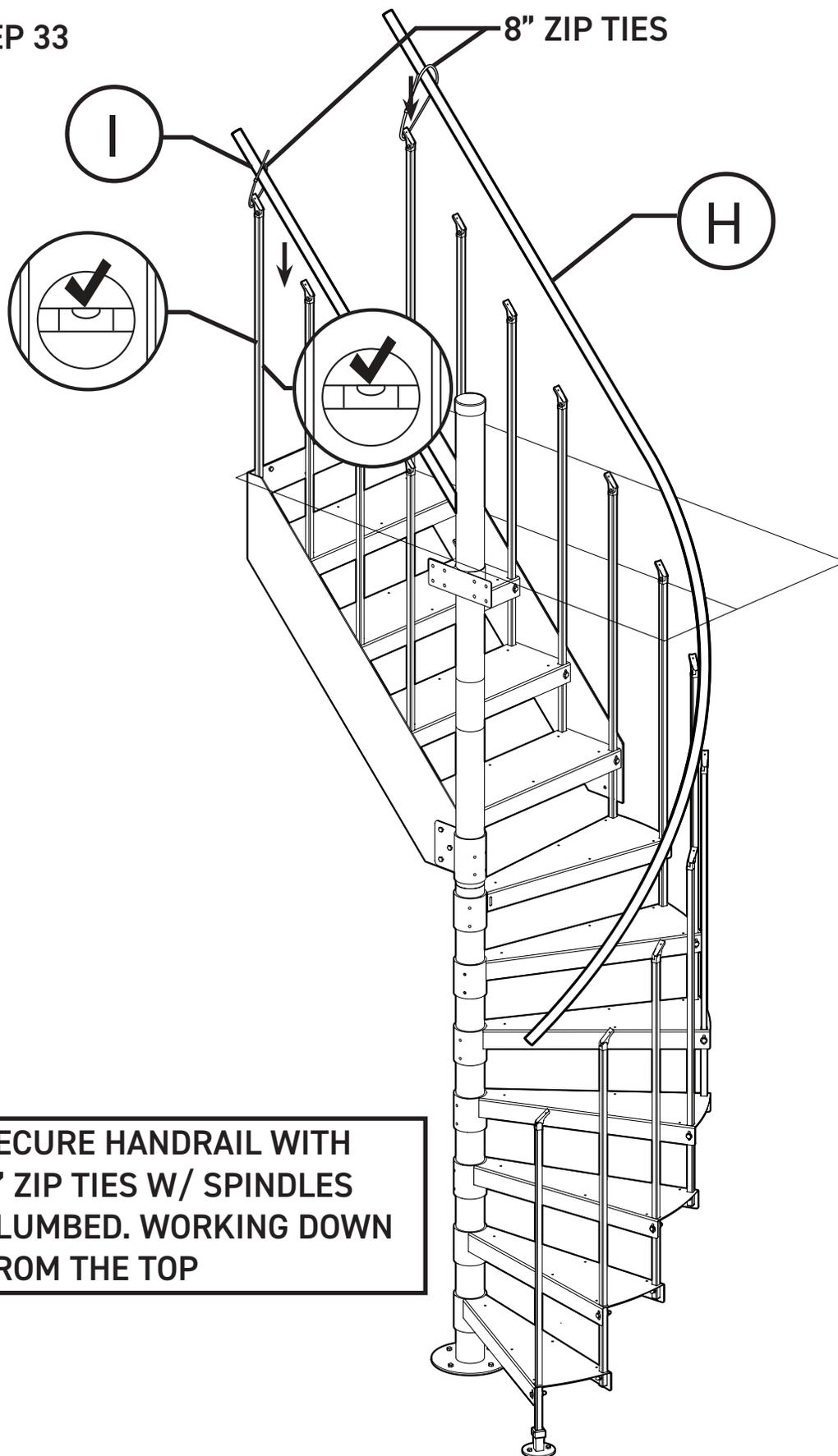
## STEP 32



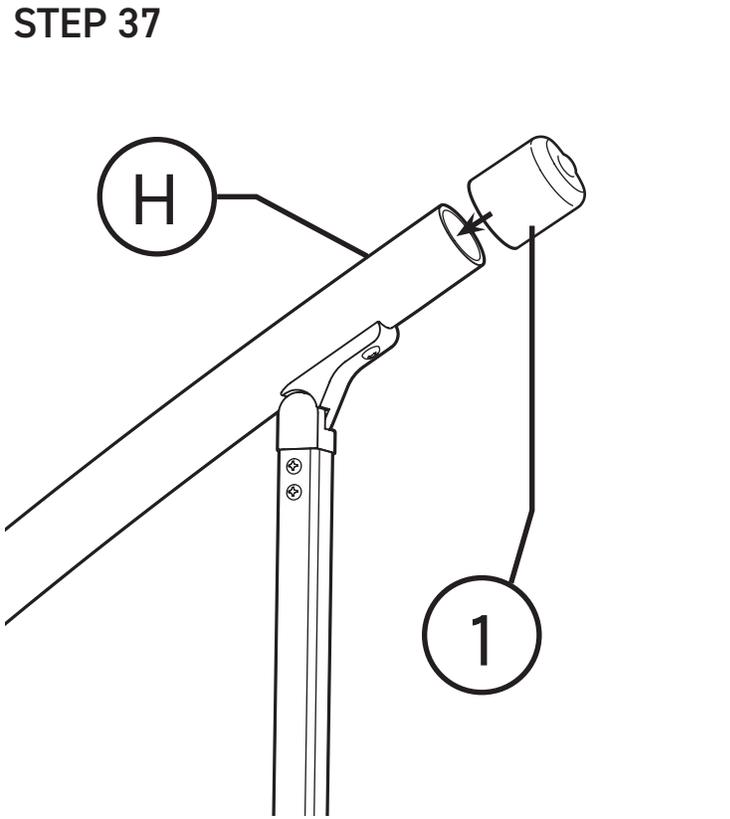
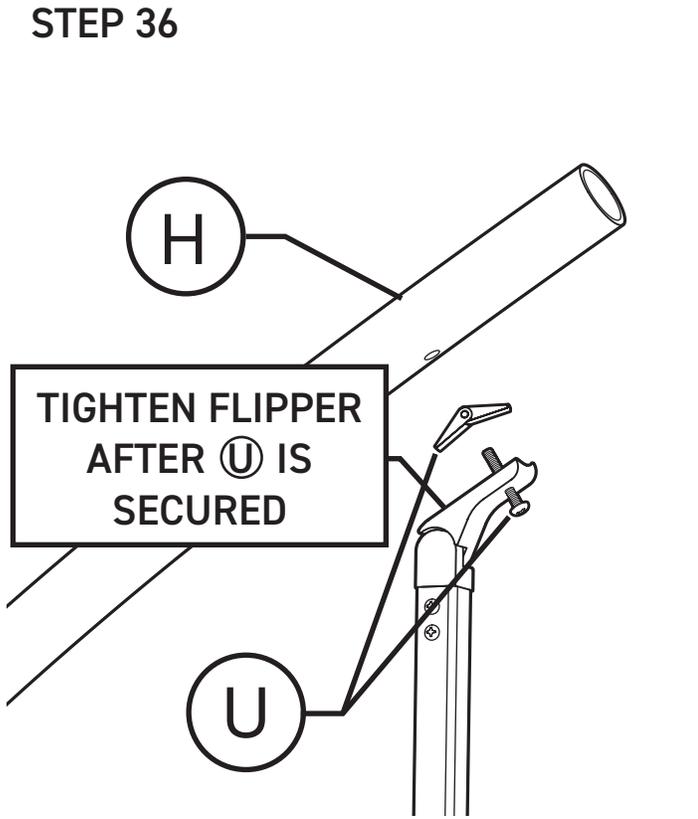
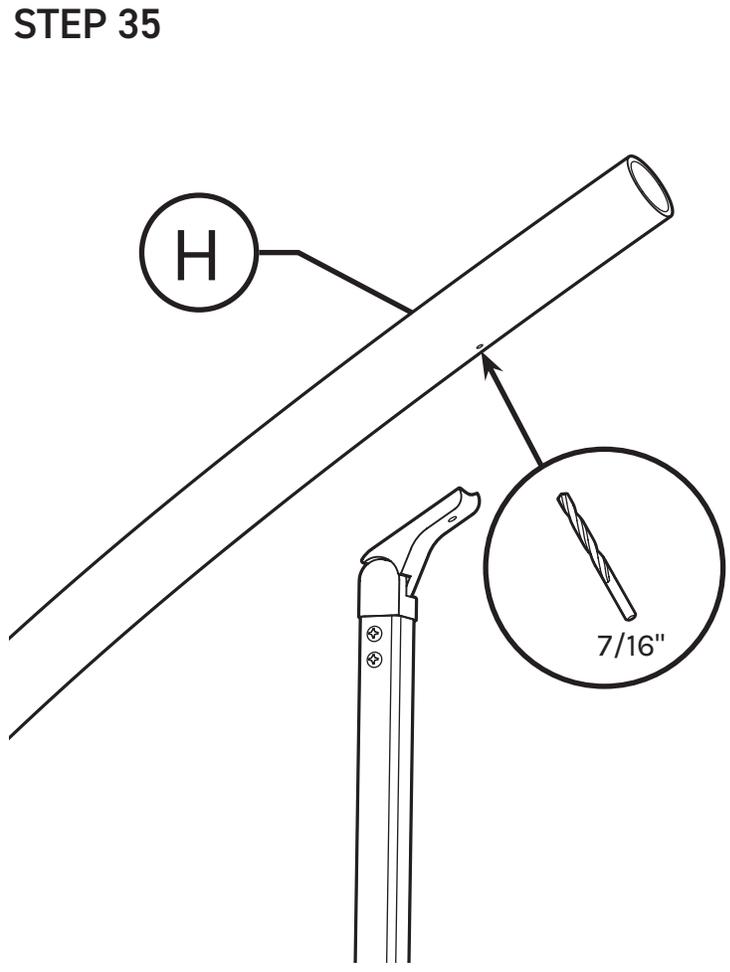
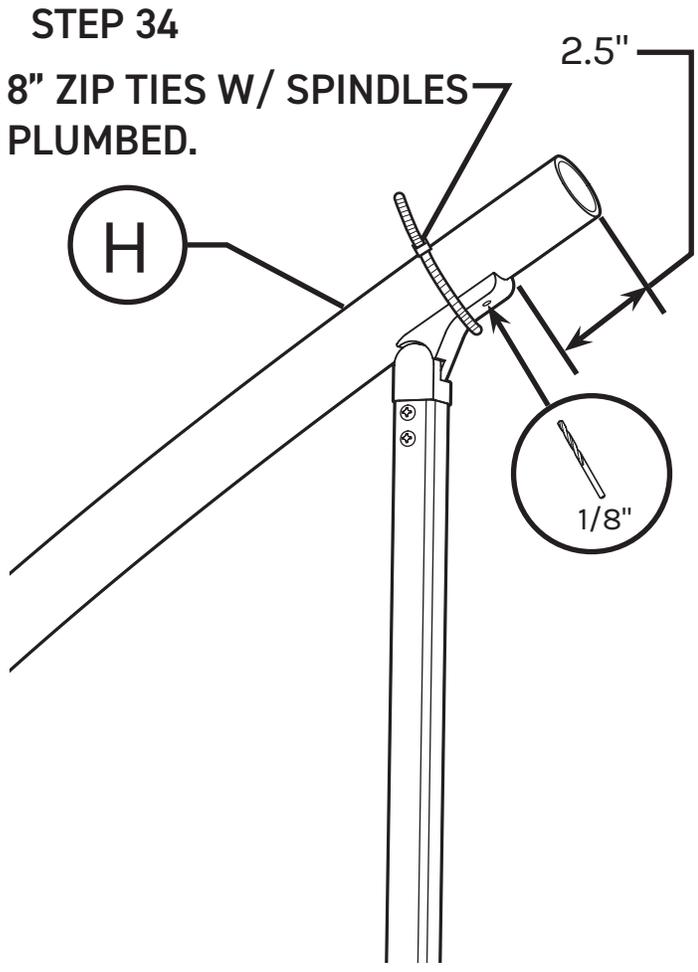
# VINYL RAILING INSTALLATION:

FOR ALUMINUM RAILINGS GO TO PG 37

## STEP 33



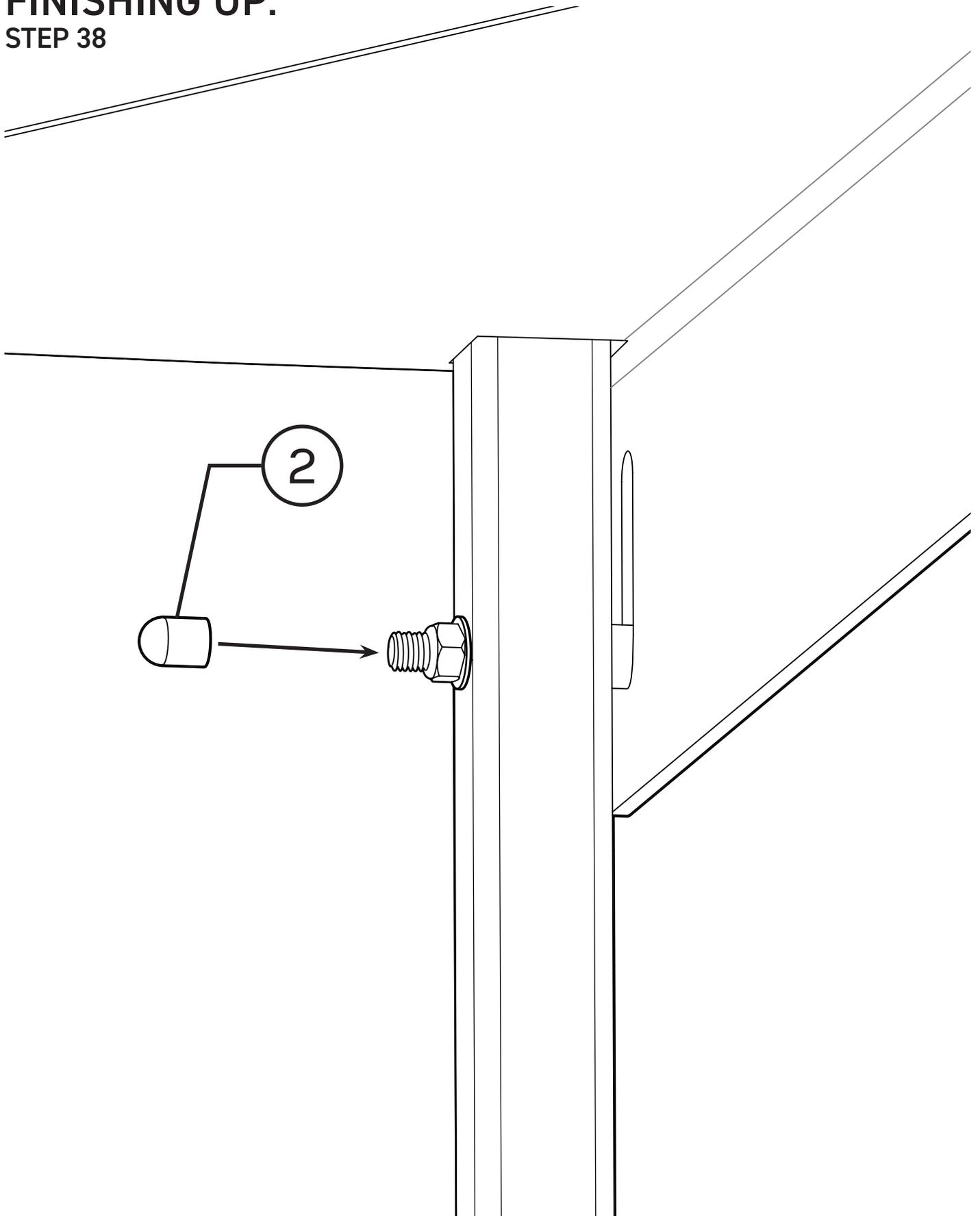
**SECURE HANDRAIL WITH  
8" ZIP TIES W/ SPINDLES  
PLUMBED. WORKING DOWN  
FROM THE TOP**



34 REPEAT FOR ALL MAIN SPINDLES

REPEAT AT OPPOSITE END

# FINISHING UP: STEP 38



ADD TO ALL EXPOSED SCREW ENDS

# **SPIRAL STAIR OPTIONS**

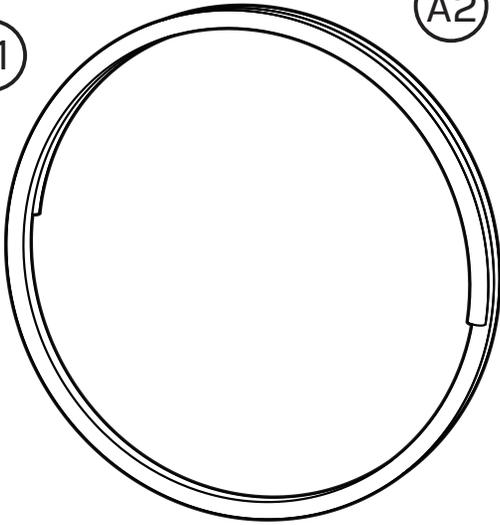
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<b>METAL RAILING INSTALLATION:.....</b>	<b>PAGE 37</b>
<b>WOOD COVERING INSTALLATION:.....</b>	<b>PAGE 46</b>
<b>WOOD RAILING INSTALLATION:.....</b>	<b>PAGE 48</b>
<b>MULTI LINE RAILING INSTALLATION:.....</b>	<b>PAGE 51</b>
<b>RING® LIGHT INSTALLATION:.....</b>	<b>PAGE 55</b>

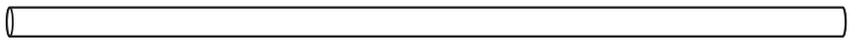
# METAL RAILING INSTALLATION:

## PARTS

(A1)



(A2)



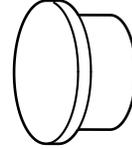
(A3)



(A4)



(A5)



(A1)

Handrail Coil

(A2)

Straight Handrail

(A3)

Outside Handrail Connector

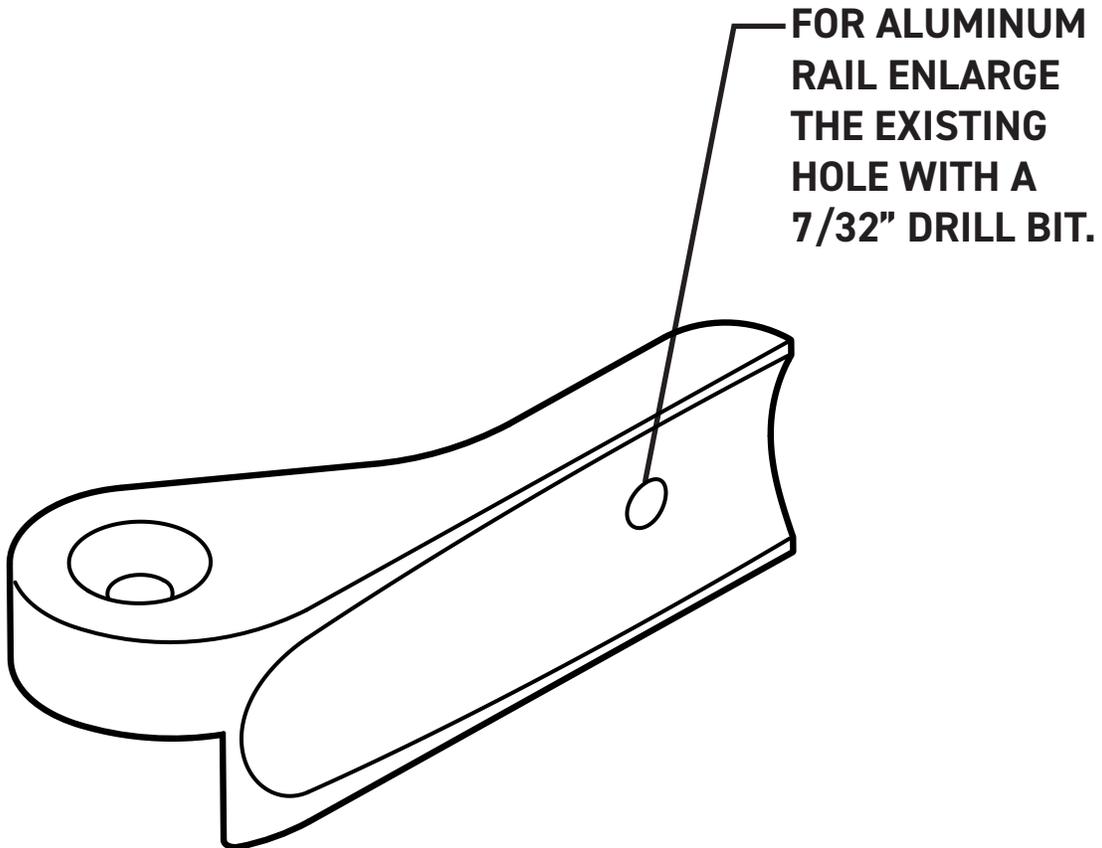
(A4)

#10 x 3/4" Pan Head Sheet Metal Screw

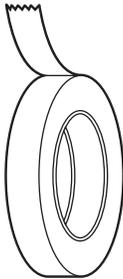
(A5)

Handrail End Cap

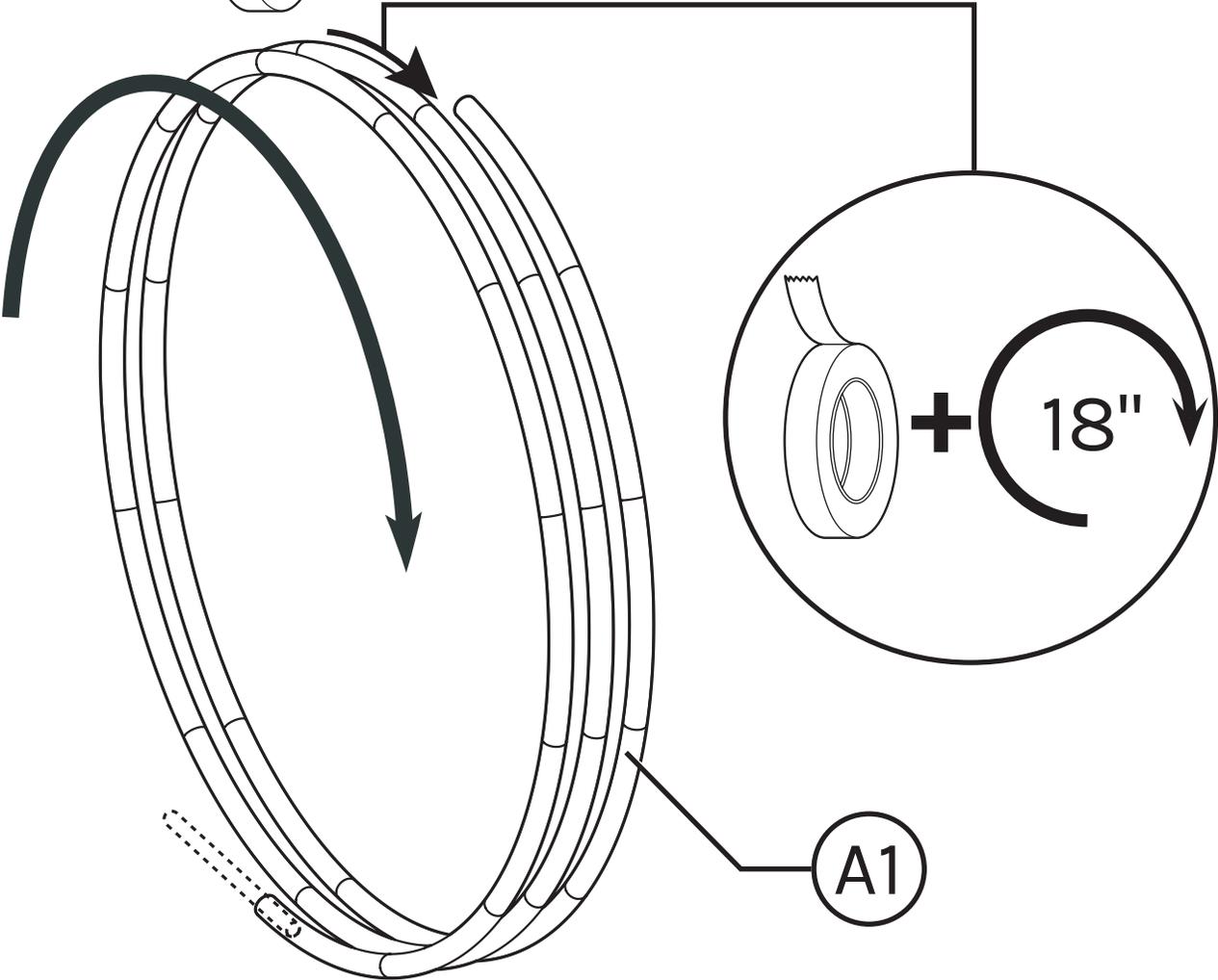
## ASSEMBLY NOTE!!



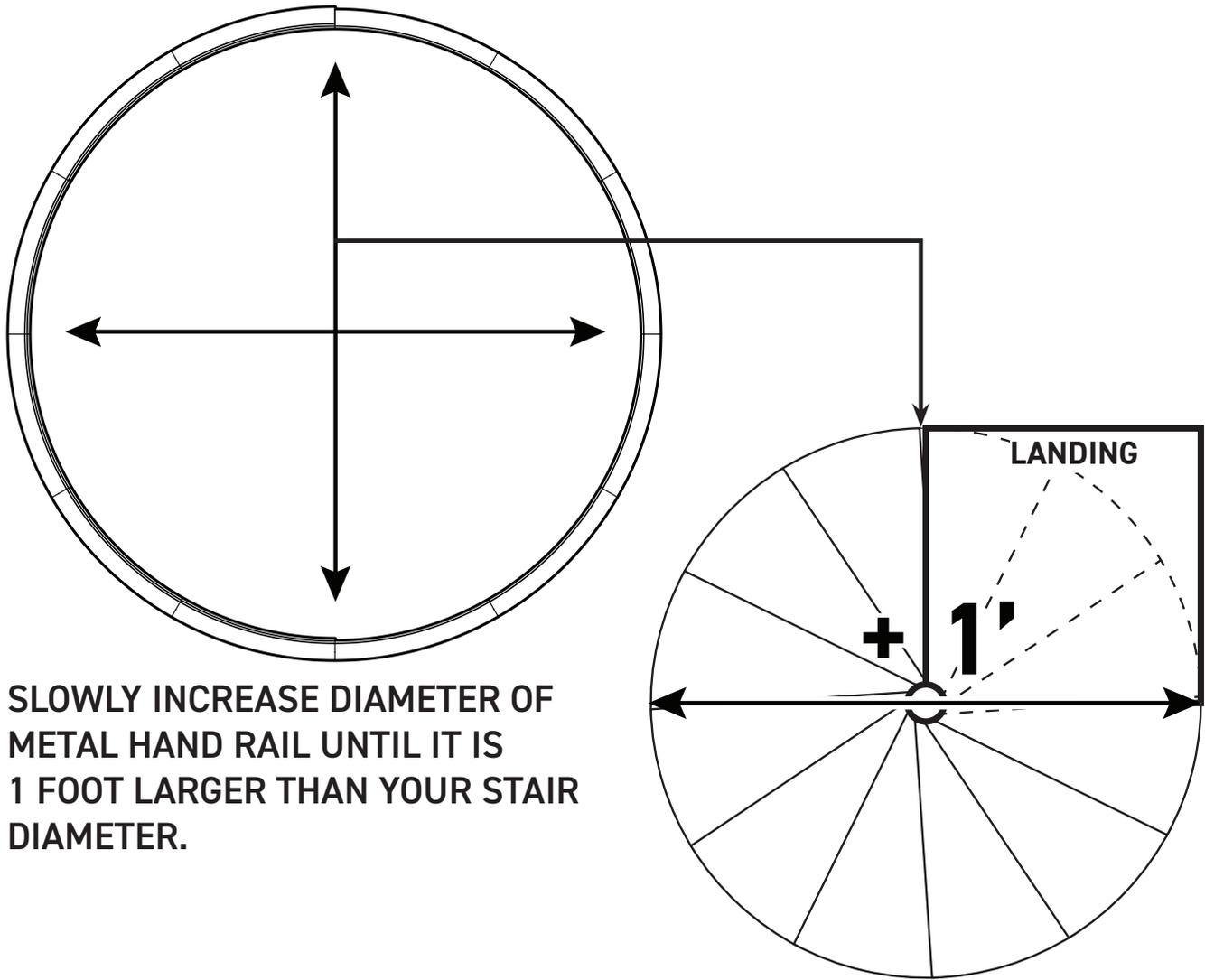
STEP 39



**NOTE: LEAVE PLASTIC ON HANDRAIL AND WRAP MASKING TAPE AROUND EVERY 18"**

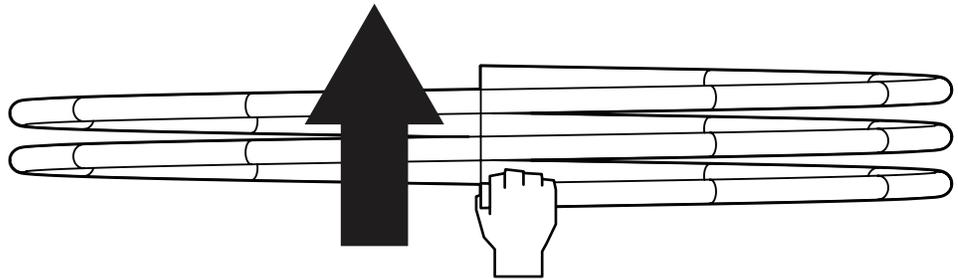


**!! NOTE !! METAL RAILINGS CANNOT BE REFORMED ONCE YOU START EXPANDING IT. EXPAND SLOWLY, ROTATING TO THE NEXT MARK AND EXPAND AGAIN.**

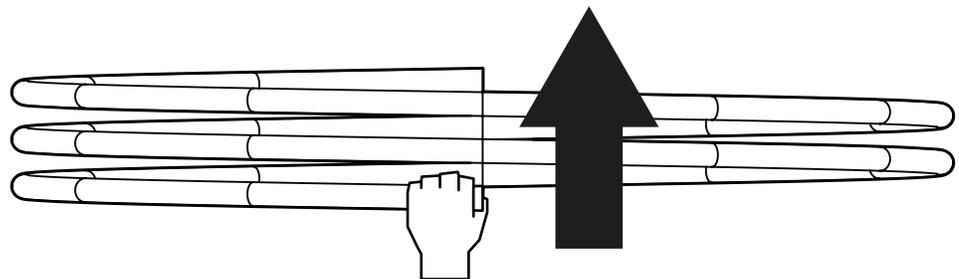


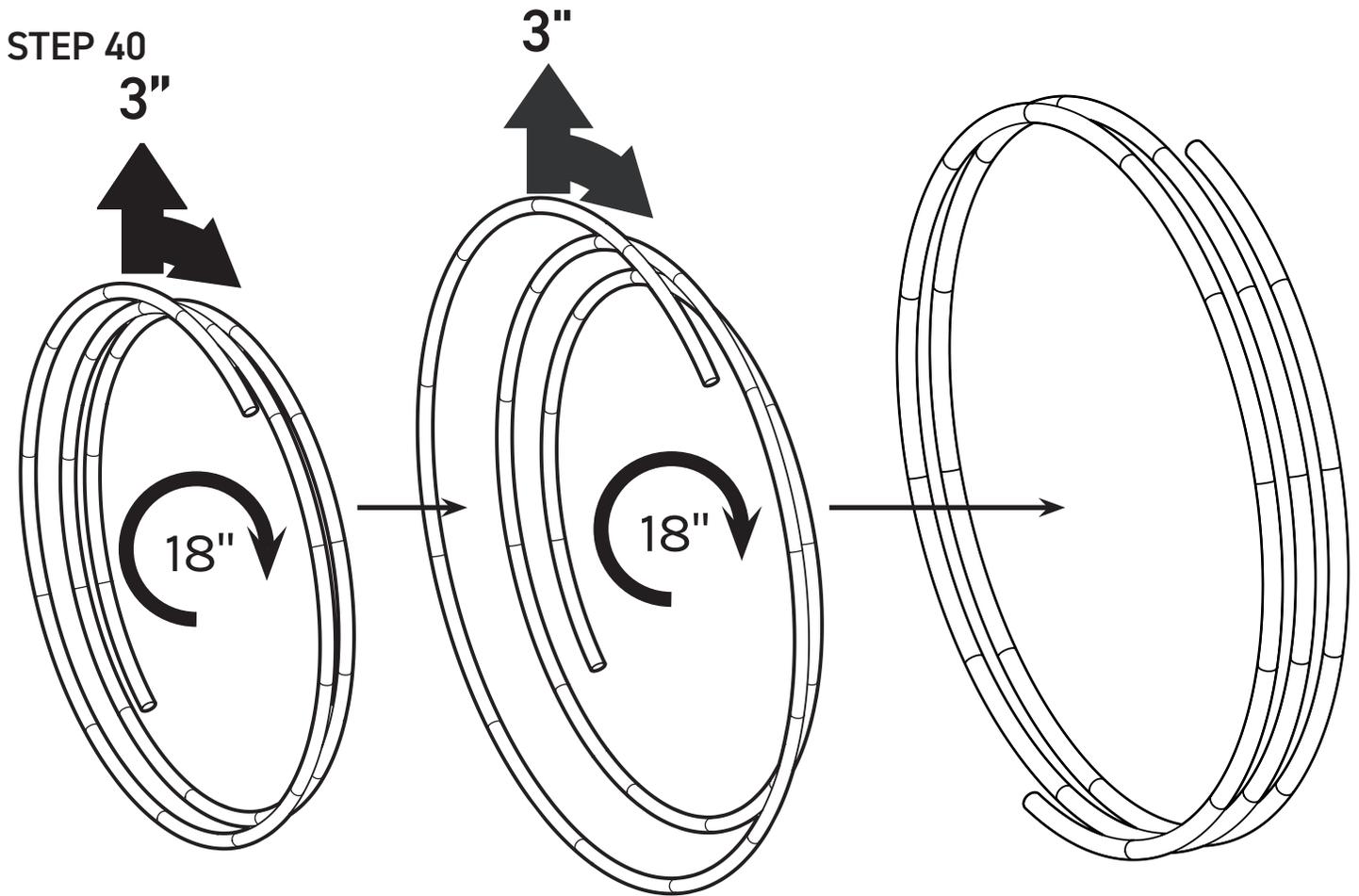
**SLOWLY INCREASE DIAMETER OF METAL HAND RAIL UNTIL IT IS 1 FOOT LARGER THAN YOUR STAIR DIAMETER.**

**RIGHT HAND UP**



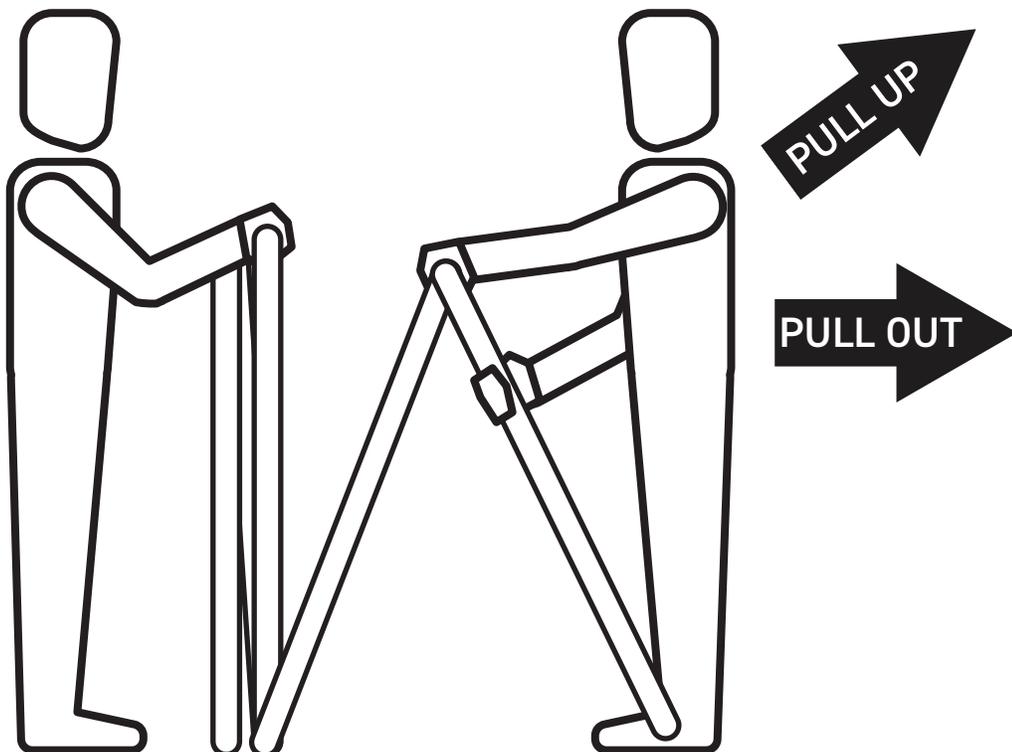
**LEFT HAND UP**



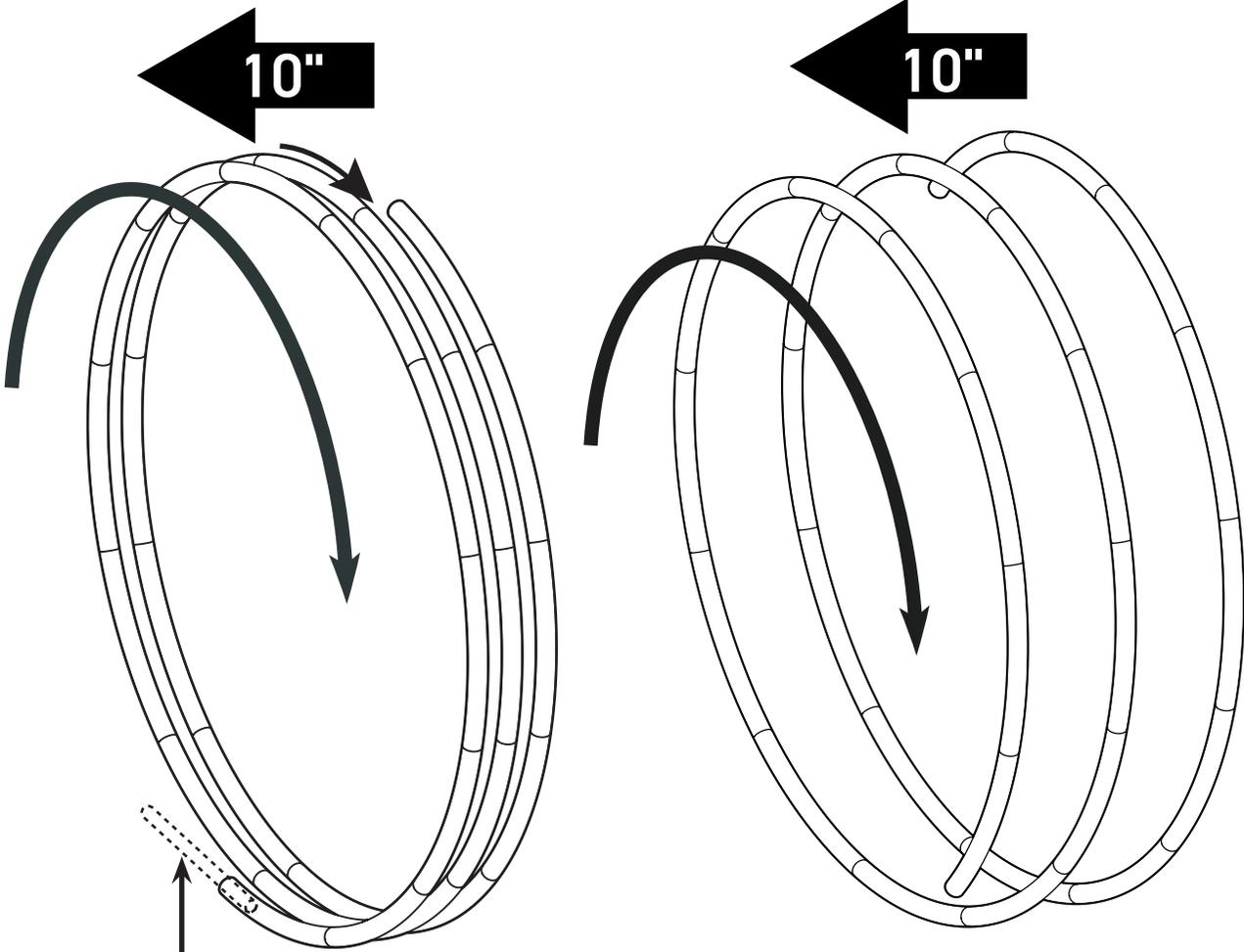


**EXPANDING THE METAL RAILING**

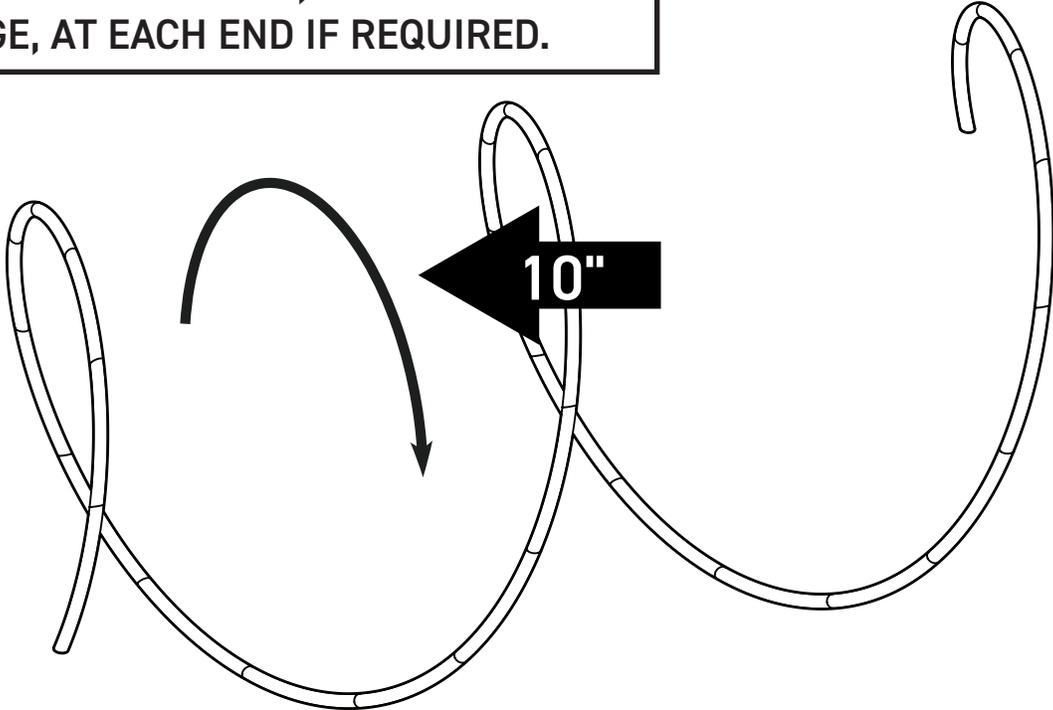
1. AT THE MARK PULL UP AND OUT.
2. ROTATE TO THE NEXT MARK AND REPEAT.
3. EXPAND COIL EVENLY, AVOID FLAT SPOTS.



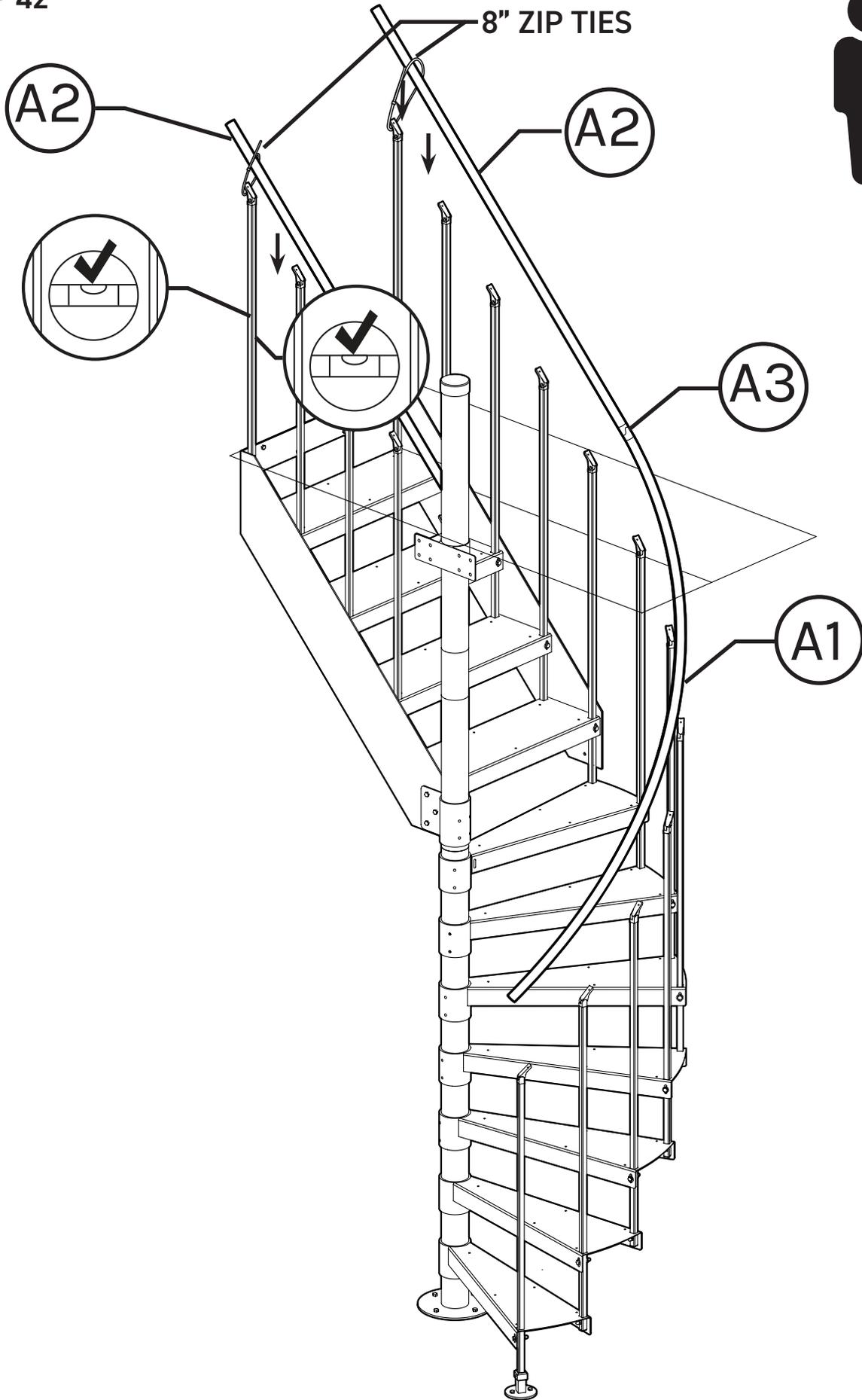
**STEP 41**



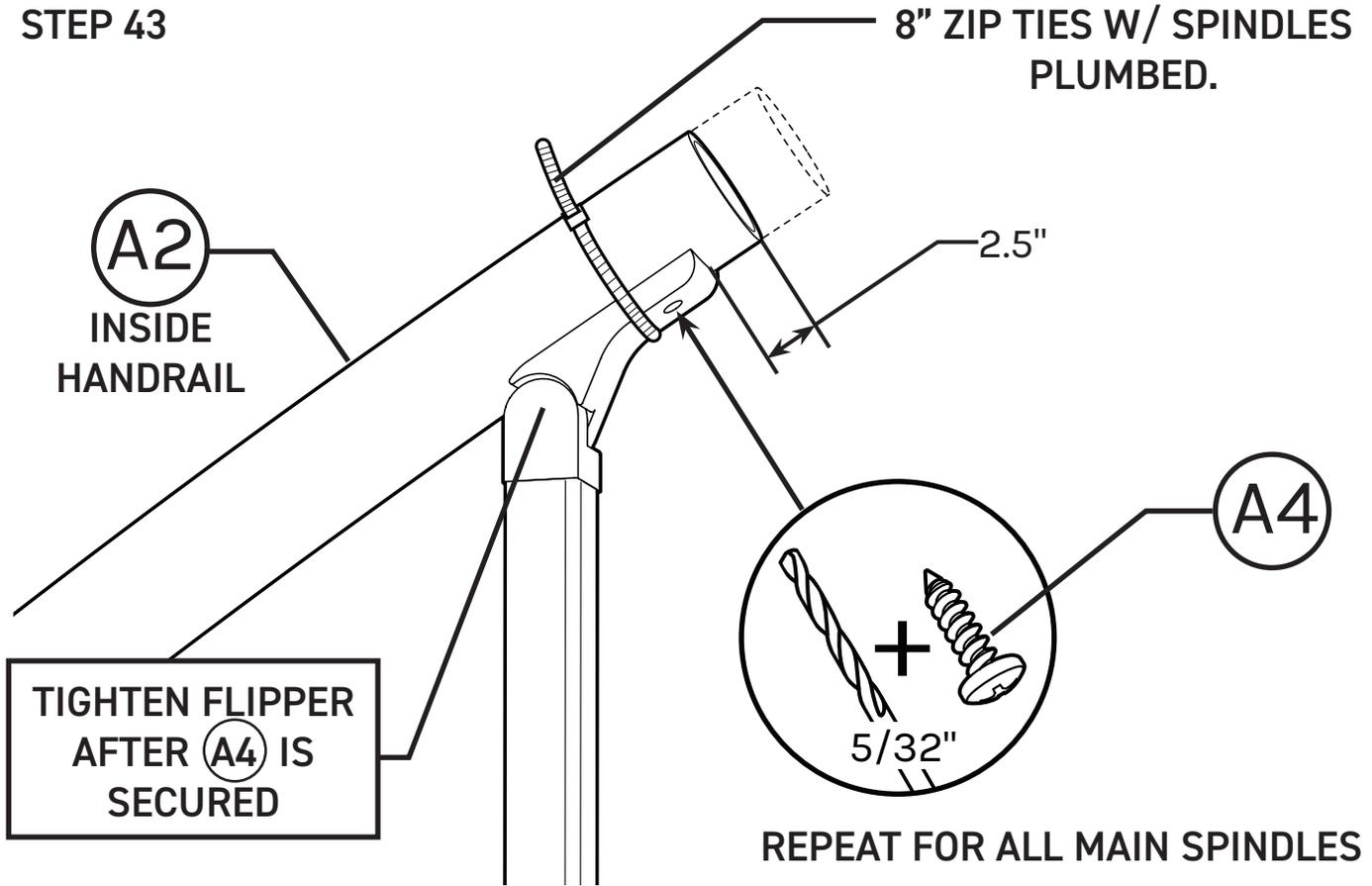
**INSERT A ROUND DOWEL, FOR ADDITIONAL LEVERAGE, AT EACH END IF REQUIRED.**



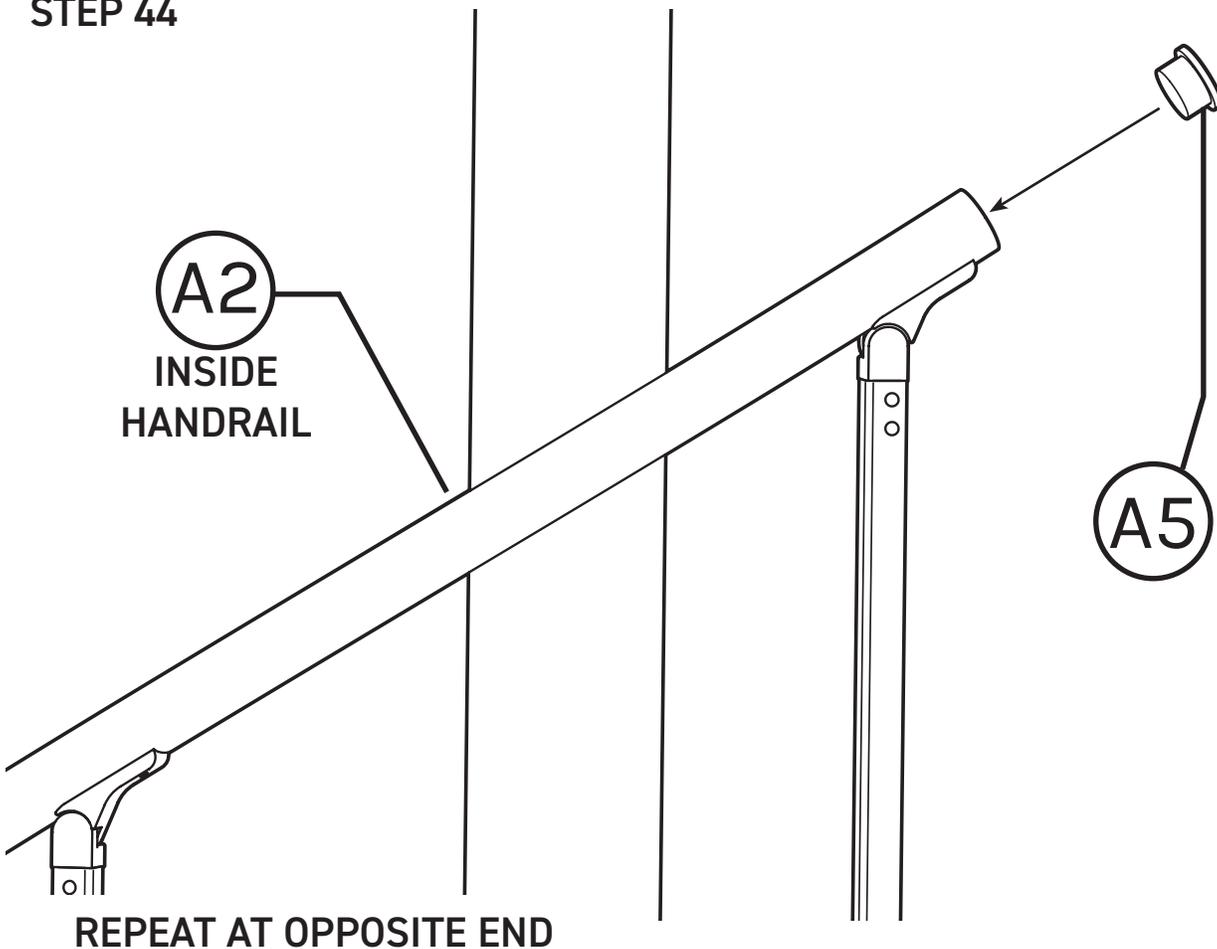
STEP 42



**STEP 43**



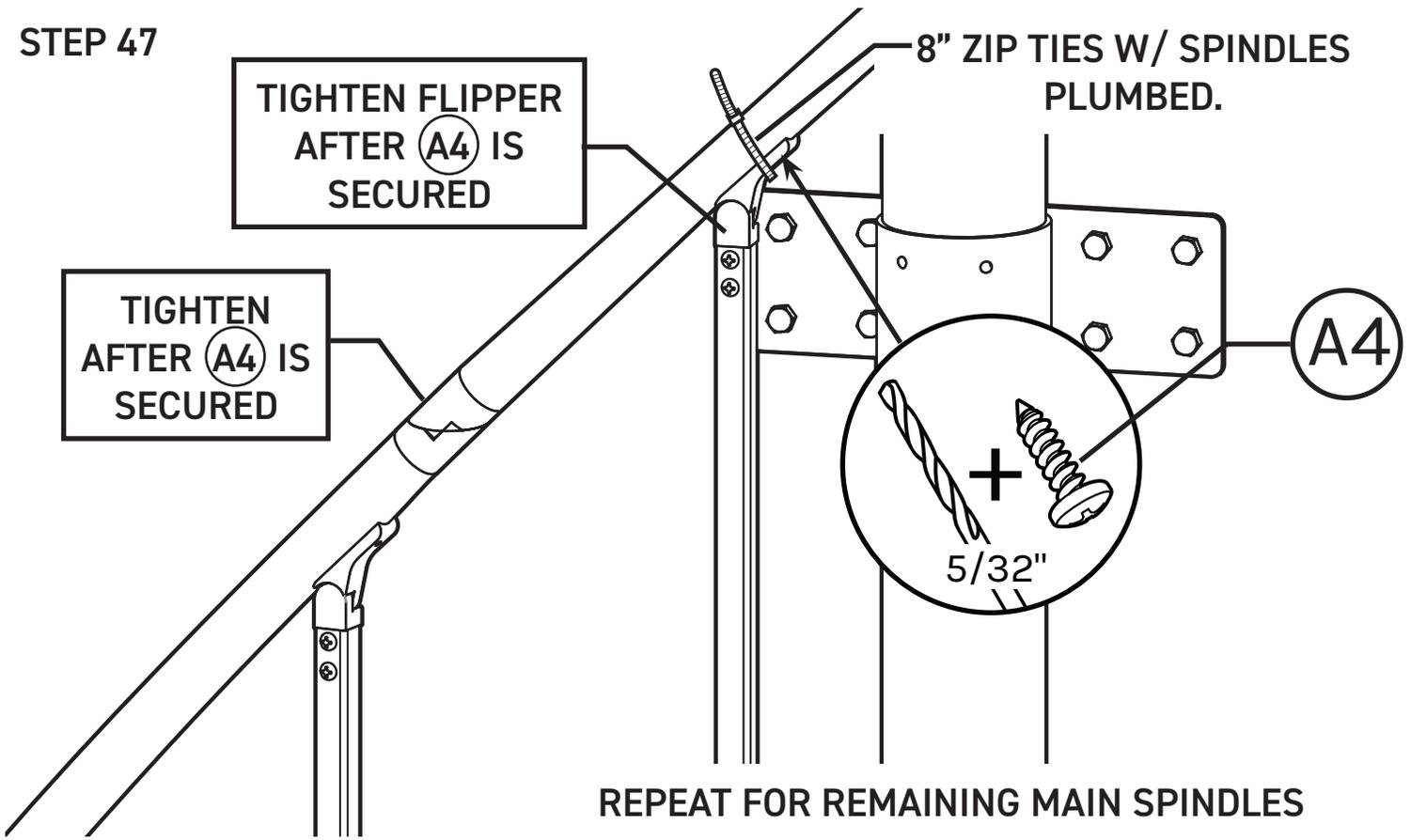
**STEP 44**



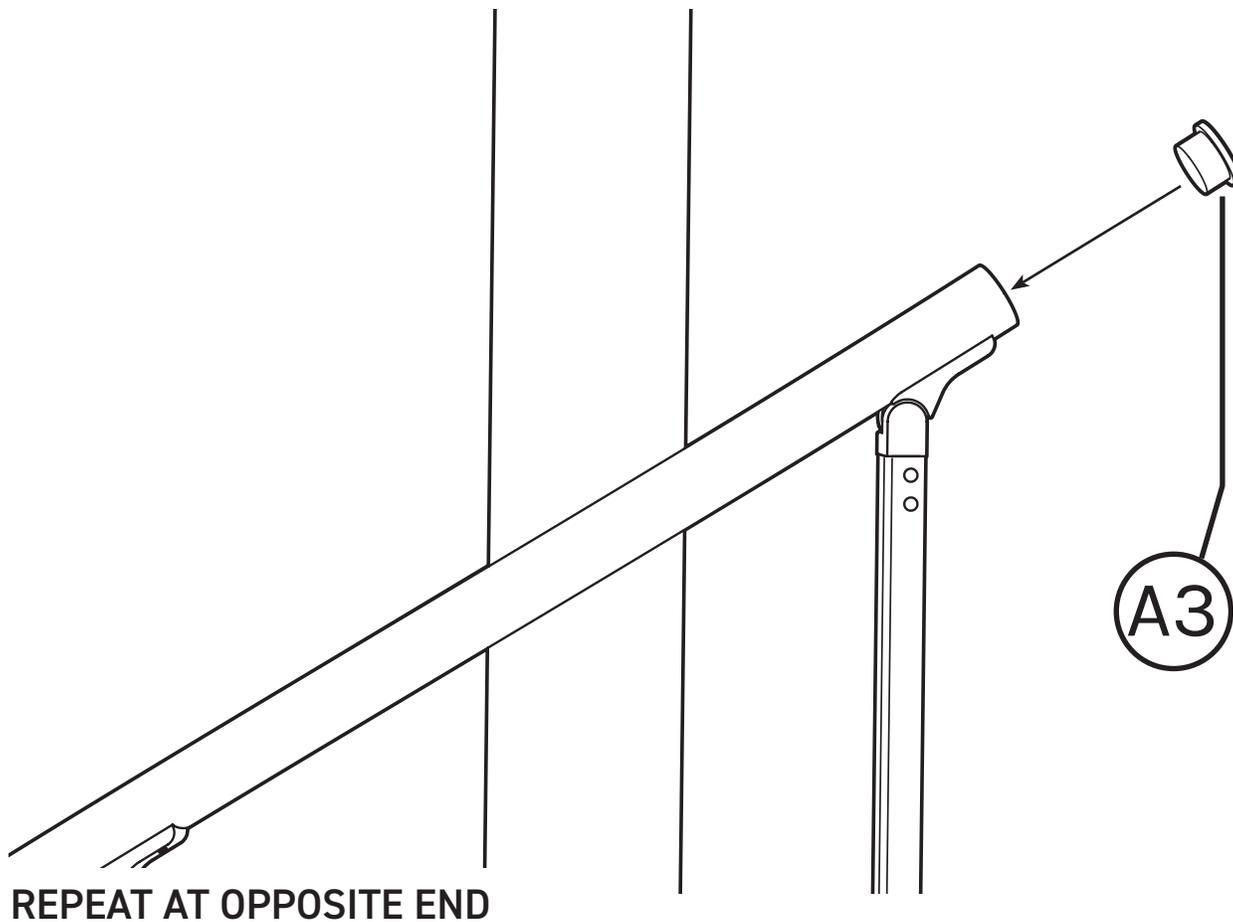
**REPEAT AT OPPOSITE END**



STEP 47



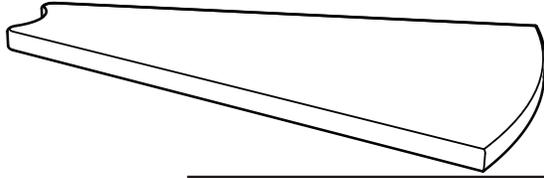
STEP 48



# WOOD COVERING INSTALLATION:

## PARTS

W2



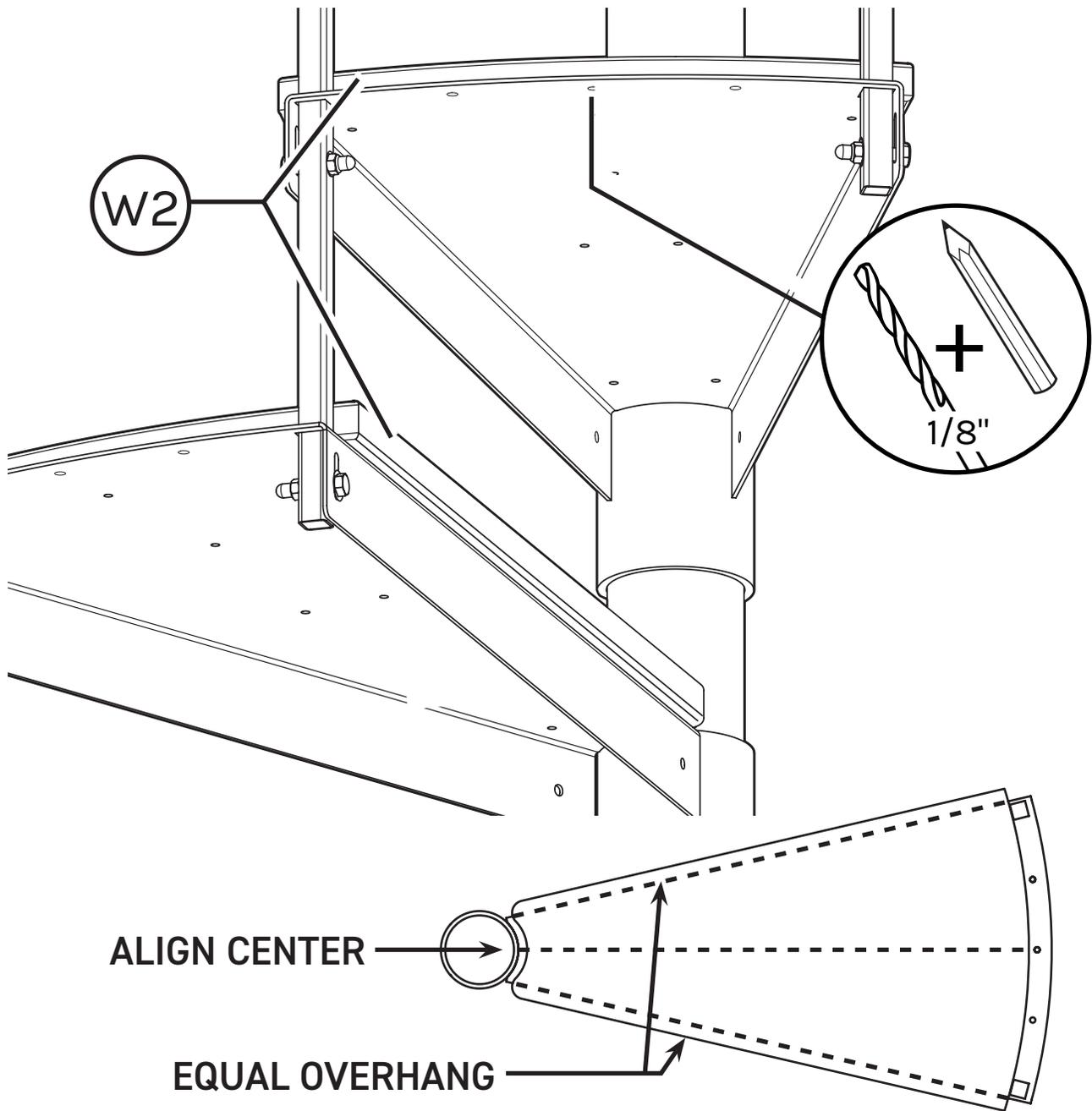
W3



W2 Wood Tread Covering

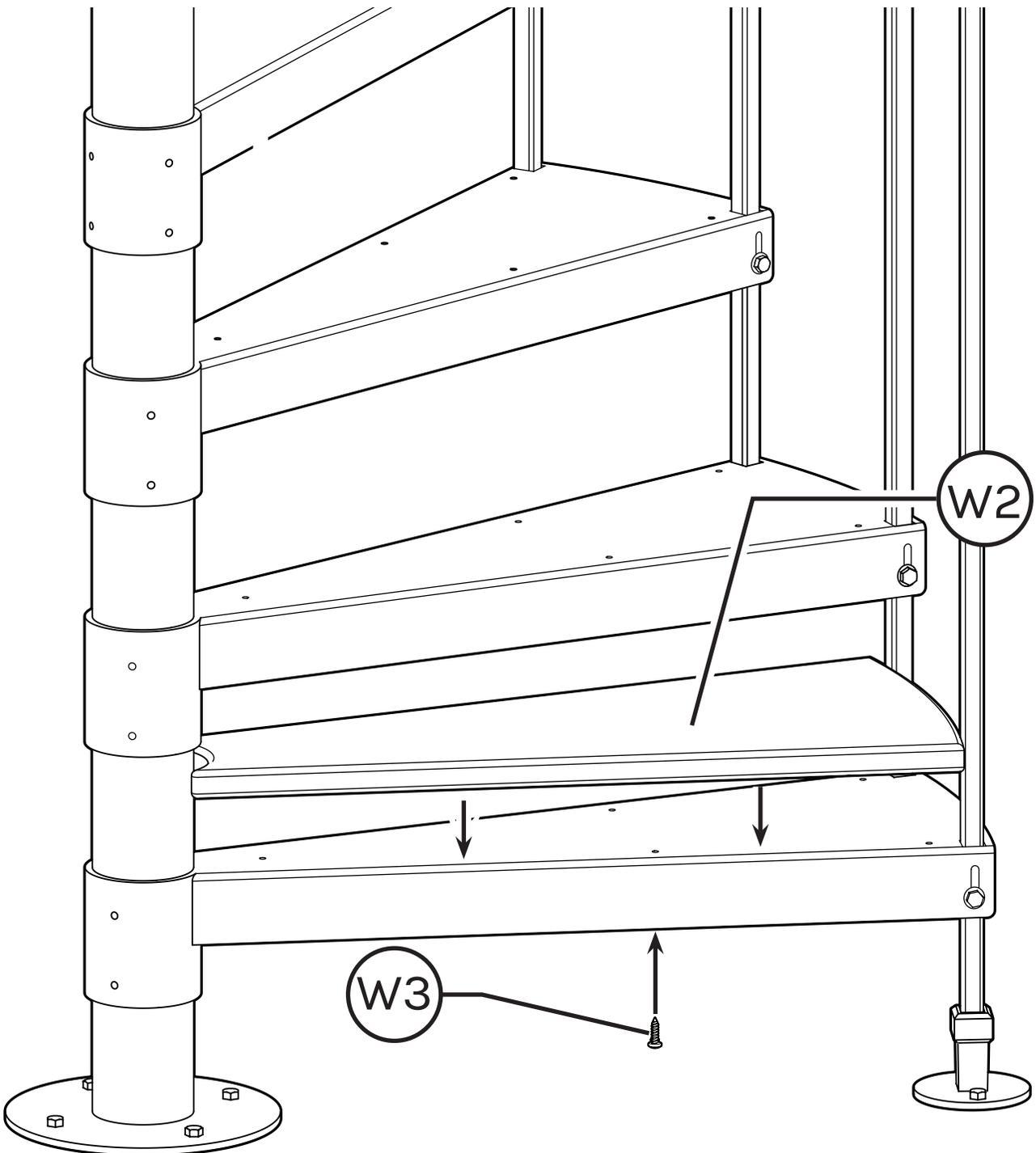
W3 #10x3/4 Pan Head Wood Screw

## STEP 49



## STEP 50

**NOTE: TO PREVENT WARPING AND CRACKING OF NATURAL WOOD COVERINGS THEY MUST BE FINISHED WITHING (30) DAYS OF RECEIPT WITH A MINIMUM OF (2) COMPLETE COATS OF A QUALITY POLYURETHANE. COVERINGS SHOULD BE FINISHED PRIOR TO INSTALLATION ON THE STAIR.**

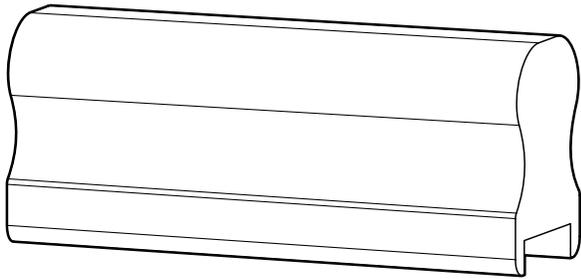


**REPEAT FOR ALL TREADS**

# WOOD HANDRAIL INSTALLATION: PARTS



(H1)



(H3)



(H4)



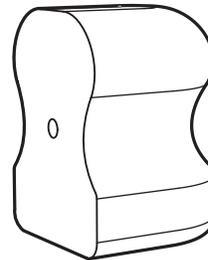
(H5)



(H7)



(H8)



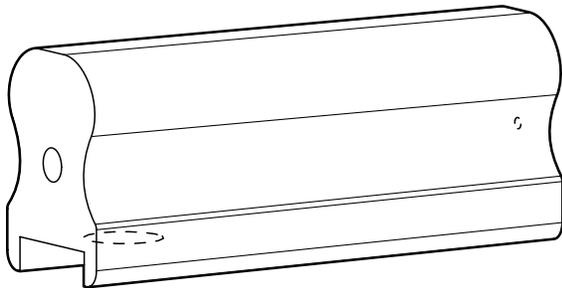
(H9)



(H6)



(H2)



(H1) Wood Handrail Section

(H2) Wood Handrail Section

(H3) Ball Nut

(H4) 1/4" x 20 Hanger Bolt (Pre-installed)

(H5) #10 x 3/4" Pan Head Sheet Metal Screw

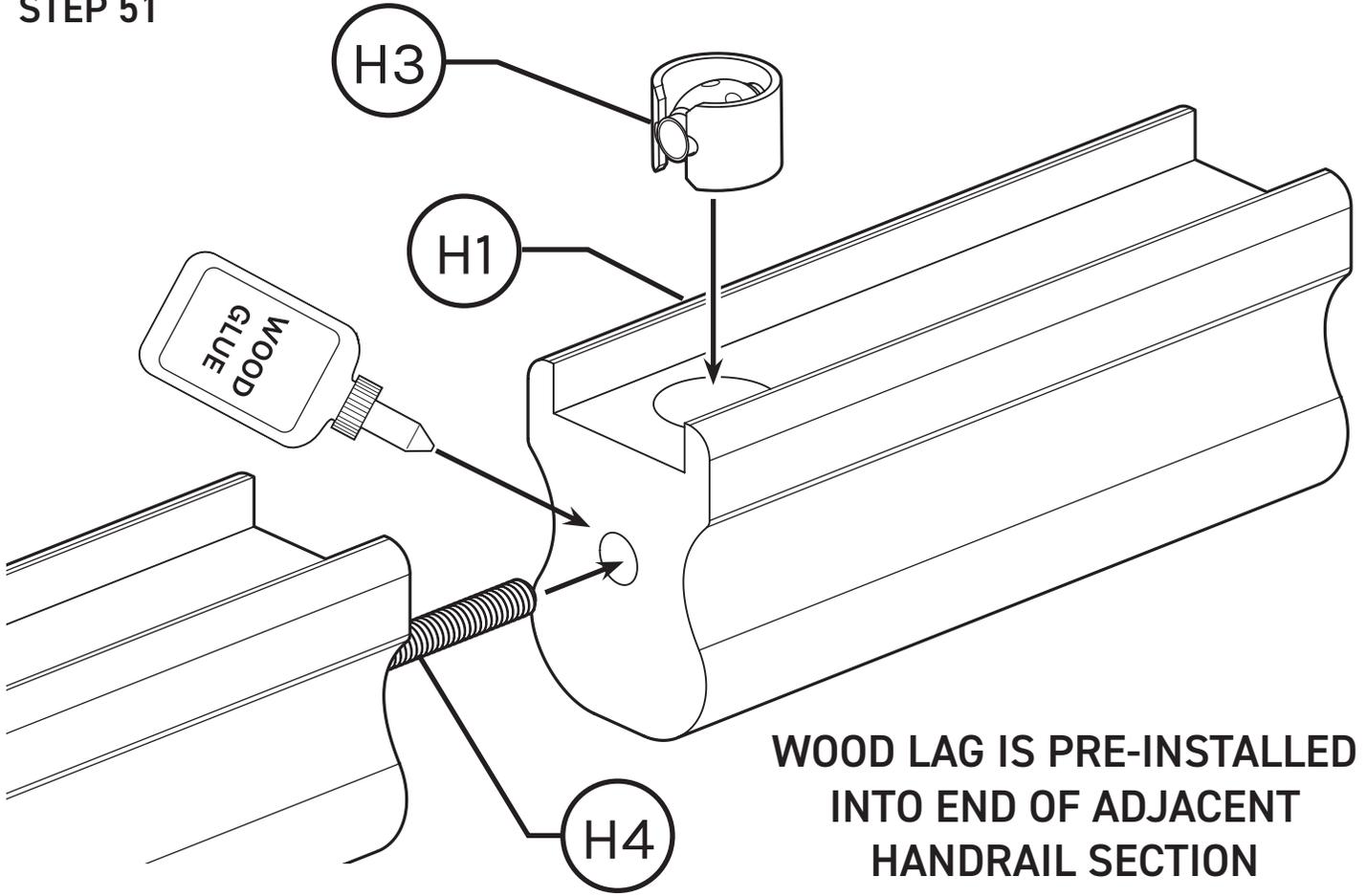
(H6) Ball Nut Wrench

(H7) #10 x 1/14" Pan Head Sheet Metal Screw

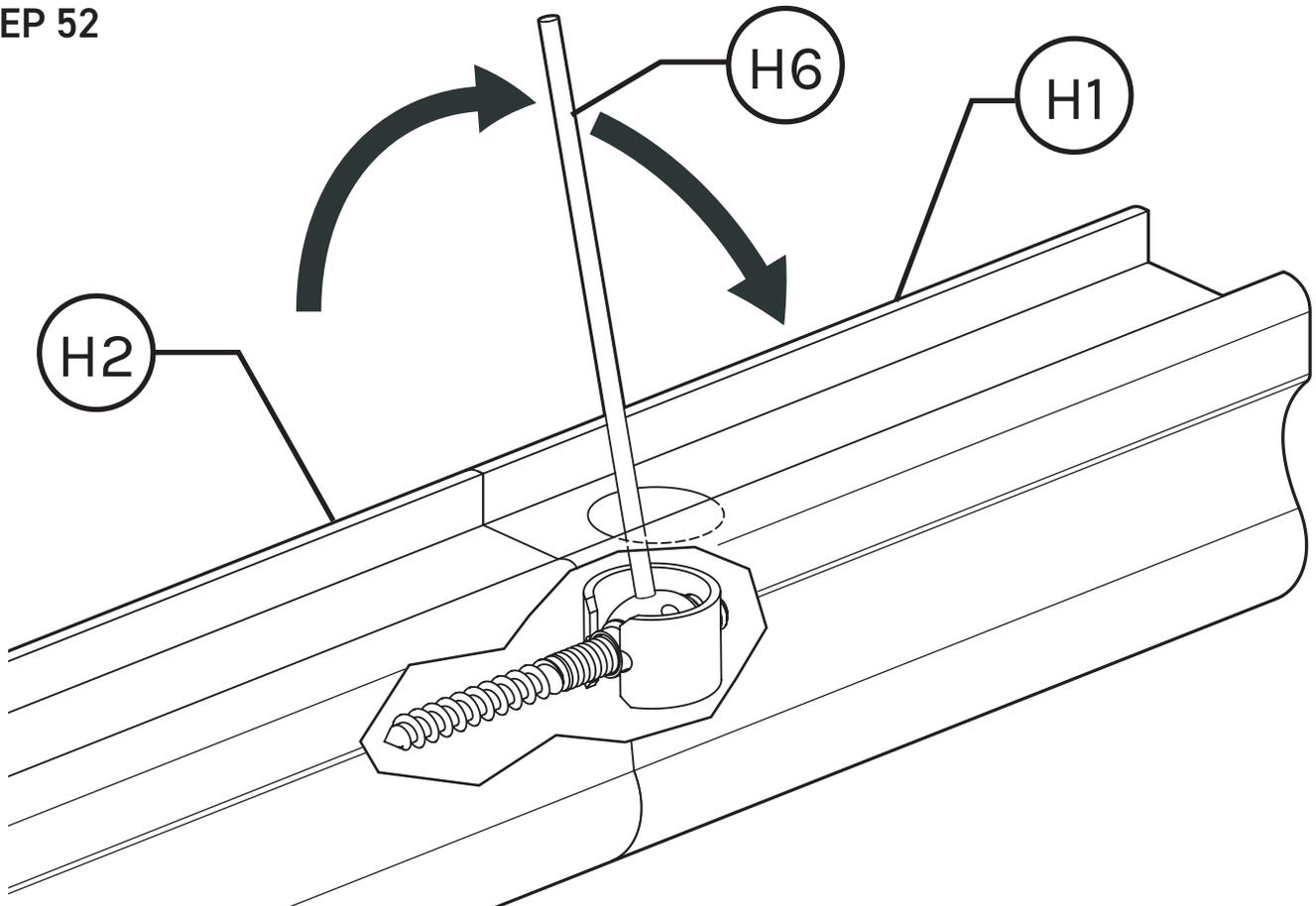
(H8) Wood End Cap

(H9) Wood Plug

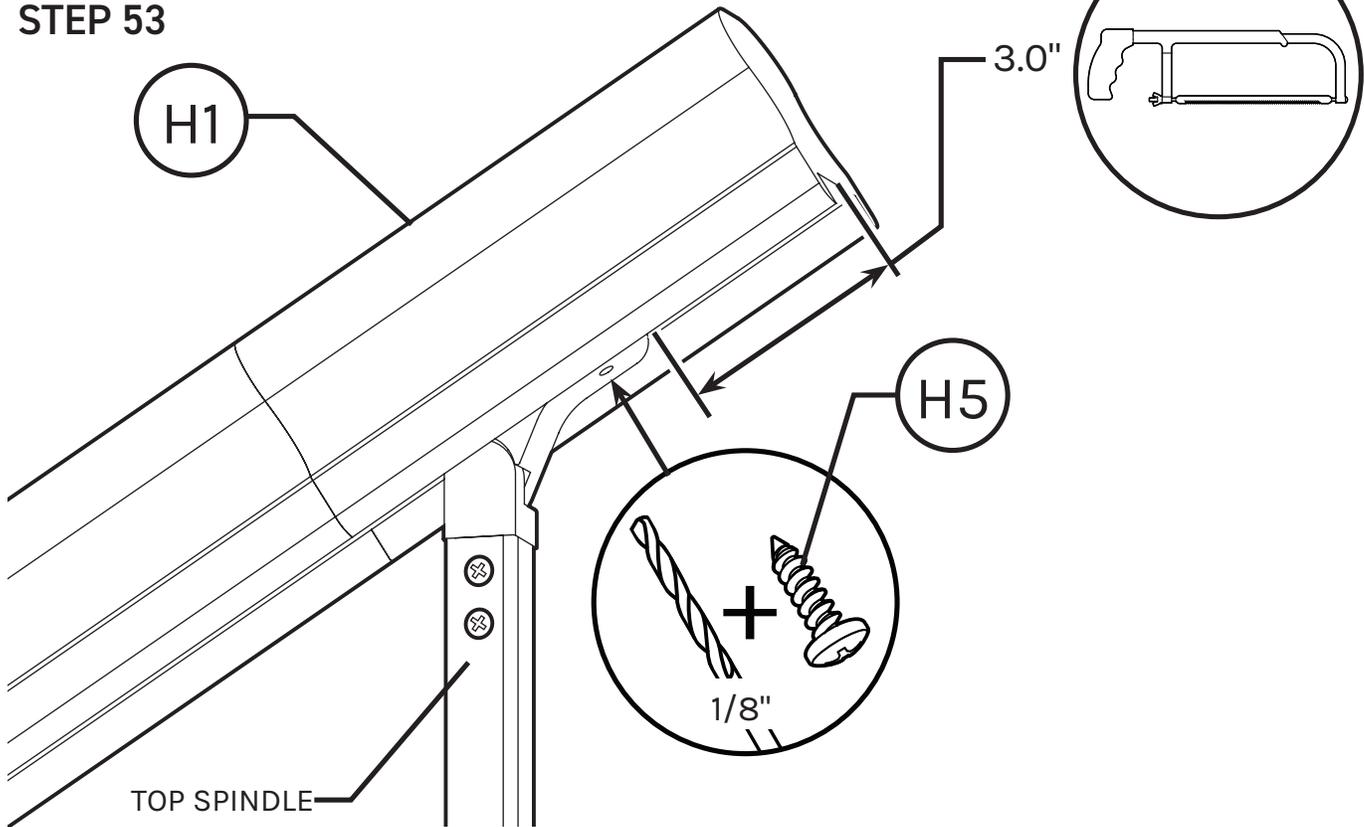
STEP 51



STEP 52

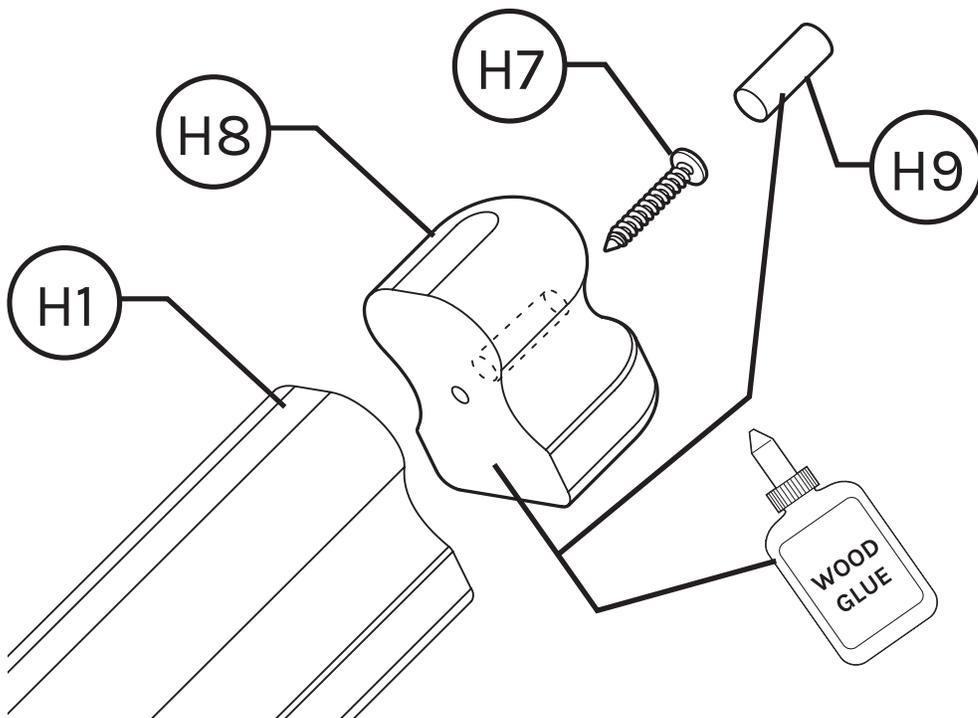


STEP 53

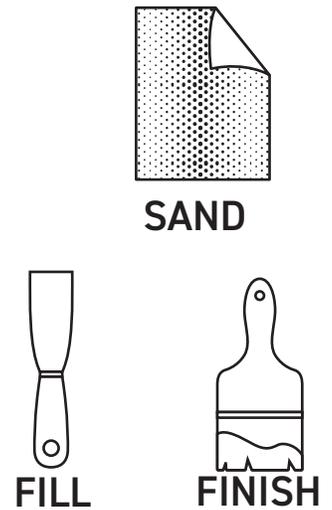


REPEAT FOR ALL SECTIONS

STEP 54



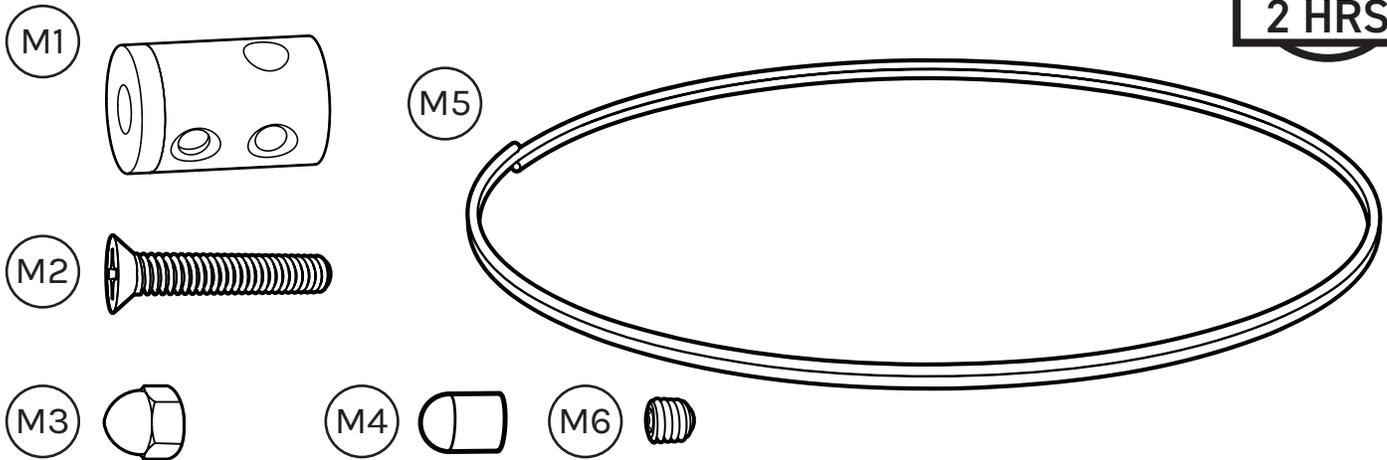
STEP 57



NOTE: FOR WOOD SCROLL ENDS THE 'H3' BALL NUT WILL BE PRE-INSTALLED IN THE SCROLL END, CUSTOMER TO DRILL A 3/16" PILOT HOLE AND INSTALL 'H4' HANGER BOLT INTO END OF HANDRAIL AFTER CUTTING TO LENGTH.

# MULTI-LINE RAILING INSTALLATION:

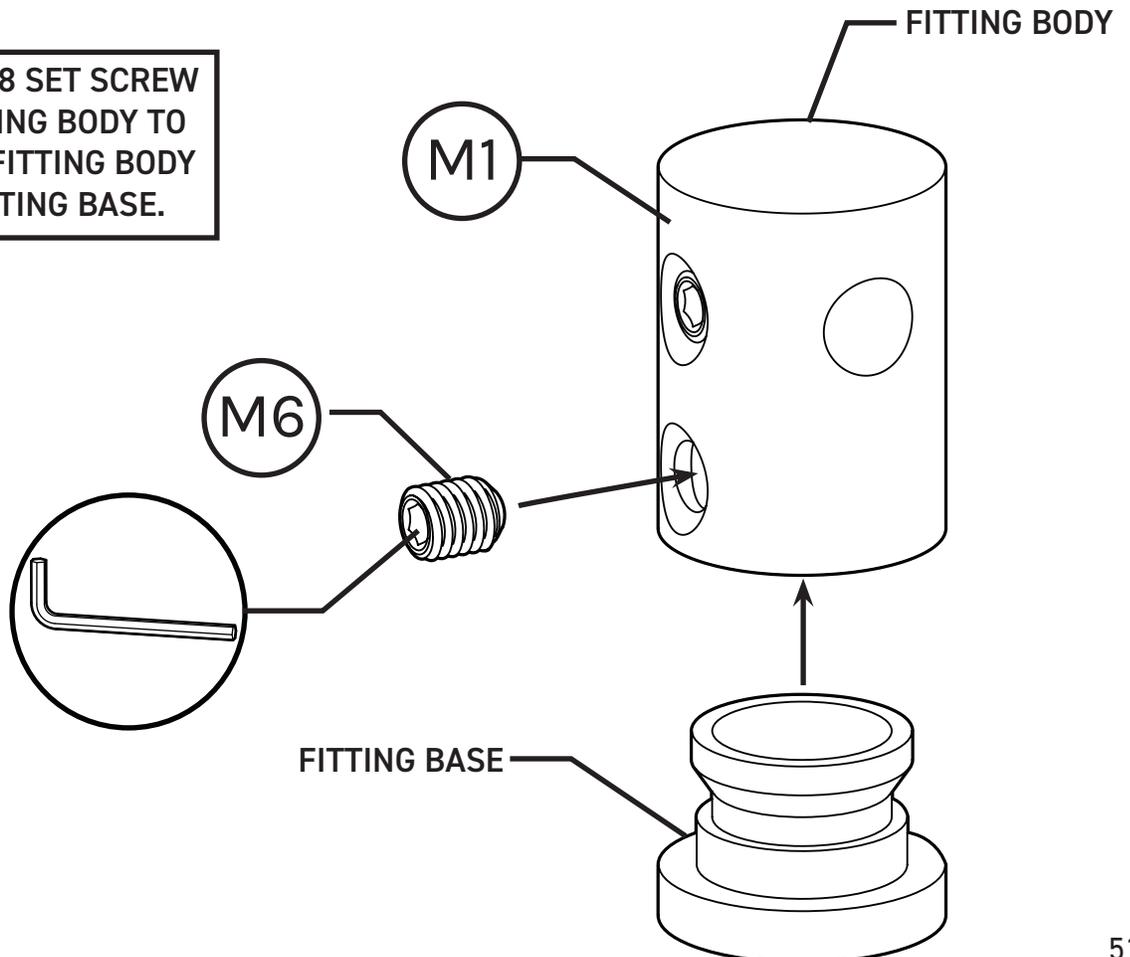
## PARTS



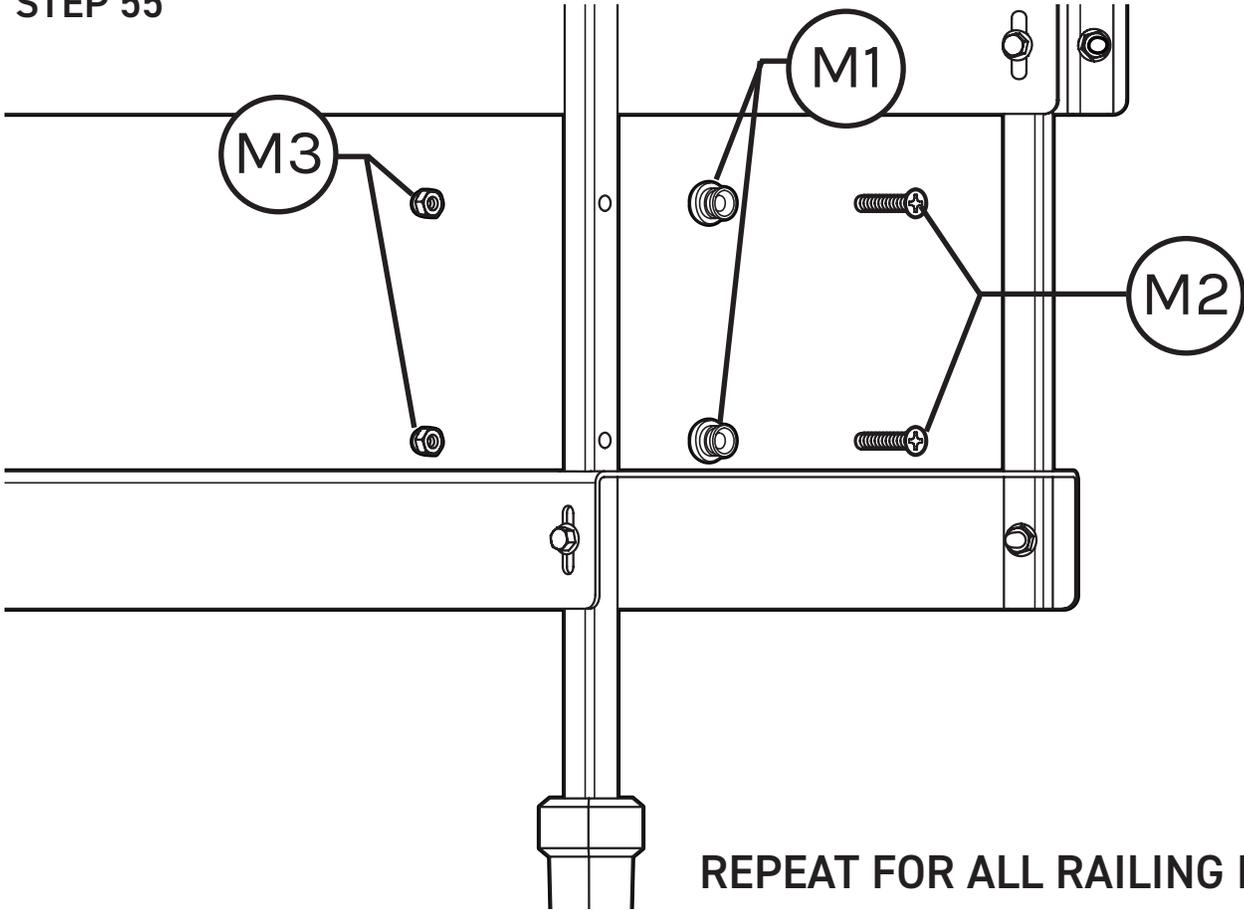
M1 Railing Fitting	M4 1/2" Long Black Rubber Cap
M2 1/4" - 20 x 1-1/2" Flat Head Machine Screw	M5 1/4" Dia. Solid Stainless Steel Multi-Line Coil
M3 1/4" - 20 x Acorn Nut	M6 M5 x .08 Set Screw (Pre-Installed)

## ASSEMBLY NOTE!!

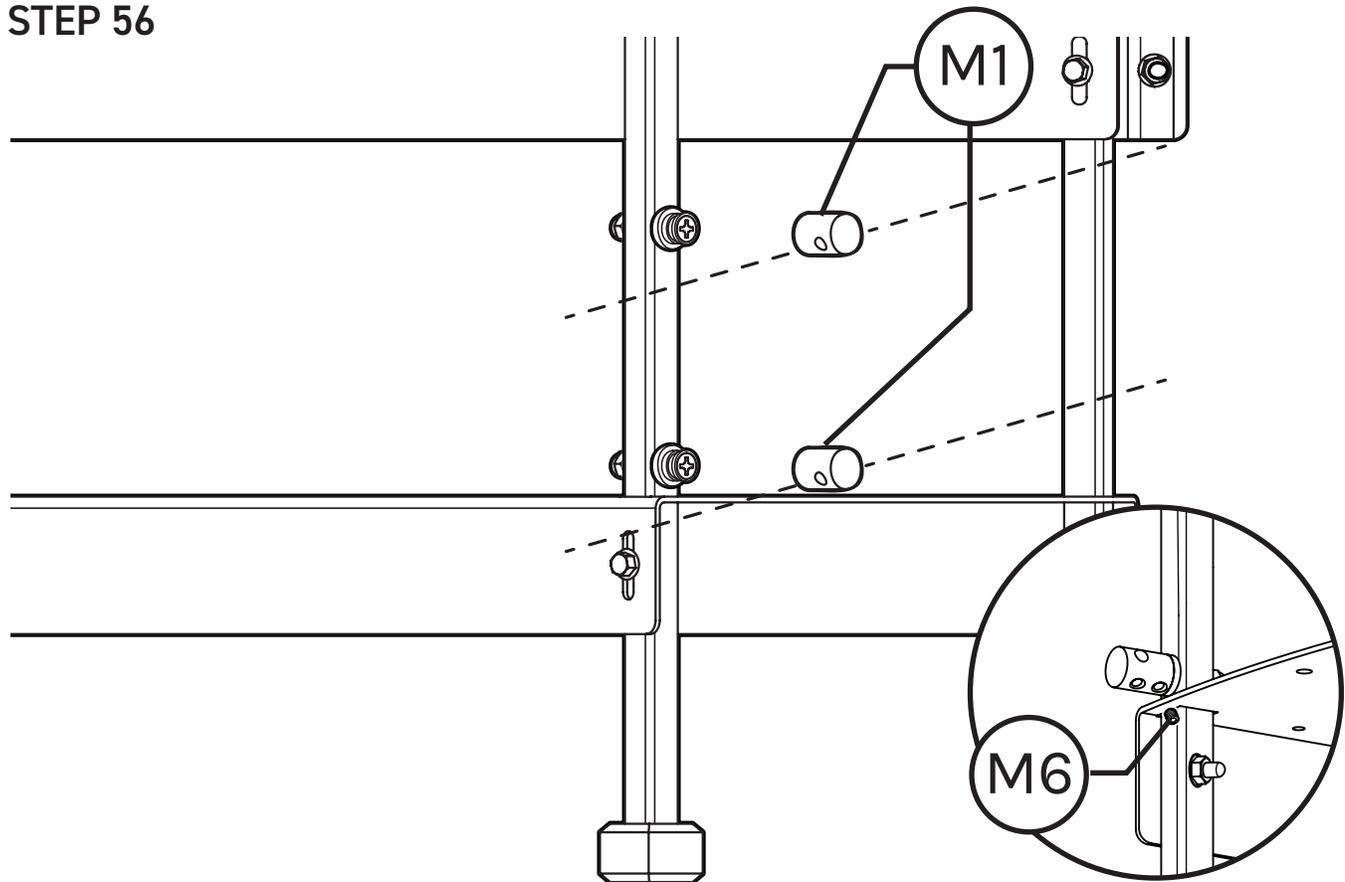
REMOVE M5 X .08 SET SCREW FROM THE FITTING BODY TO SEPARATE THE FITTING BODY FROM THE FITTING BASE.



STEP 55

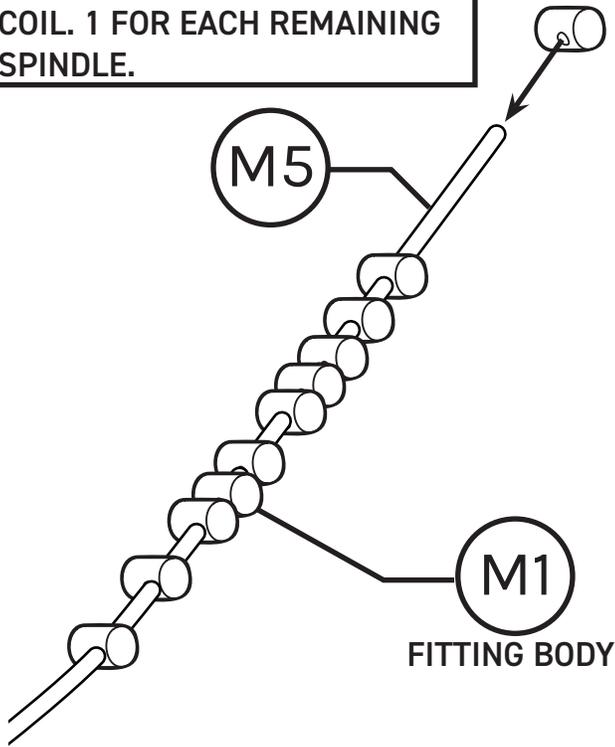


STEP 56

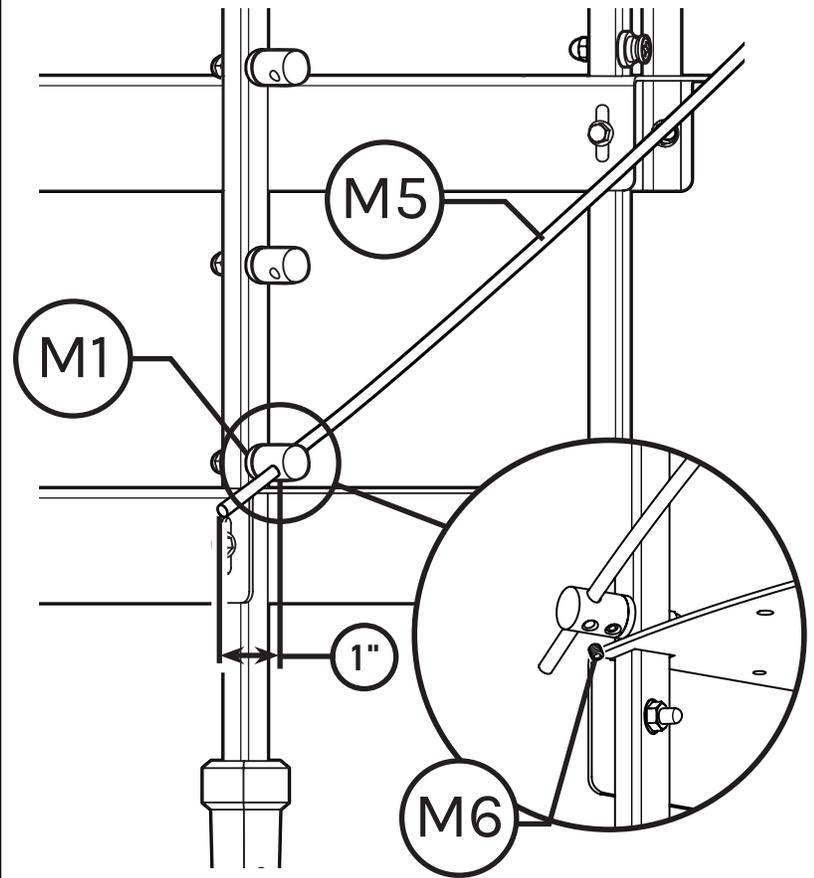


### STEP 57

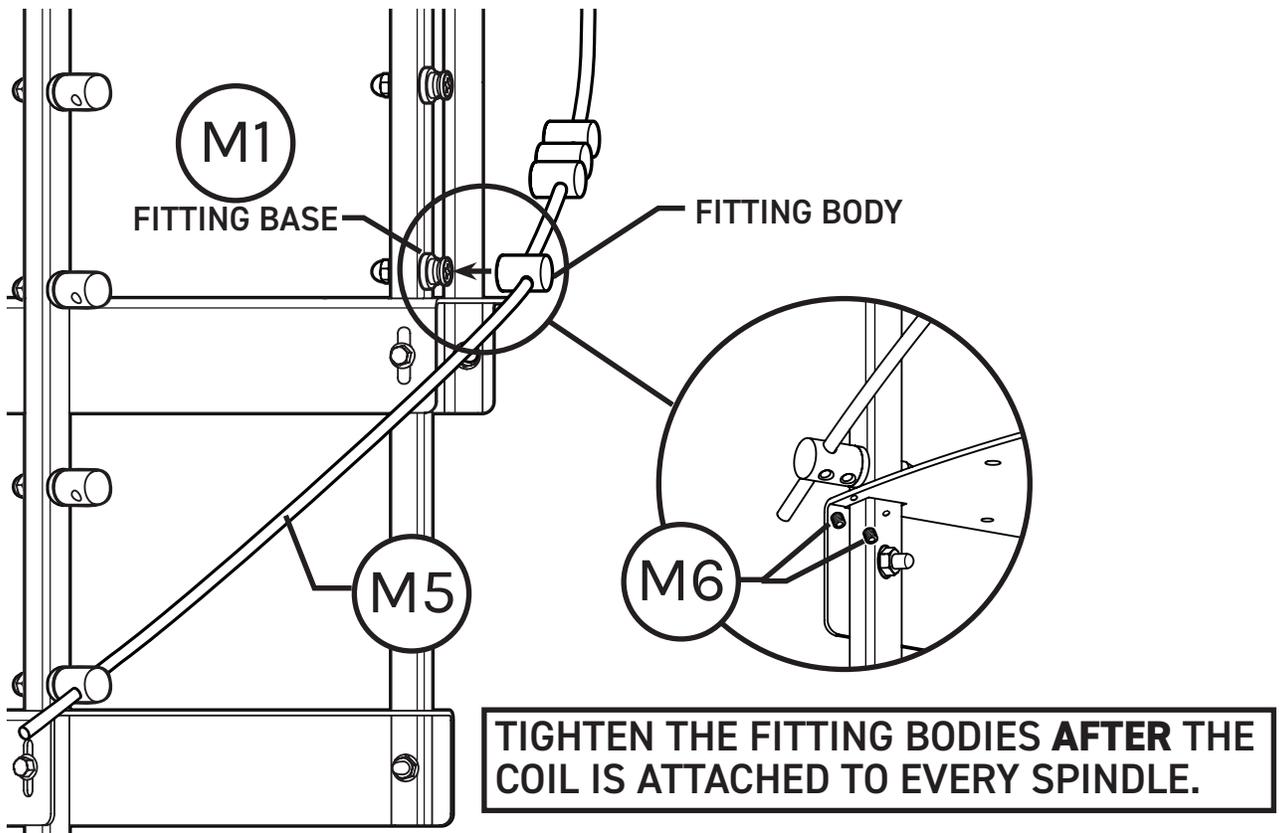
THREAD FITTING BODIES ONTO COIL. 1 FOR EACH REMAINING SPINDLE.



### STEP 58

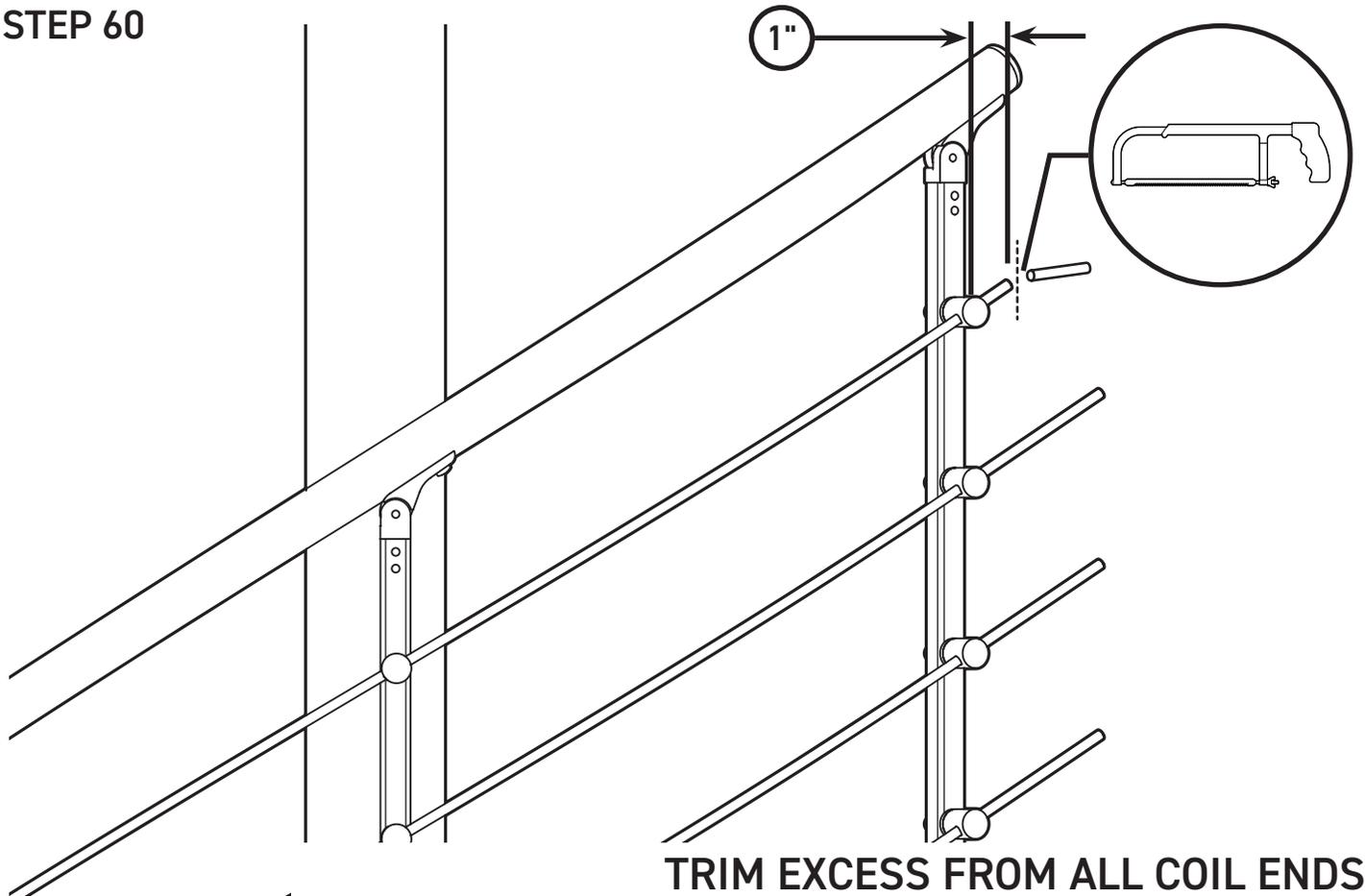


### STEP 59

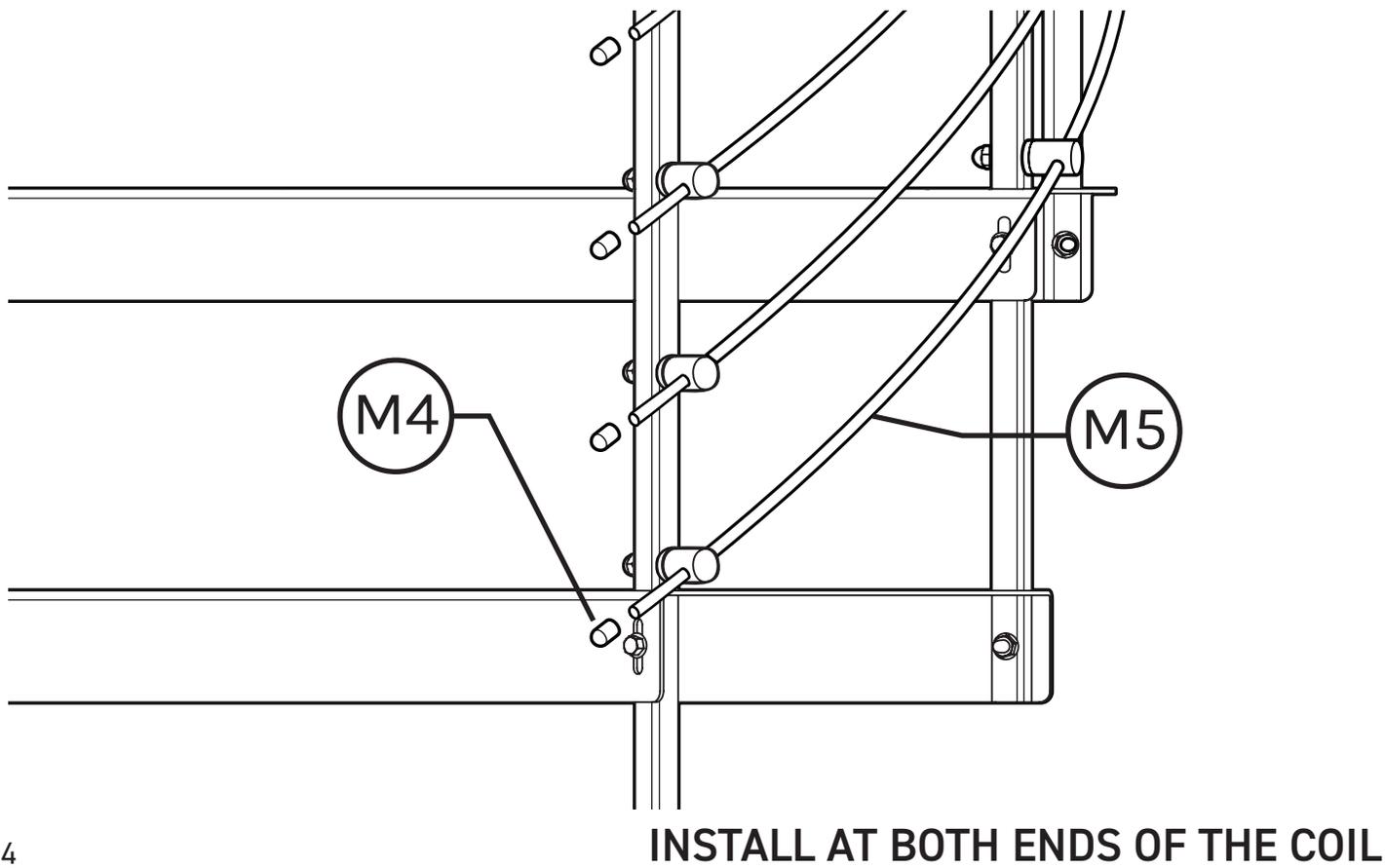


REPEAT STEPS 57-59 FOR ALL REMAINING SPINDLES

**STEP 60**

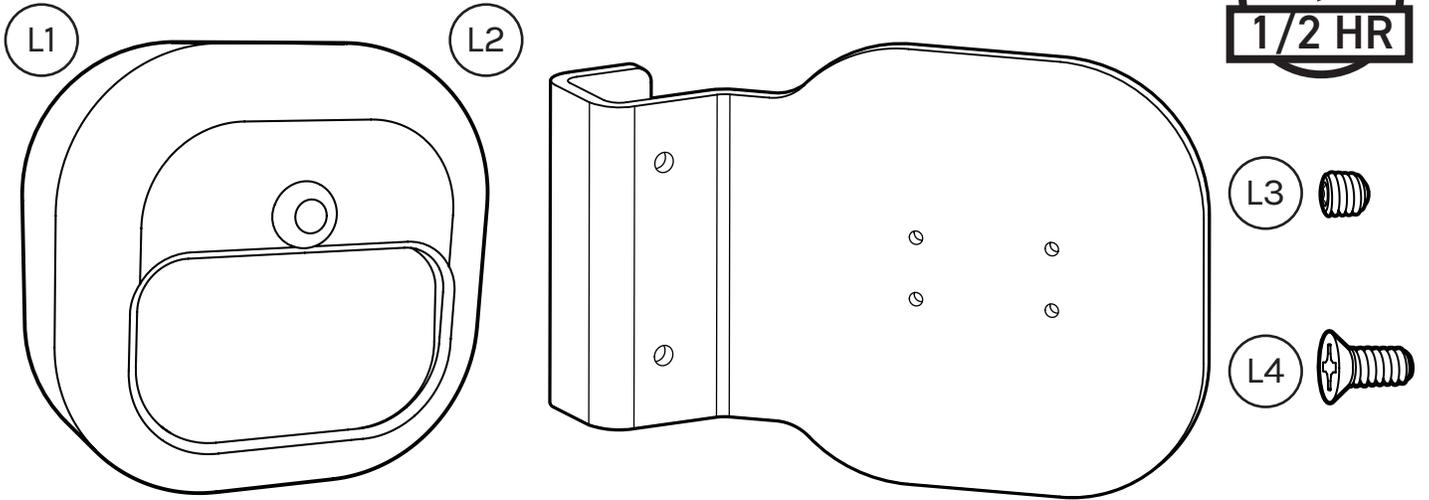


**STEP 61**



# RING™ LIGHT INSTALLATION:

## PARTS



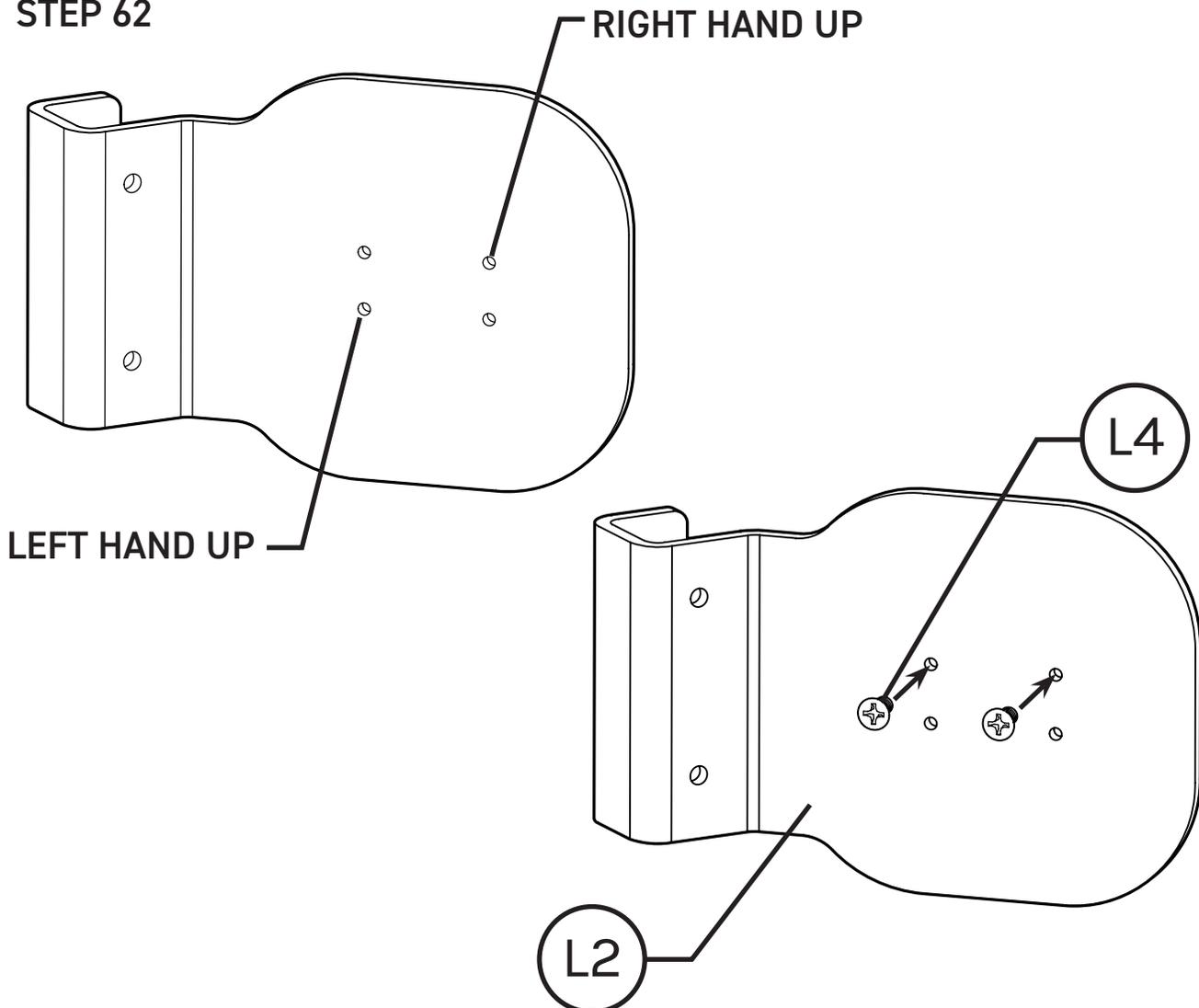
(L1) Ring™ Light

(L3) #10-32 x 3/16" Cup Point Set Screw (Pre-installed)

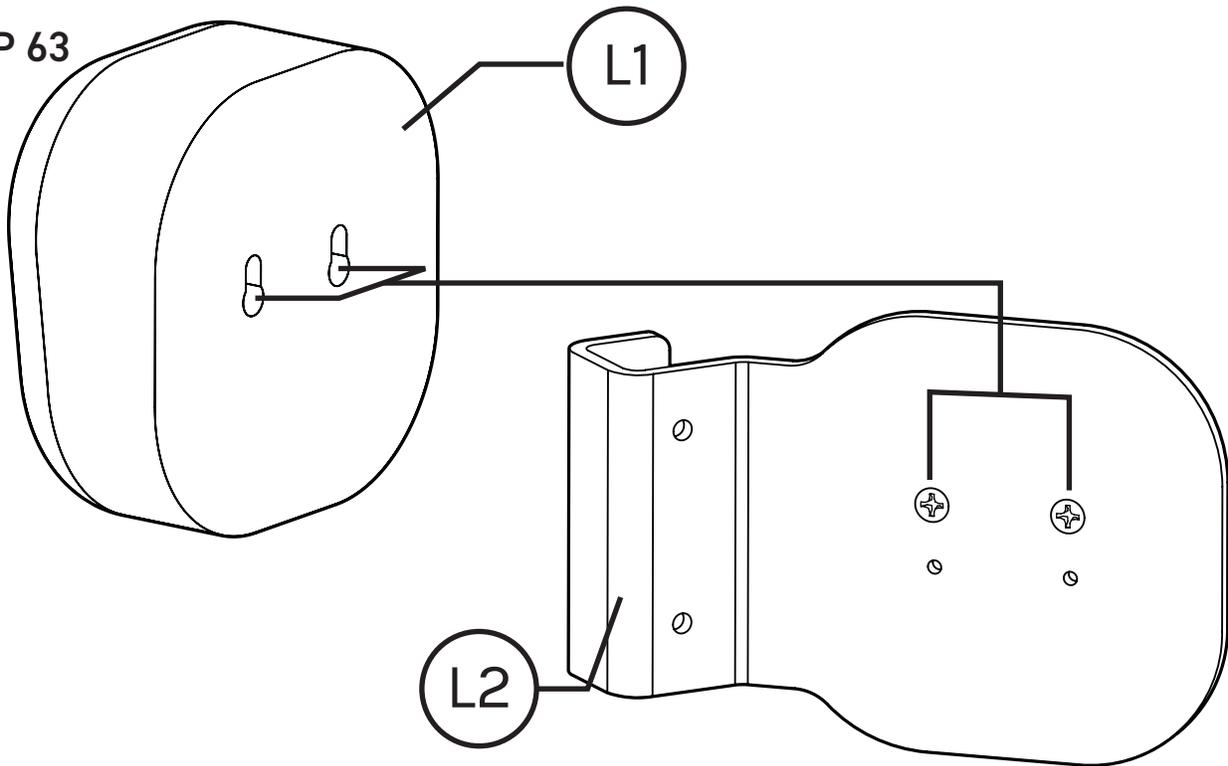
(L2) Light Bracket

(L4) #6-32 x 5/16" Phillips Flathead Machine Screw (Pre-Installed)

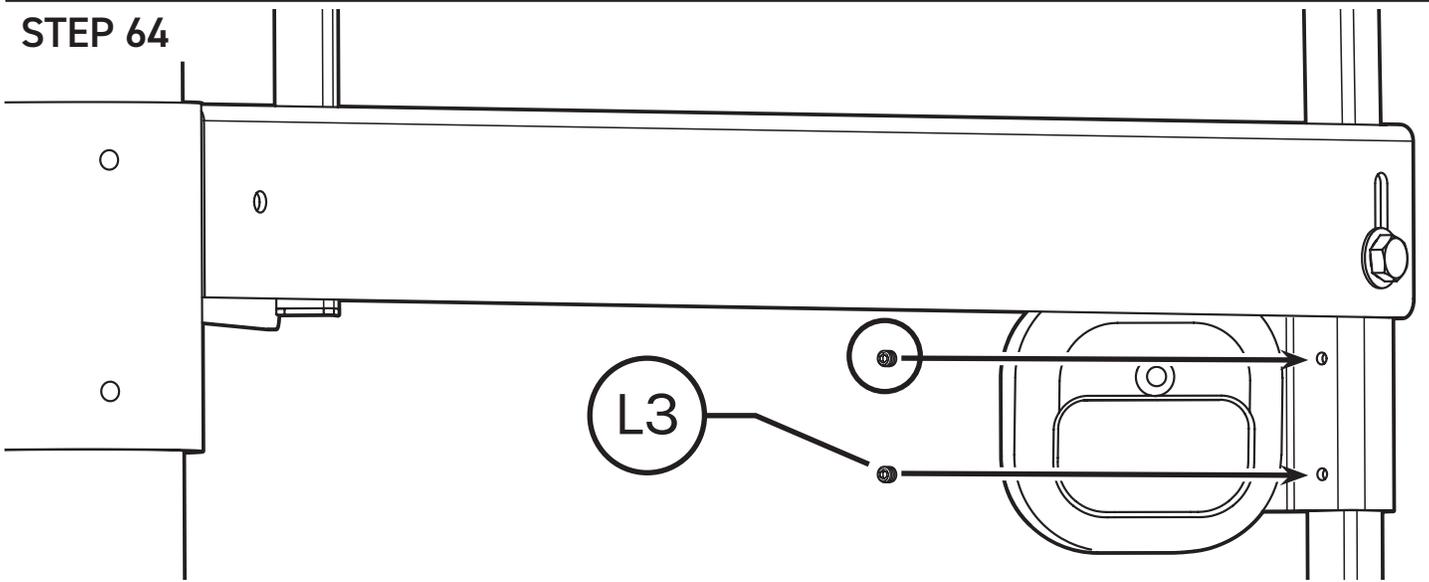
## STEP 62



STEP 63

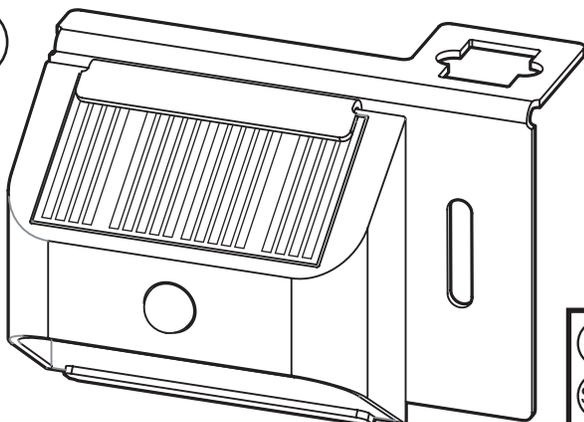


STEP 64



**SOLAR RING™ LIGHT INSTALLATION:  
PARTS**

SL1

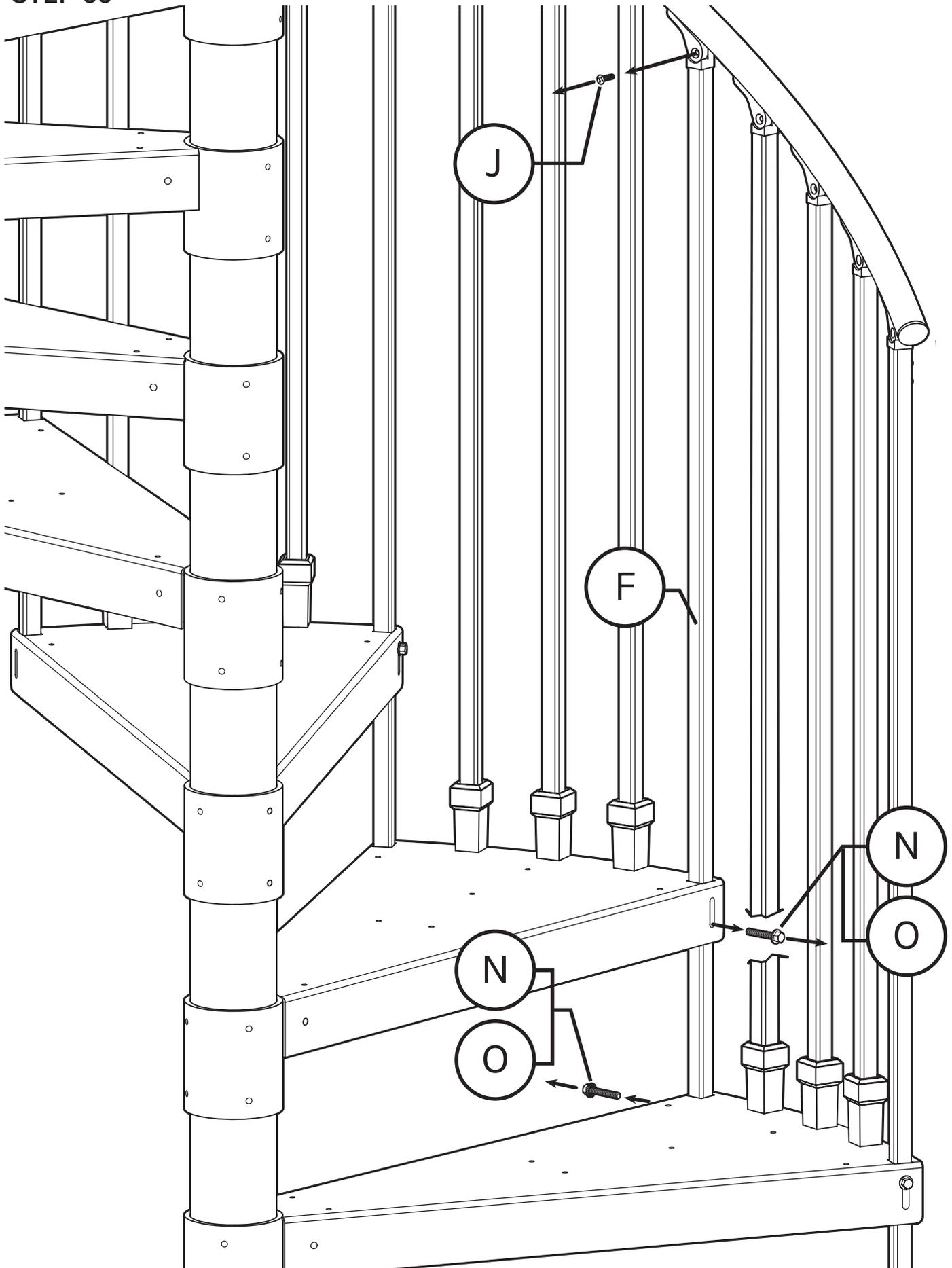


SL2

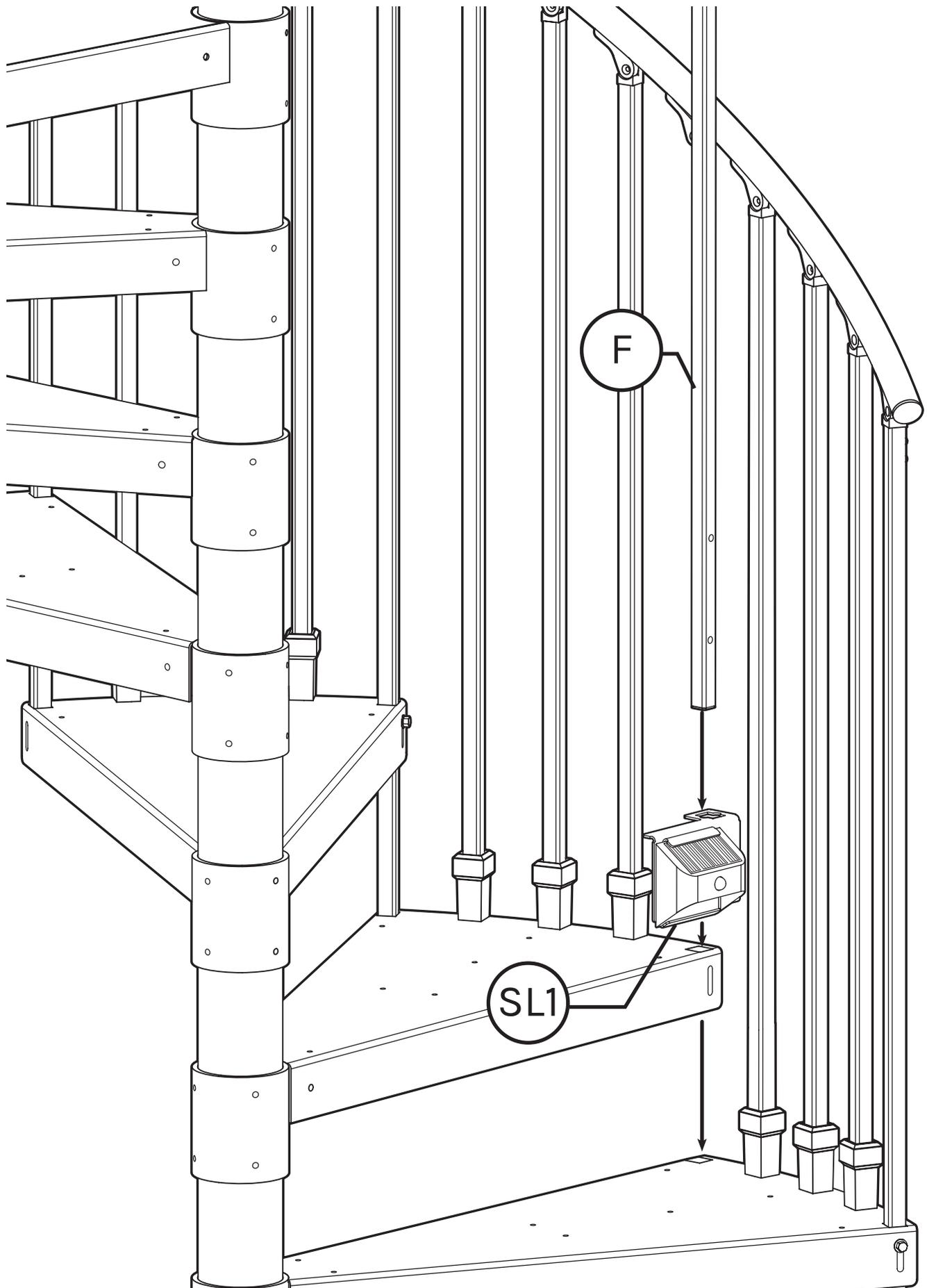


SL1 Solar Ring™ Light (Right Hand Bracket Shown)  
SL2 1/4" Washer x 3

STEP 65



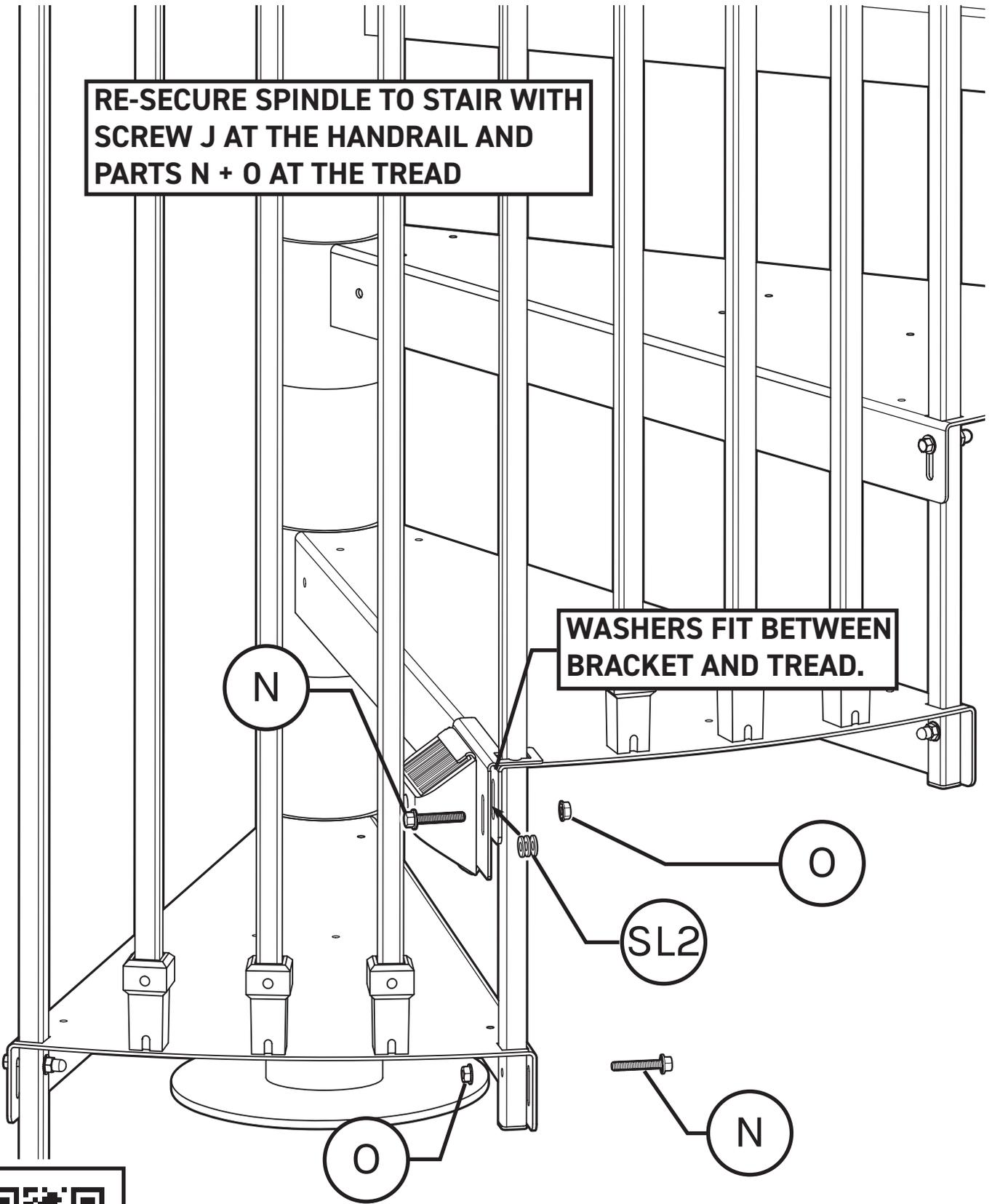
STEP 66



**STEP 67**

**RE-SECURE SPINDLE TO STAIR WITH  
SCREW J AT THE HANDRAIL AND  
PARTS N + O AT THE TREAD**

**WASHERS FIT BETWEEN  
BRACKET AND TREAD.**



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**Our warranty is simple:** If we screwed up we will fix it! Any manufacturing defects are covered for life. We expect no less from any product we purchase. Thank you for your support and interest in our products. Allen Cohen President

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