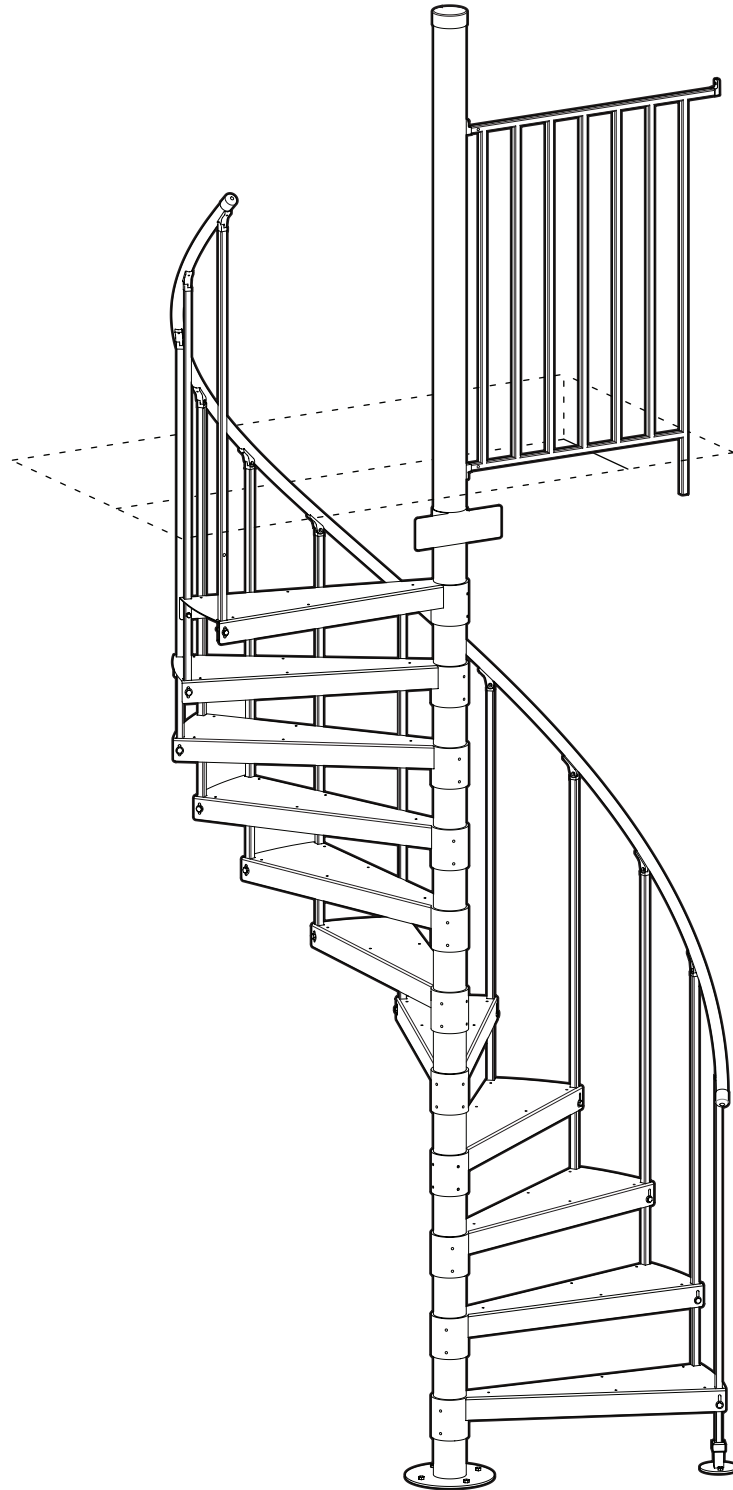


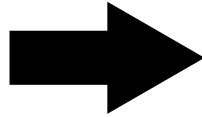
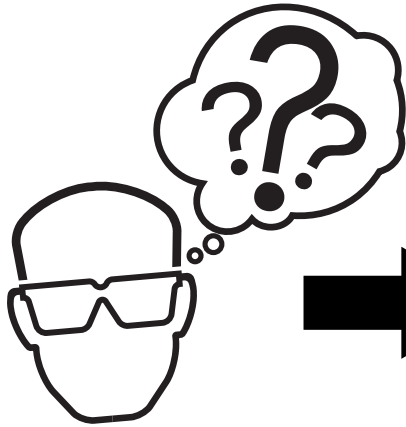
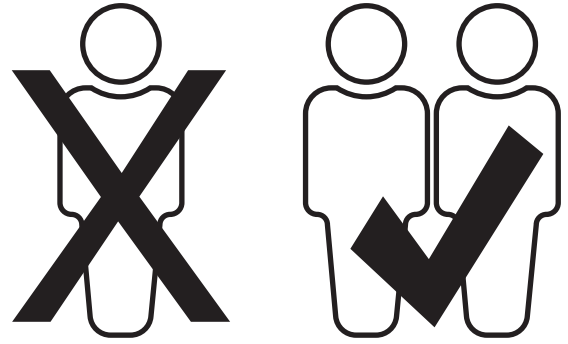
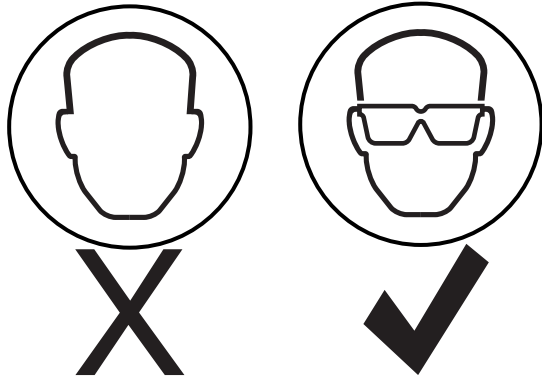
1/2 TURN SPIRAL STAIR INSTALLATION MANUAL

2025 EDITION



*12 RISER STAIRCASE SHOWN

The IRON Shop
The Leading Manufacturer of Spiral Stairs®

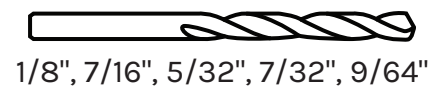
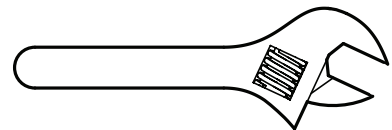
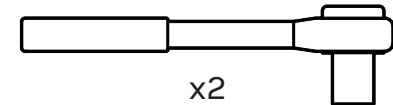
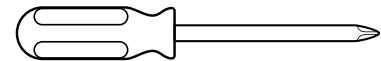
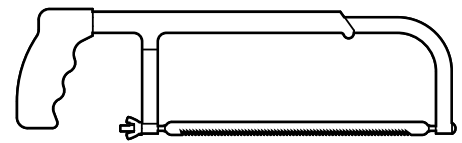
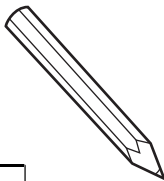
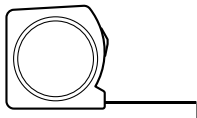
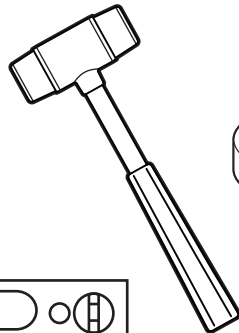
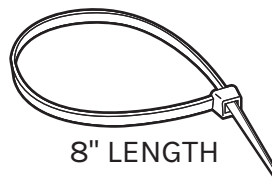
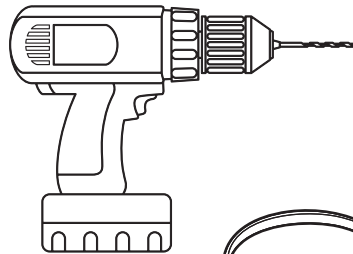
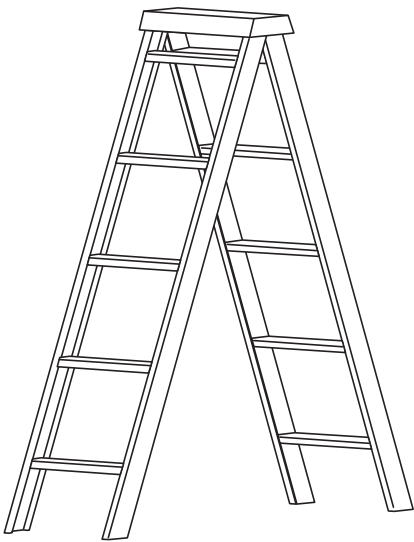


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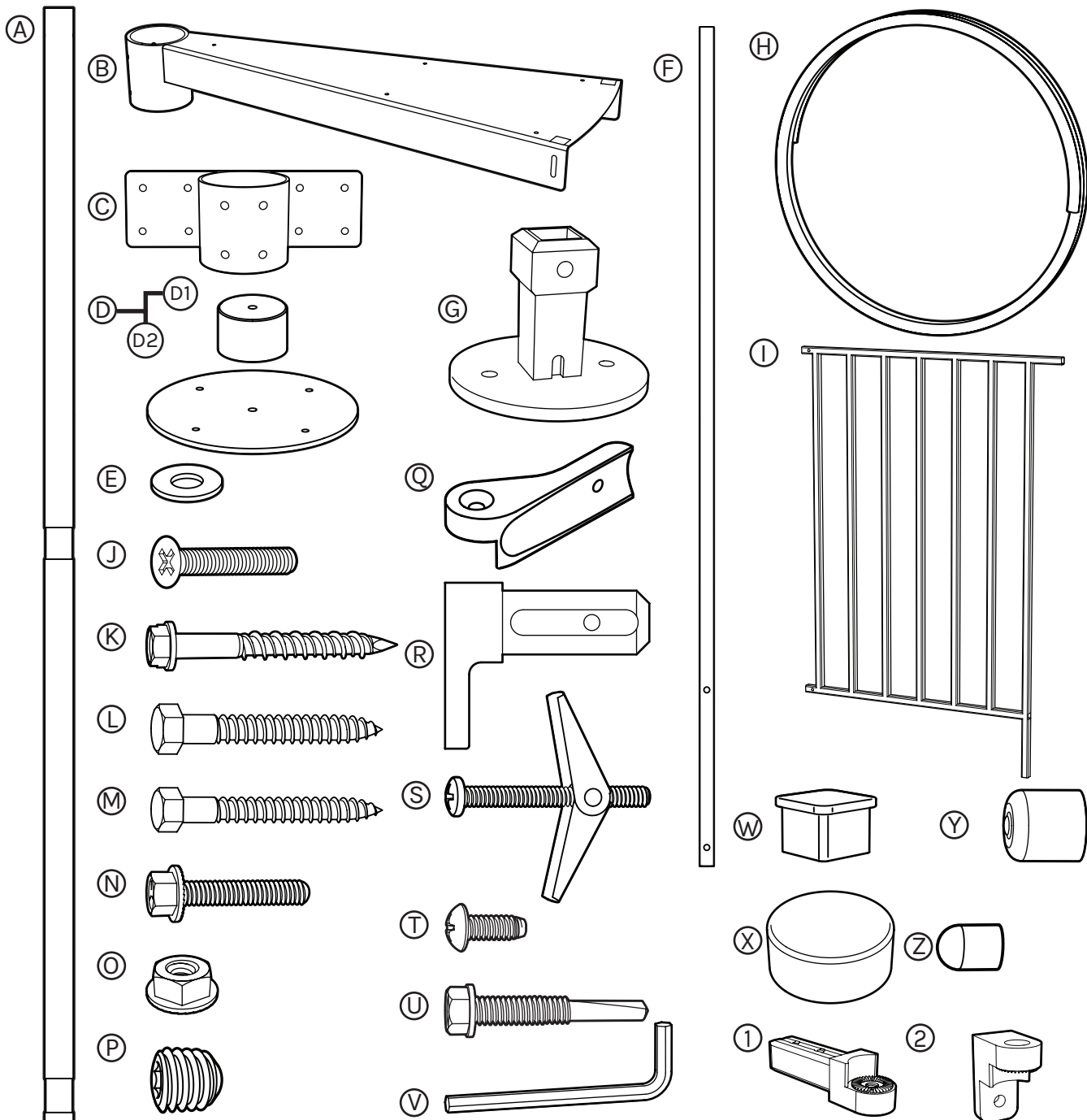


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TOOLS NEEDED FOR INSTALLATION



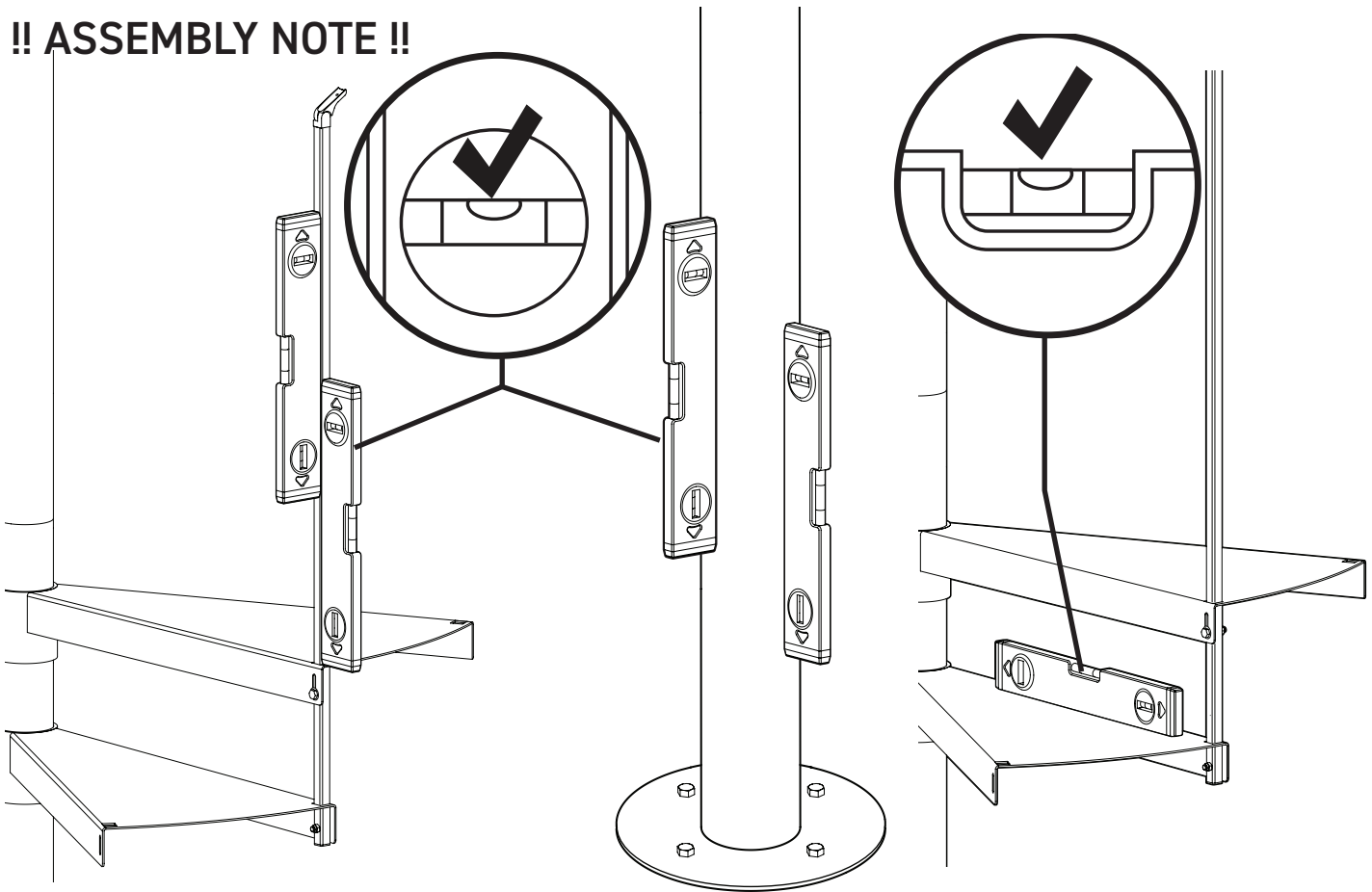
INCLUDED



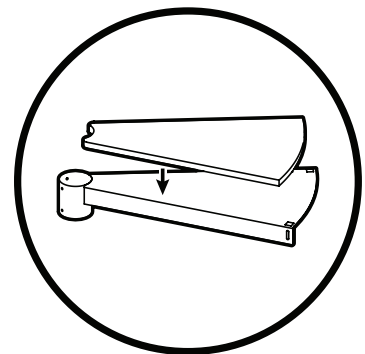
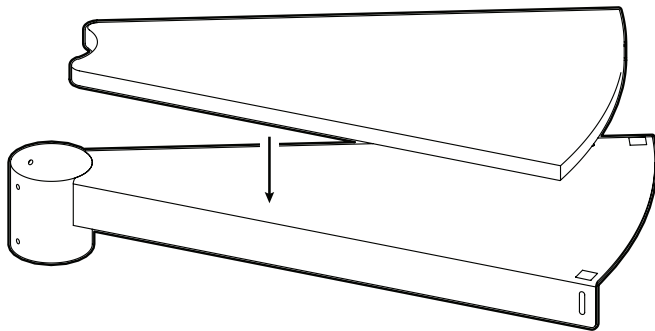
PLEASE REFER TO YOUR ORDER FORM FOR RISER HEIGHT AND PART QUANTITY.

(A) Center Pole	(K) 1/4" x 2-1/4" Hex-Washer Head Masonry Screw	(T) #10-24 x 1/2" Round Head Thread Forming Screw
(B) Tread (Bottom Tread May Vary)	(L) 5/16" x 2" Heavy Duty Lag Screw	(U) #12 x 1-1/2" Hex Washer Head Self Threading Screw
(C) Flat Mount Bracket	(M) 1/4" x 2" Heavy Duty Lag Screw	(V) Hex Key
(D) Center Pole Base Plate	(N) 1/4" - 20 x 1-1/2" Hex Serrated Flange Bolt	(W) Spindle Post End Cap
(E) Washer	(O) 1/4" - 20 Hex Serrated Flange Nut	(X) Vinyl Pole Top Cap
(F) Main Spindle	(P) 5/16" x 18 5/16" Set Screw	(Y) Vinyl Rail End Cap
(G) IRS-4 Tube Bottom Cup & Starter Post Base Plate	(Q) IRS-1 Flipper Head	(Z) Rubber Cap for 1/4" "N" Bolts
(H) Handrail Coil	(R) IRS-3 Tube End Fitting	(1) IRS 2 Adjustable Fitting
(I) Landing Rail	(S) 6/32 - 1-1/4" Machine Screw w/ Toggle Wing (Vinyl Handrail Only)	(2) IRS 5 Adjustable End Fitting
(J) #10-24 x 3/4" Flat Head Machine Screw		

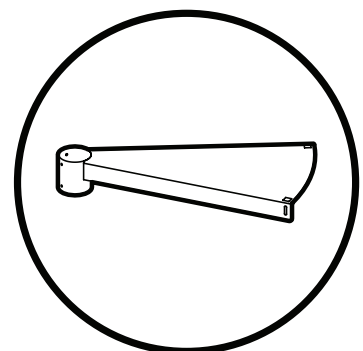
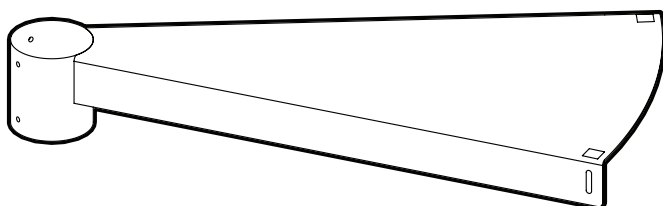
!! ASSEMBLY NOTE !!

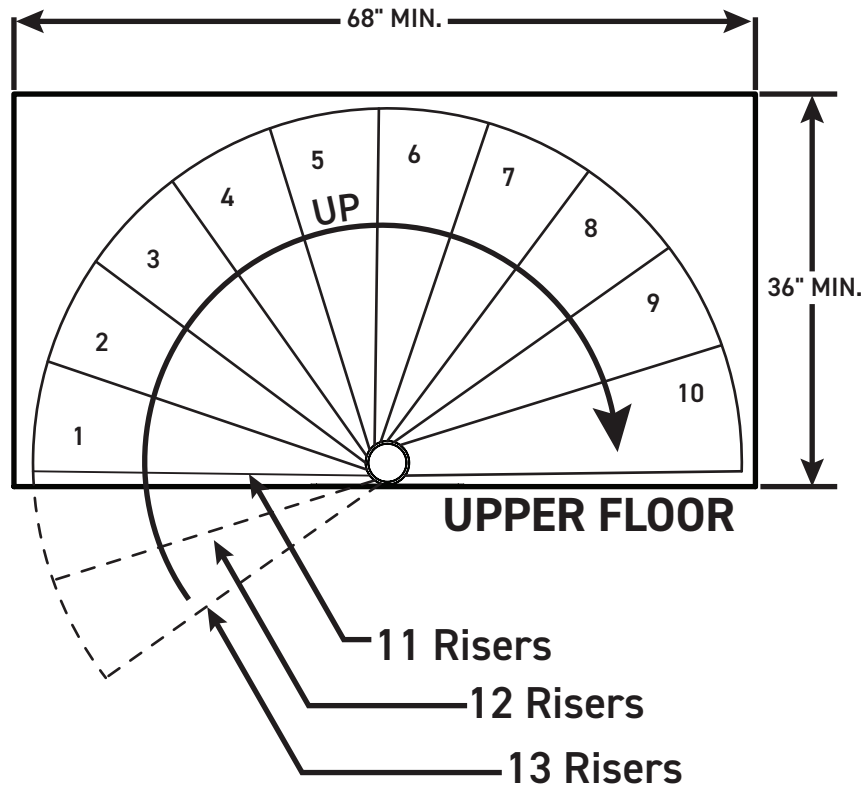


WOOD COVERING

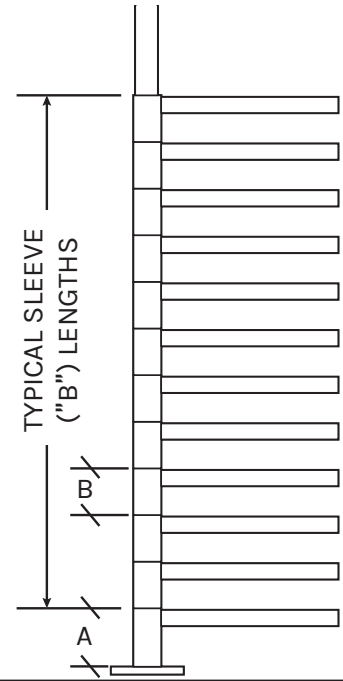


NO WOOD COVERING

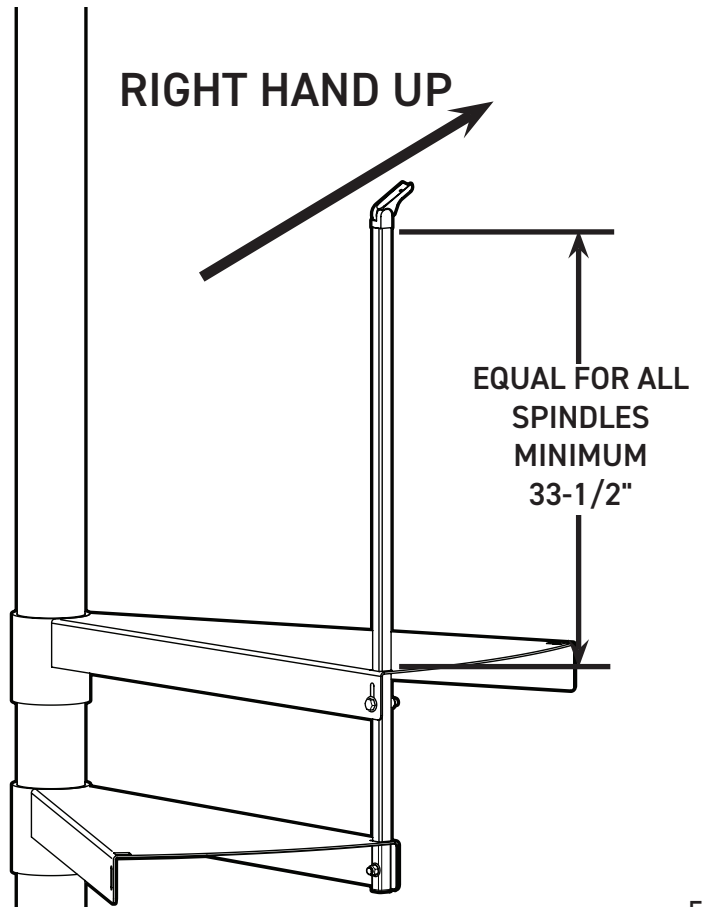
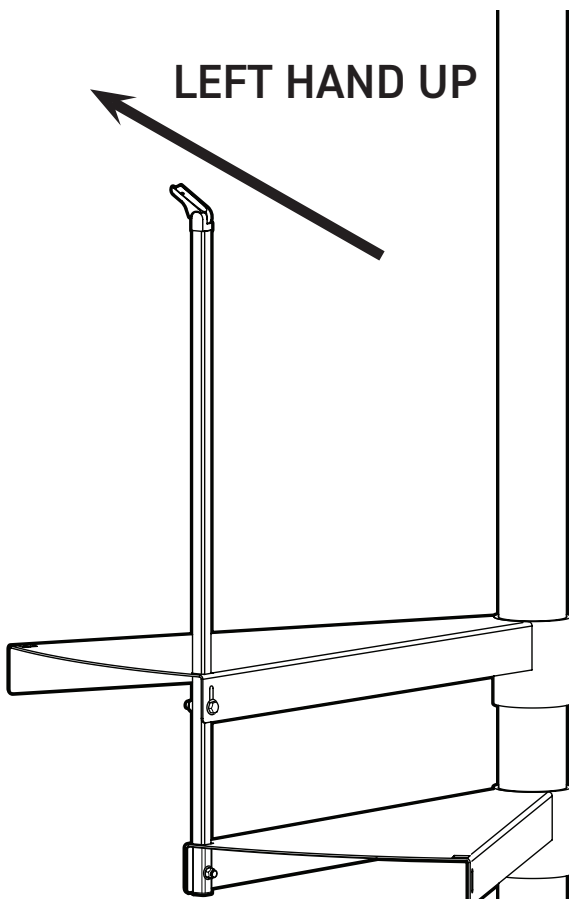




CONTINUOUS SLEEVE TREAD SEQUENCE

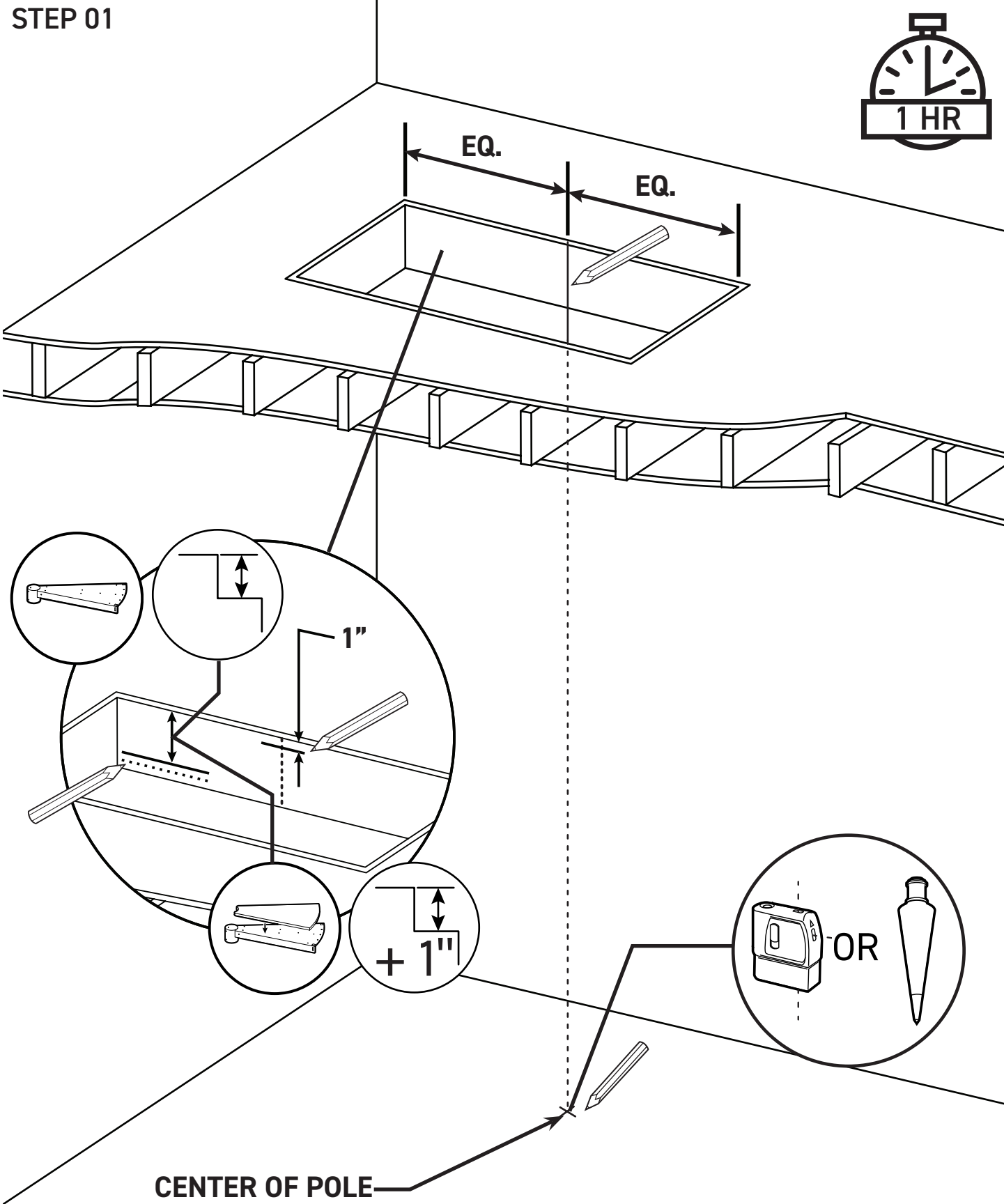


BOTTOM SLEEVE LENGTH ("A")
MAY VARY, SEE PACKING LIST.



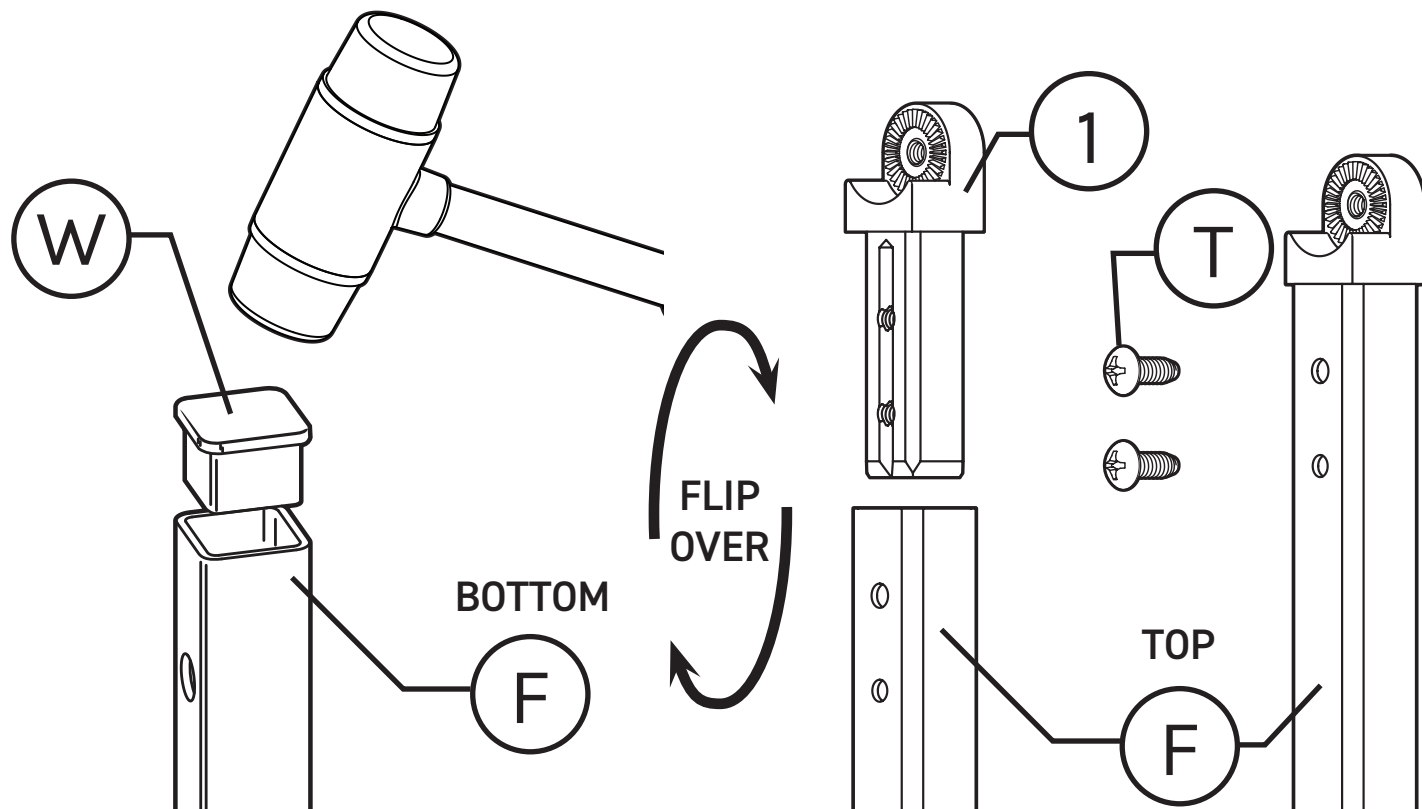
SPIRAL STAIR INSTALLATION

STEP 01



STEP 02

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



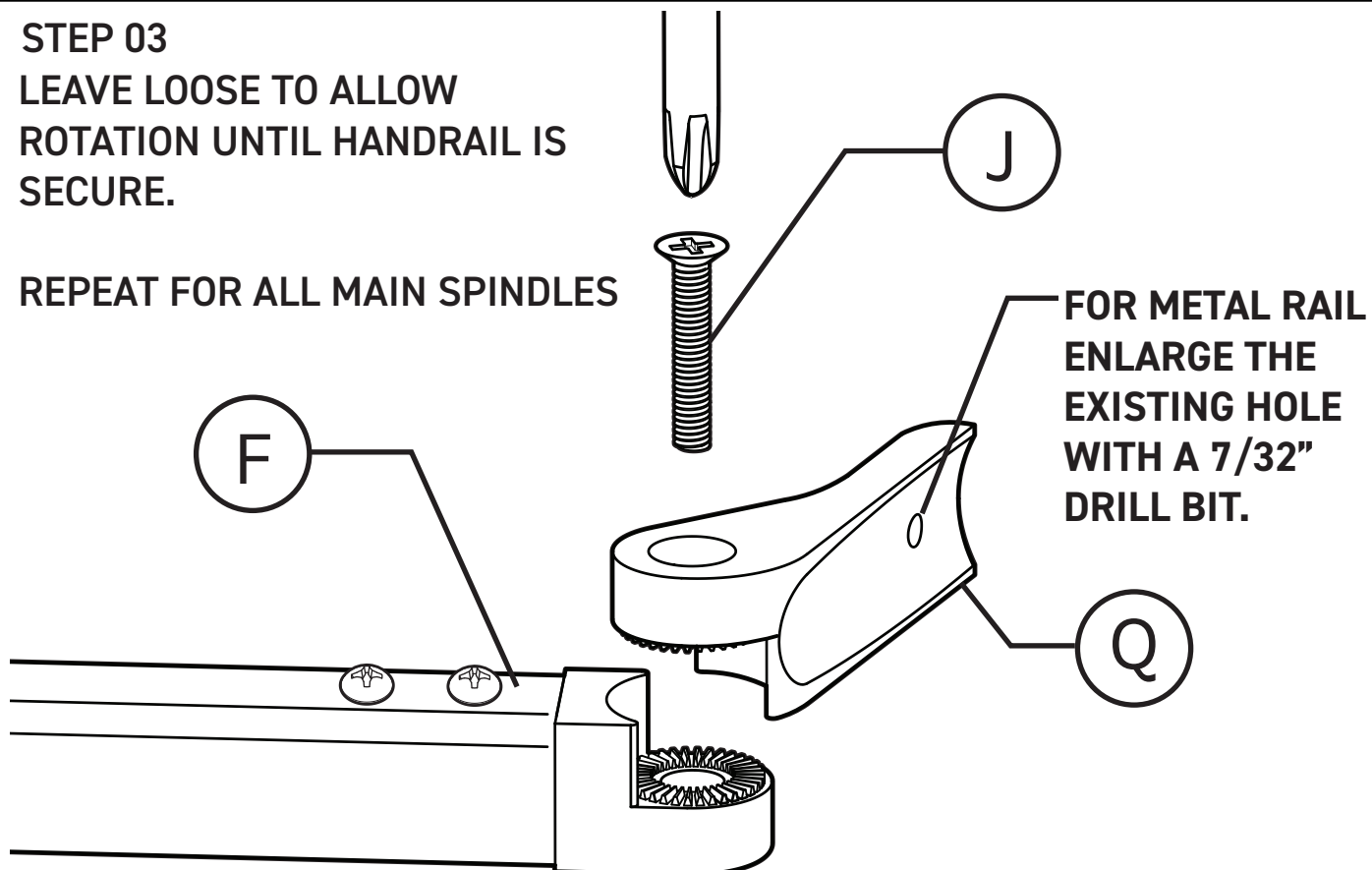
REPEAT FOR ALL BUT ONE MAIN SPINDLE

REPEAT FOR ALL MAIN SPINDLES

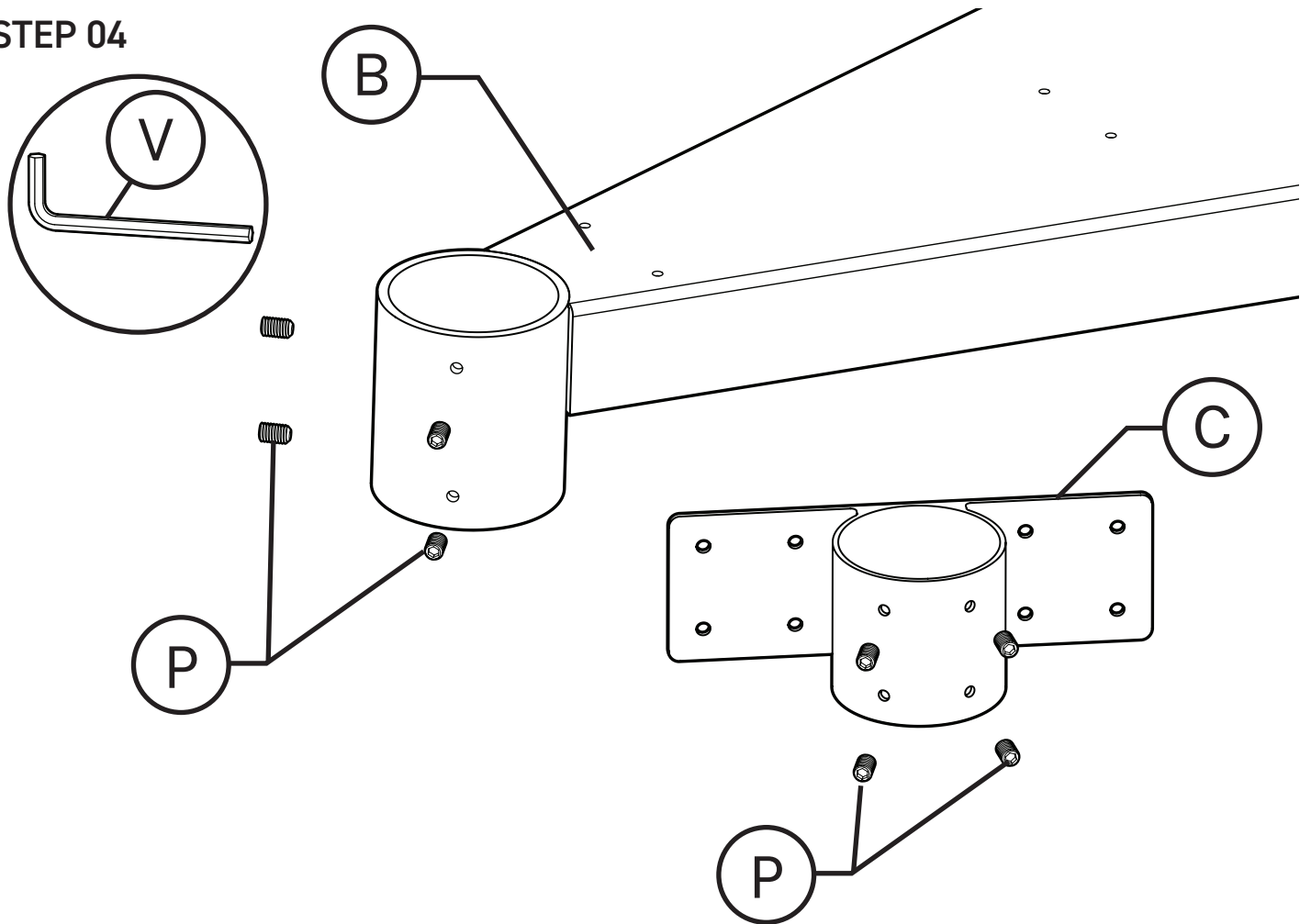
STEP 03

LEAVE LOOSE TO ALLOW
ROTATION UNTIL HANDRAIL IS
SECURE.

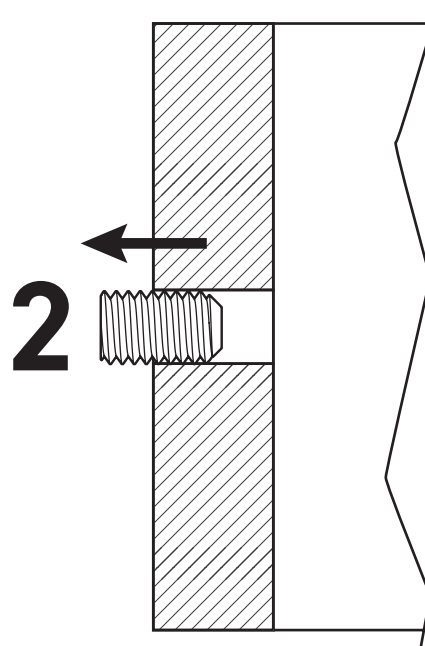
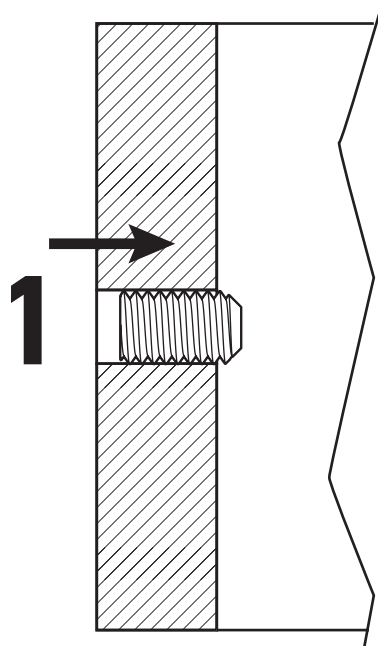
REPEAT FOR ALL MAIN SPINDLES



STEP 04



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

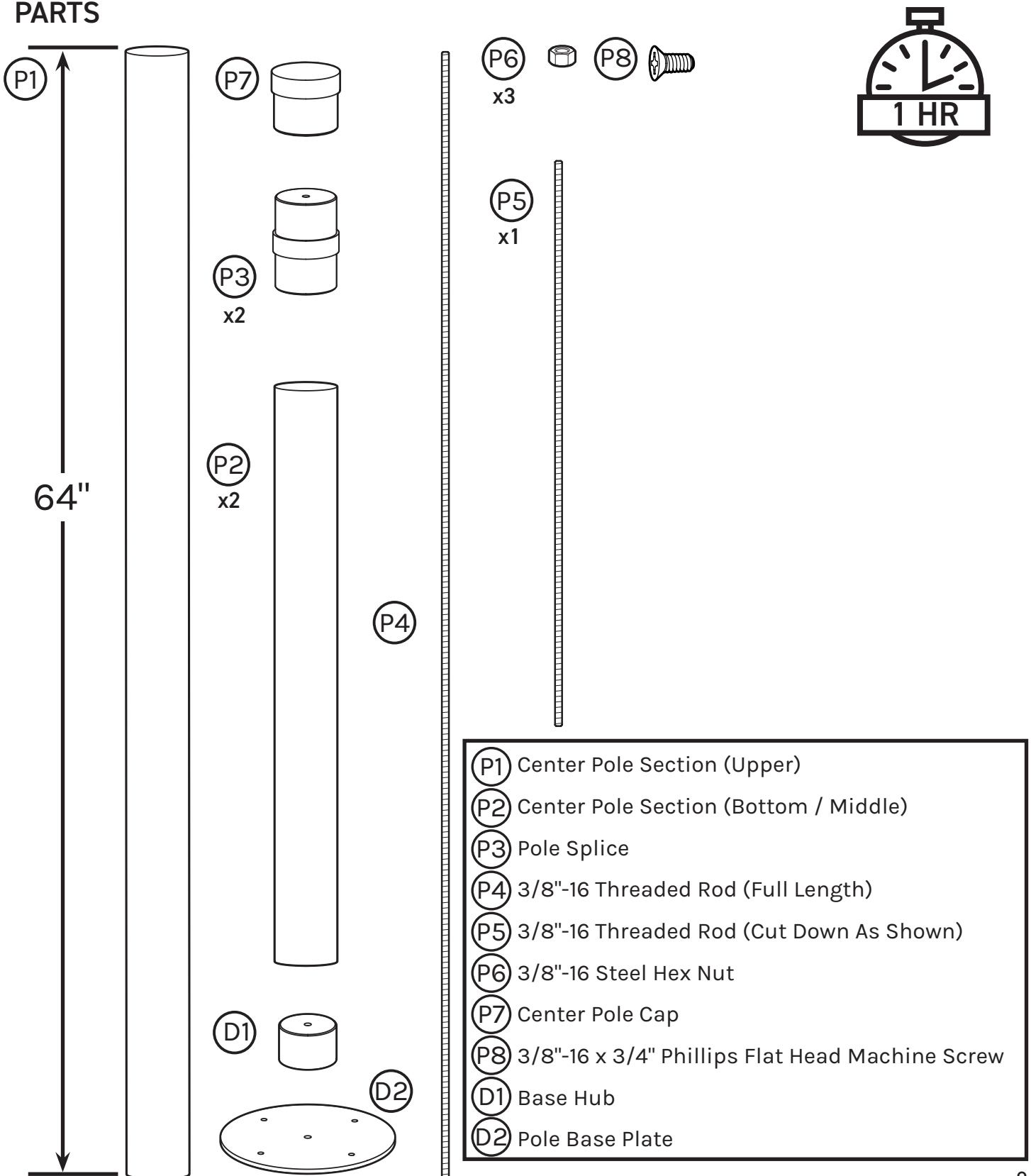


REPEAT STEP FOR ALL TREADS

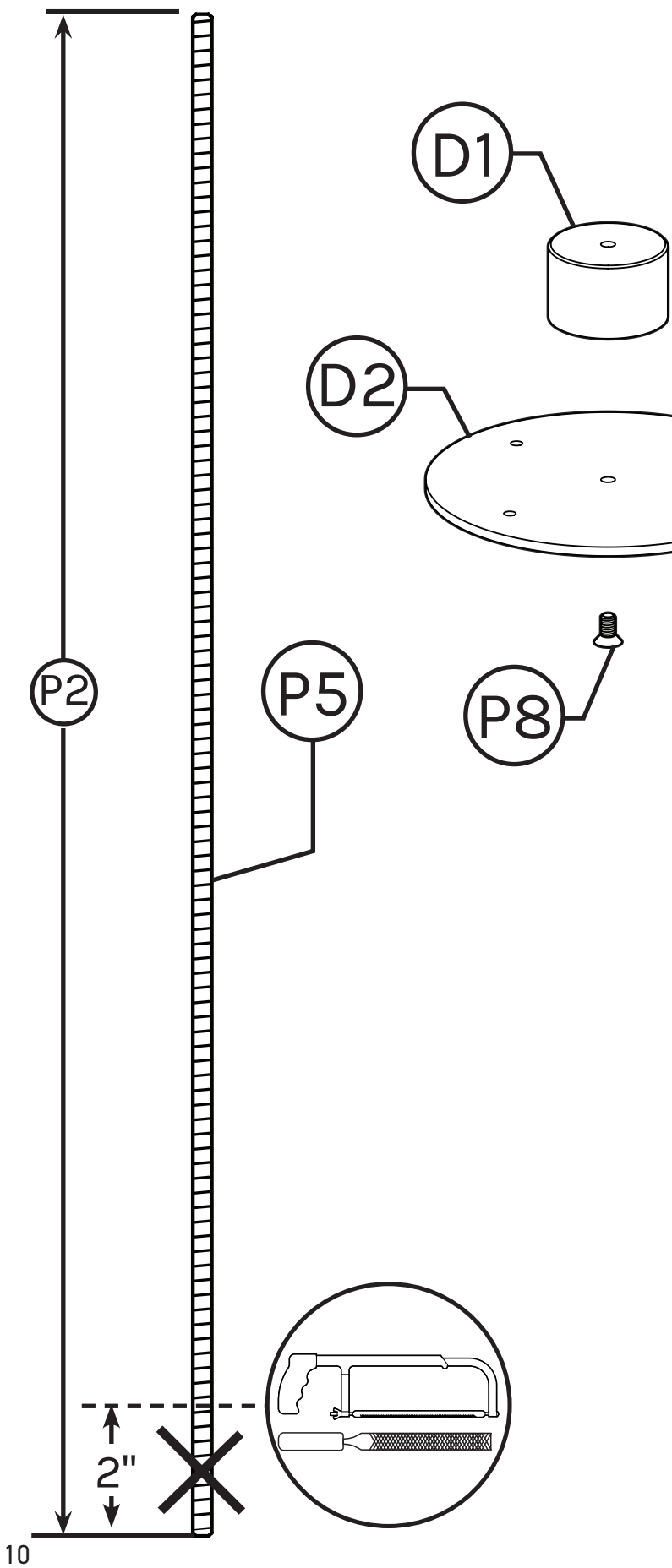
CENTER POLE ASSEMBLY: FOR SINGLE PIECE CENTER POLE SKIP TO STEP 15.

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.

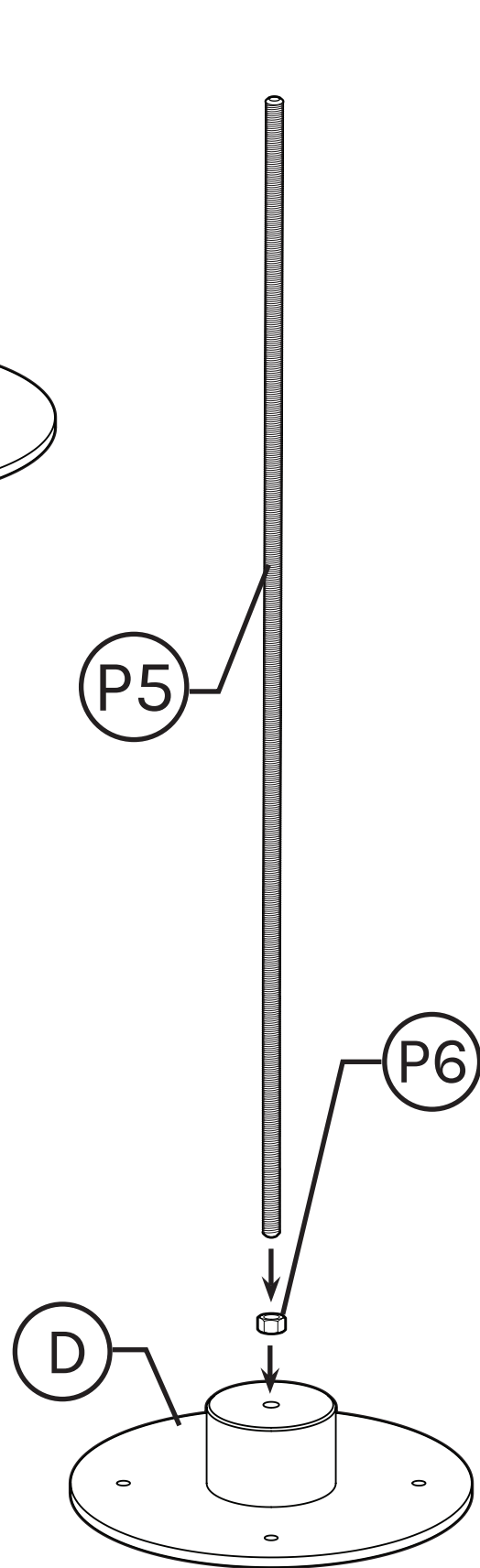
PARTS



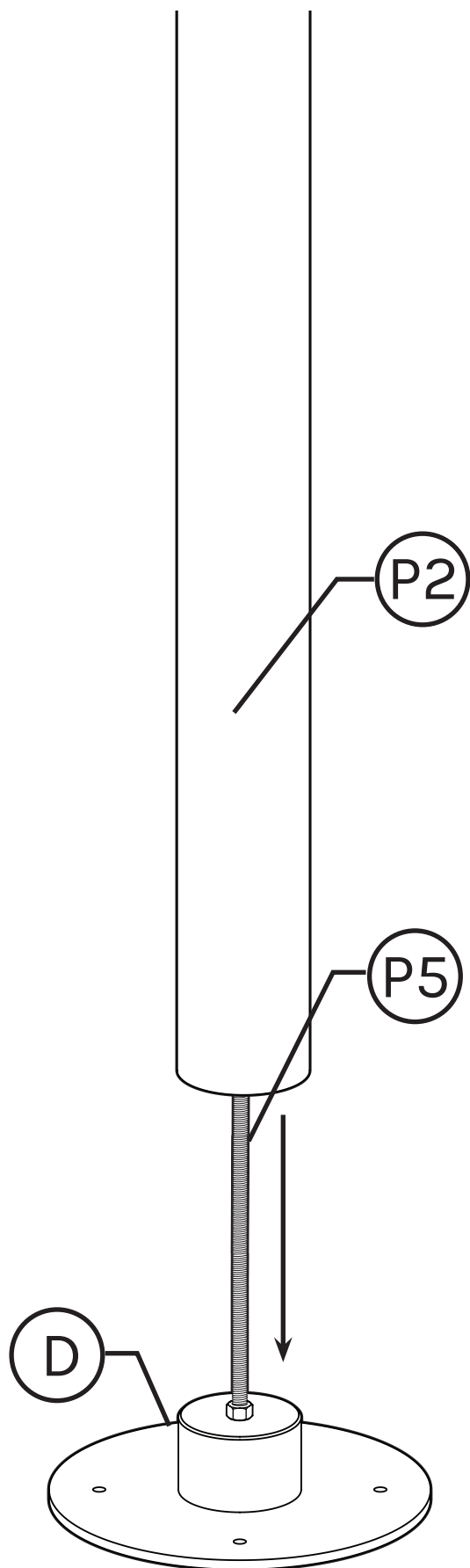
STEP 05



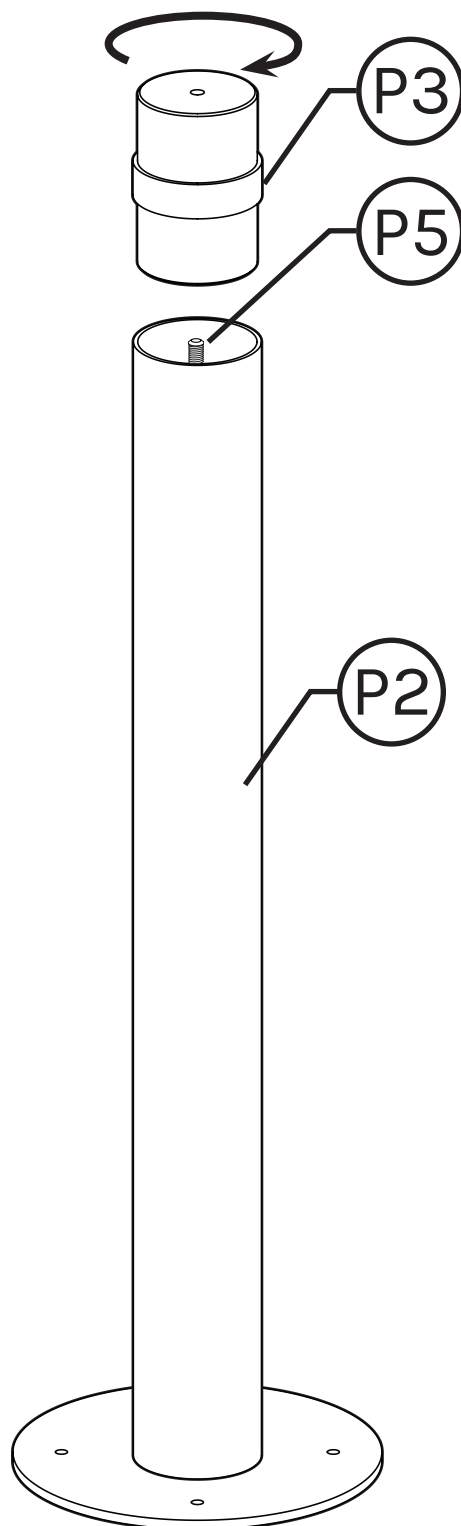
STEP 06



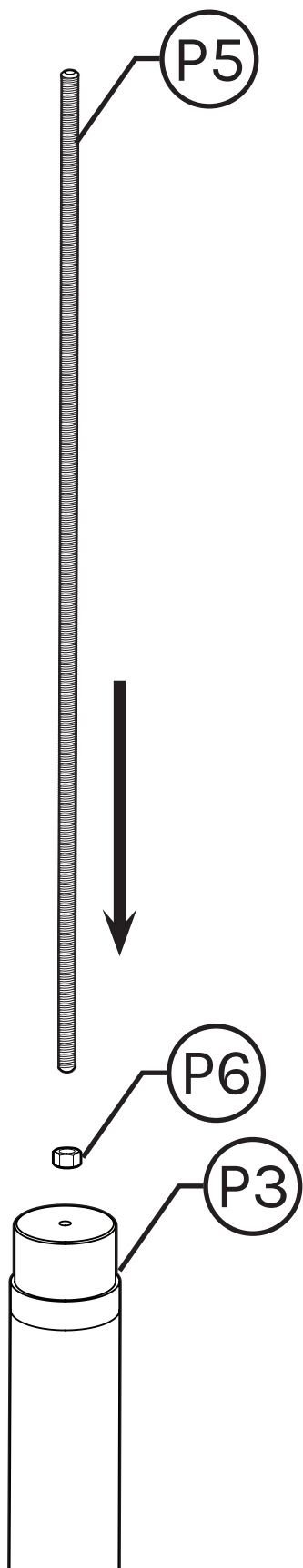
STEP 07



STEP 08

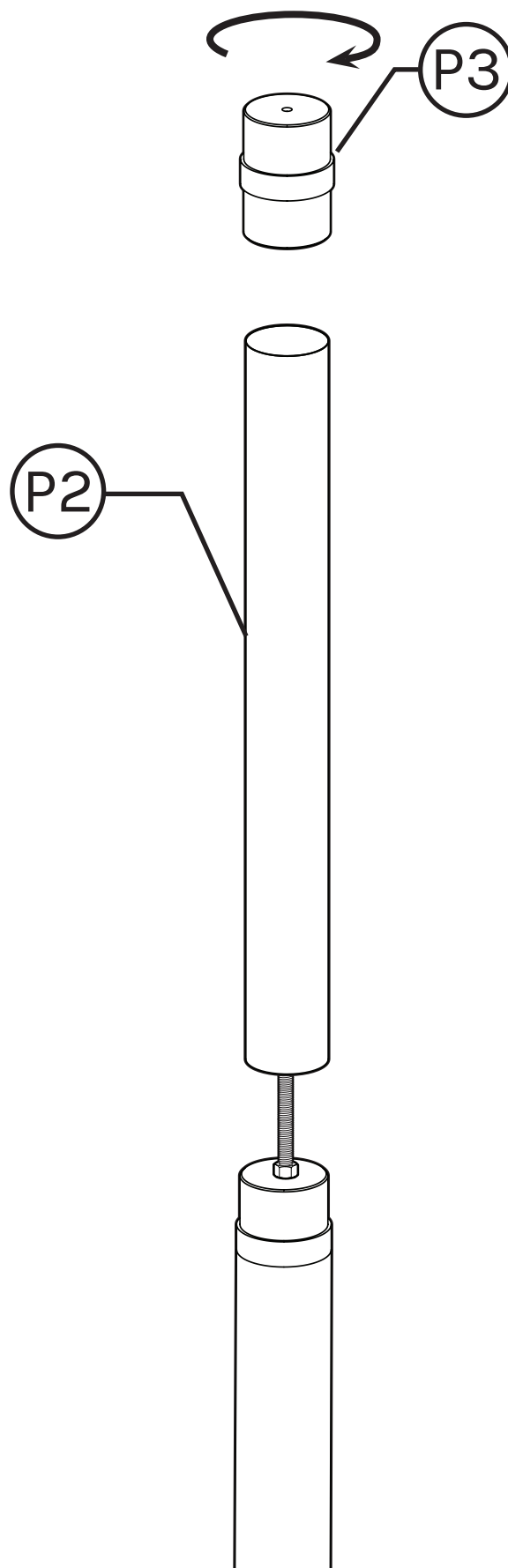


STEP 09

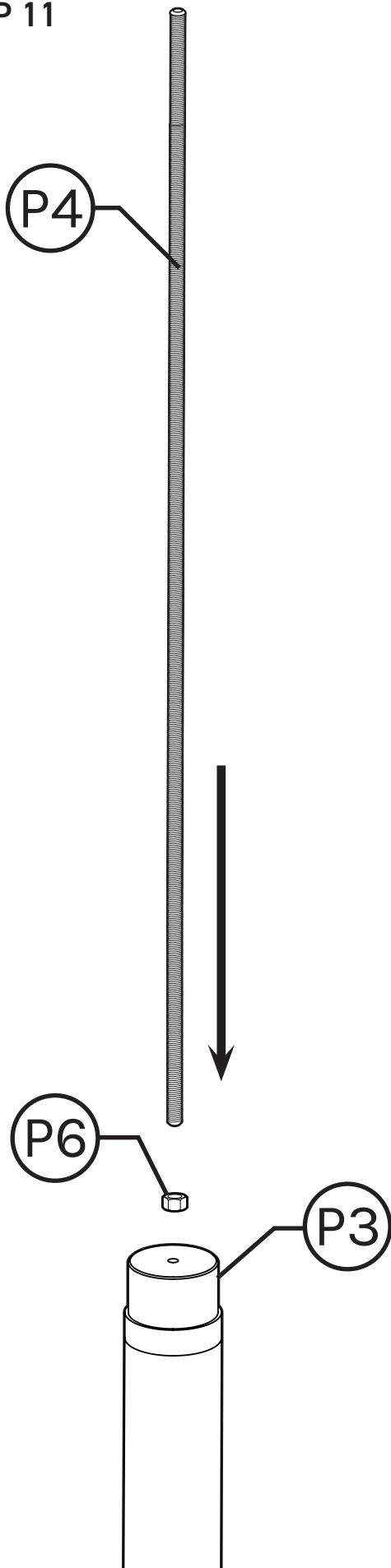


STEP 10

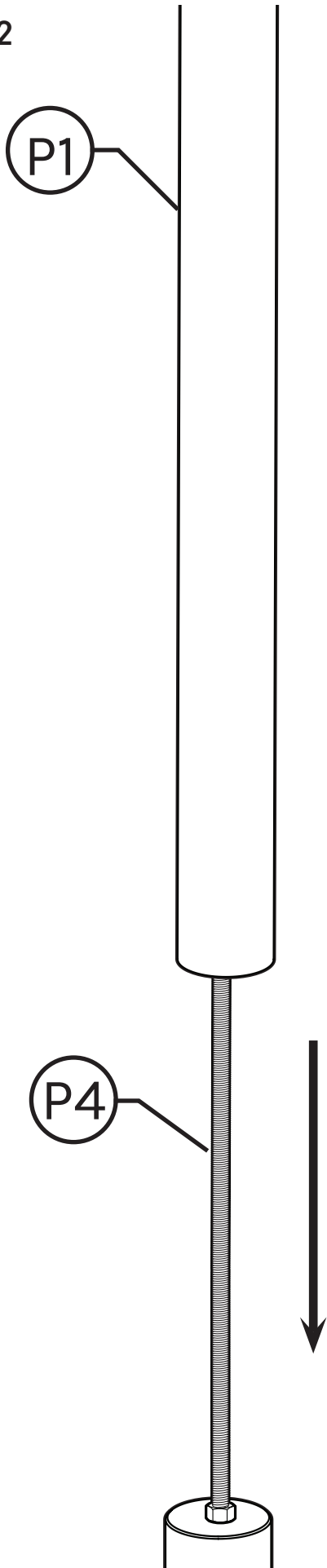
**NOTE: FOR 2-PIECE
CENTER POLES SKIP TO
STEP 11.**



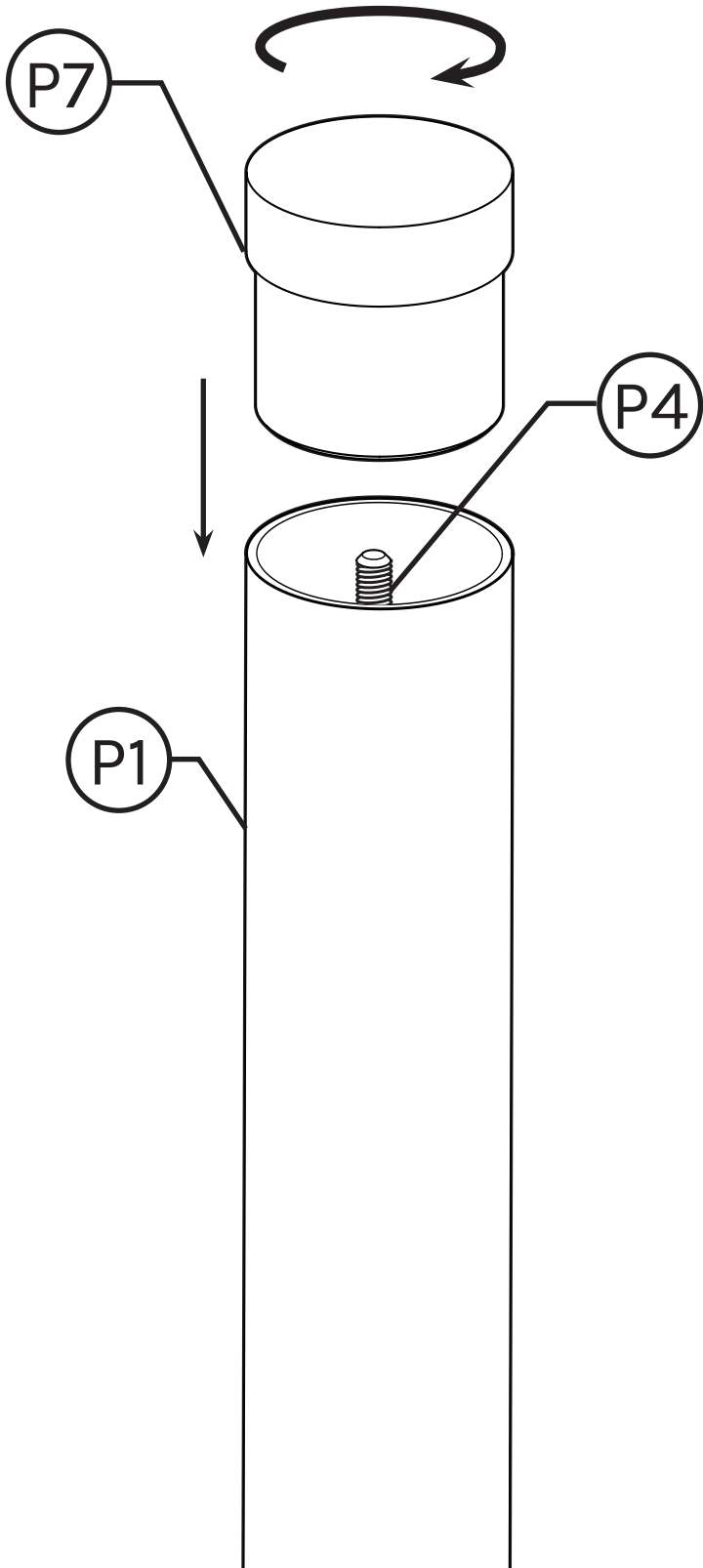
STEP 11



STEP 12



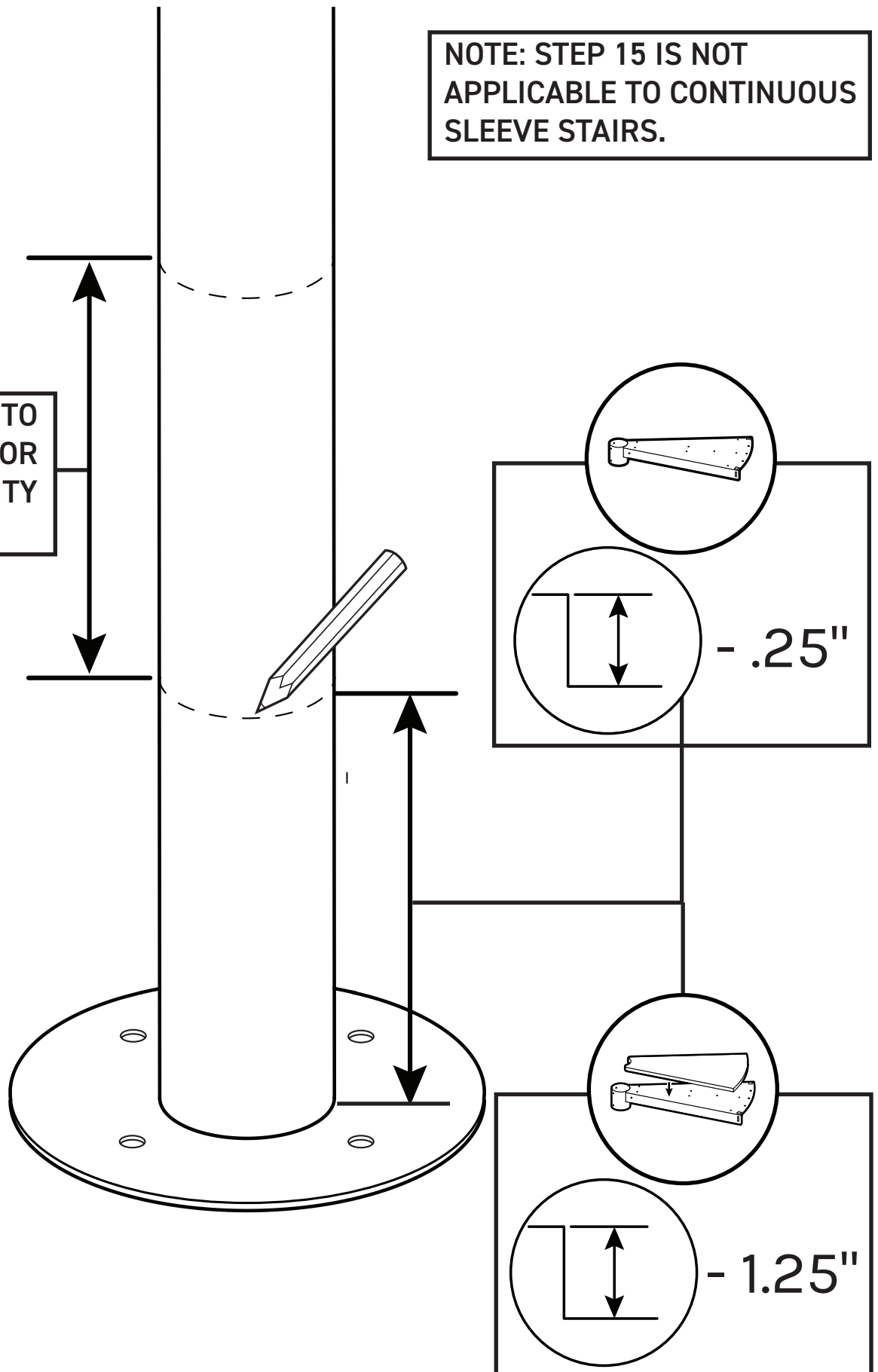
STEP 13



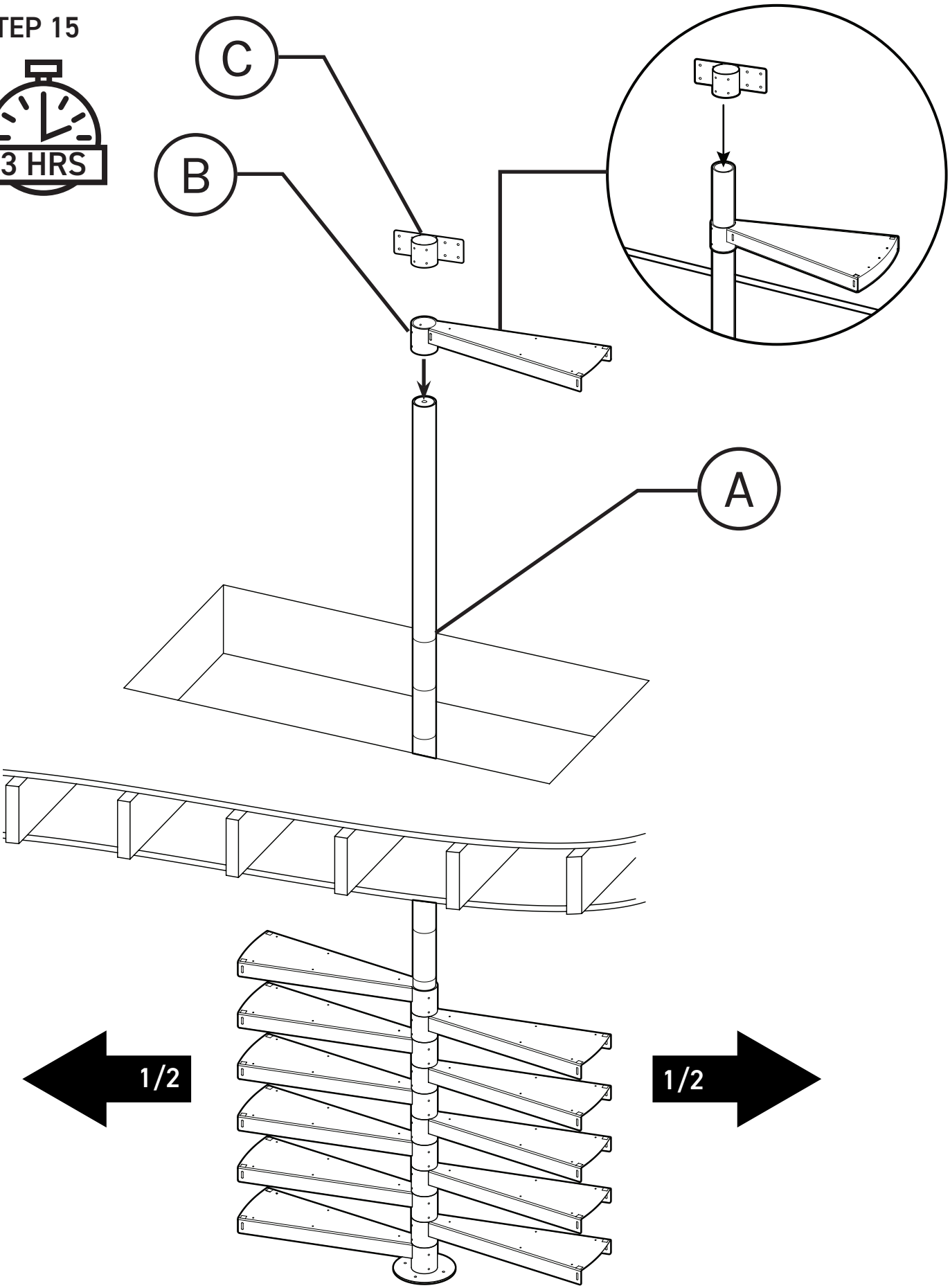
STEP 14

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

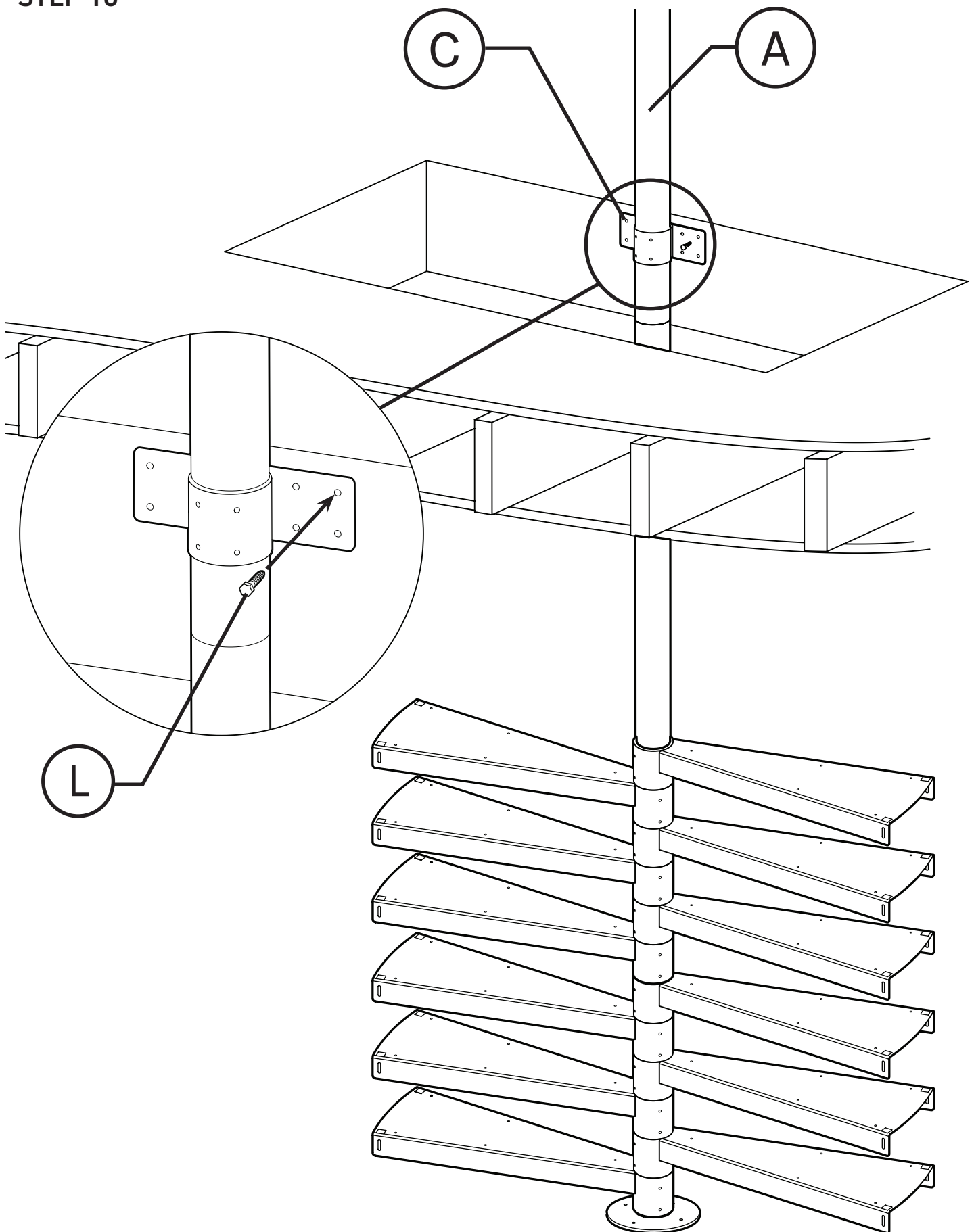
PLEASE REFER TO
YOUR ORDER FOR
RISER QUANTITY
AND HEIGHT



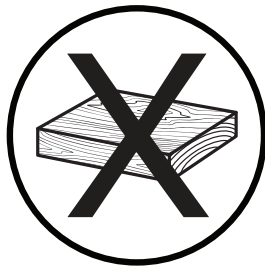
STEP 15



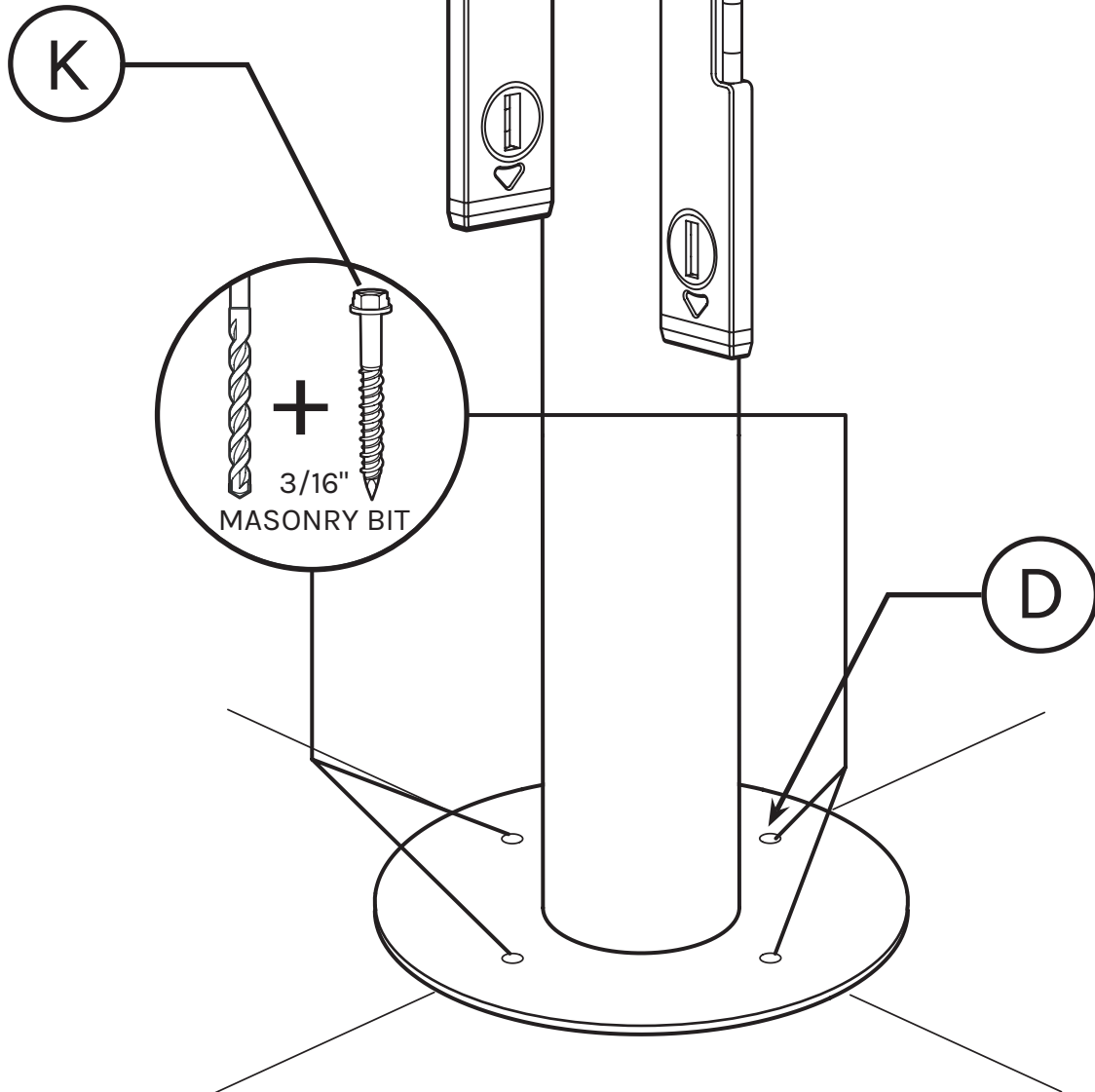
STEP 16



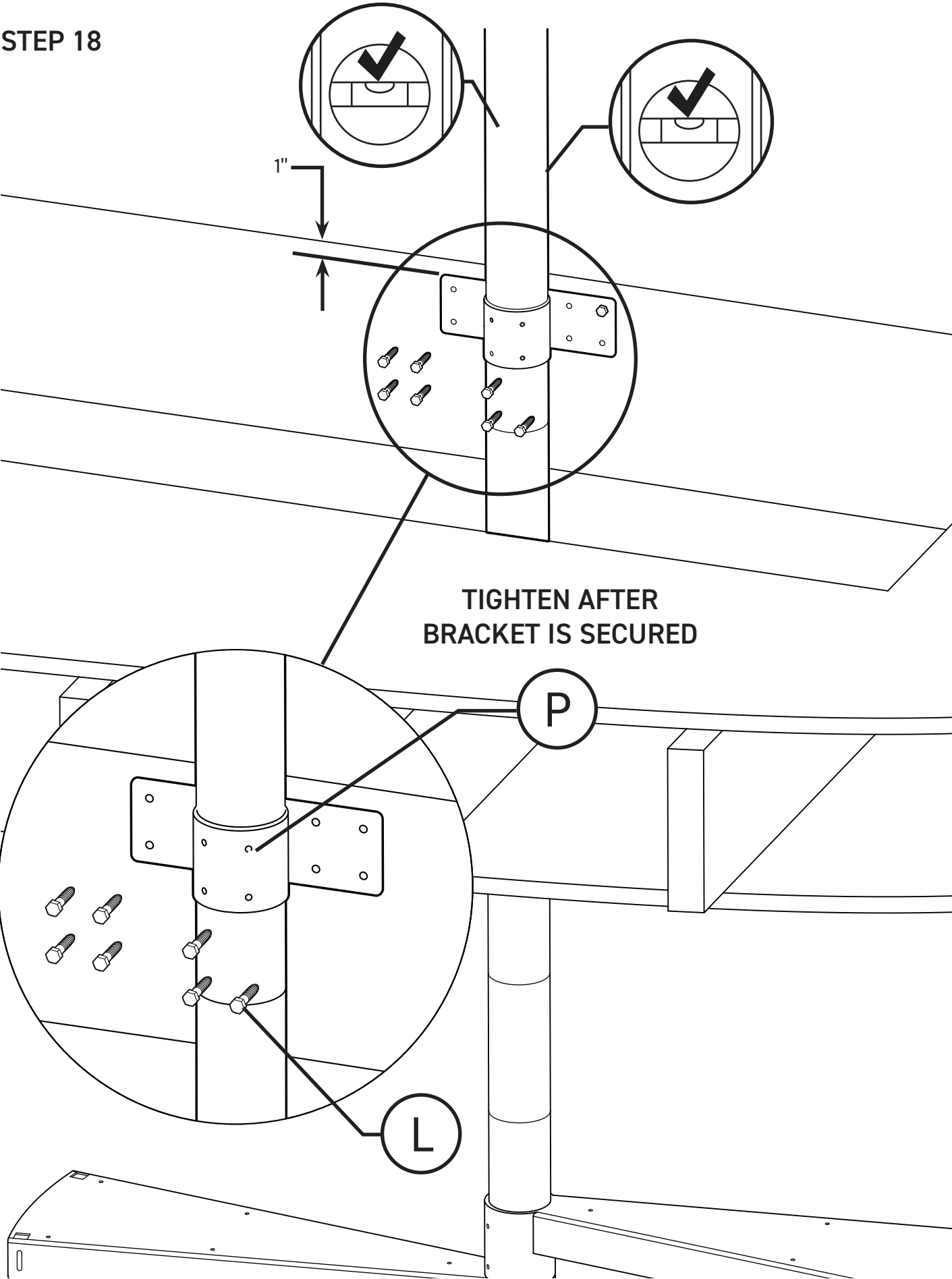
STEP 17



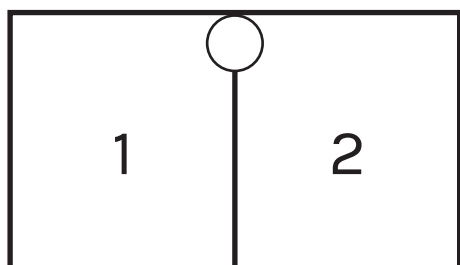
HARDWARE PROVIDED FOR
CONCRETE ONLY.
CONSULT ENGINEER FOR
OTHER SUBSTRATES.



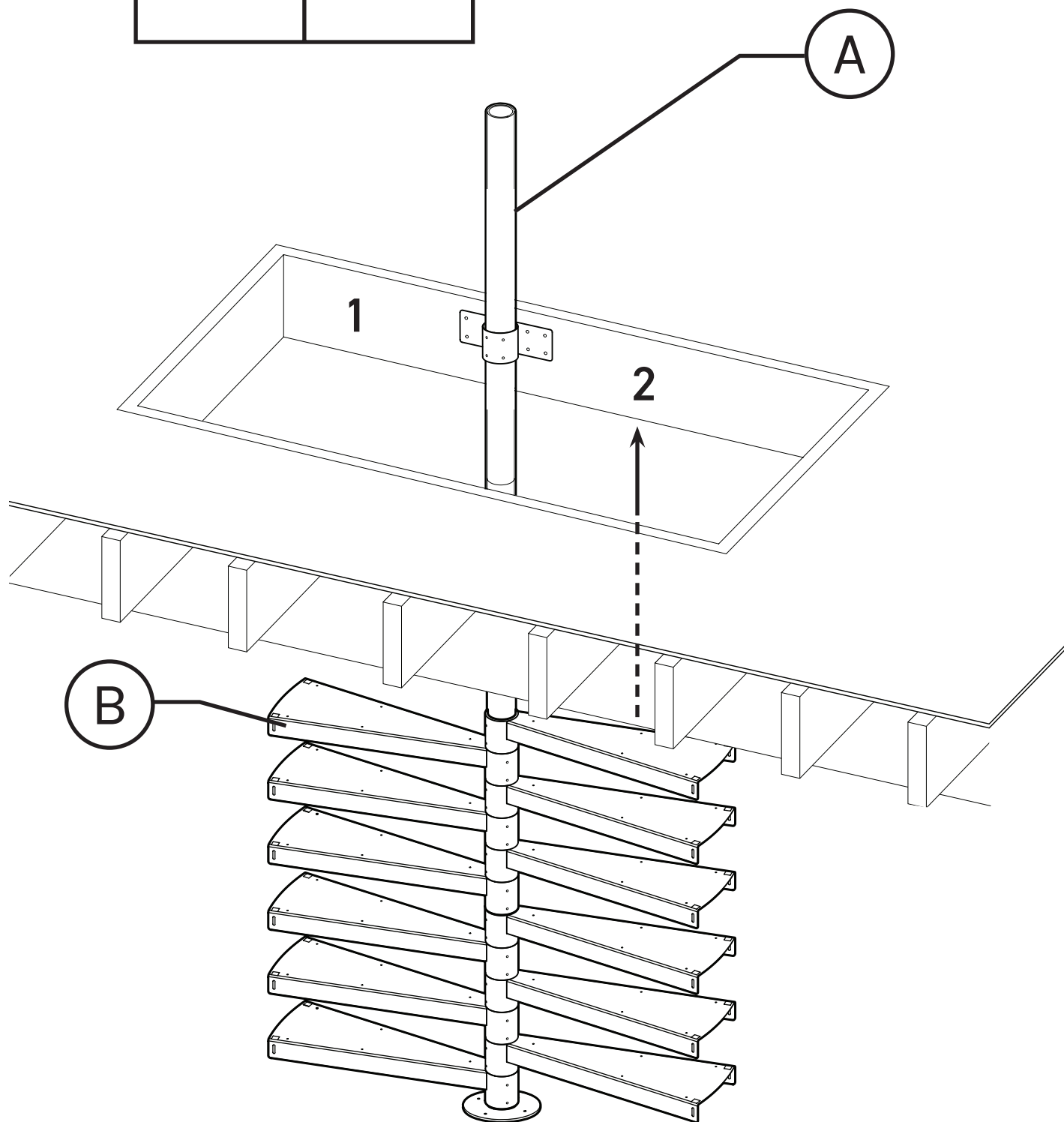
STEP 18



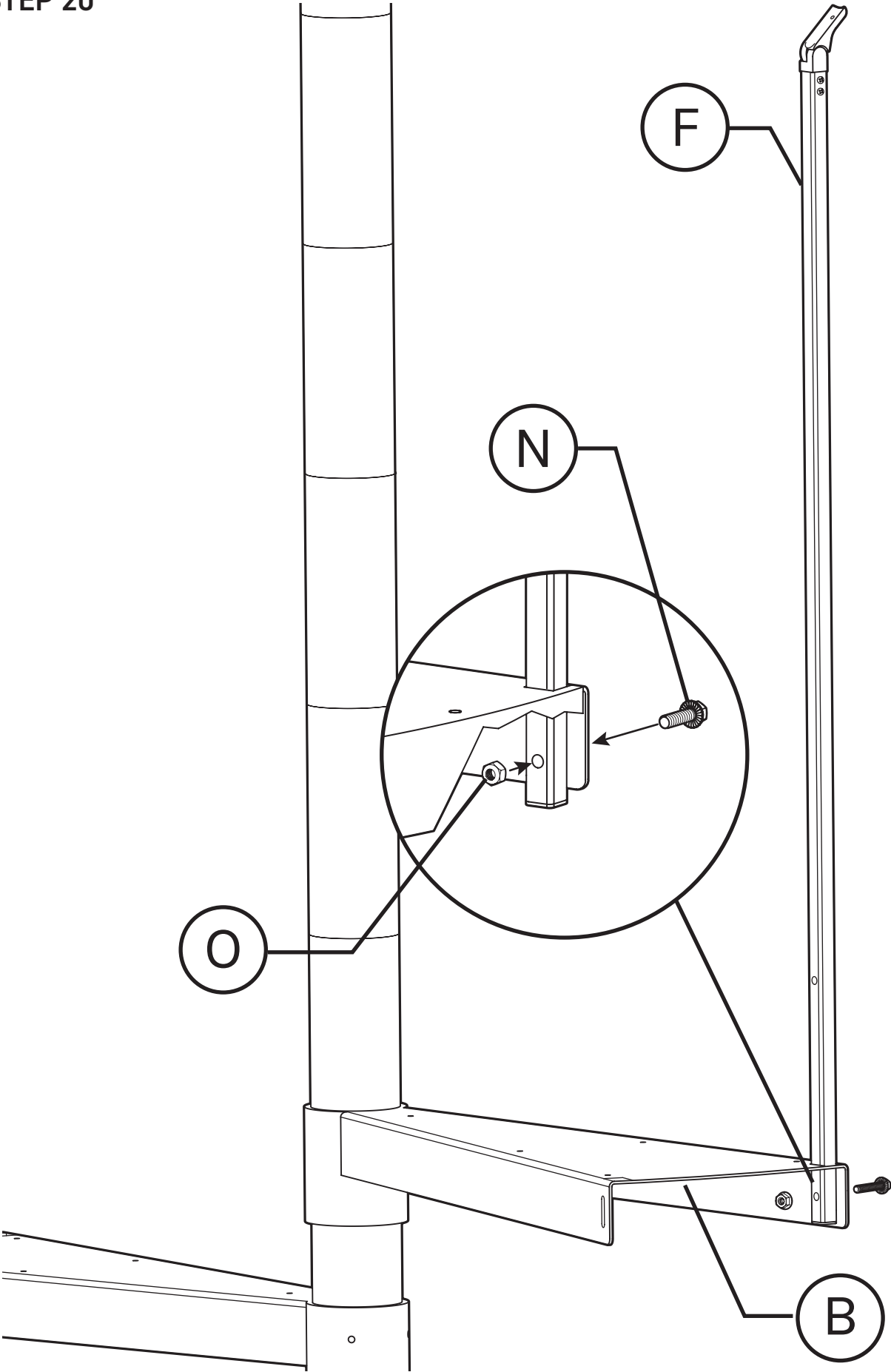
STEP 19



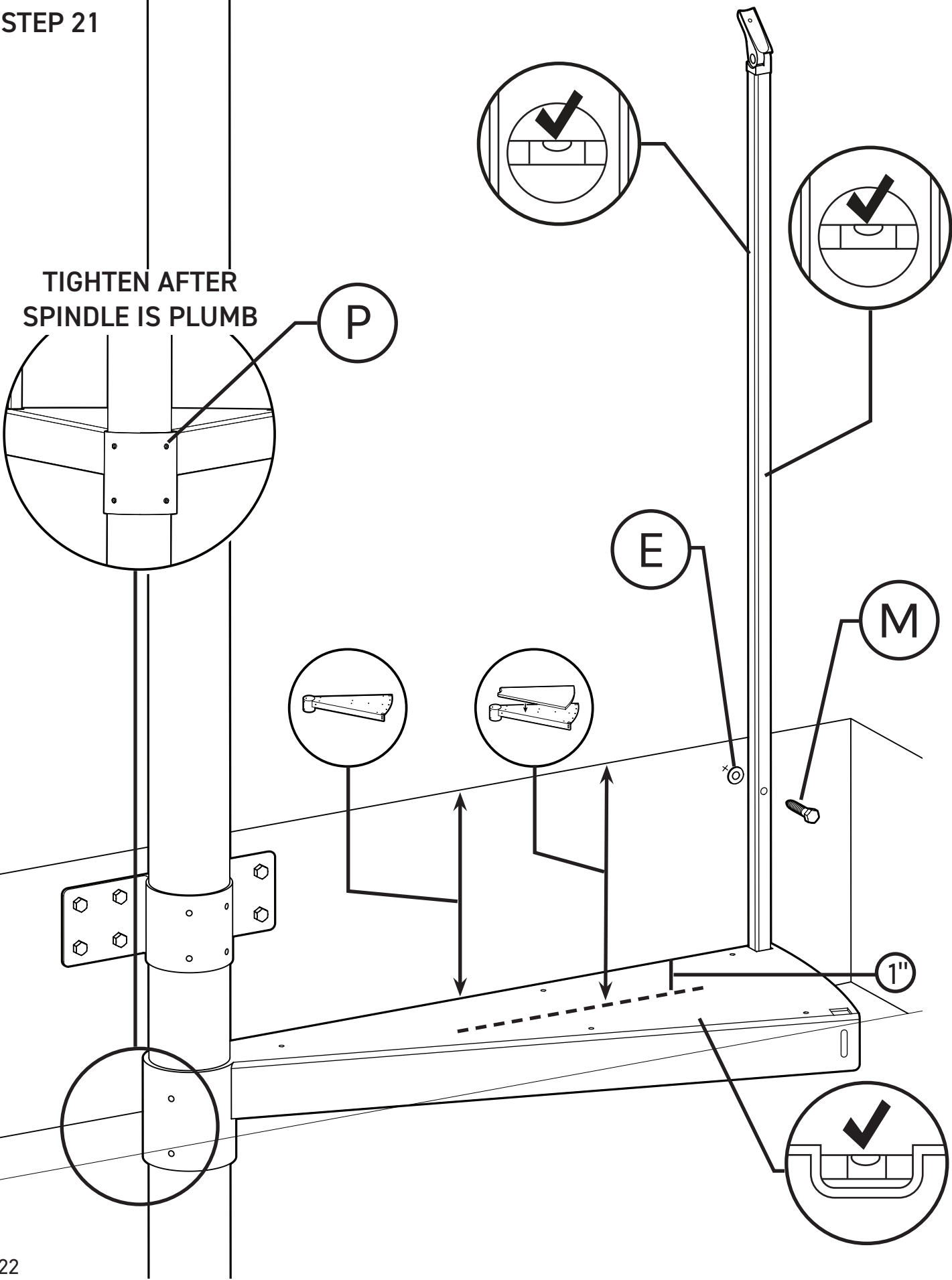
FIRST TREAD CAN BE POSITIONED ON EITHER SIDE OF THE CENTER POLE.



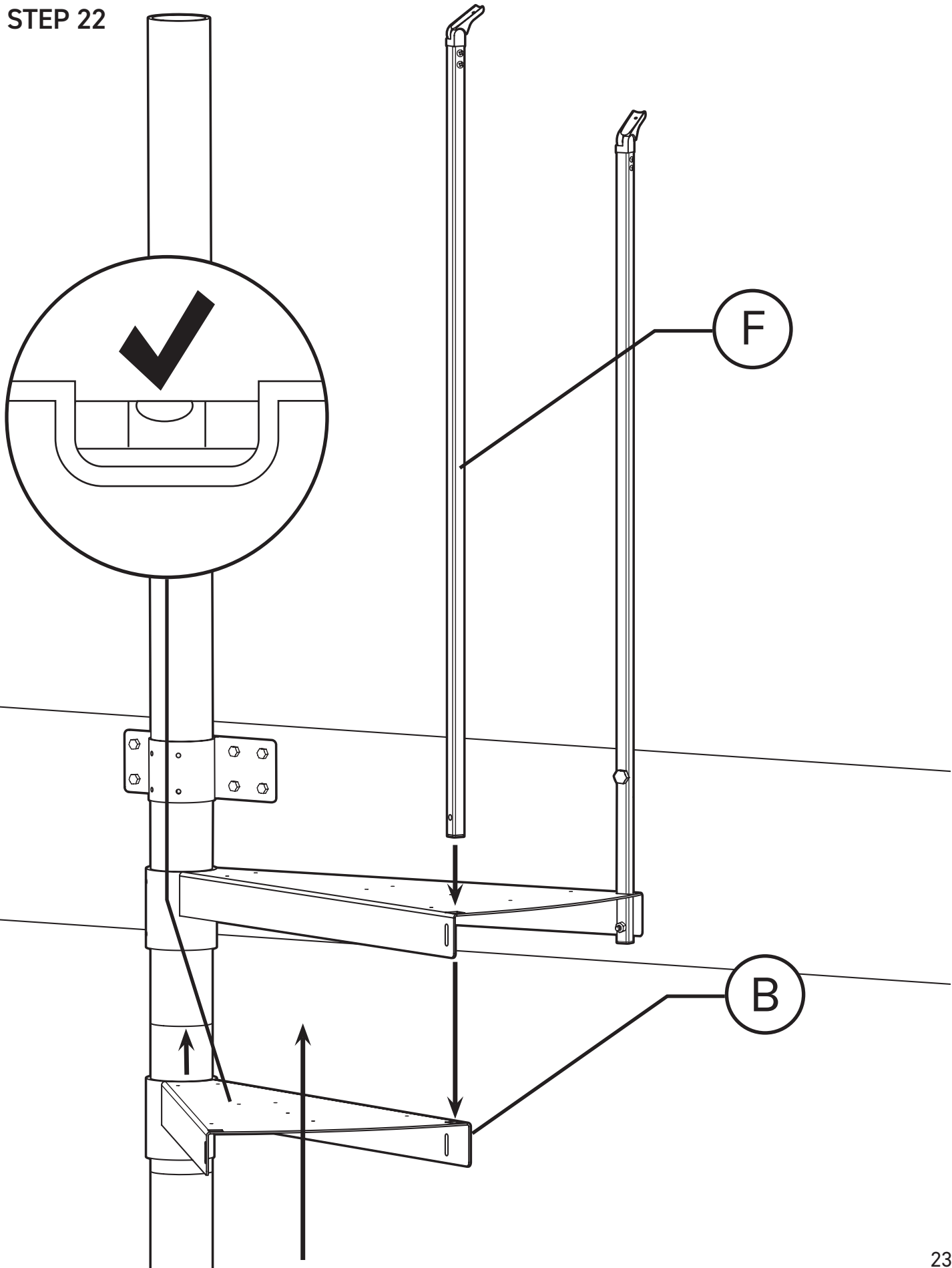
STEP 20



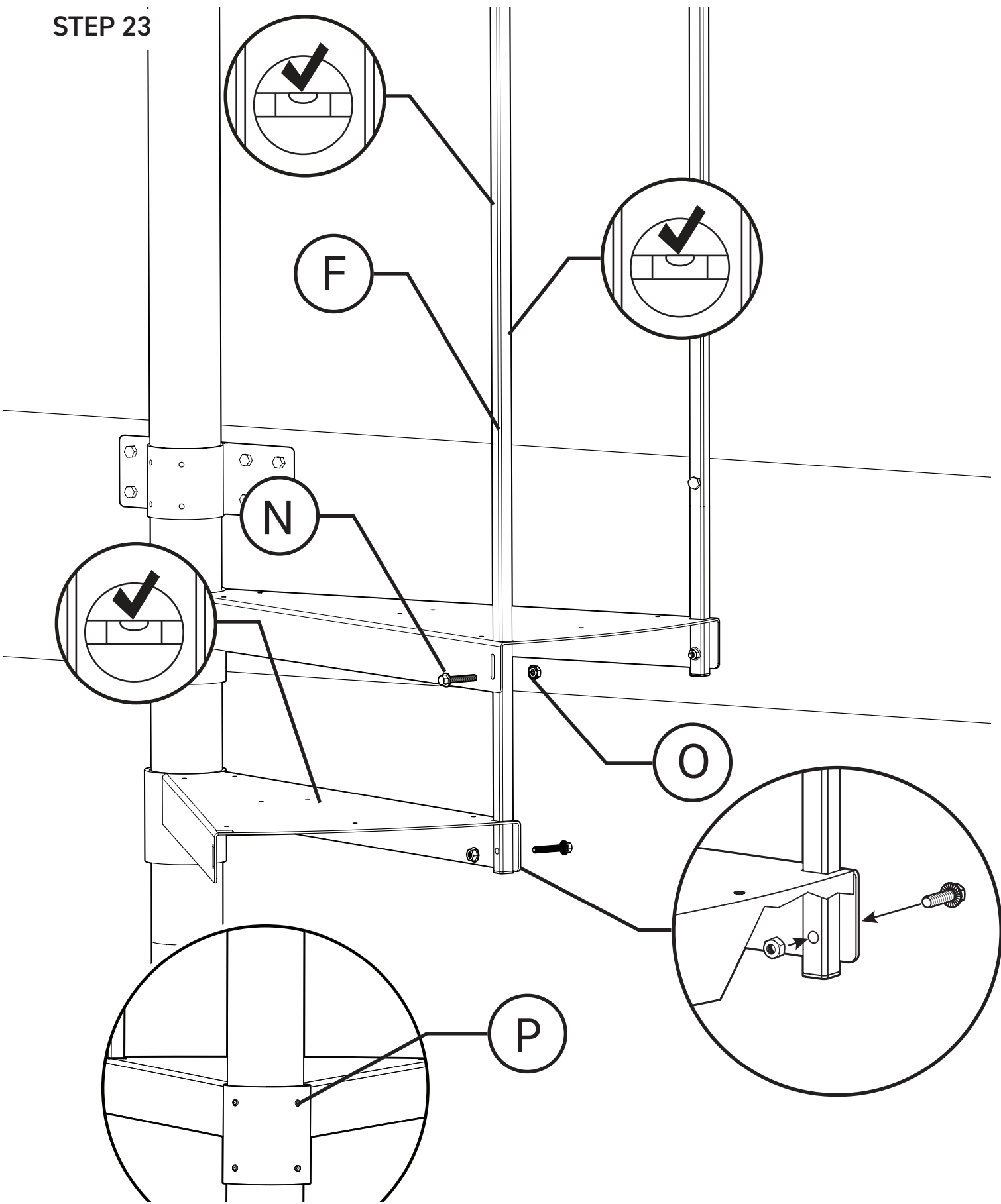
STEP 21



STEP 22



STEP 23

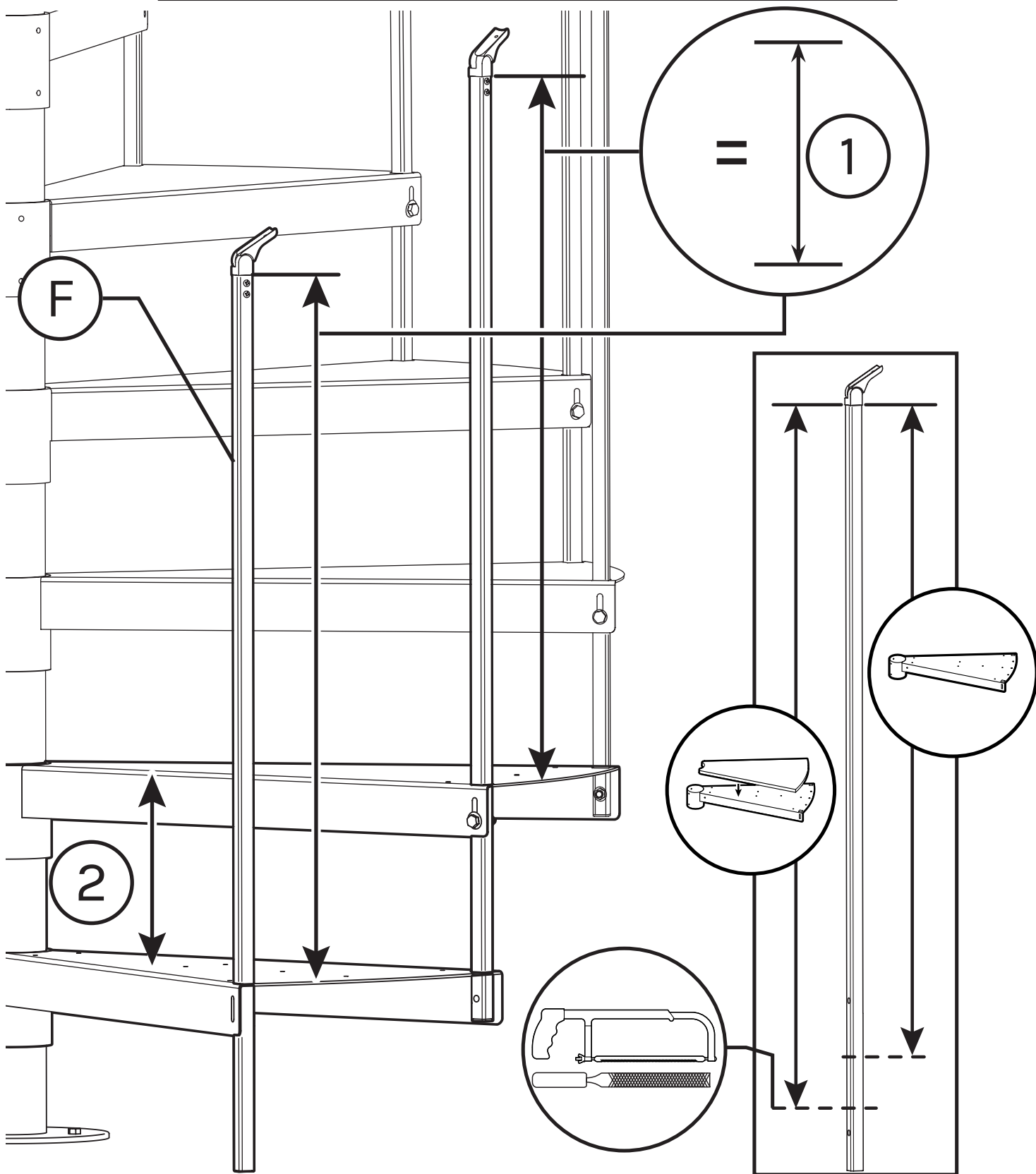


TIGHTEN AFTER
SPINDLE IS PLUMB

REPEAT STEPS 22 & 23 FOR ALL TREADS

STEP 24

NOTE: STEP 24 IS NOT APPLICABLE TO CONTINUOUS SLEEVE STAIRS

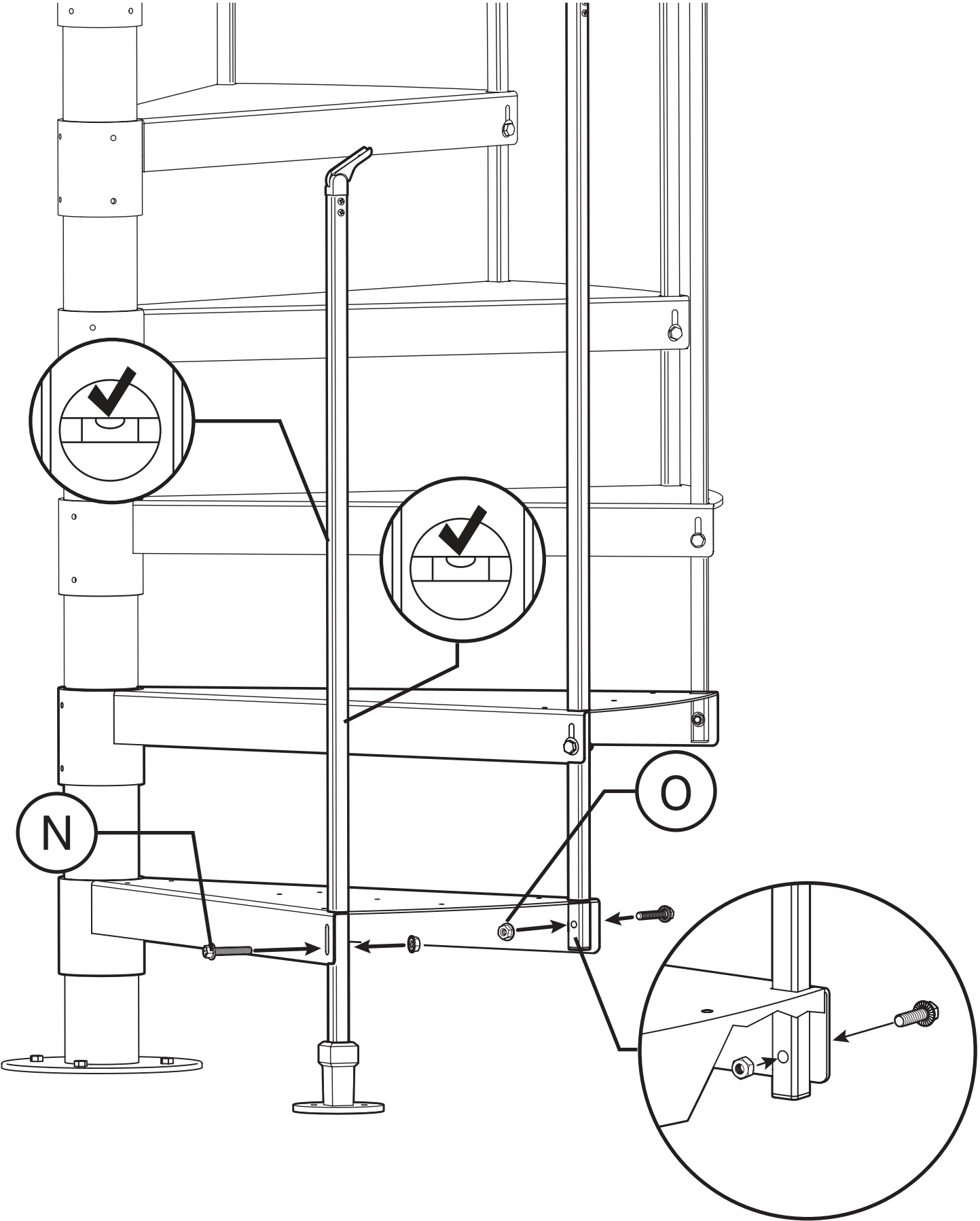




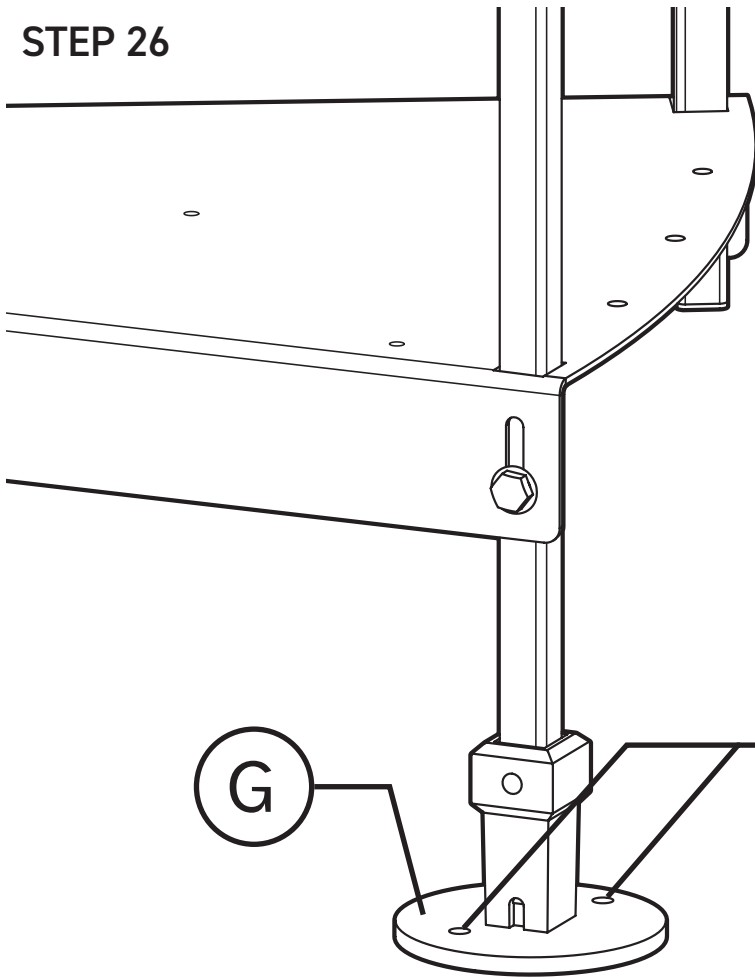
$$= \textcircled{1} + \textcircled{2} - .75"$$


$$= \textcircled{1} + \textcircled{2} - 1.75"$$

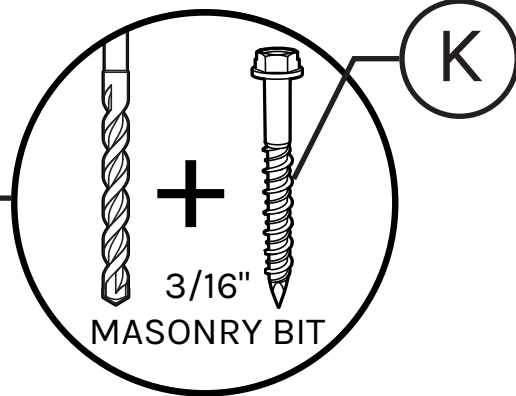
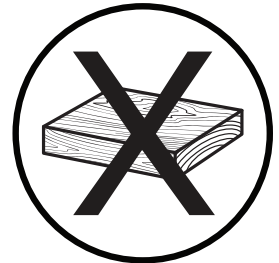
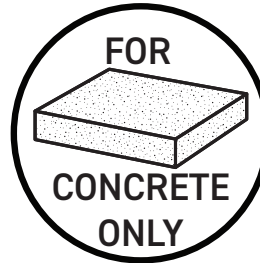
STEP 25



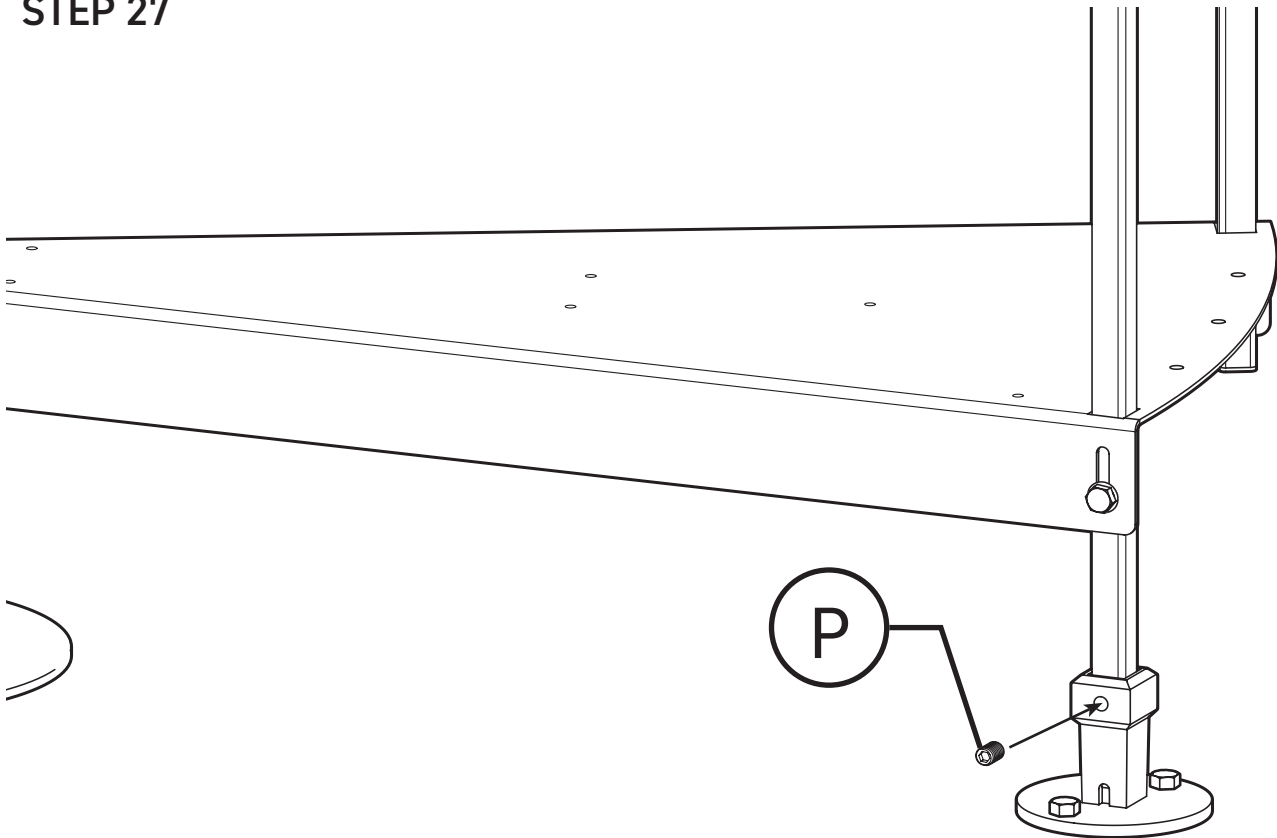
STEP 26



**HARDWARE PROVIDED FOR
CONCRETE ONLY.
CONSULT ENGINEER FOR
OTHER SUBSTRATES.**



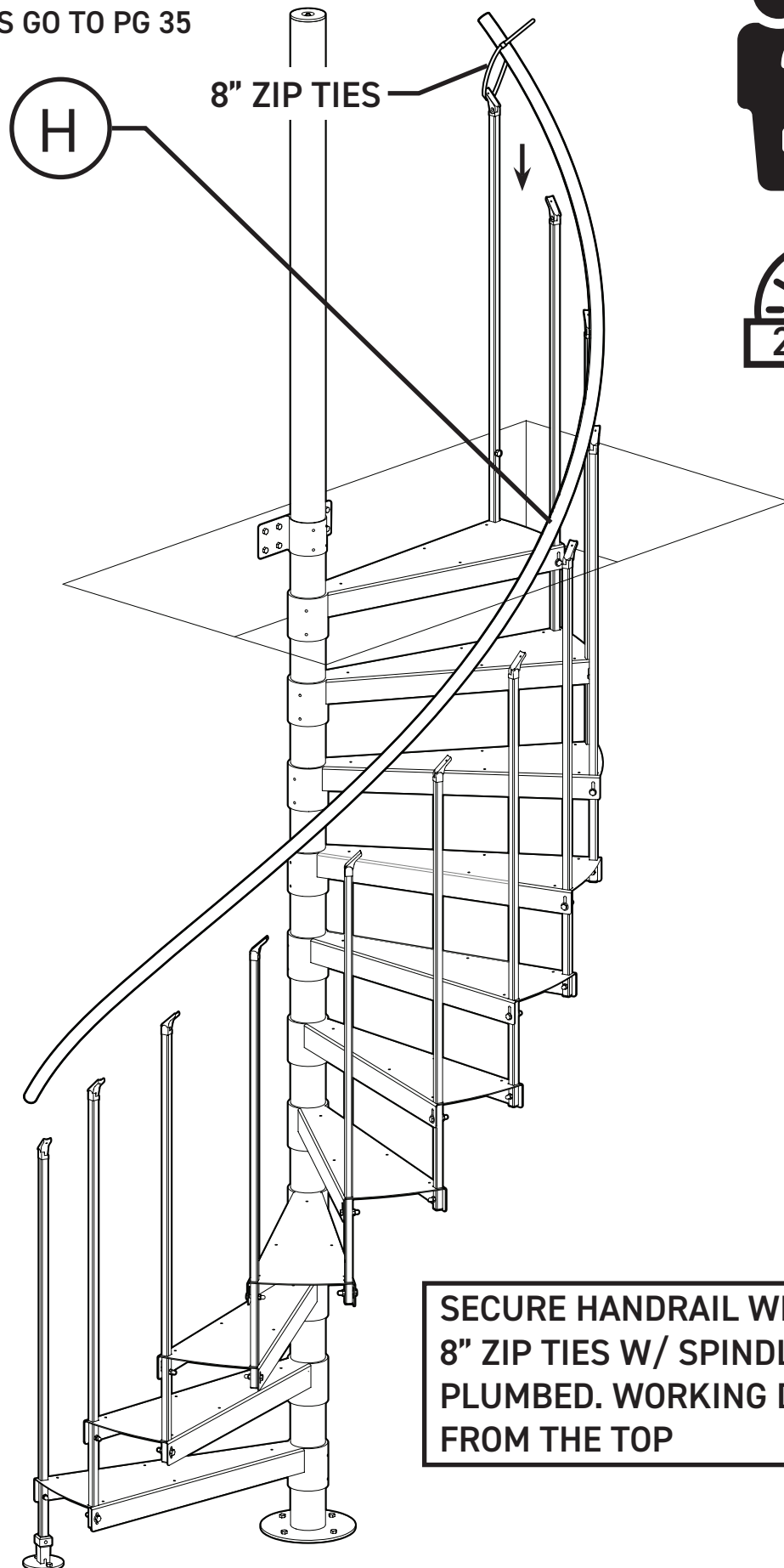
STEP 27



VINYL RAILING INSTALLATION:

FOR METAL RAILINGS GO TO PG 35

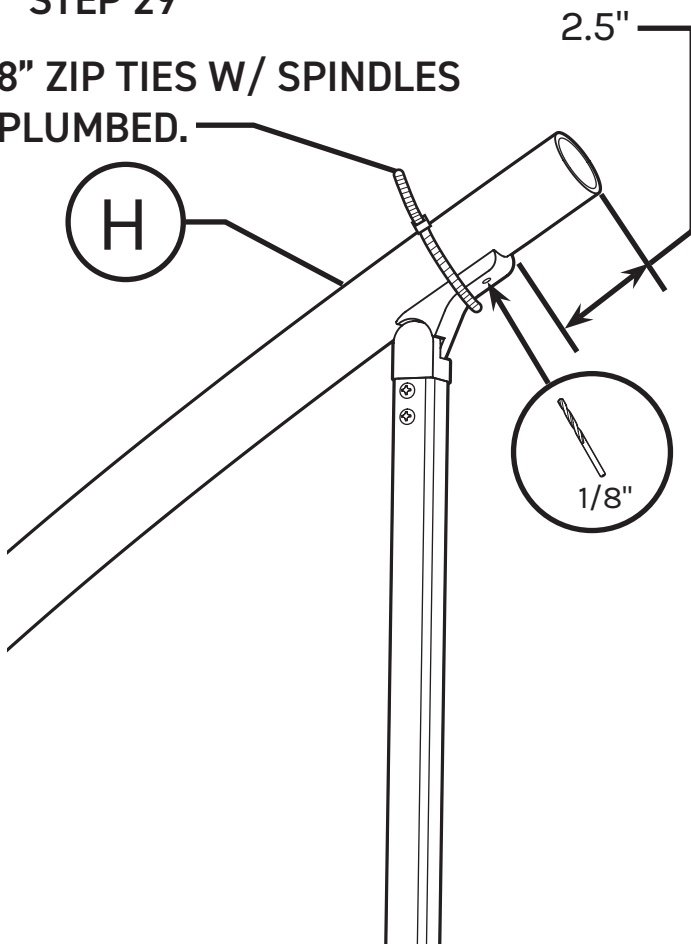
STEP 28



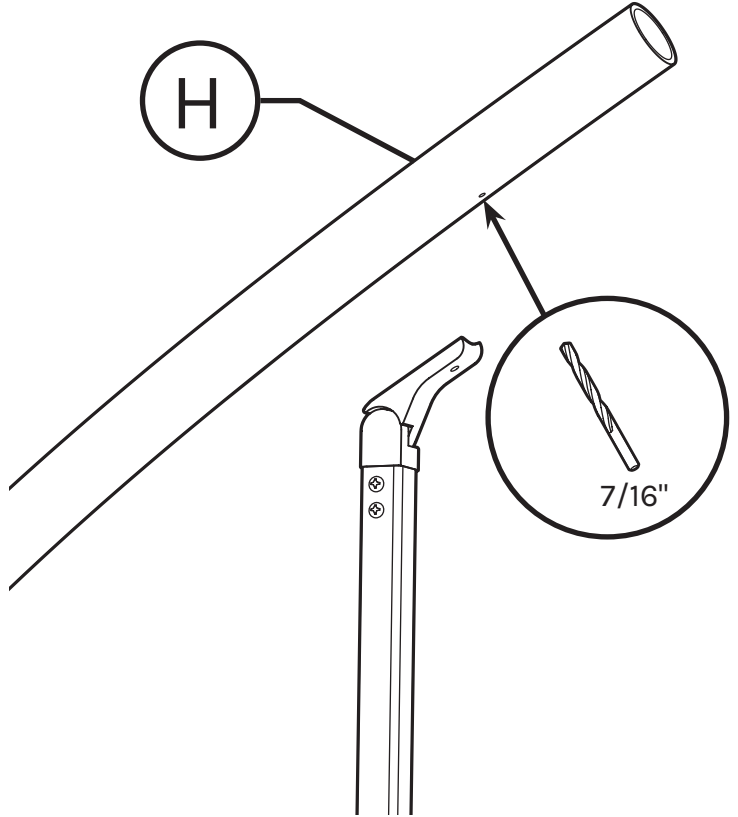
SECURE HANDRAIL WITH
8" ZIP TIES W/ SPINDLES
PLUMBED. WORKING DOWN
FROM THE TOP

STEP 29

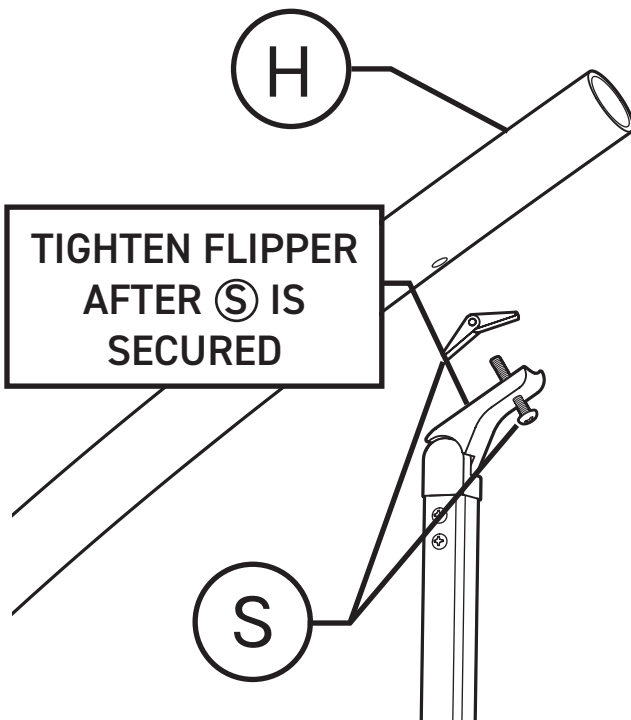
**8" ZIP TIES W/ SPINDLES
PLUMBED.**



STEP 30

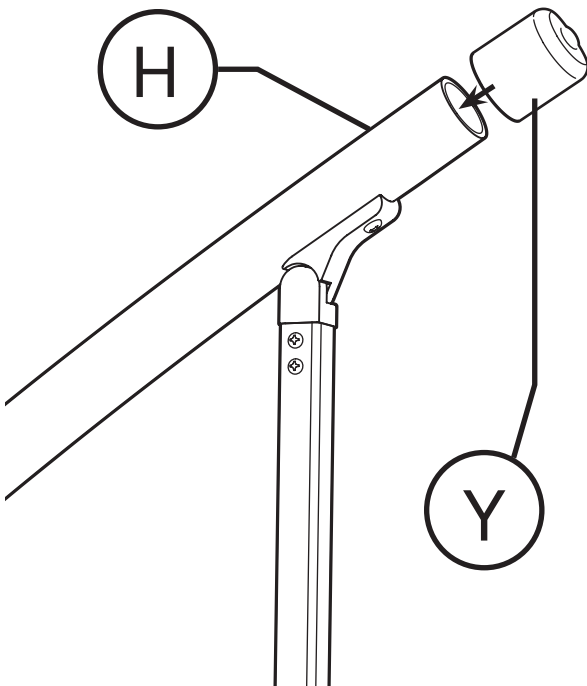


STEP 31



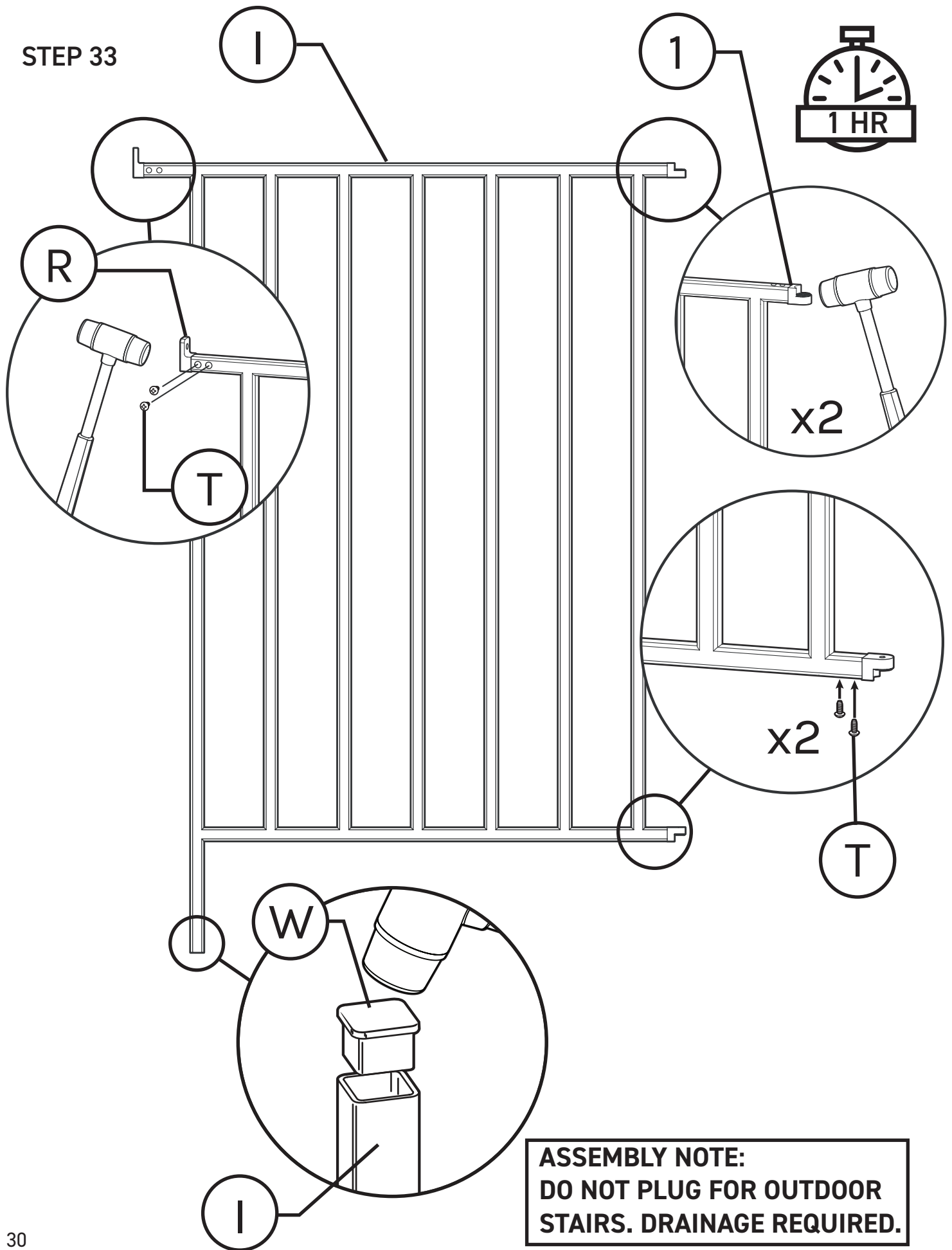
REPEAT FOR ALL MAIN SPINDLES

STEP 32

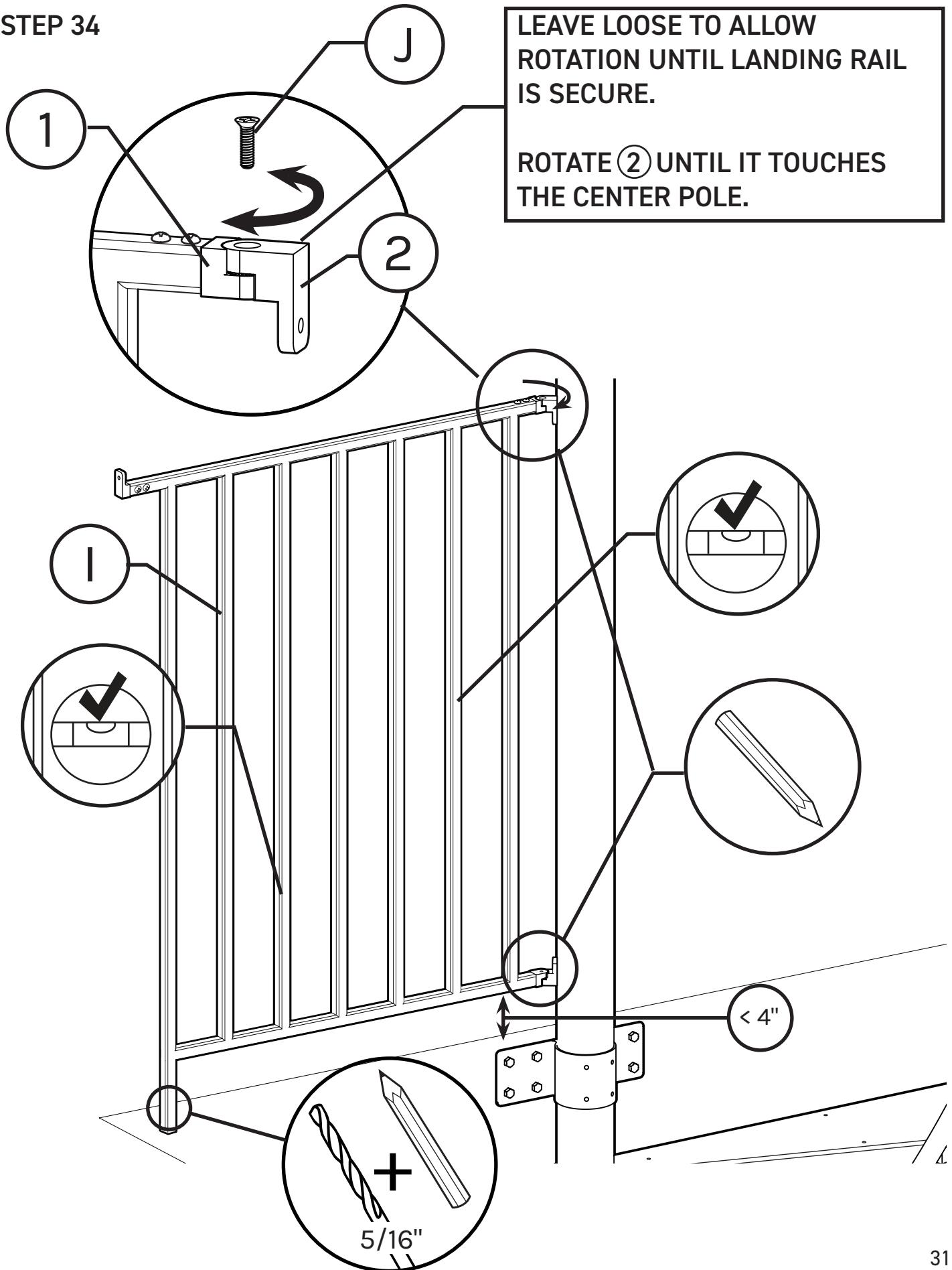


REPEAT AT OPPOSITE END

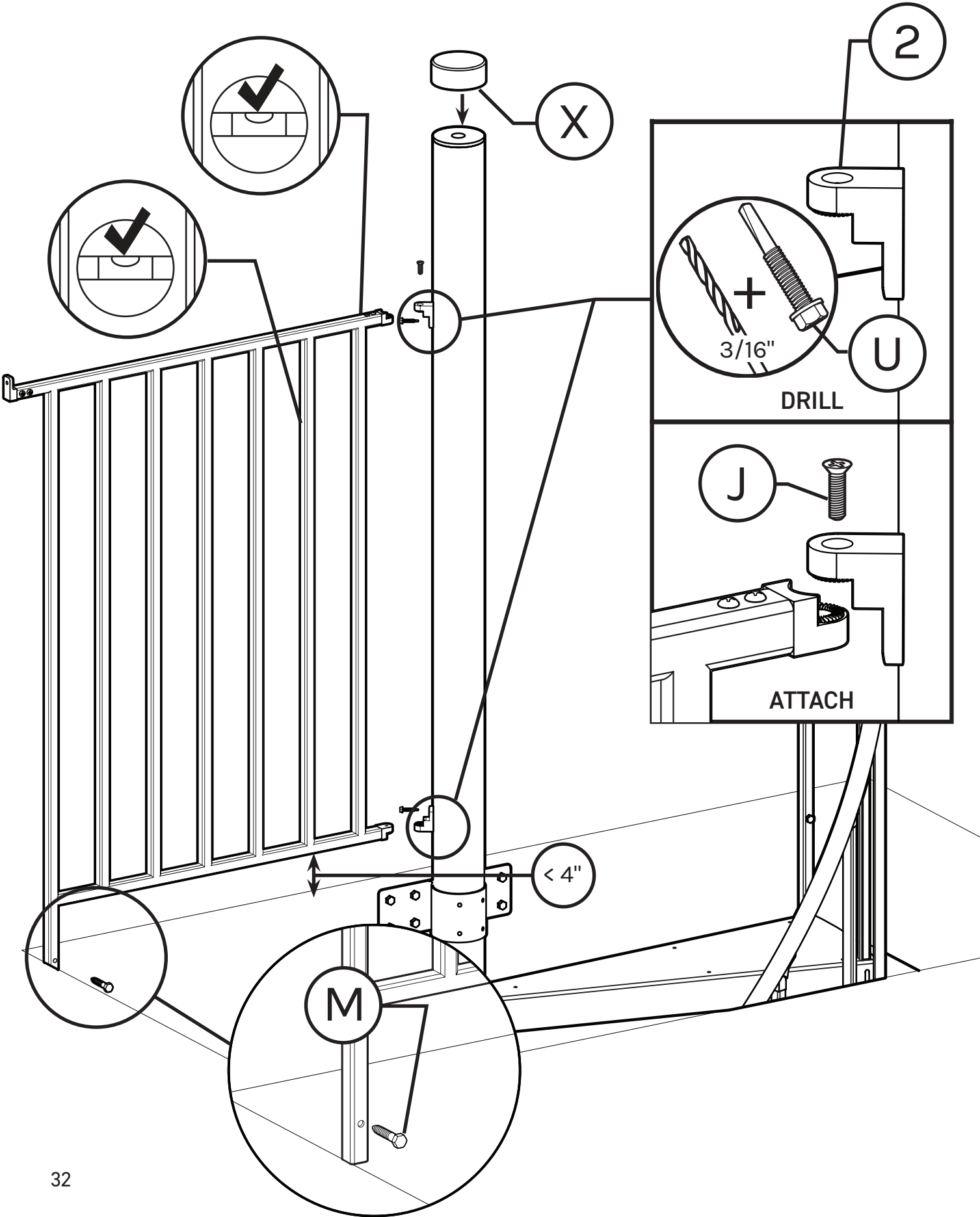
STEP 33



STEP 34

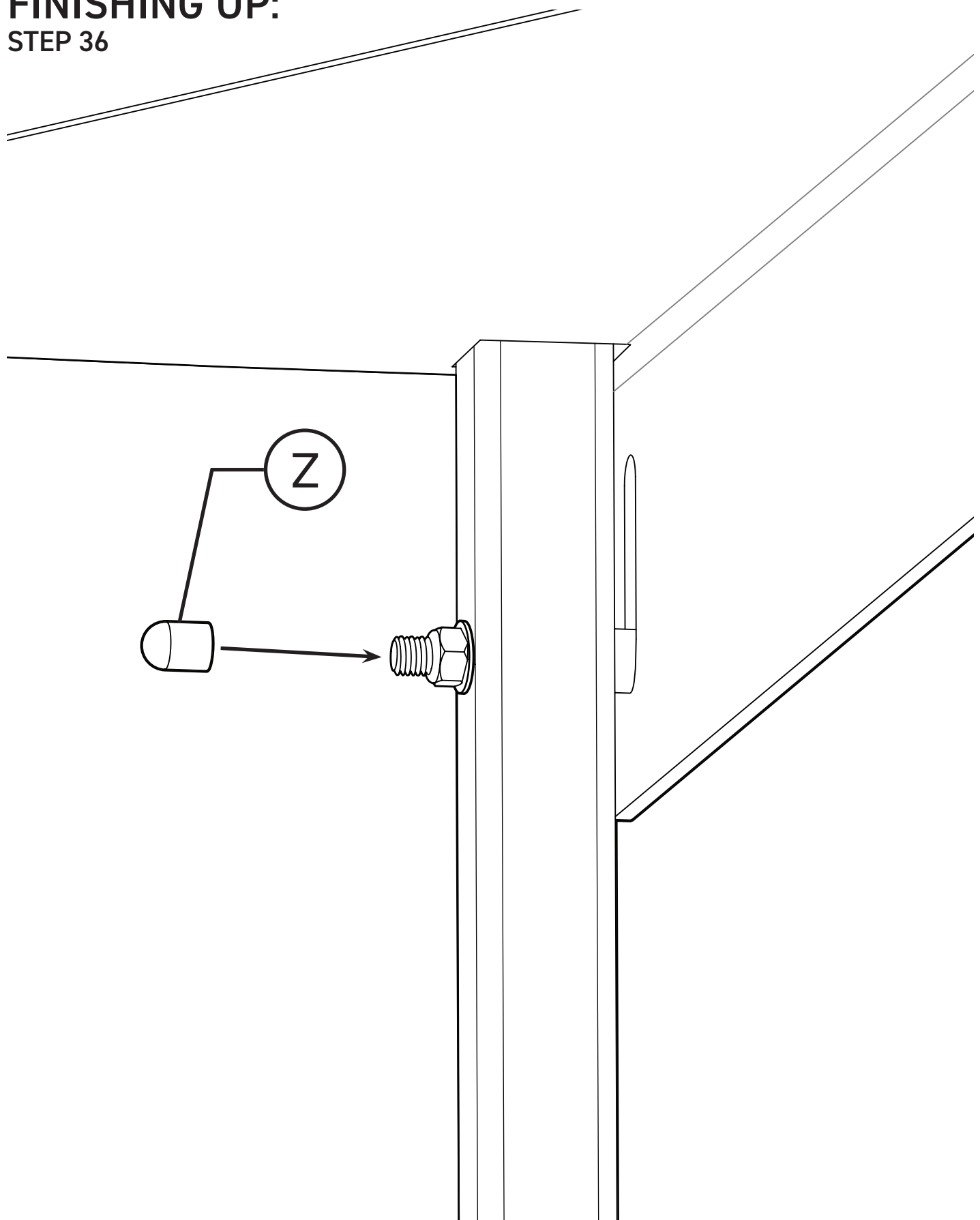


STEP 35



FINISHING UP:

STEP 36



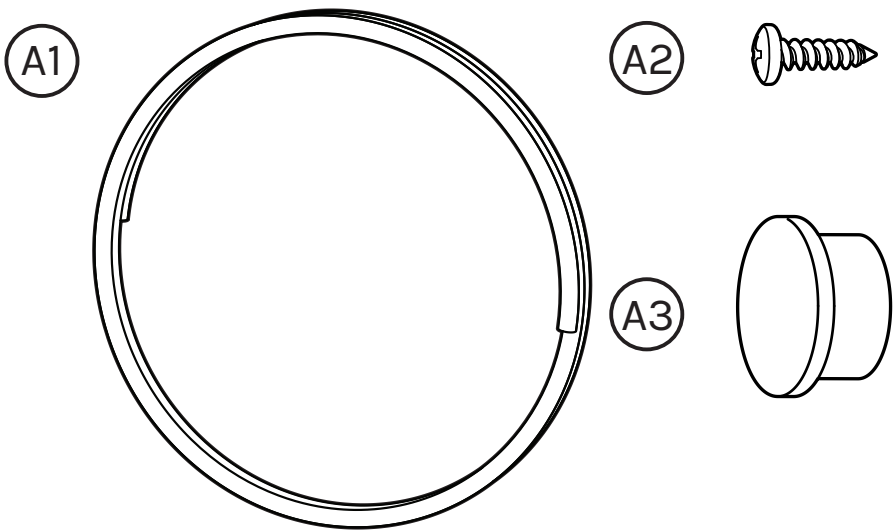
ADD TO ALL EXPOSED SCREW ENDS

SPIRAL STAIR OPTIONS

METAL HANDRAIL INSTALLATION:.....	PAGE 35
WOOD COVERING INSTALLATION:.....	PAGE 42
WOOD HANDRAIL INSTALLATION:	PAGE 44
SAFETY GATE INSTALLATION:	PAGE 47
MULTI-LINE-RAILING INSTALLATION:	PAGE 52
RING® LIGHT INSTALLATION:.....	PAGE 56

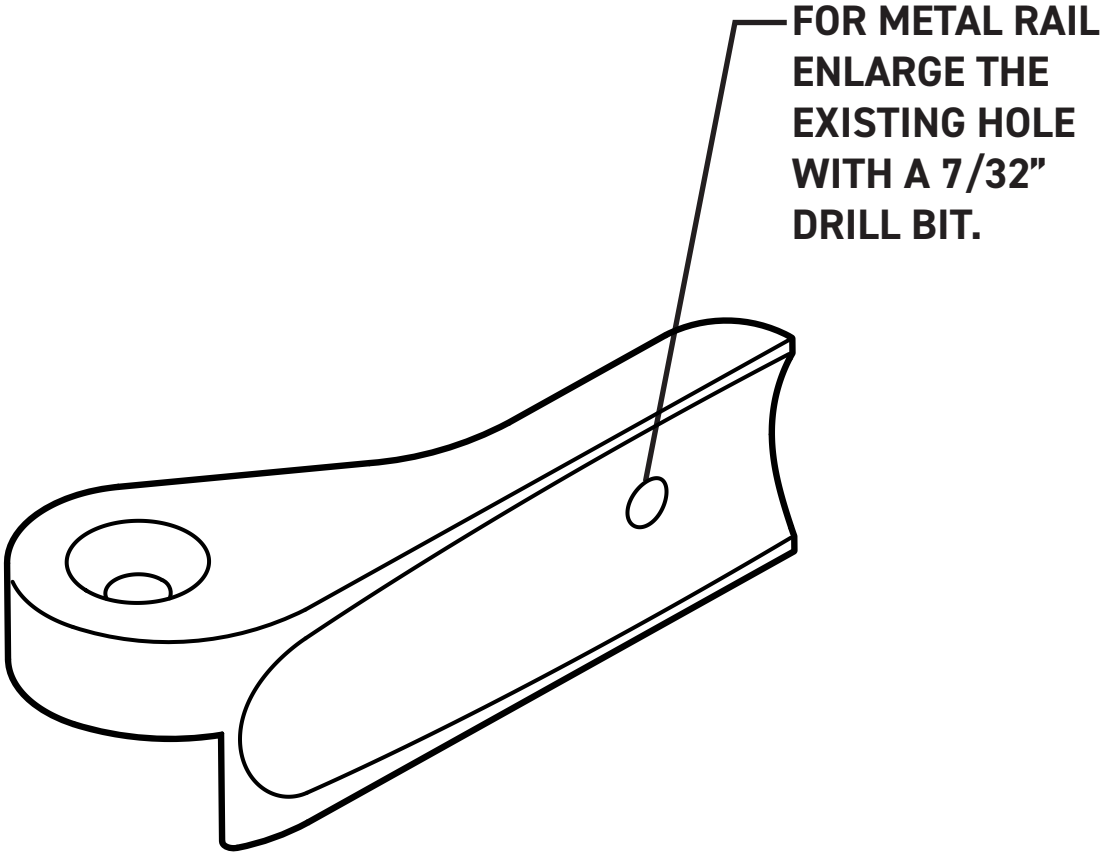
METAL HANDRAIL INSTALLATION:

PARTS

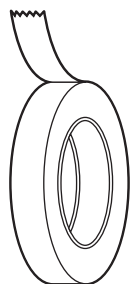


- (A1) Handrail Coil
- (A2) #10 x 3/4" Pan Head Sheet Metal Screw
- (A3) Handrail End Cap

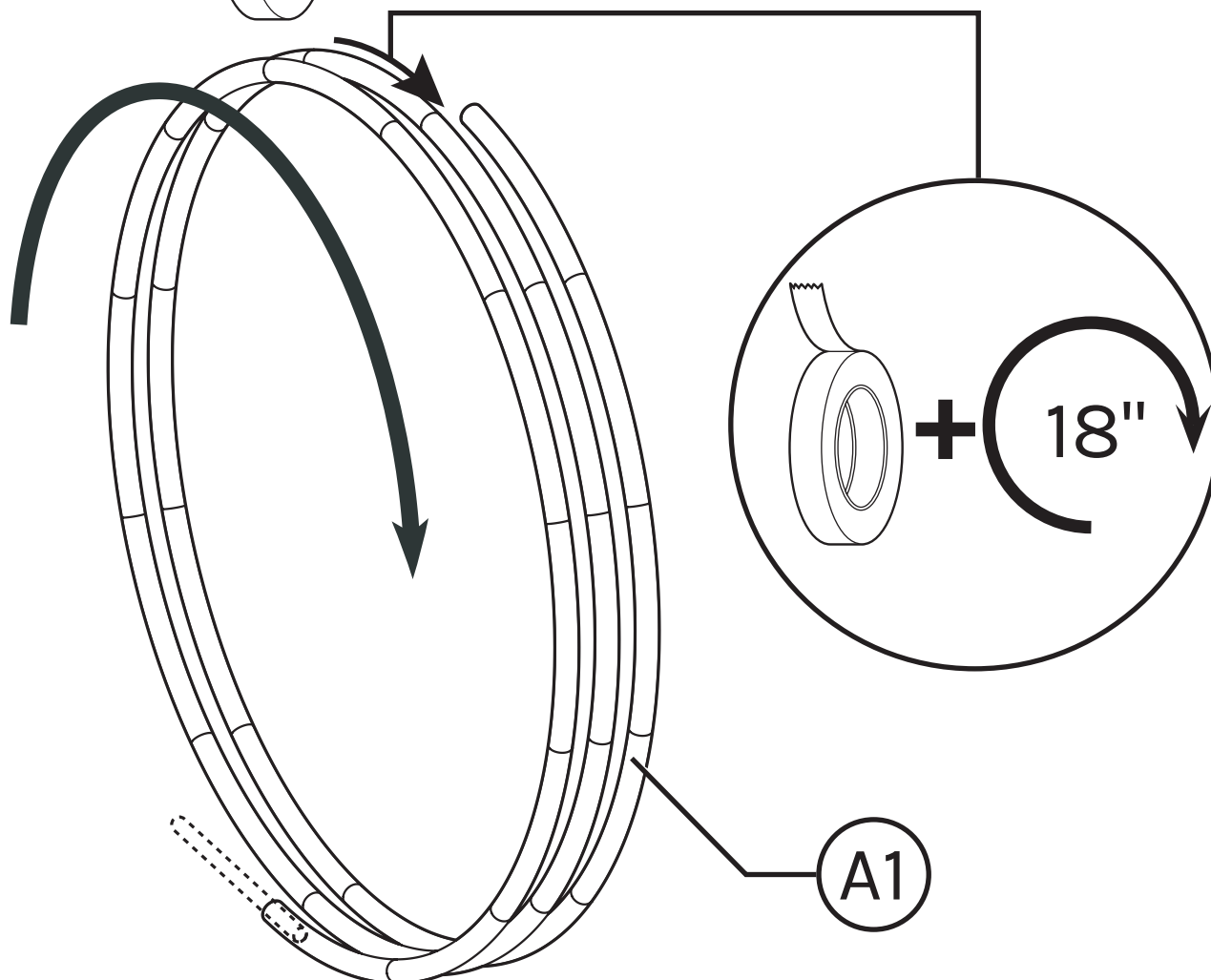
ASSEMBLY NOTE!!



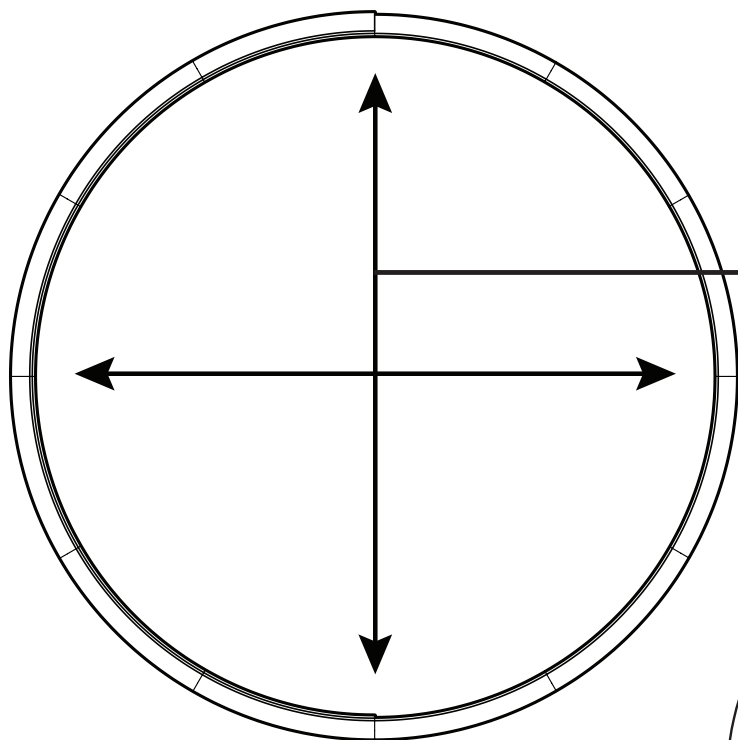
STEP 37



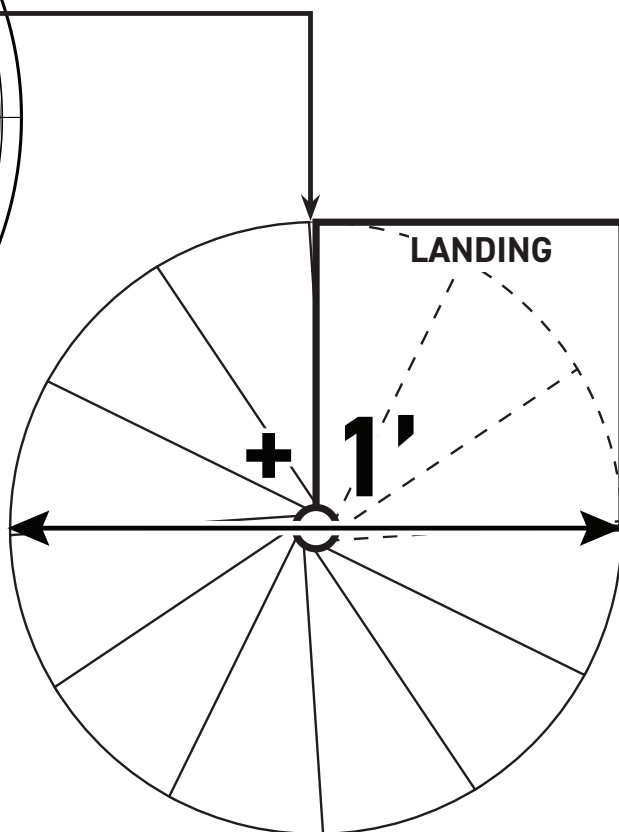
**NOTE: LEAVE PLASTIC ON HANDRAIL AND
WRAP MASKING TAPE AROUND EVERY 18"**



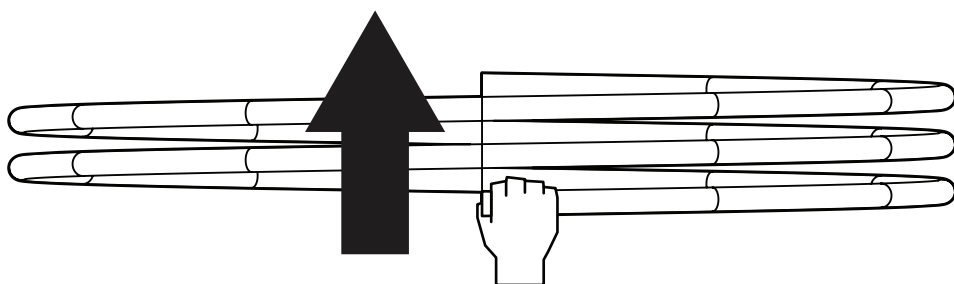
!! NOTE !! METAL RAILINGS CANNOT BE REFORMED ONCE YOU START EXPANDING IT. EXPAND SLOWLY, ROTATING TO THE NEXT MARK AND EXPAND AGAIN.



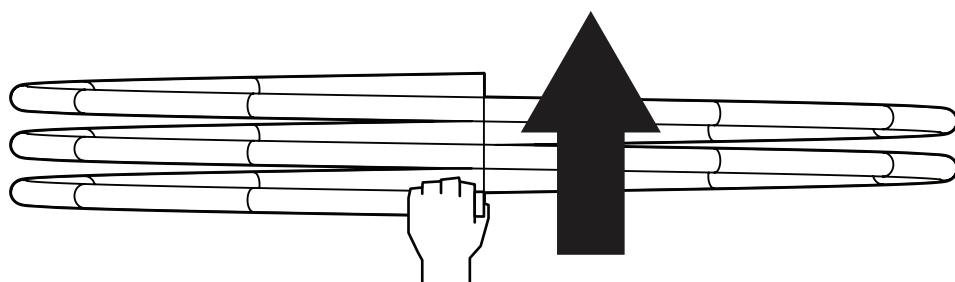
SLOWLY INCREASE DIAMETER OF METAL HAND RAIL UNTIL IT IS 1 FOOT LARGER THAN YOUR STAIR DIAMETER.



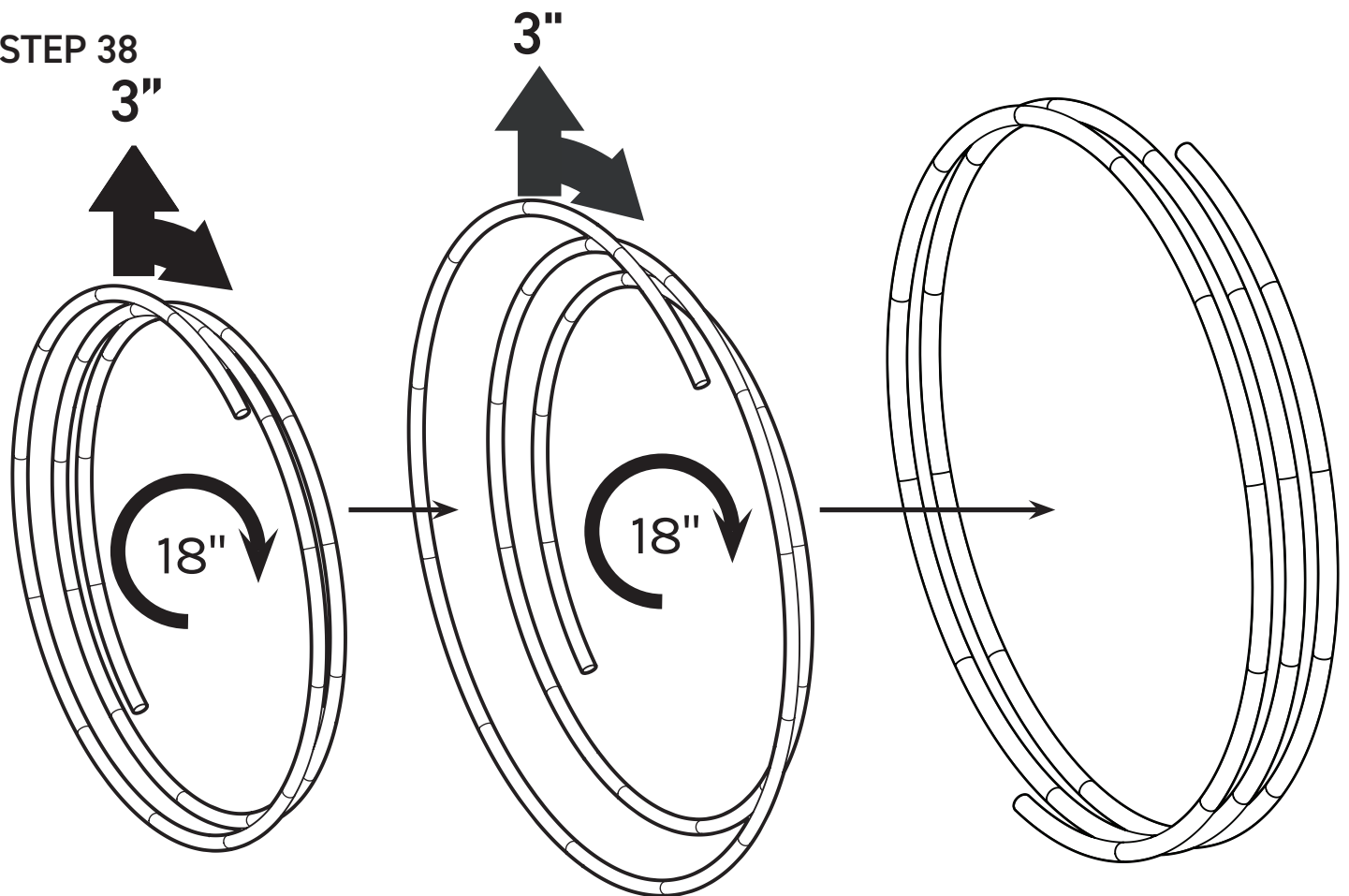
RIGHT HAND UP



LEFT HAND UP

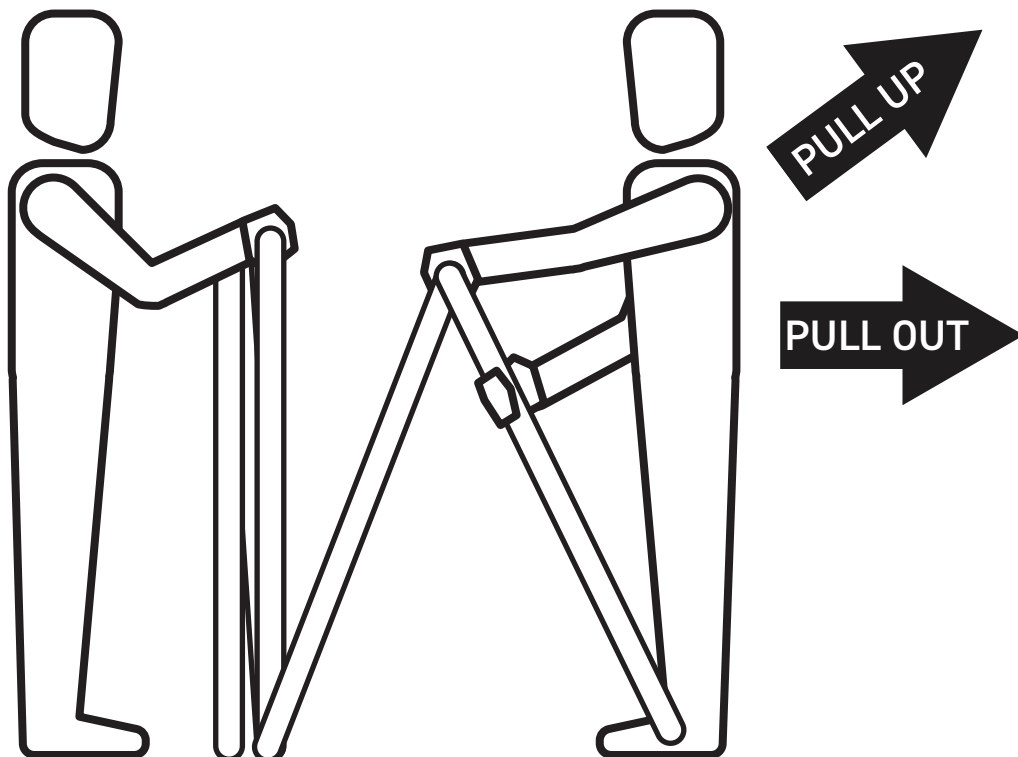


STEP 38

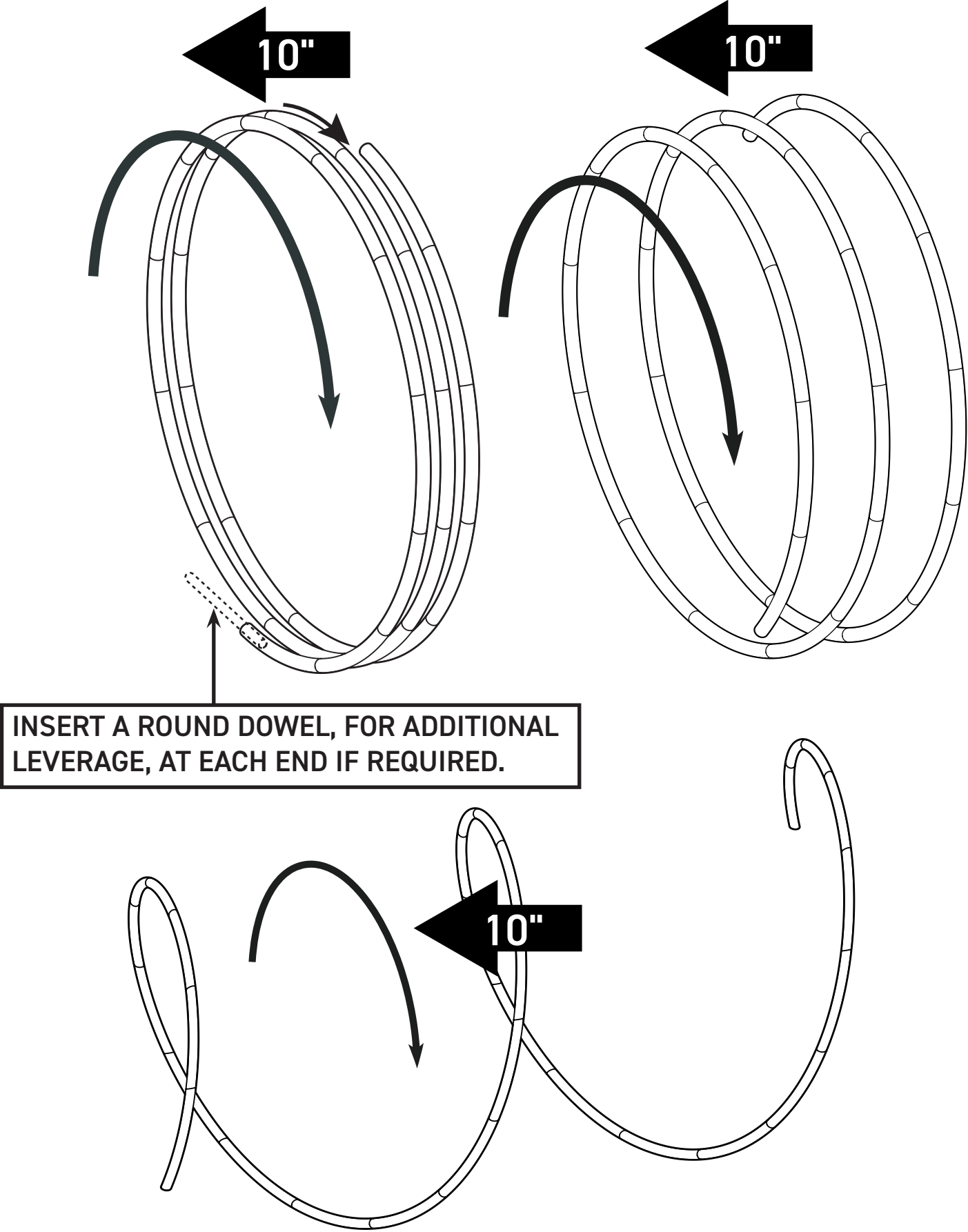


EXPANDING THE METAL RAILING

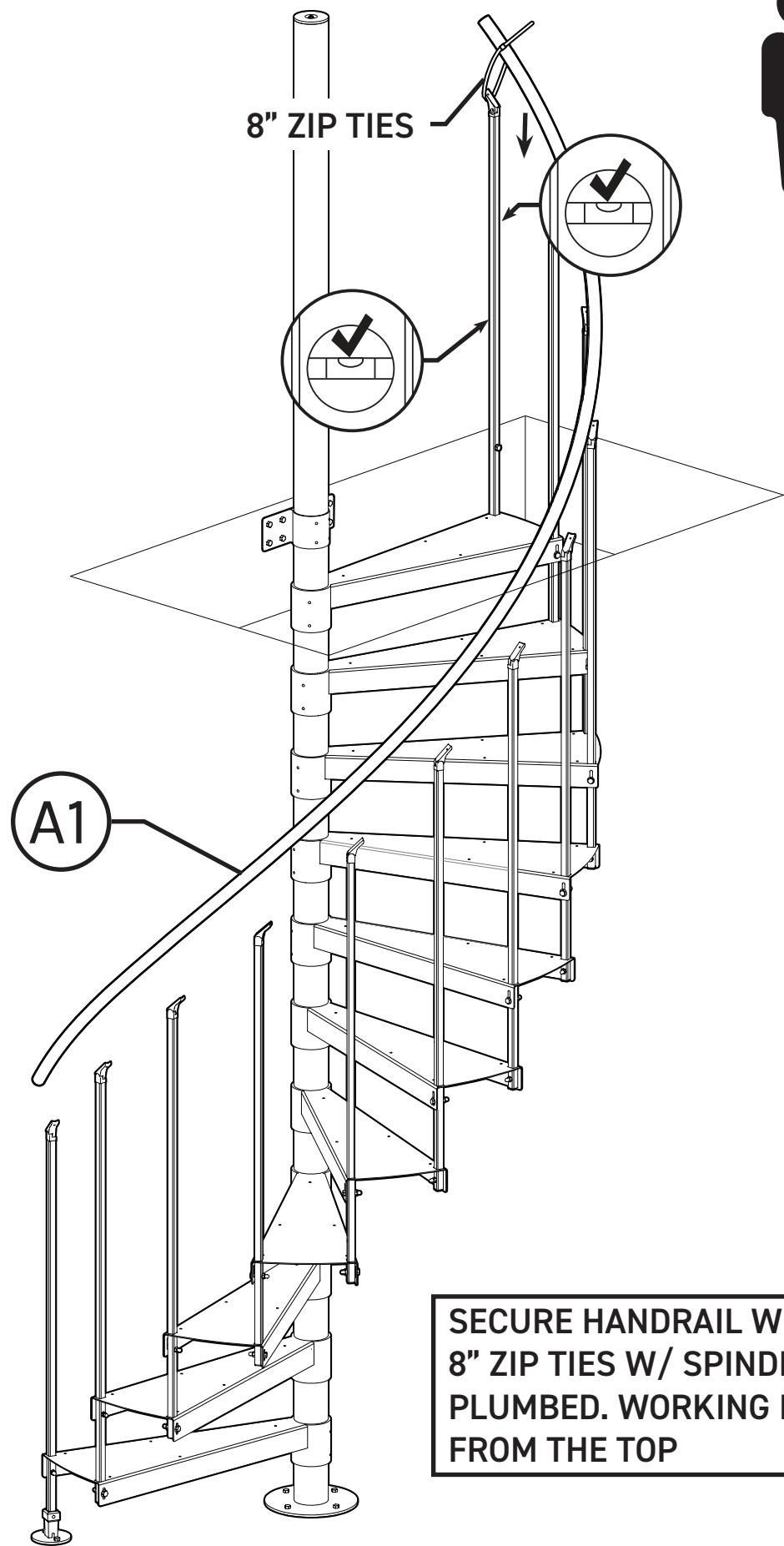
1. AT THE MARK PULL UP AND OUT.
2. ROTATE TO THE NEXT MARK AND REPEAT.
3. EXPAND COIL EVENLY, AVOID FLAT SPOTS.



STEP 39

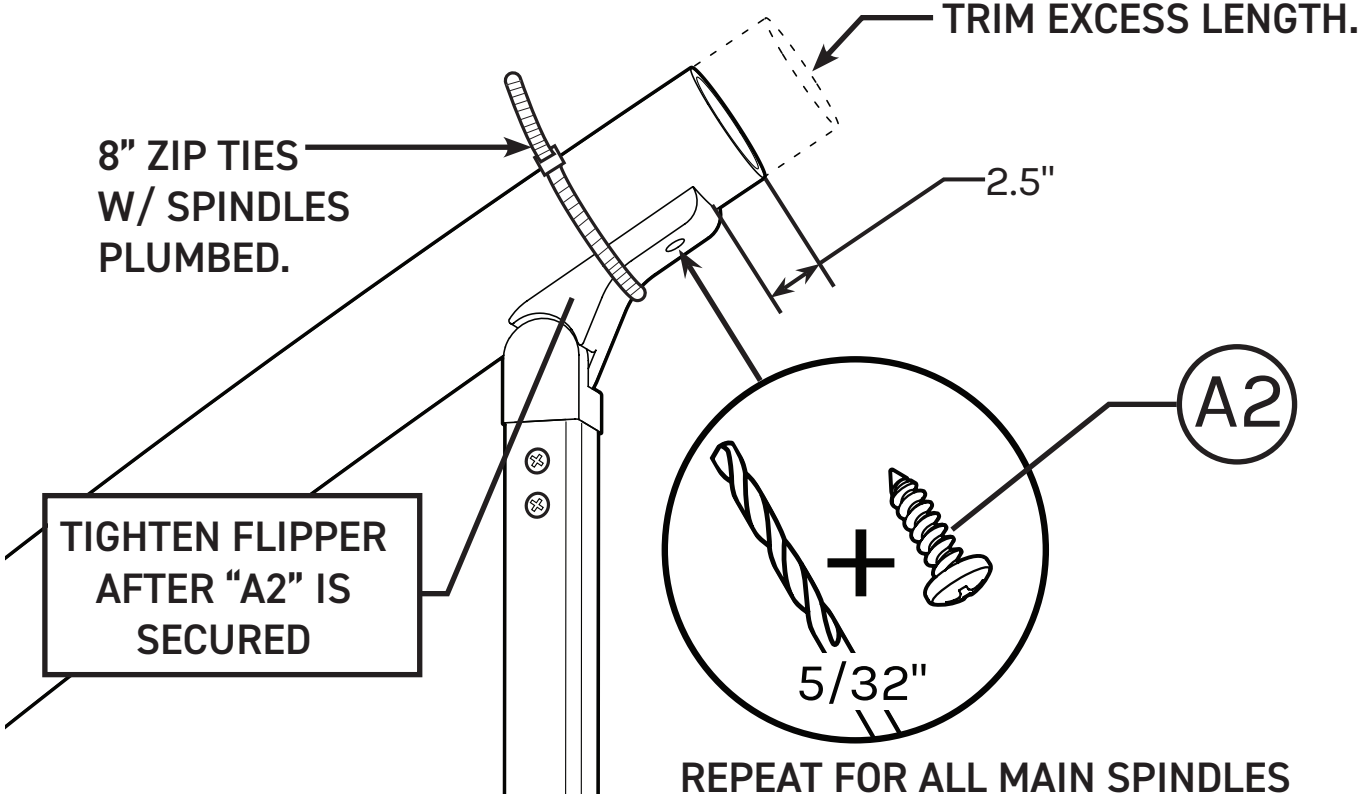


STEP 40

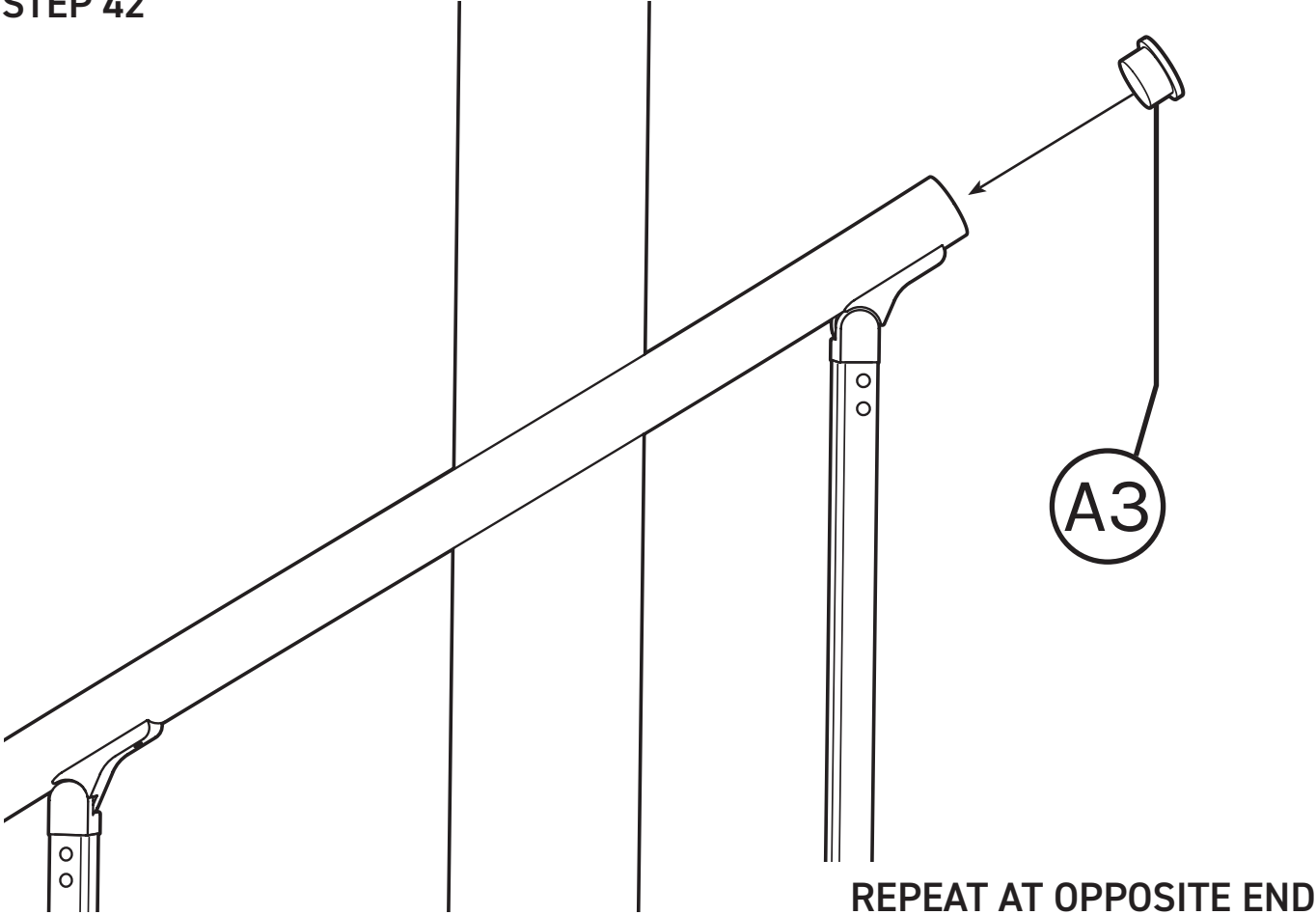


STEP 41

METAL HANDRAIL ONLY



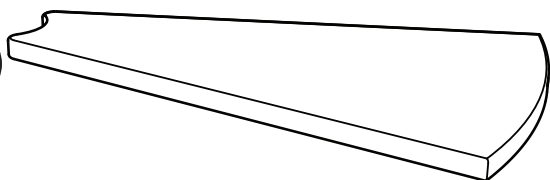
STEP 42



WOOD COVERING INSTALLATION:

PARTS

W2



W3



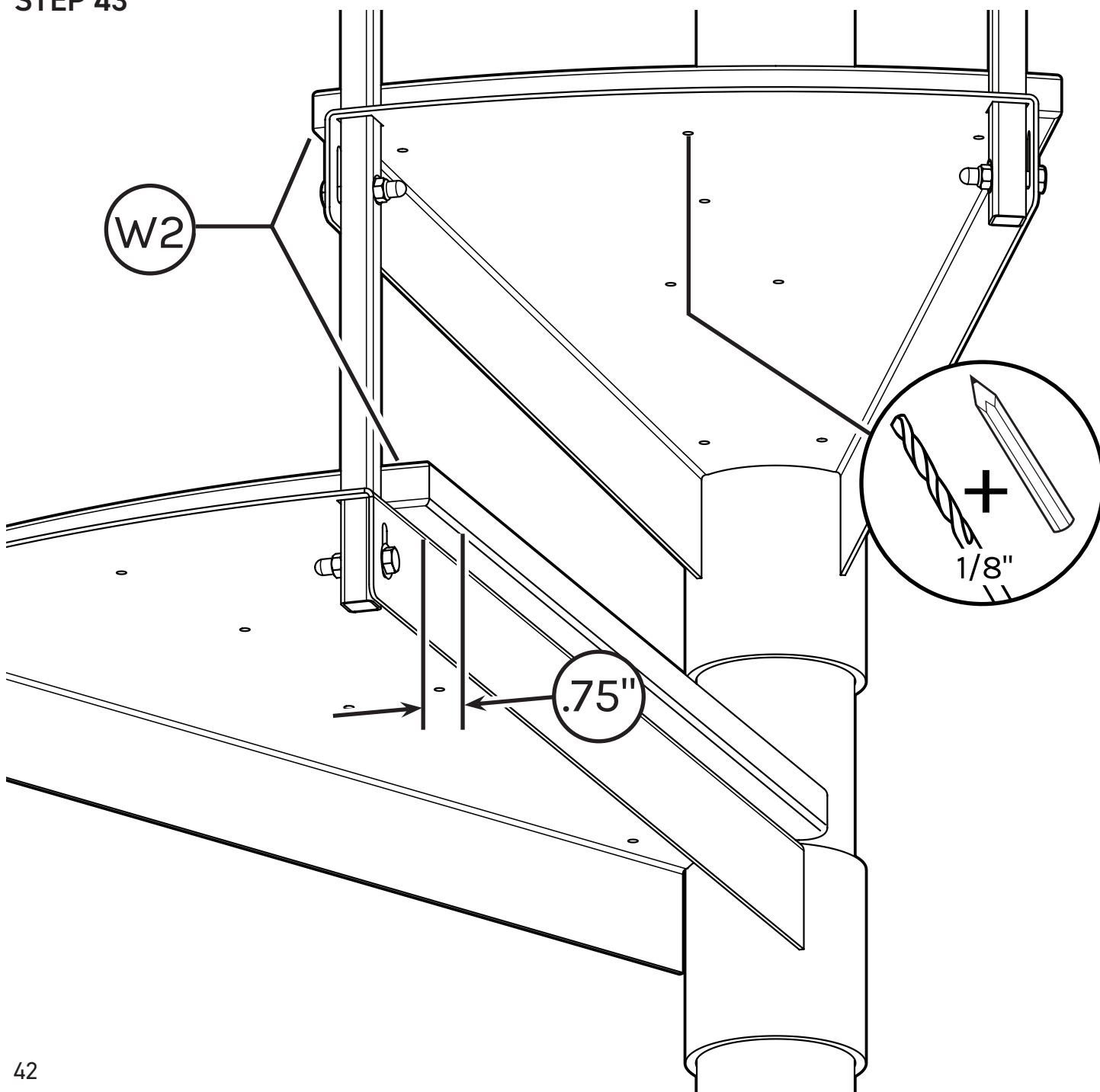
W2

Wood Tread Covering

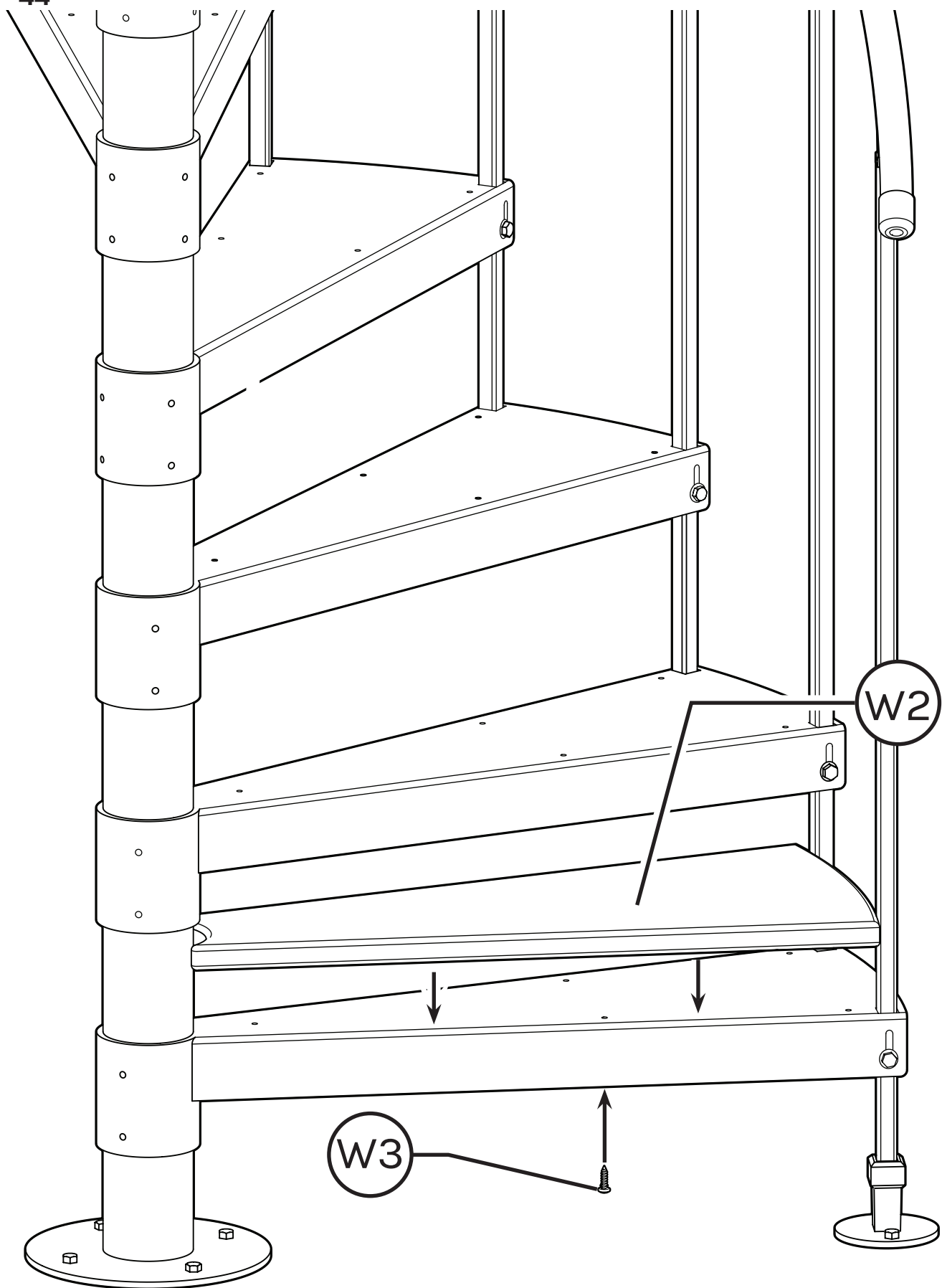
W3

#10x3/4 Pan Head Wood Screw

STEP 43



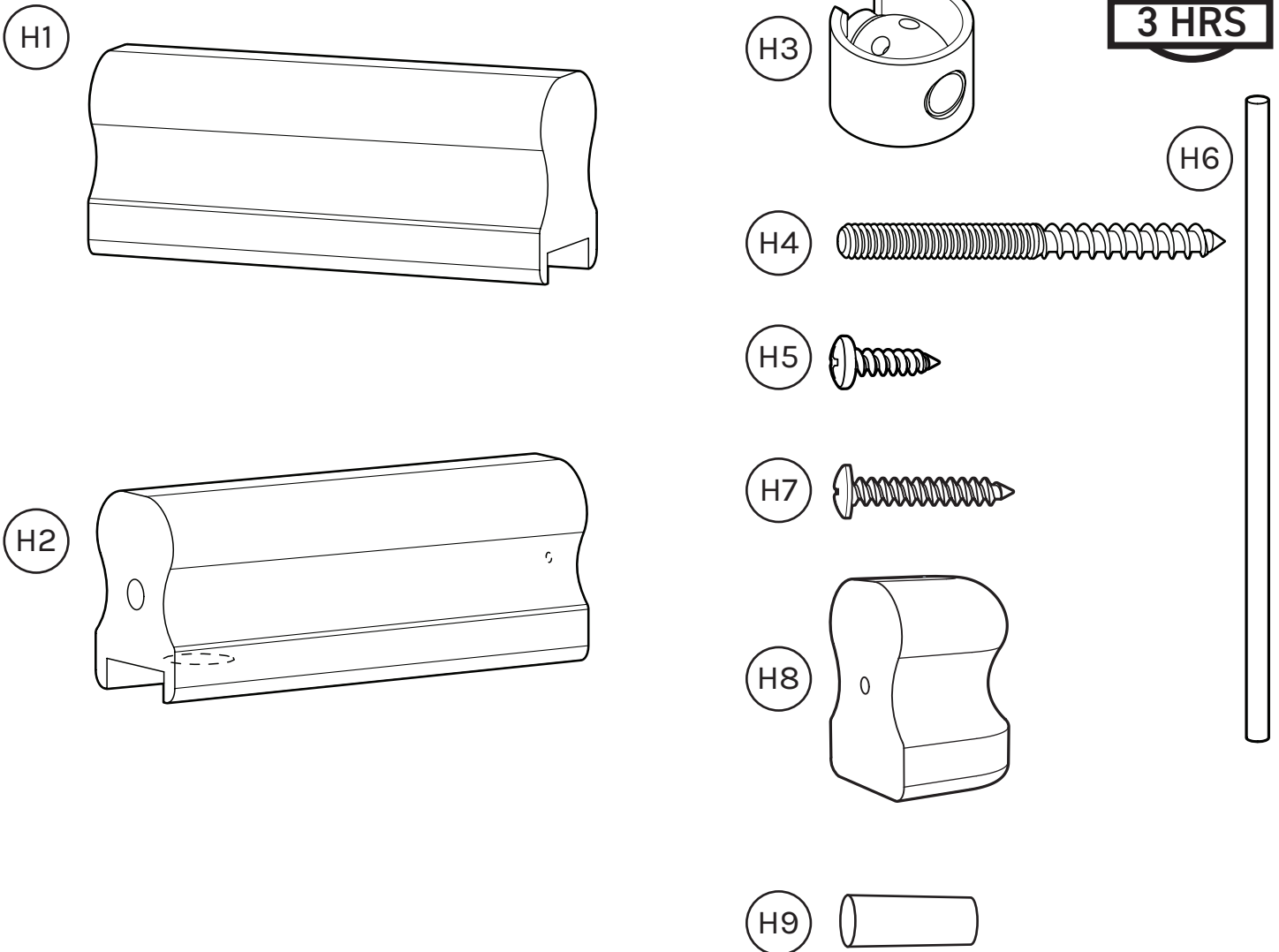
STEP 44



REPEAT FOR ALL TREADS

WOOD HANDRAIL INSTALLATION:

PARTS



(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

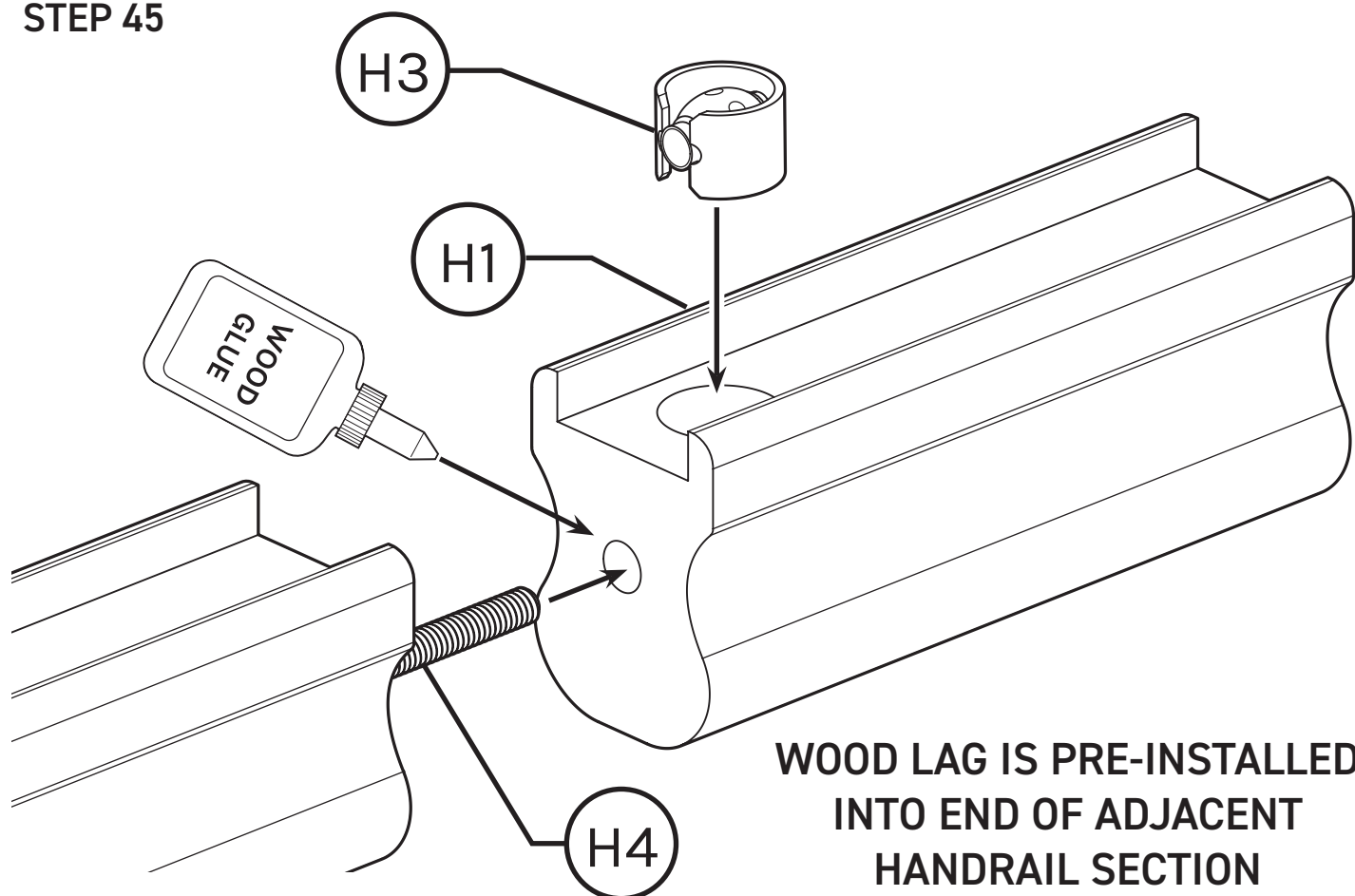
(H6) Ball Nut Wrench

(H7) #10 x 1/4" Pan Head Sheet Metal Screw

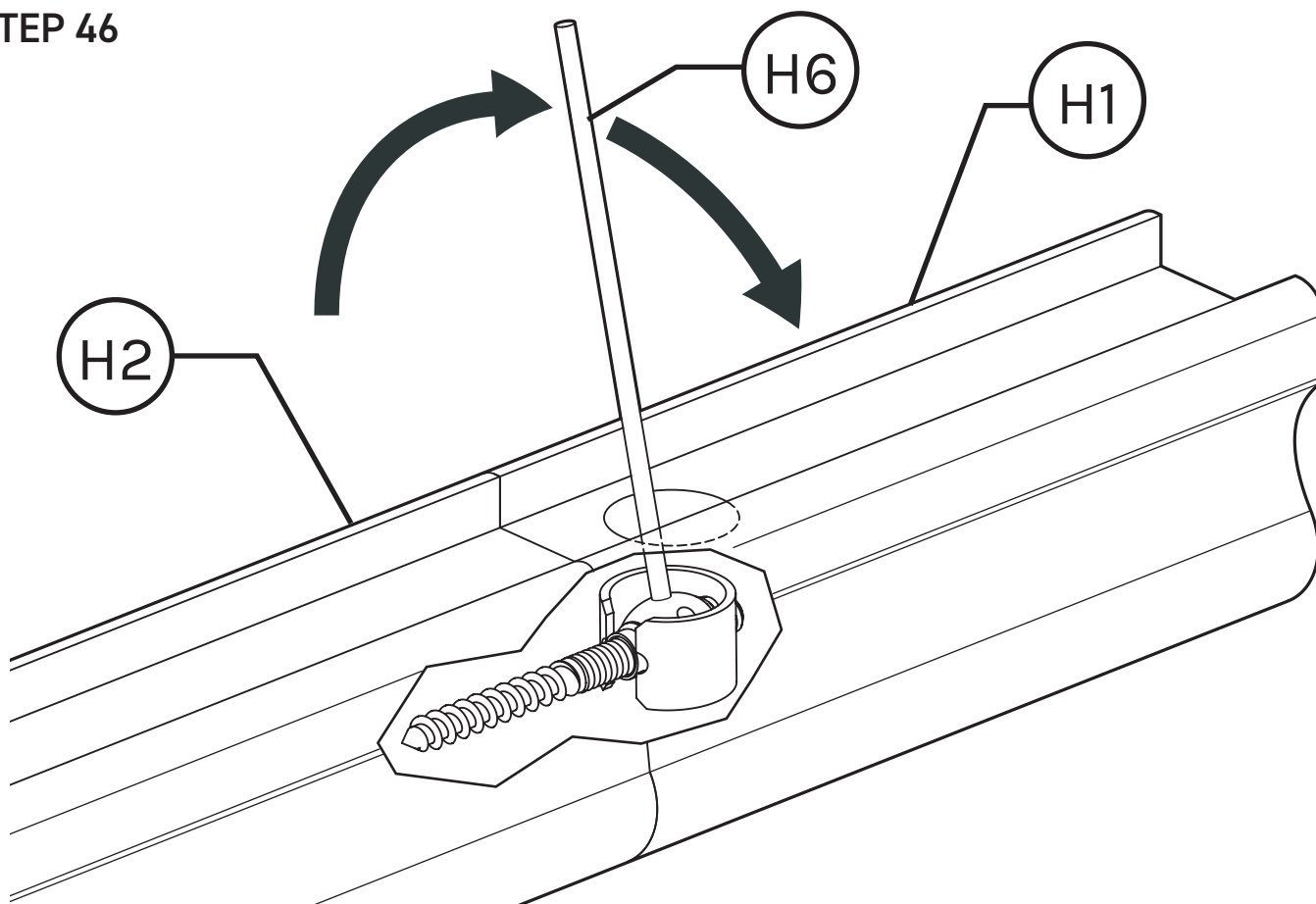
(H8) Wood End Cap

(H9) Wood Plug

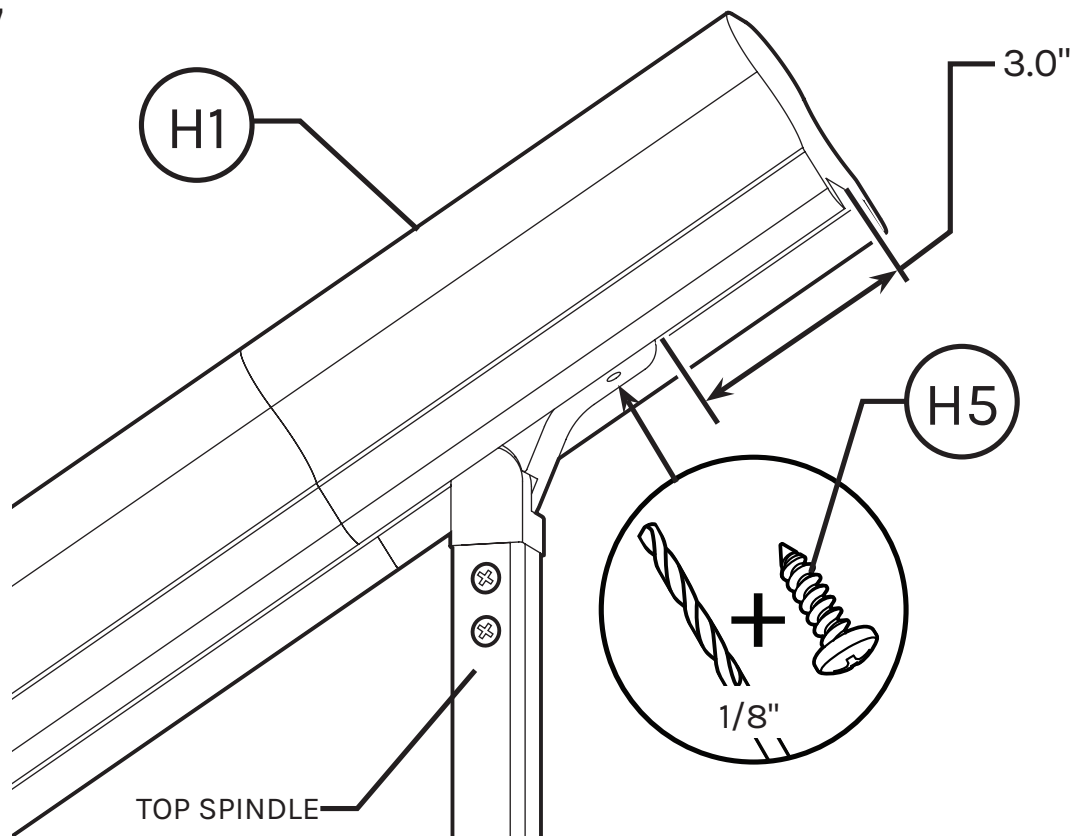
STEP 45



STEP 46

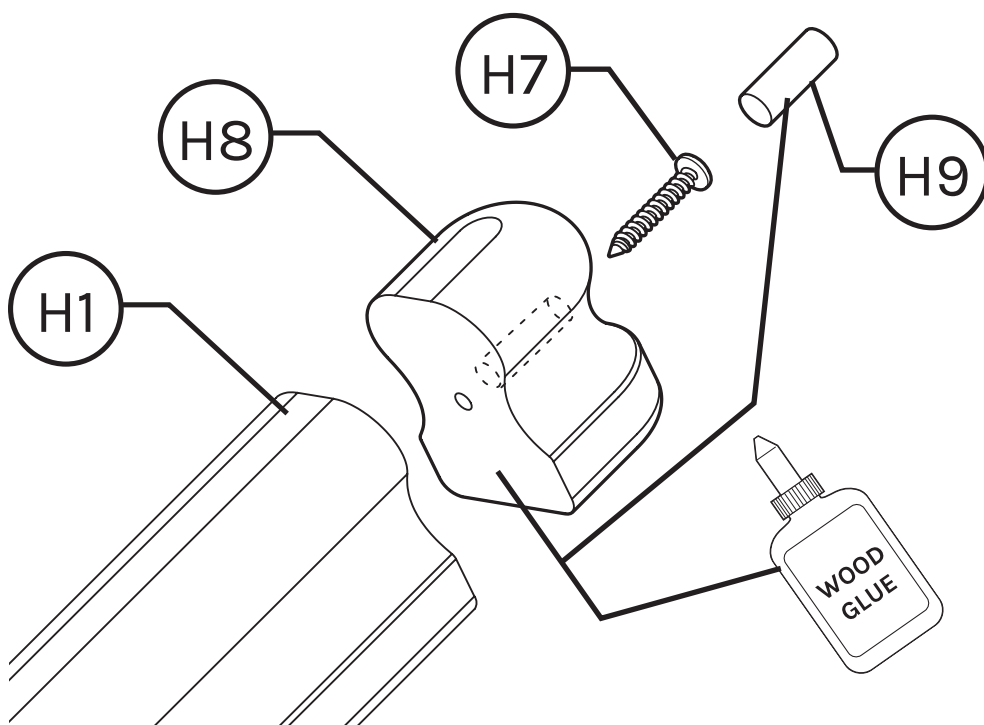


STEP 47

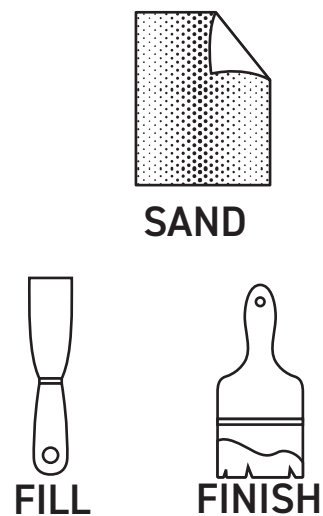


REPEAT FOR ALL SECTIONS

STEP 48



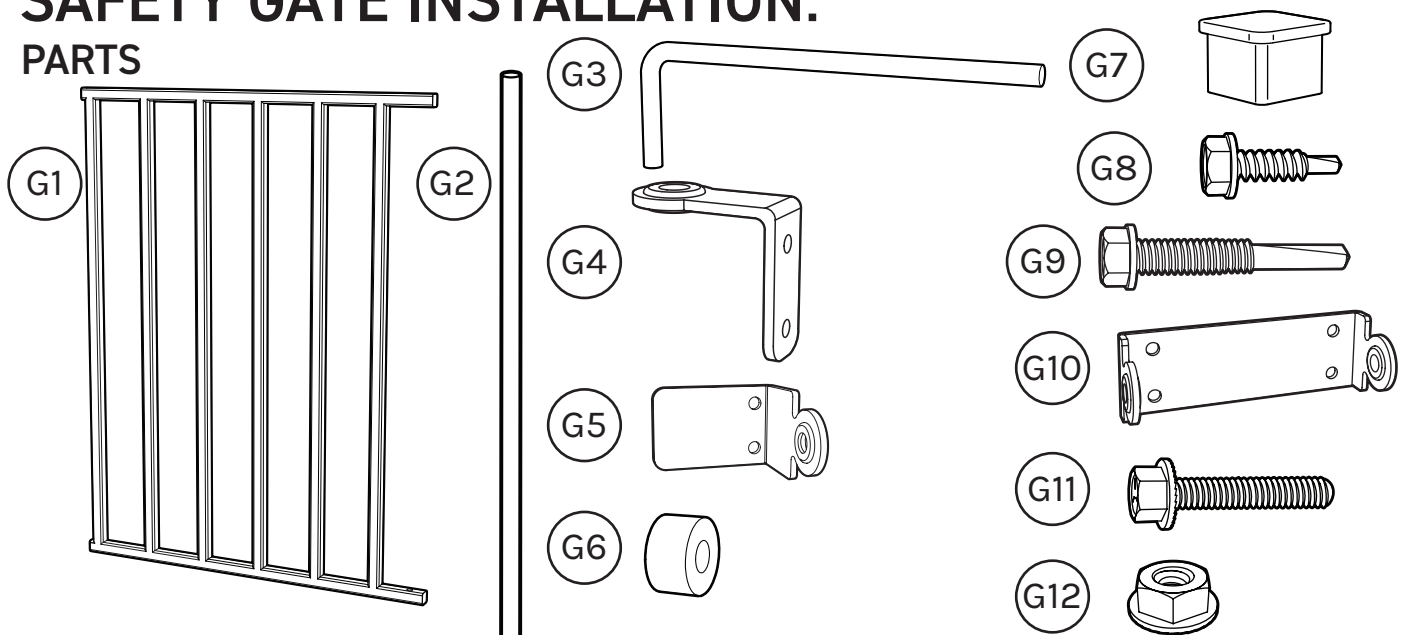
STEP 49



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.

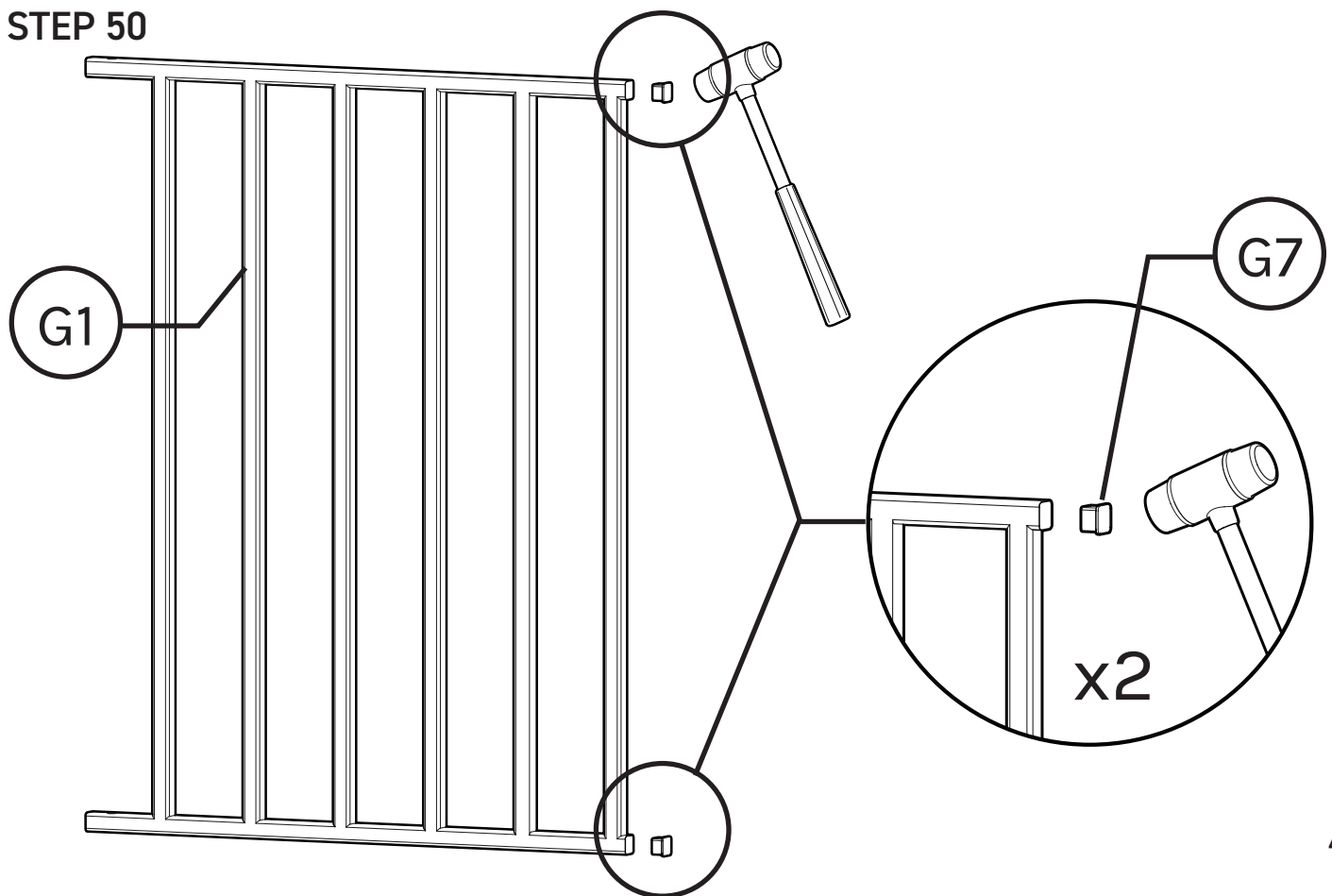
SAFETY GATE INSTALLATION:

PARTS

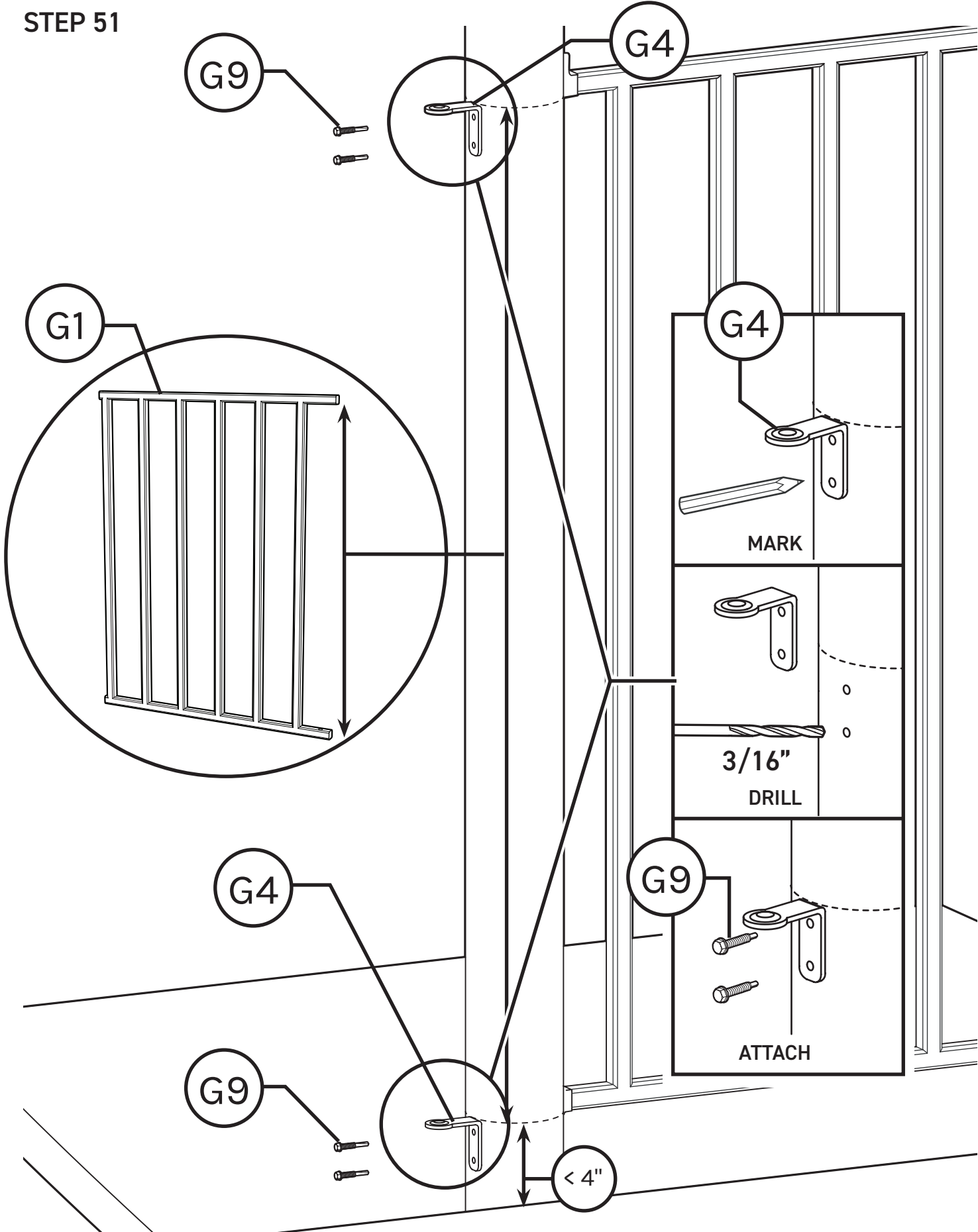


- | | |
|----------------------------|---|
| (G1) Landing Gate | (G8) #12 x 3/4 Hex Washer Head Self Threading Screw |
| (G2) Hinge Pin | (G9) #12 x 1-1/2 Hex Washer Head Self Threading Screw |
| (G3) Locking Pin | (G10) Locking Pin Bracket |
| (G4) Hinge Bracket | (G11) 1/4"-20 x 3/4" Hex Serrated Flange Bolt |
| (G5) Stop Bracket | (G12) 1/4"-20 x 3/4" Hex Serrated Flange Nut |
| (G6) Clamping Shaft Collar | |
| (G7) 3/4" x 3/4" End Cap | |

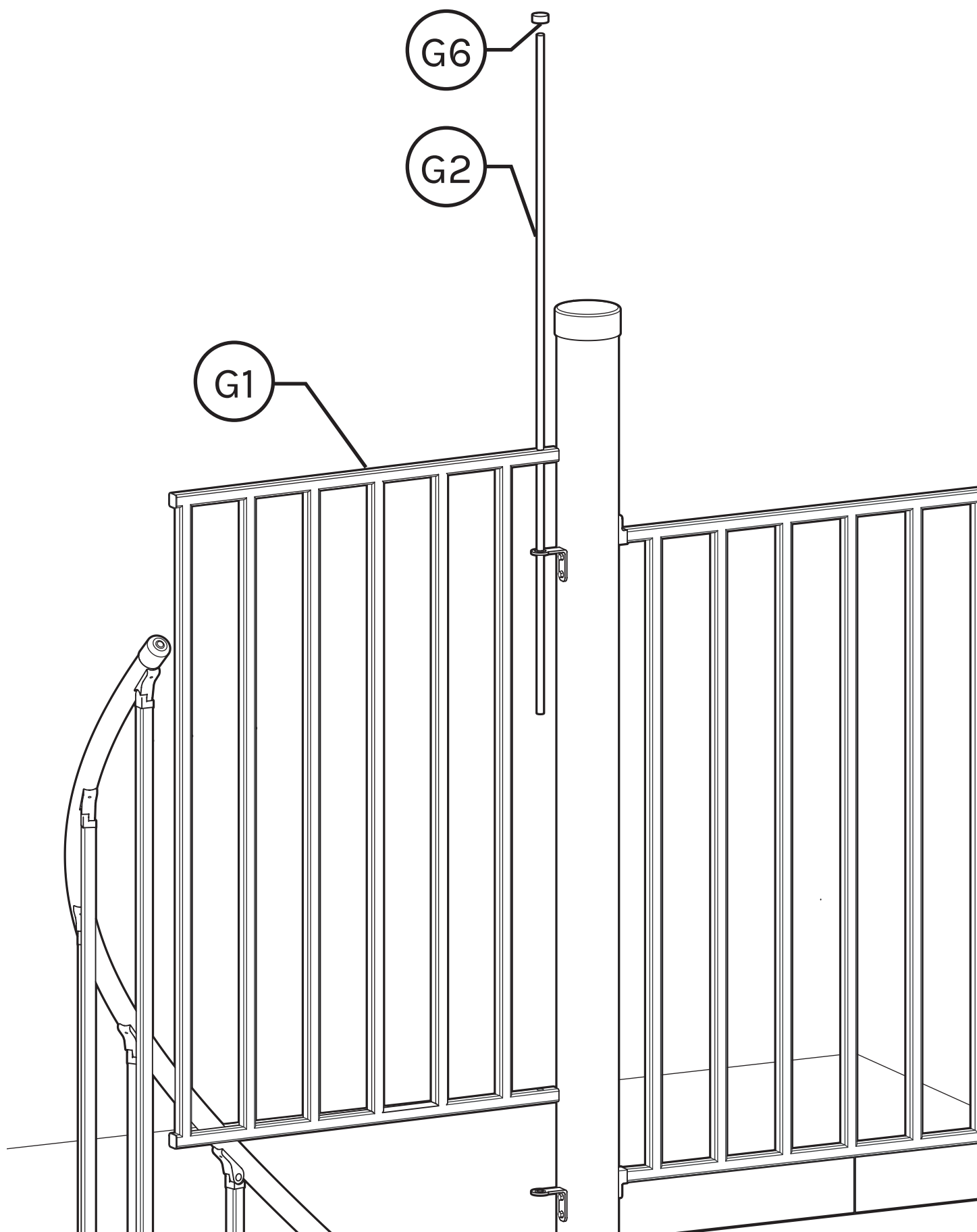
STEP 50



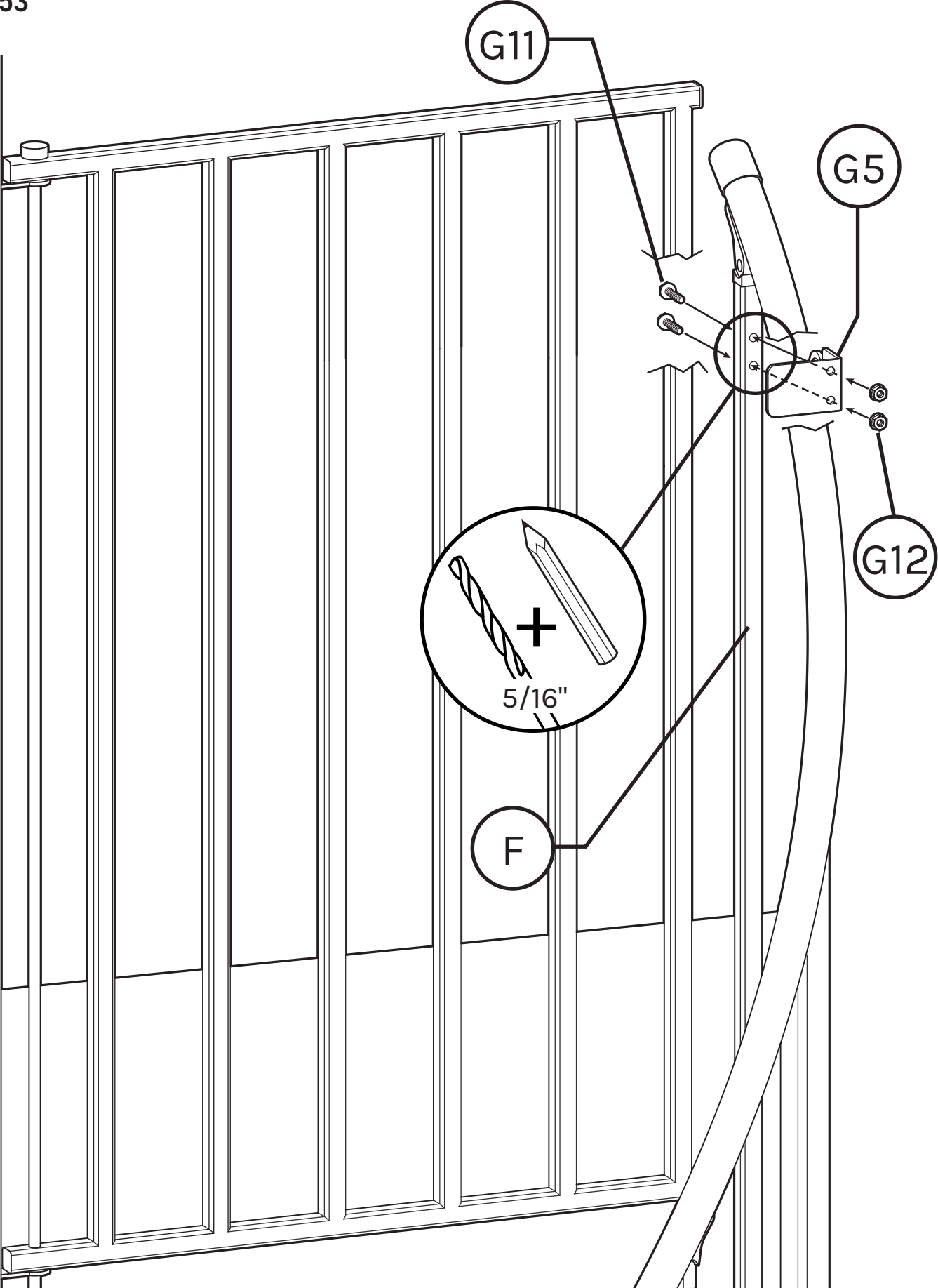
STEP 51



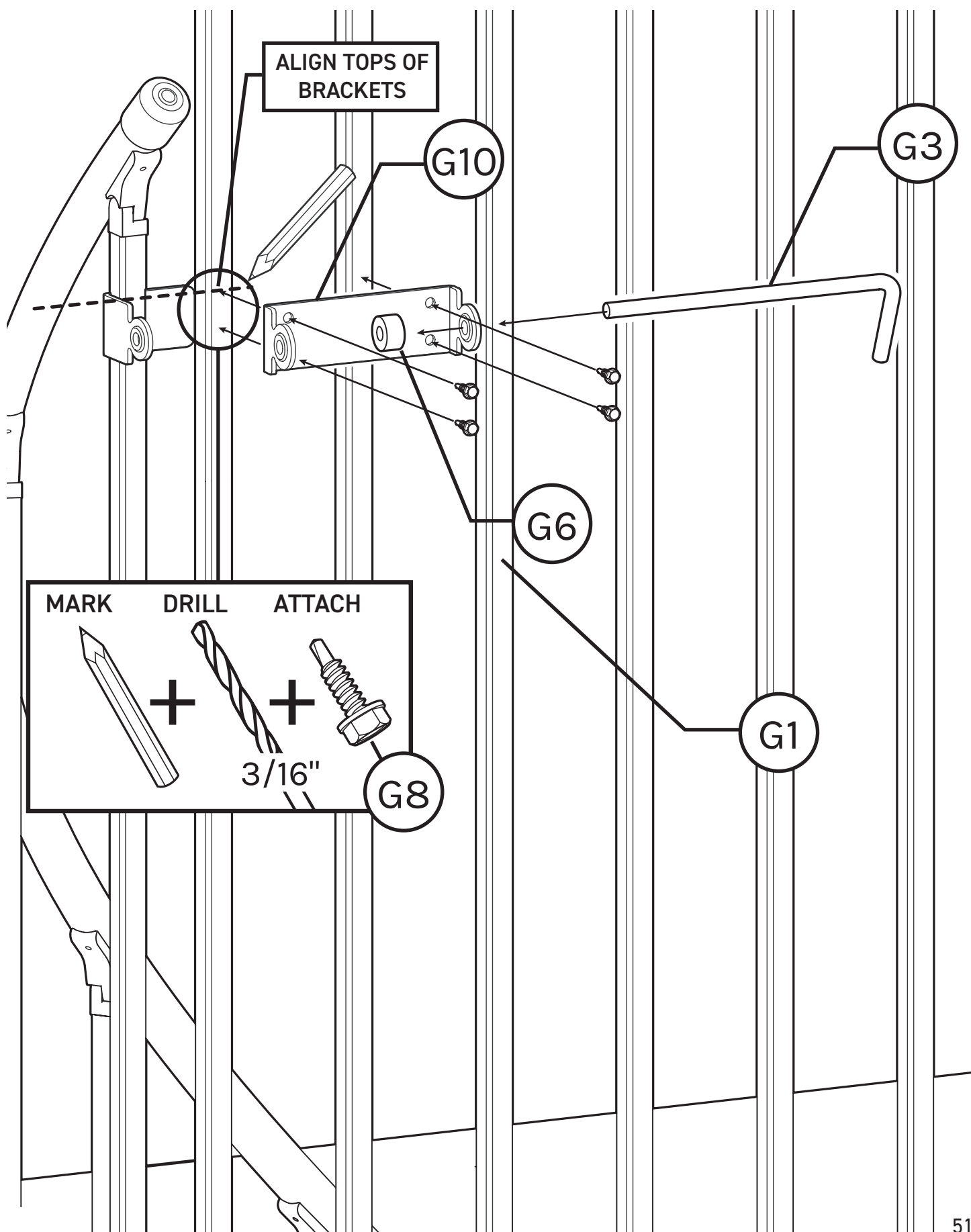
STEP 52



STEP 53

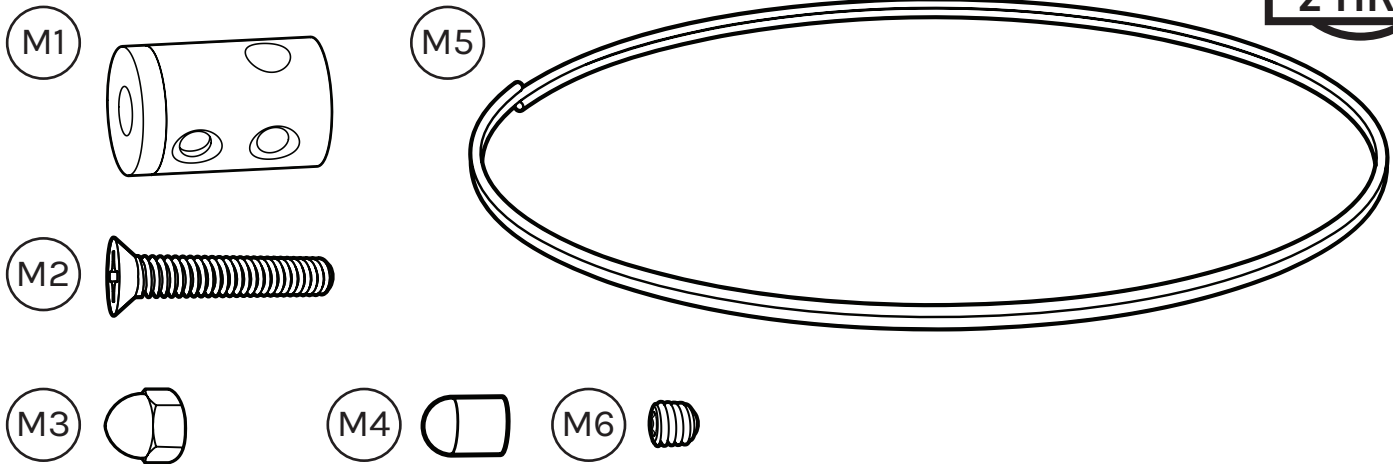


STEP 54



MULTI-LINE RAILING INSTALLATION:

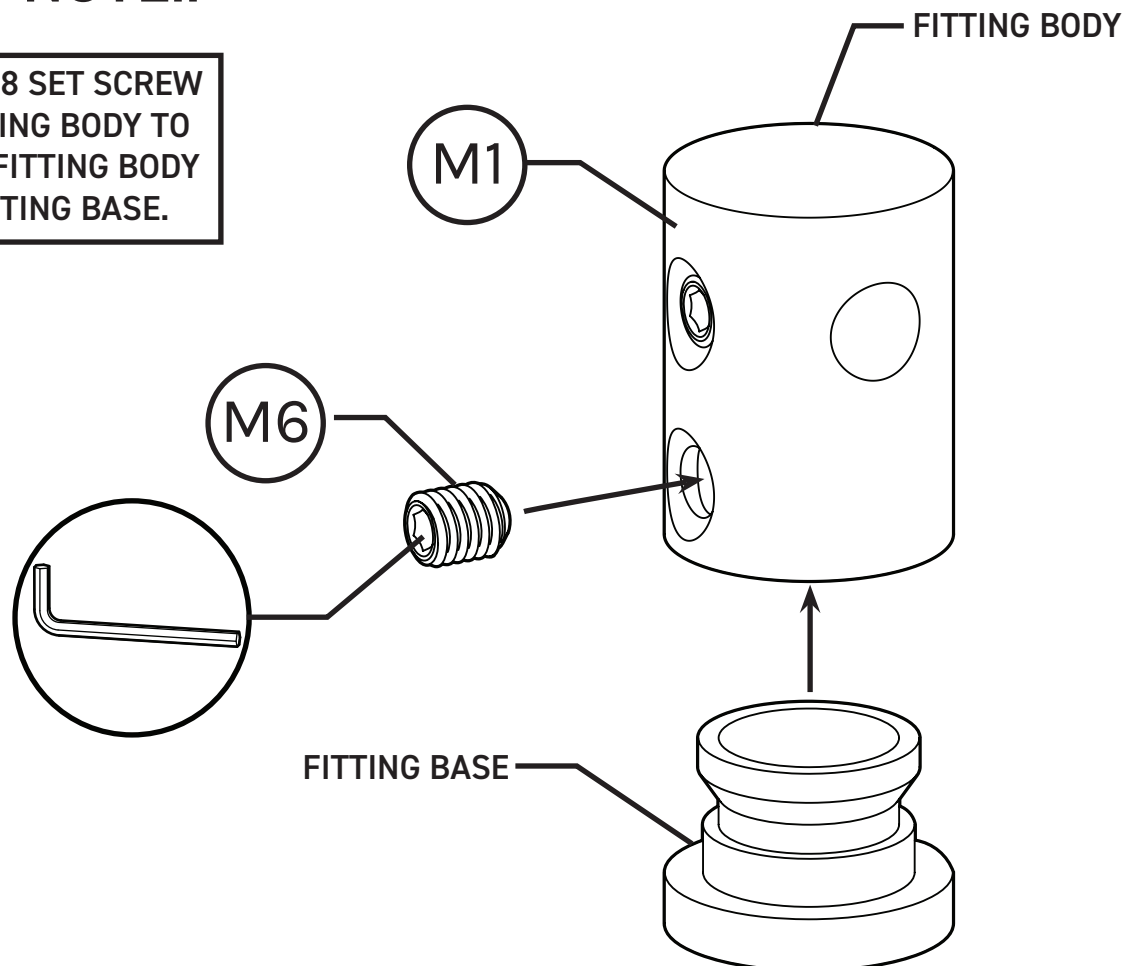
PARTS



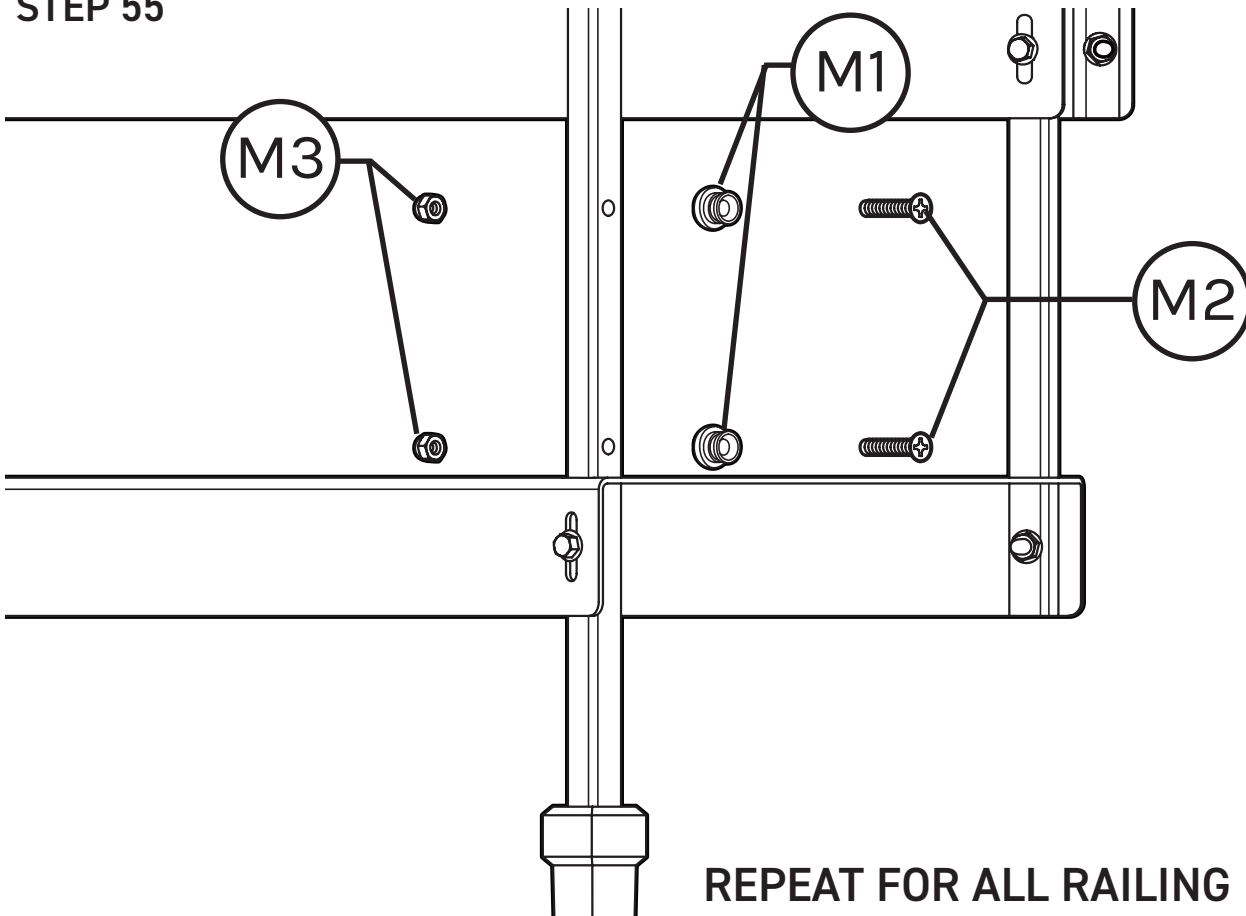
(M1) Railing Fitting	(M4) 1/2" Long Black Rubber Cap
(M2) 1/4" - 20 x 1-1/2" Flat Head Machine Screw	(M5) 1/4" Dia. Solid Stainless Steel Multi-Line Coil
(M3) 1/4" - 20 x Acorn Nut	(M6) M5 x .08 Set Screw (Pre-Installed)

ASSEMBLY NOTE!!

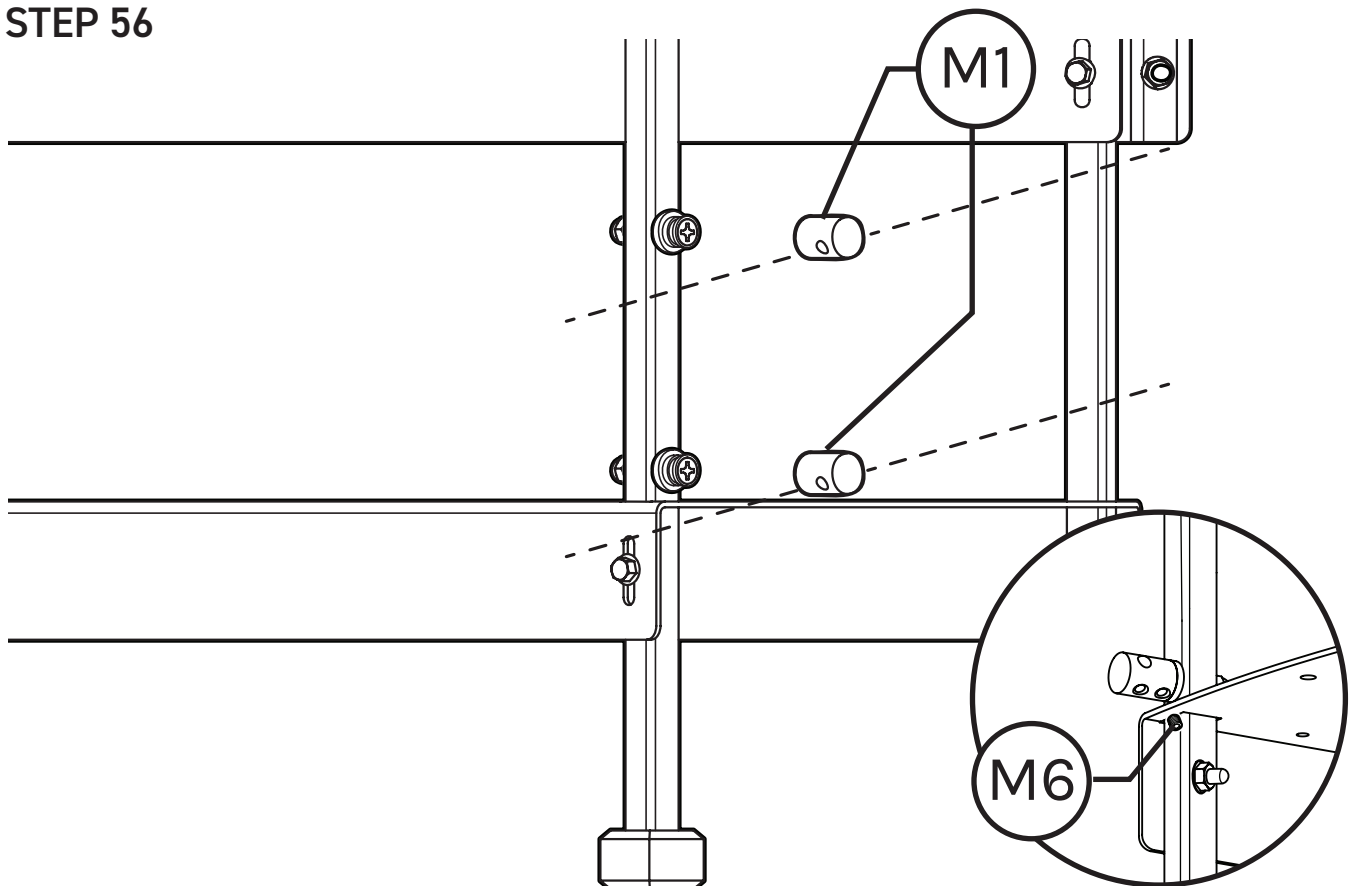
REMOVE M5 X .08 SET SCREW FROM THE FITTING BODY TO SEPARATE THE FITTING BODY FROM THE FITTING BASE.



STEP 55



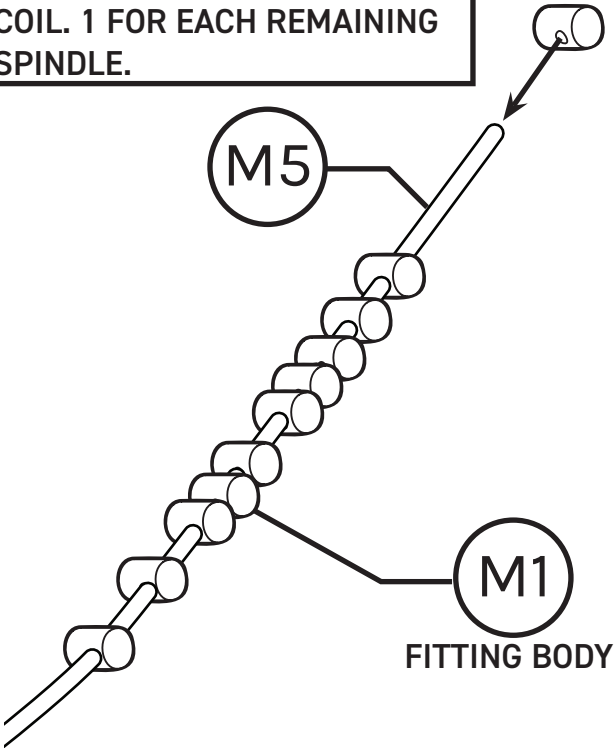
STEP 56



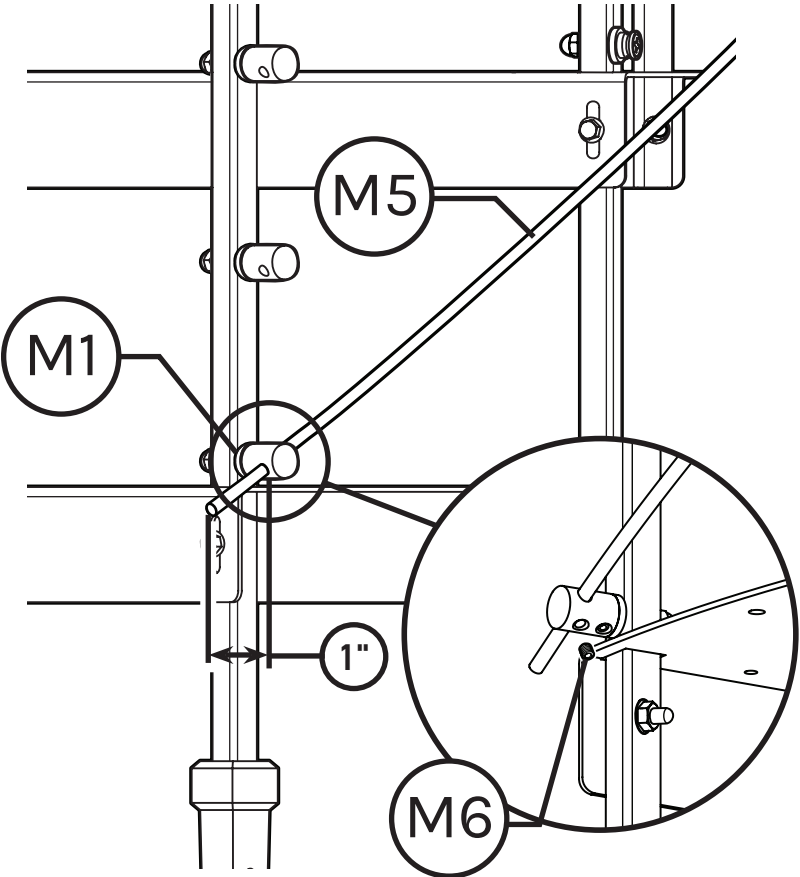
REPEAT FOR ALL BOTTOM SPINDLE RAILING FITTINGS 53

STEP 57

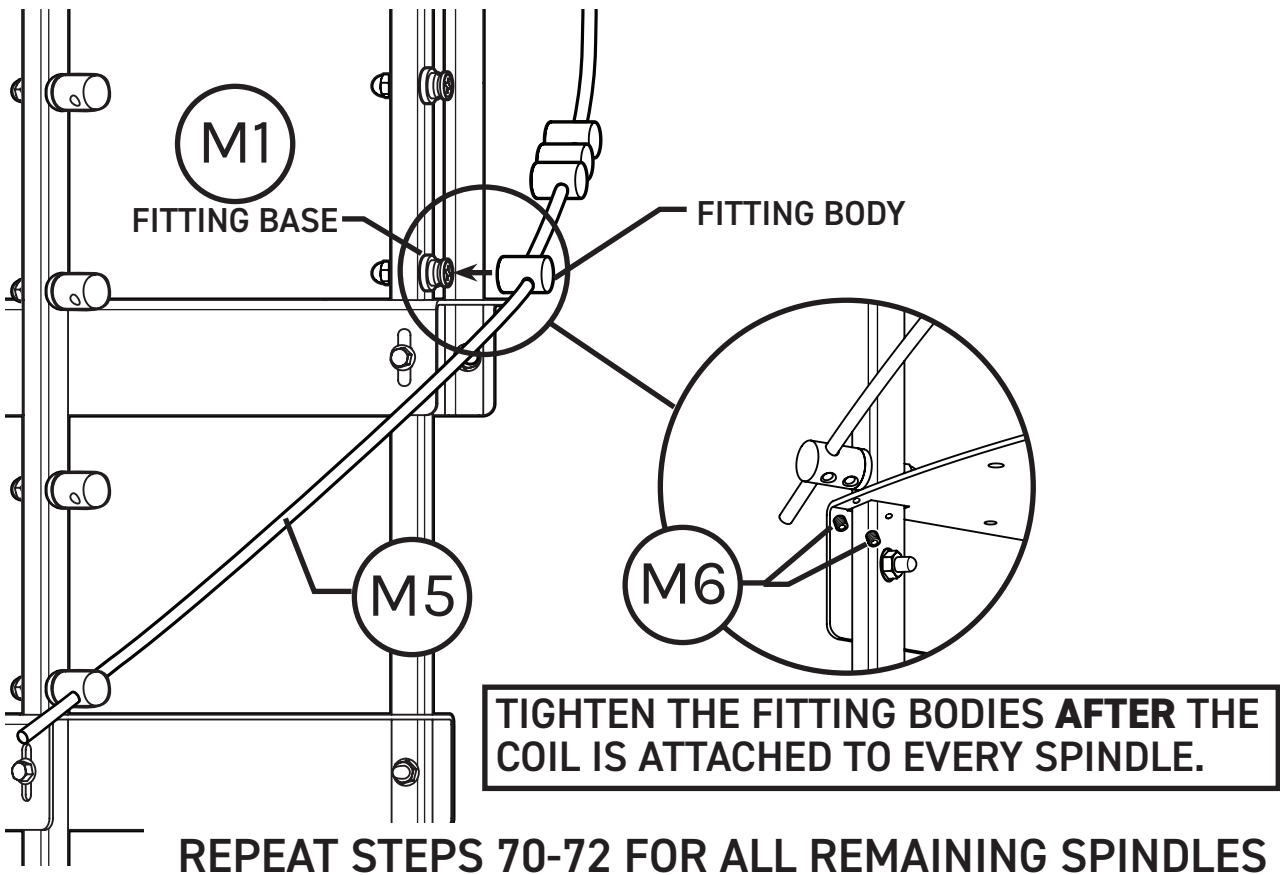
THREAD FITTING BODIES ONTO COIL. 1 FOR EACH REMAINING SPINDLE.



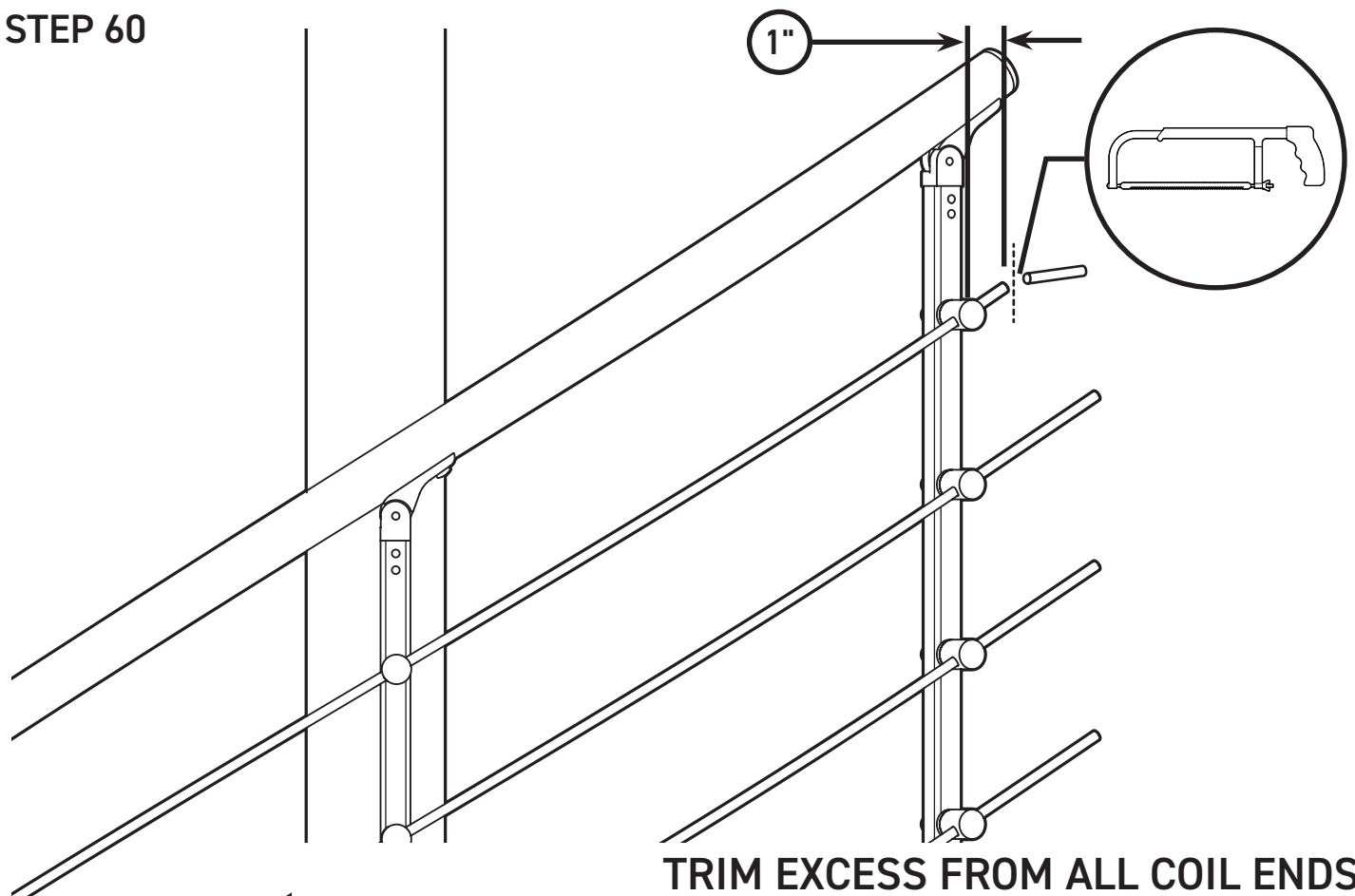
STEP 58



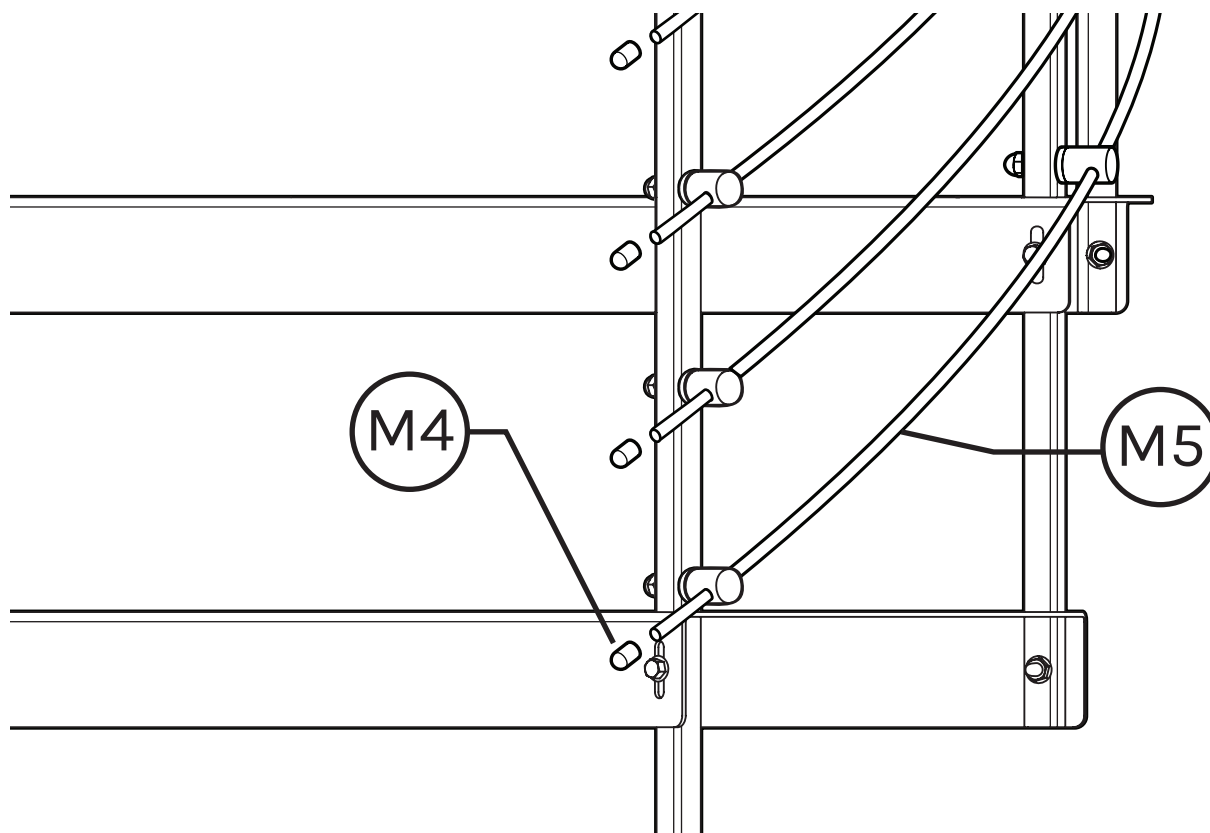
STEP 59



STEP 60



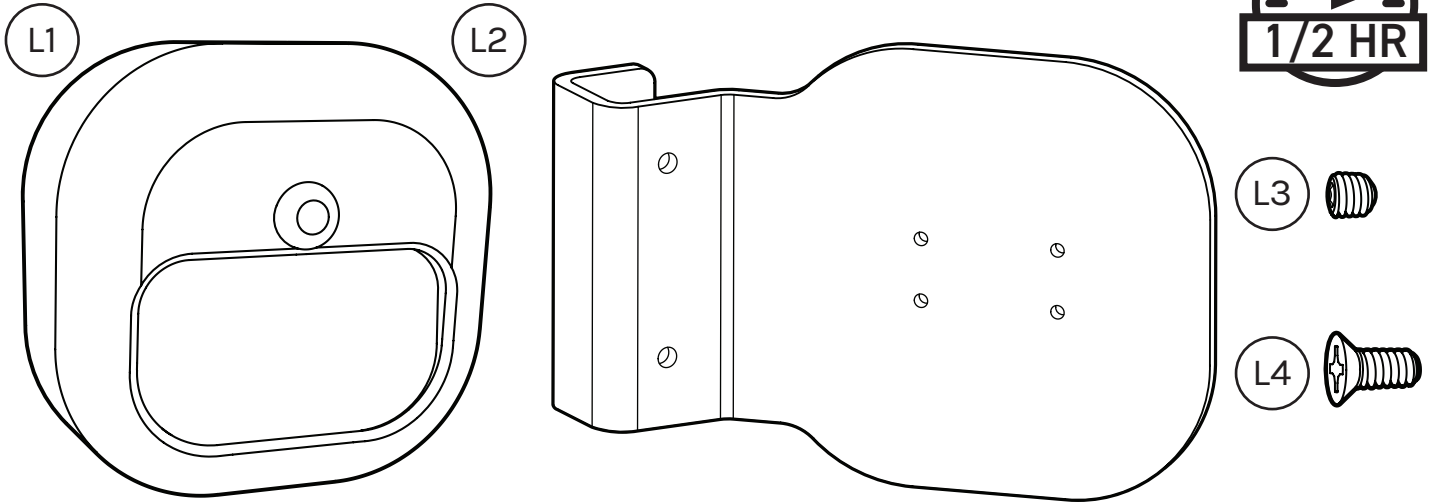
STEP 61



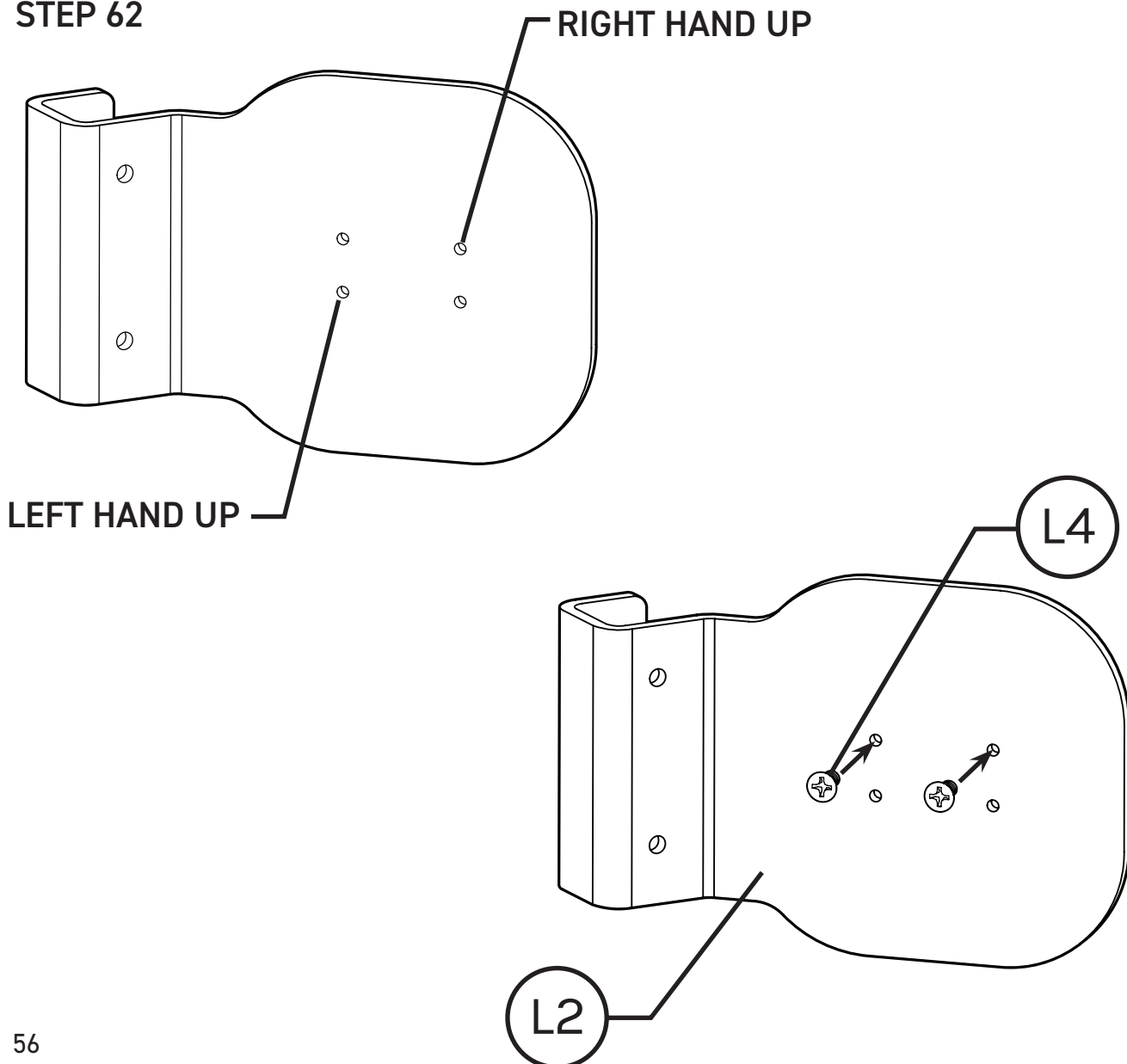
INSTALL AT BOTH ENDS OF THE COIL

RING® LIGHT INSTALLATION:

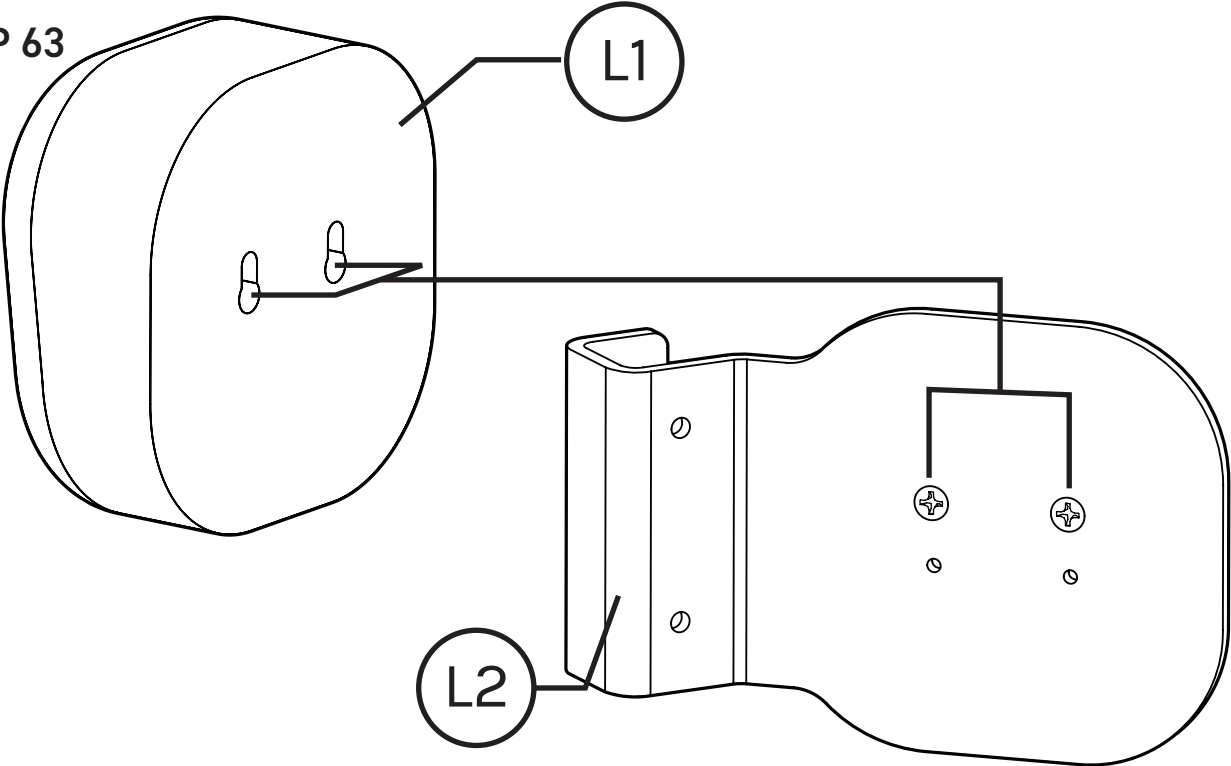
PARTS



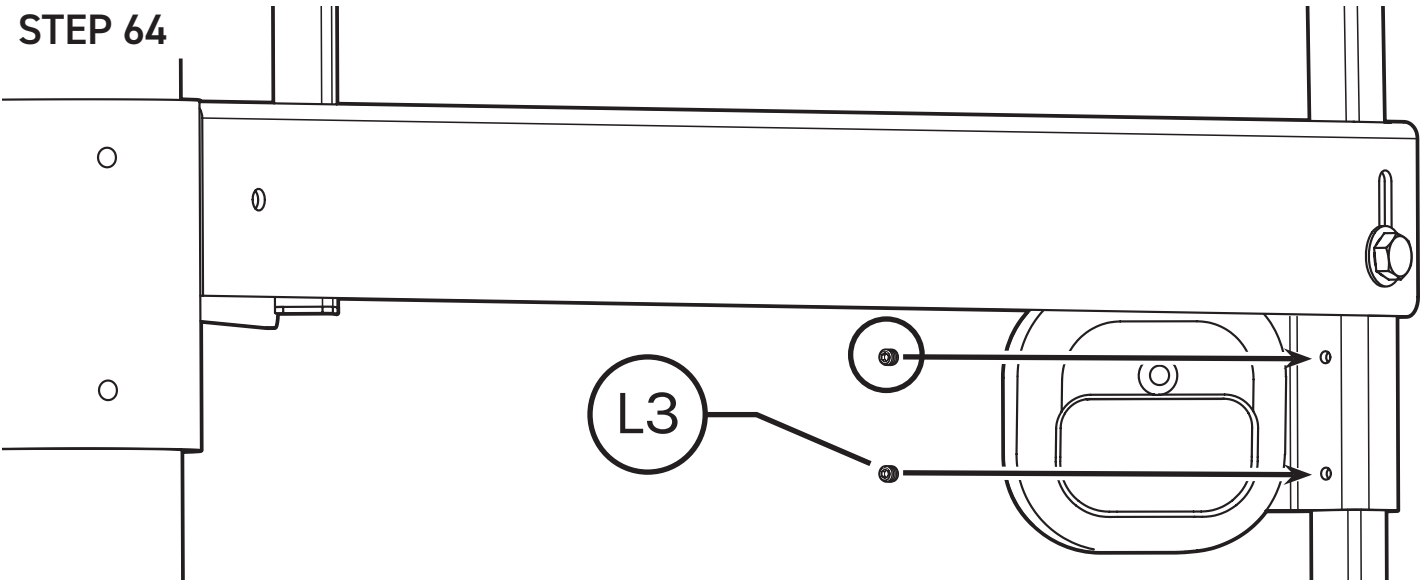
STEP 62



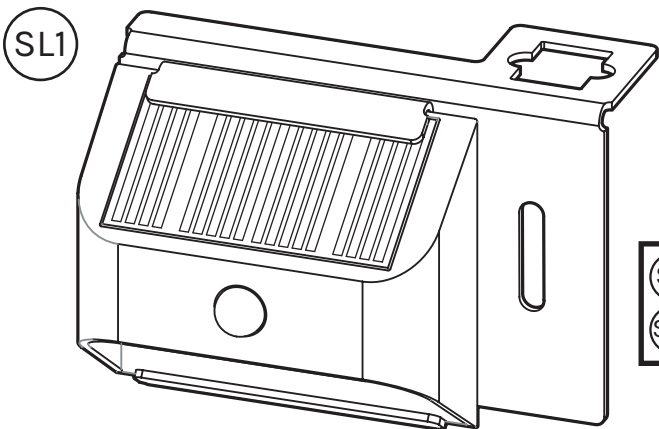
STEP 63



STEP 64

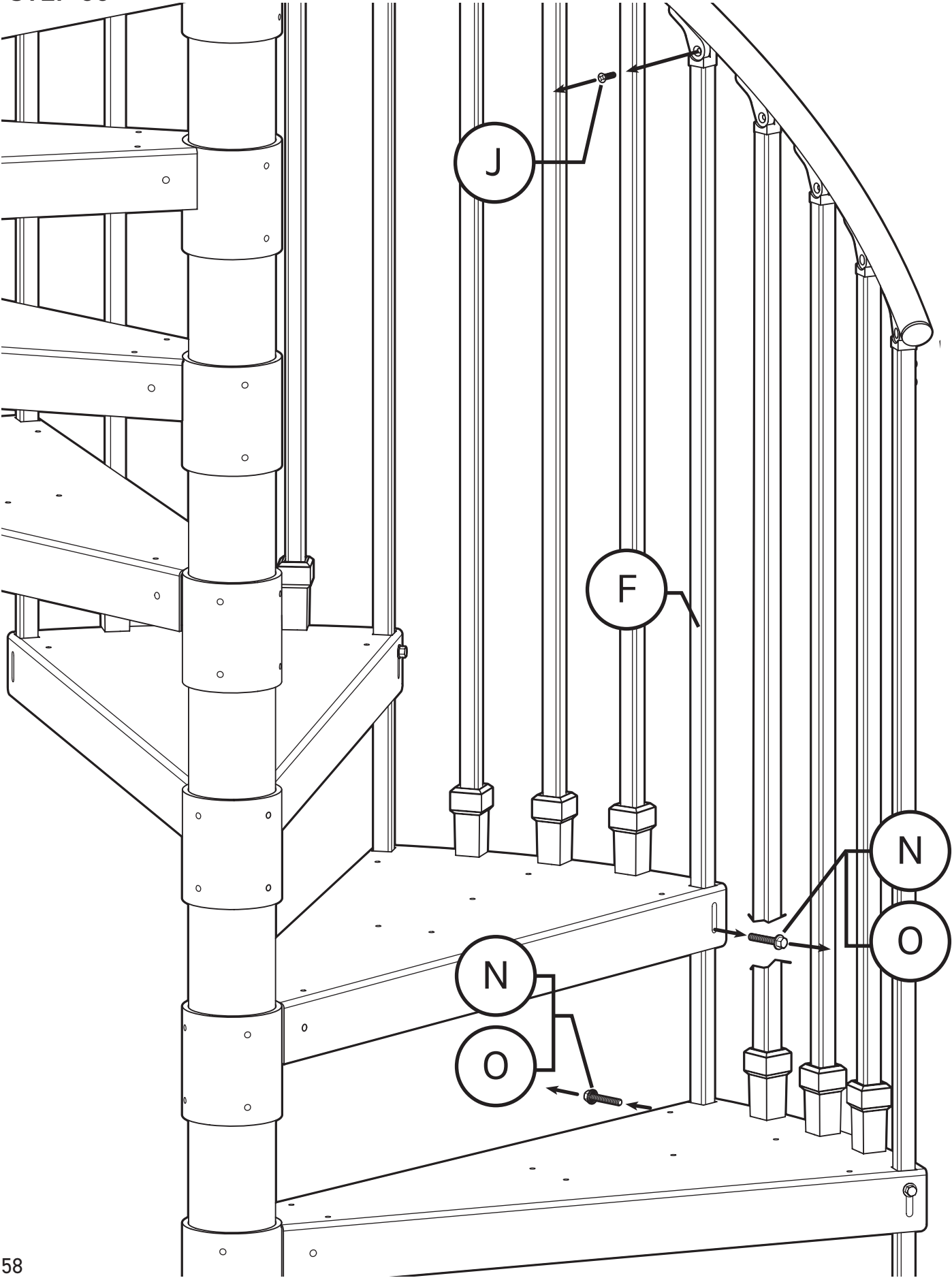


SOLAR RING™ LIGHT INSTALLATION:
PARTS

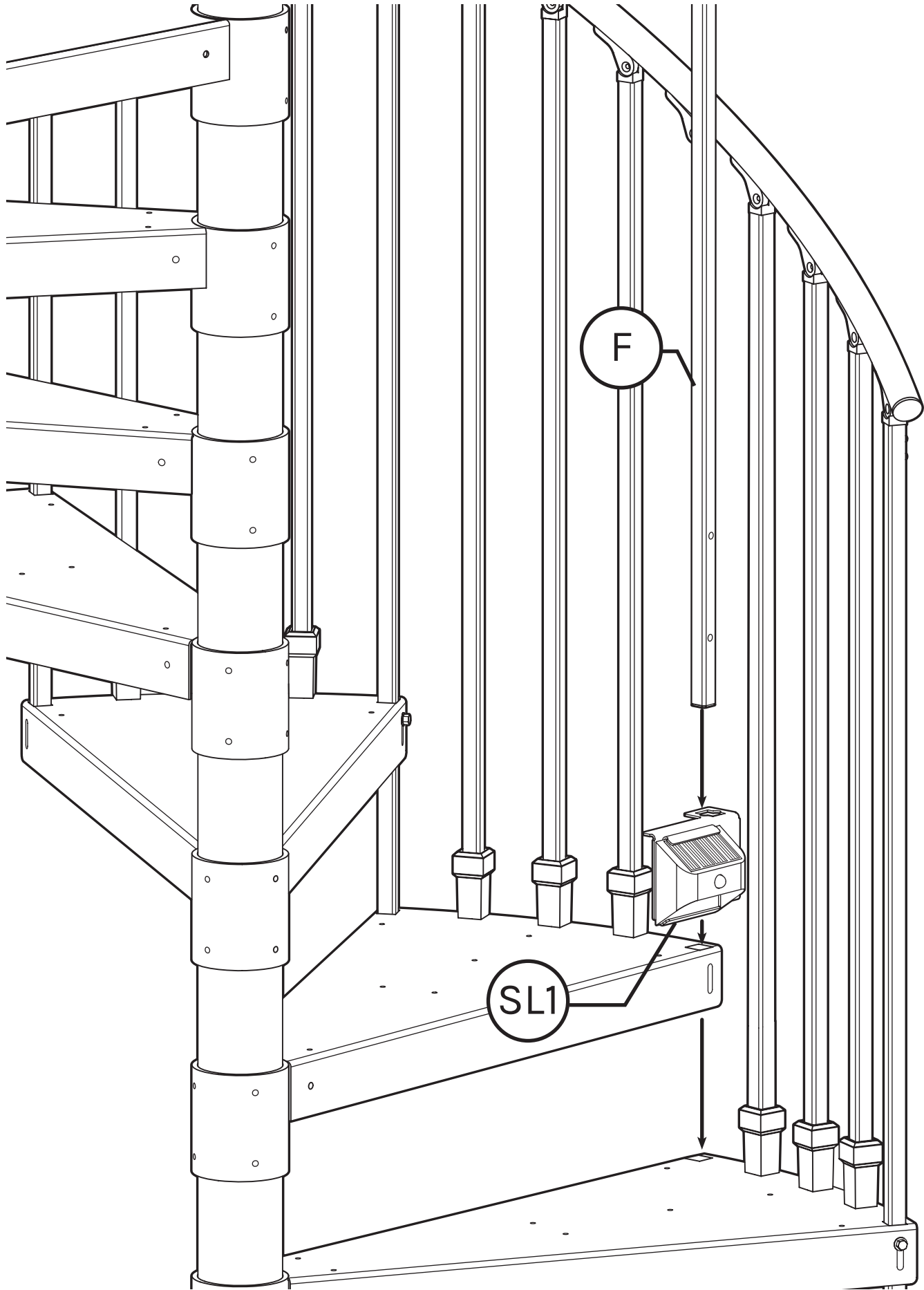


- (SL1) Solar Ring™ Light (Right Hand Bracket Shown)
- (SL2) 1/4" Washer x 3

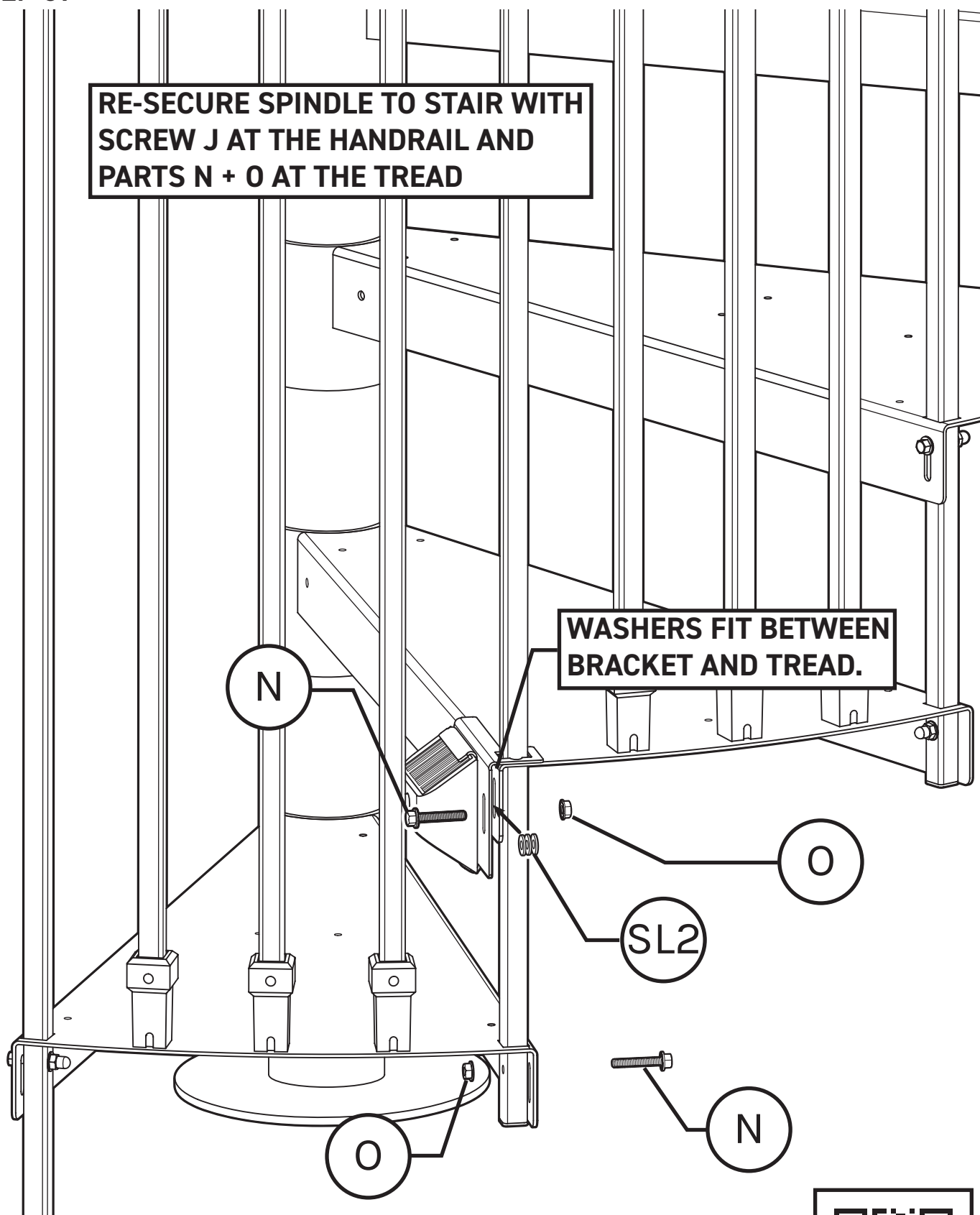
STEP 65



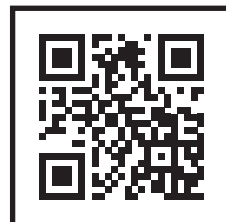
STEP 66



STEP 67



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We have a limited lifetime warranty. This limited lifetime warranty covers the original purchaser or recipient only. This limited lifetime warranty covers any defects in the material or workmanship of our products under normal use. TIS will repair, at no charge, products or part of the product that prove materially defective because of improper material or workmanship under normal use and maintenance. Normal wear and tear is not warranted.

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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