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12x10 STRATFORD, ASHFORD, HAWTHORNE PERGOLA

Model #'s : 2105089B, 2105096B, 2105102B



WARNING

Cancer and Reproductive Harm
www.P65Warnings.ca.gov



**2105089B STRATFORD
(BLACK)**



**2105096B ASHFORD
(BROWN)**



ELECTRICAL ENCLOSURE
INCLUDED

Electrical enclosure available
only in North America



**2105102 HAWTHORNE
(WHITE)**

Please visit www.backyarddiscovery.com

For the most up to date assembly manual, to register your product, or to order
replacement parts *Para obtener instrucciones en español, visite*
www.backyarddiscovery.com



EASY STEP-BY-STEP
3D INTERACTIVE INSTRUCTIONS
DOWNLOAD THE FREE APP



ONLY AVAILABLE IN NORTH AMERICA

Made in China

INS-2105089B, 2105096B, 2105102B-A-12X10 TRADITIONAL METAL PERGOLA-ENG 01-15-2024



It is critically important that you start with square and level footings, concrete pad or deck to attach your structure

- Pay close attention to the items needed for each step. Make sure you are using the correct hardware for each step. Using incorrect hardware may result in improper assembly
- Remember to double check for underground utilities and overhead electrical lines

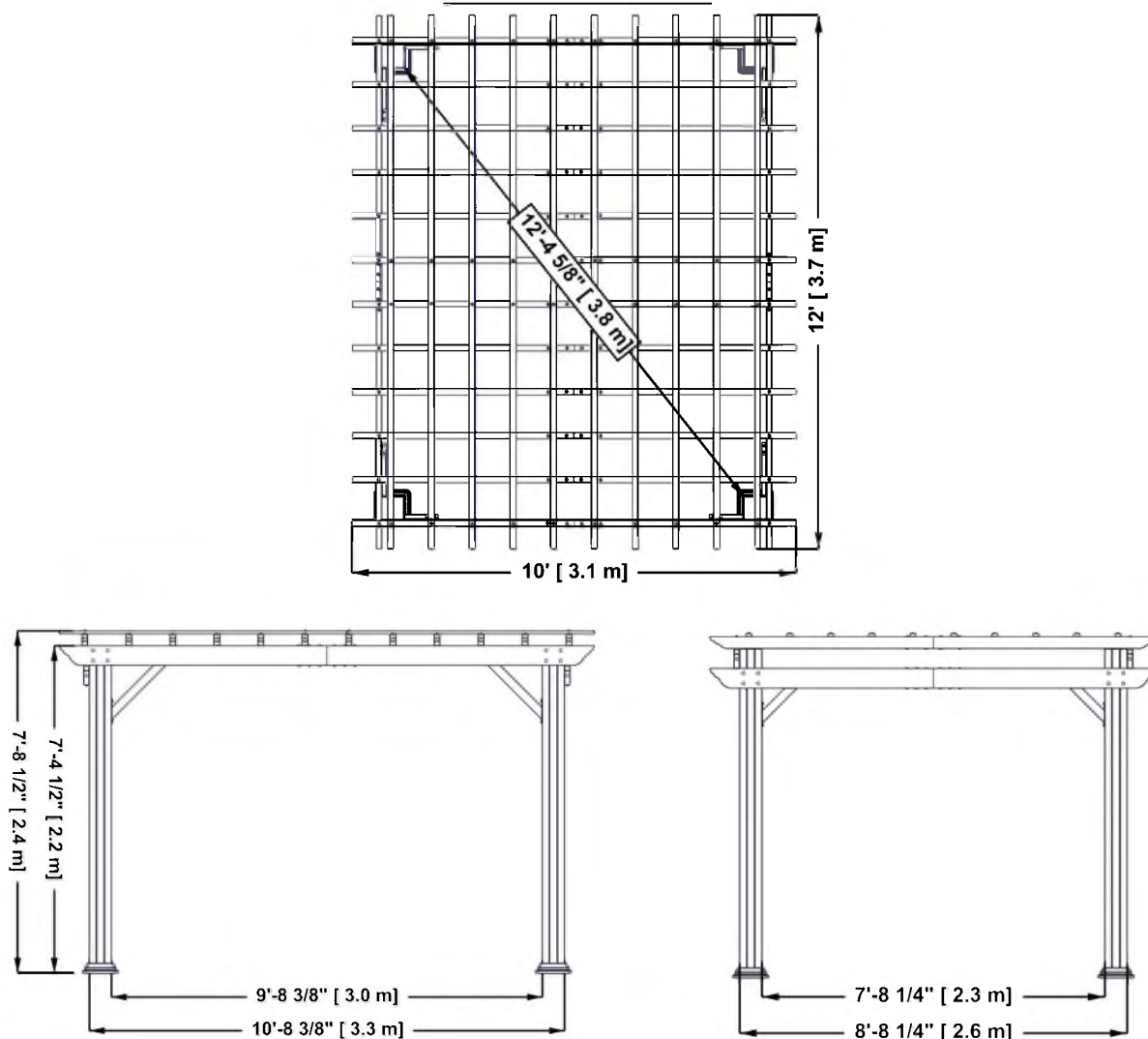
Post mounts are provided with your structure which allows you to permanently install your structure to a pre-existing or new wood or concrete surface.

- The hardware to attach the post mounts to the structure is included.
- The hardware to mount the structure permanently to a concrete surface is NOT included.
- The hardware to mount the structure permanently to a wood deck is NOT included and will need to be purchased separately. **You must ensure there is ample structural support under the deck before permanently attaching.**

Metal Roof Assembly

Remove plastic covering from metal roof panels before installing each piece. Place roofing materials on a nonabrasive, flat surface before and after assembly as it could bend, dent or scratch

Overall Dimensions





Technical drawing of a square foot plate. The main drawing shows a square plate with four corner fasteners. Dimensions are provided in inches and millimeters:

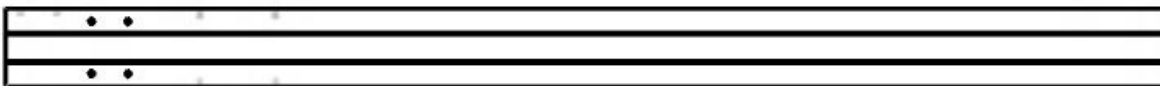
- Overall width: 8'2 3/16" [2494mm]
- Overall height: 10'2 3/8" [3108mm]
- Distance from top edge to first fastener: 7'5 13/16" [2281mm]
- Distance from right edge to first fastener: 9'6" [2895mm]
- Distance between fasteners (width): 12'1 3/8" [3693mm]
- Distance between fasteners (height): 13'7/8" [3985mm]
- Callouts: FOOT CORNER/FOOT CORNER, FOOT CENTER/FOOT CENTER

A detailed view of the fastener assembly is shown in a circle, labeled "4 ANCHORS PER POST FOOT". The fastener is a square plate with four anchors. Dimensions for the fastener are:

- Fastener width: 8 3/8" [213mm]
- Fastener height: 7 1/16" [180mm]
- Anchor spacing (width): 7 1/16" [180mm]
- Anchor spacing (height): 7 1/16" [180mm]
- Callout: SQUARE



Metal Components (Not to Scale)



A1 POST - A4M01565
(2) 6"x6"x88" (152x152x2235)



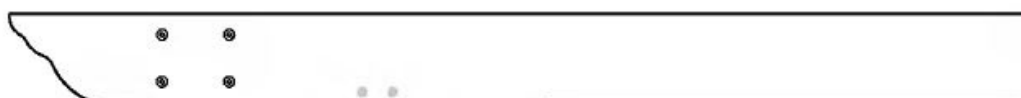
A2 POST - A4M01566
(2) 6"x6"x88" (152x152x2235)



B1 JOIST END - A4M01567
(2) 1 3/8"x5 1/4"x72 1/8" (36x134x1833)



B2 JOIST END - A4M01568
(2) 1 3/8"x5 1/4"x72 1/8" (36x134x1833)



C1 JOIST END - A4M01563
(2) 1 3/8"x5 1/4"x60 1/8" (36x134x1526)



C2 JOIST END - A4M01564
(2) 1 3/8"x5 1/4"x60 1/8" (36x134x1526)



D1 JOIST END - A4M01569
(8) 1 5/8"x3 1/8"x60 1/8" (40x80x1526)



D2 JOIST END - A4M01285
(16) 1 5/8"x3 1/8"x60 1/8" (40x80x1526)



Metal Components (Not to Scale)



J1 | SPLICE BRACKET - A4M01269

(2) | 1 1/4"x5 1/8"x19 5/8" (33x131x500)



J3 | SPLICE BRACKET - A4M01271

(12) | 1 1/2"x3"x15 3/4" (37x77x400)



J2 | SPLICE BRACKET - A4M01270

(2) | 1 1/4"x5 1/8"x15 3/4" (33x131x400)



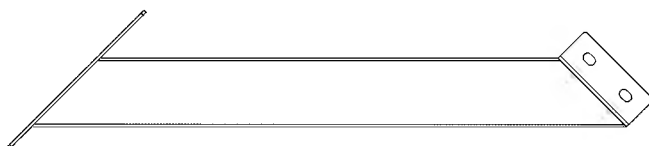
E1 | PURLIN END - A4M01289

(10) | 3/4"x1 5/8"x77 5/8" (20x40x1972)



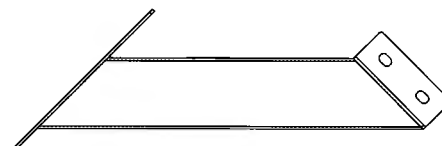
E2 | PURLIN END - A4M01290

(10) | 3/4"x1 5/8"x66 7/8" (20x40x1698)



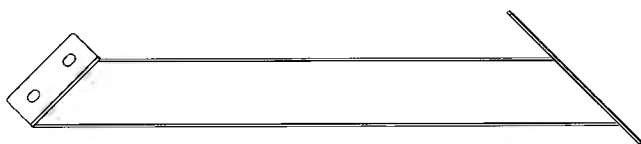
F1 | LONG ANGLE BRACE - A4M01273

(2) | 1 1/8"x4"x21 1/2" (30x101x546)



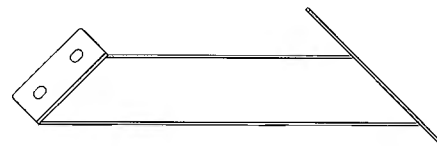
F3 | SHORT ANGLE BRACE - A4M01275

(2) | 1 1/8"x4"x14" (30x101x355)



F2 | LONG ANGLE BRACE - A4M01274

(2) | 1 1/8"x4"x21 1/2" (30x101x546)

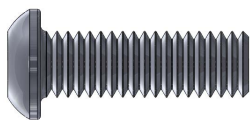


F4 | SHORT ANGLE BRACE - A4M01276

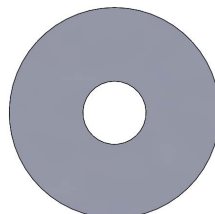
(2) | 1 1/8"x4"x14" (30x101x355)



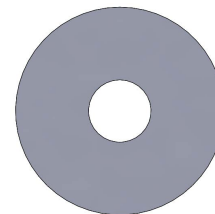
Hardware Components



H101101 | TORX PAN HEAD
(186) | 1/4-20x3/4"



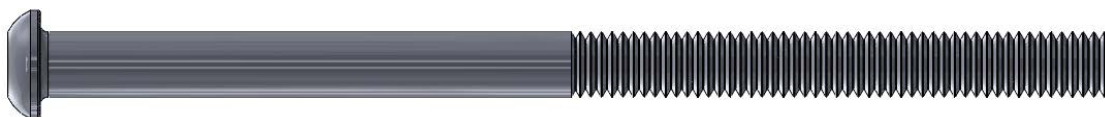
H101053 | STEEL WASHER
(250) | 6x20



H101054 | SEALANT WASHER
(250) |



H101107 | TORX PAN HEAD
(42) | 1/4-20x1 1/2"



H101102 | TORX PAN HEAD
(26) | 1/4-20x4"



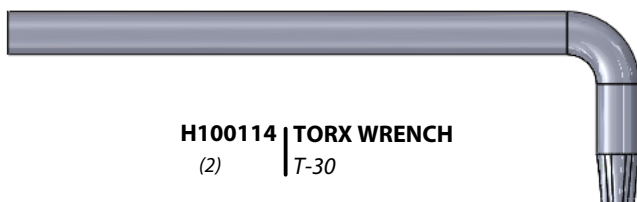
H101103 | TORX SOCKET SCREW
(34) | 1/4-20



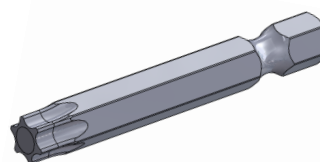
H100120 | SCREW CONCRETE ANCHOR
(17) | 1/4x2



H100630 | WASHER FLAT BLK
(17) | 8x19



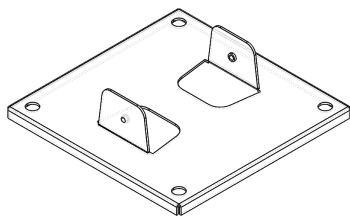
H100114 | TORX WRENCH
(2) | T-30



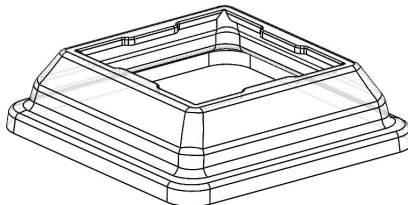
H100147 | TORX BIT
(2) | T-30



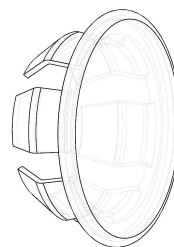
Accessory Components (Not to Scale)



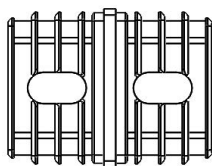
G1 | POST FOOT PLATE - A4M01278
(4) | 2 1/8"x8 3/8"x8 3/8" (54x213x213)



G2 | POST FOOT - A4M01279
(4) | 2 5/8"x9 7/8"x9 7/8" (68x250x250)



H1 | HOLE COVER - A4M01352
(32)



H2 | 2-WAY SQUARE PLUG- A6P00465
(10) | 3/4"x1 5/8"x2" (20x40x52)



9205413 | ELECTRICAL ENCLOSURE
(x1)



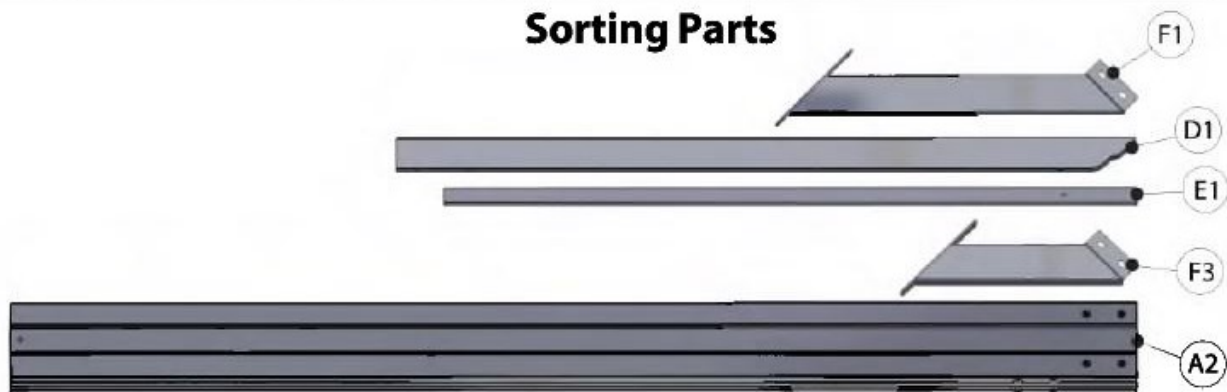
PRE-ASSEMBLY STEP 1 SORTING PARTS



ASSEMBLY TIP:

Keep an eye out for these boxes which will contain helpful pictures and information making the assembly process as quick and painless as possible.

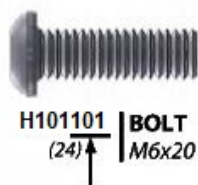
Sorting Parts



When removing the parts from the boxes we recommend arranging them by part number before you begin assembly. This will allow for faster assembly and easily identify any parts that may be missing or damaged.

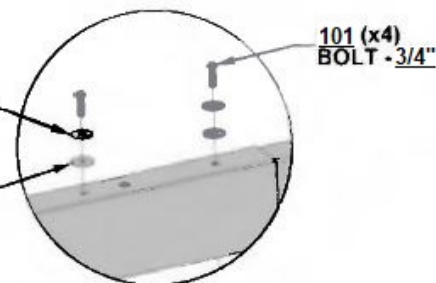
Hardware is identified with a seven digit alpha-numeric part number. During assembly you only need to reference the last three digits of the part number as noted in each step. This will make finding the correct hardware easier.

Hardware Identification



053 (x4)
STEEL WASHER - 6x20

054 (x4)
RUBBER WASHER - 6x20



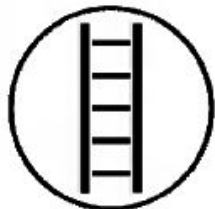
Tools Required



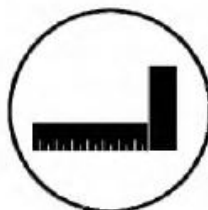
Some steps in the assembly process will require a second set of hands. Make sure you have a helper available.



For proper assembly you will need to ensure that your structure is level before proceeding to the next step.



A ladder will be needed for assembly. DO NOT stand or climb on any part of the structure at any point. Doing so may result in injury.



You will need to make sure that your assembly is square before fully tightening your bolts.



A tape measure may be needed to check overall dimensions to ensure structure is square.



PRE-ASSEMBLY STEP 2 CHOOSE YOUR ASSEMBLY METHOD

There are several types of assembly instructions available to you.

1. Printed Assembly Manual included with your set
2. BILT APP - 3D interactive instructions
3. Combination of the Printed Manual and BILT APP (Note: Step numbers can differ between the two methods)





PERGOLA ASSEMBLY

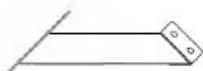
STEP 1



C1 JOIST END - A4M01563
(2) 1 3/8"x5 1/4"x60 1/8" (36x134x1526)



J2 SPLICE BRACKET - A4M01270
(2) 1 1/4"x5 1/8"x15 3/4" (33x131x400)



F3 SHORT ANGLE BRACE - A4M01275
(2) 1 1/8"x4"x14" (30x101x355)



H101101 TORX PAN HEAD
(16) 1/4-20x3/4"



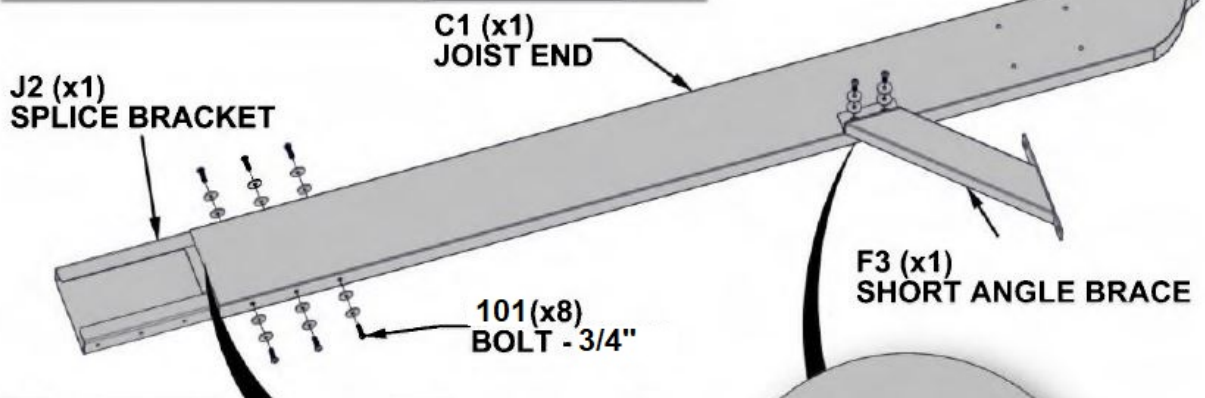
H101053 STEEL WASHER
(16) 6x20



H101054 SEALANT WASHER
(16)



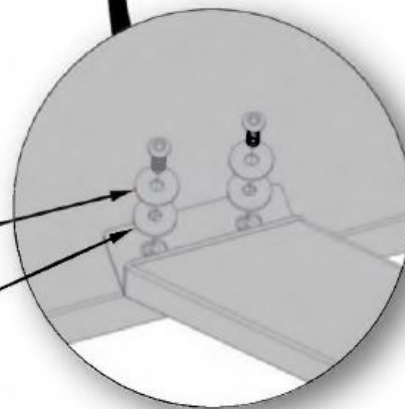
DO NOT FULLY TIGHTEN BOLTS AT THIS STEP.



J2 SLIDES INTO C1. LINE UP THREE HOLES ON J2 WITH THREE HOLES ON C1 AND INSERT BOLTS TOP AND BOTTOM.

053 (x8) STEEL WASHER - 6x20

054 (x8) SEALANT WASHER



COMPLETE THIS STEP TWICE.



H101101 | **TORX PAN HEAD**
(16) | 1/4-20x3/4"



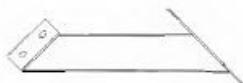
H101053 | **STEEL WASHER**
(16) | 6x20



H101054 | **SEALANT WASHER**
(16)

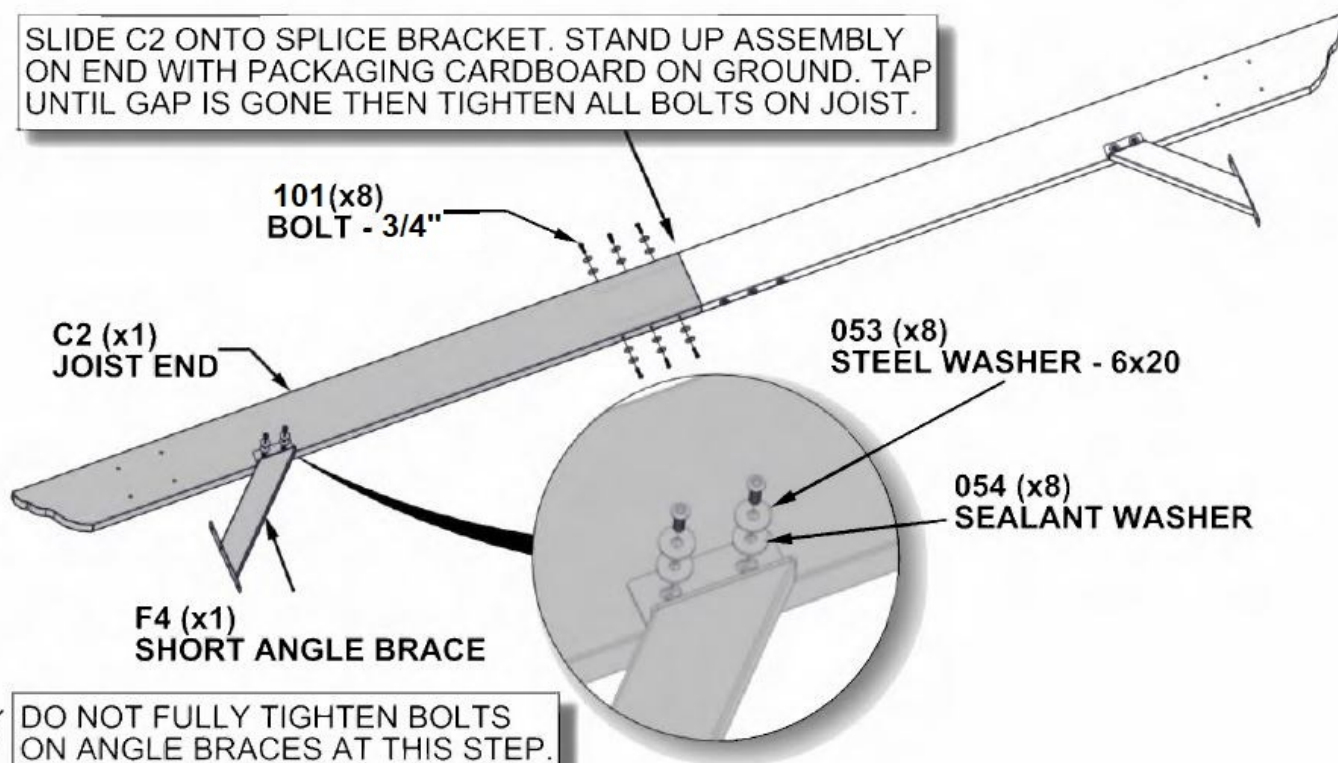


C2 | **JOIST END - A4M01564**
(2) | 1 3/8"x5 1/4"x60 1/8" (36x134x1526)



F4 | **SHORT ANGLE BRACE - A4M01276**
(2) | 1 1/8"x4"x14" (30x101x355)

SLIDE C2 ONTO SPLICE BRACKET. STAND UP ASSEMBLY ON END WITH PACKAGING CARDBOARD ON GROUND. TAP UNTIL GAP IS GONE THEN TIGHTEN ALL BOLTS ON JOIST.

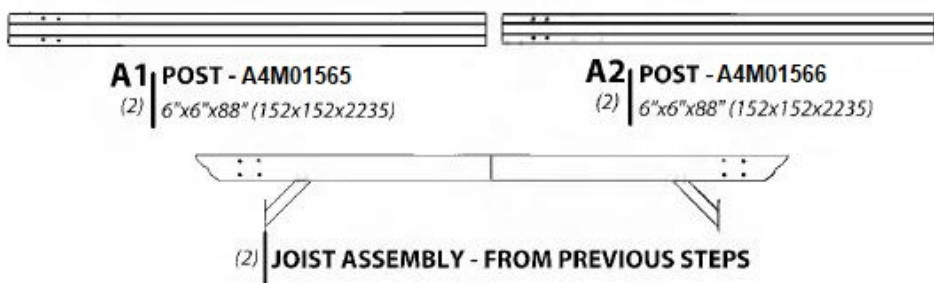


COMPLETE THIS STEP TWICE.



PERGOLA ASSEMBLY

STEP 3



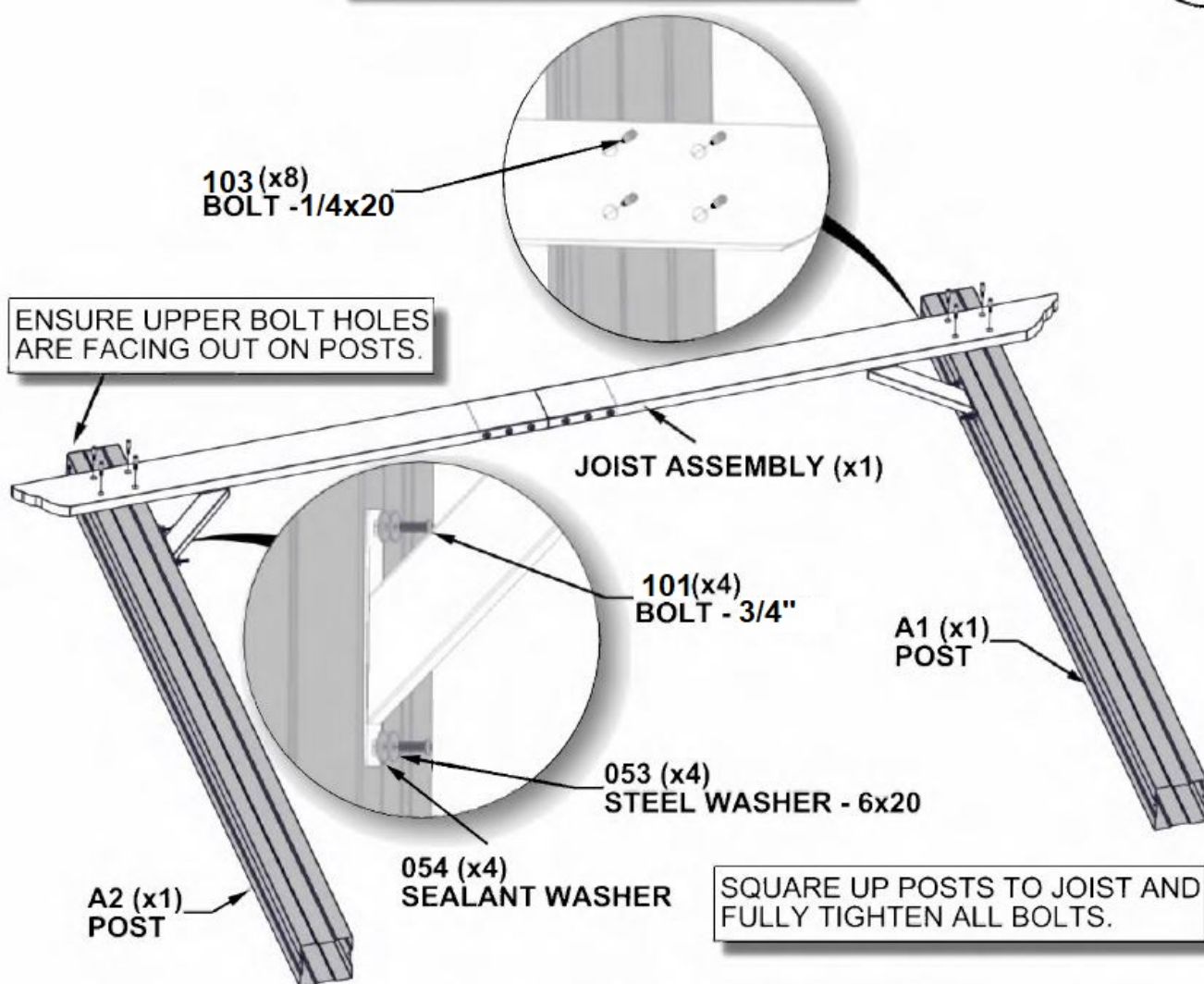
H101101 TORX PAN HEAD
(8) 1/4-20x3/4"

H101053 STEEL WASHER
(8) 6x20

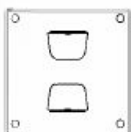
H101103 TORX SOCKET SCREW
(16) 1/4-20

H101054 SEALANT WASHER
(8)

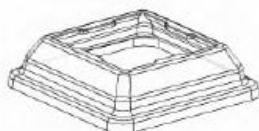
LAY PARTS ON GROUND OR SAW HORSES FOR EASE OF ASSEMBLY.



REPEAT THIS STEP FOR OTHER UPRIGHT ASSEMBLY.



G1 POST FOOT PLATE - A4M01278
(4) 2 1/8"x8 3/8"x8 3/8" (54x213x213)



G2 POST FOOT - A4M01279
(4) 2 5/8"x9 7/8"x9 7/8" (68x250x250)



H101101 TORX PAN HEAD
(8) 1/4-20x3/4"



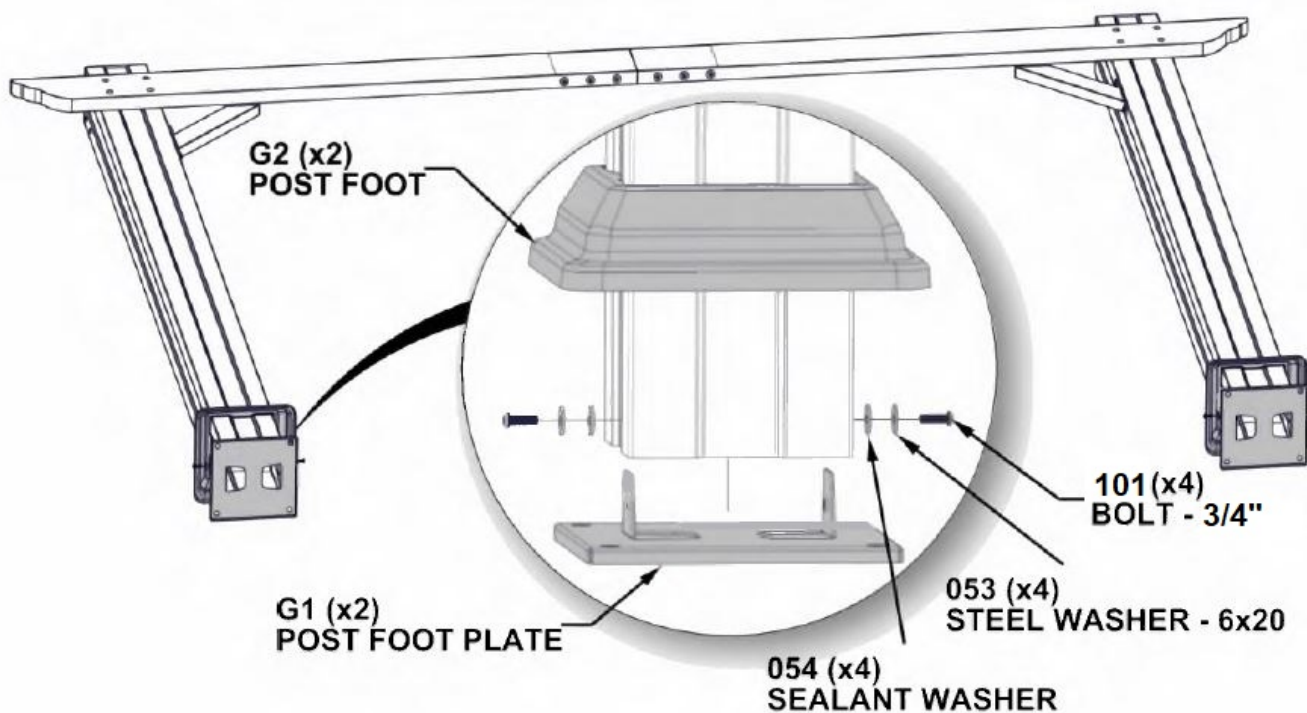
H101053 STEEL WASHER
(8) 6x20



H101054 SEALANT WASHER
(8)



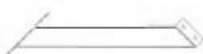
SLIDE A POST FOOT ONTO EACH POST THEN BOLT ON POST FOOT PLATES TO EACH POST. VERTICAL TAB ON POST FOOT PLATE LINES UP WITH HOLES ON SIDE OF POST.



REPEAT THIS STEP FOR OTHER UPRIGHT ASSEMBLY.



B1 | JOIST END - A4M01567
(2) 1 3/8"x5 1/4"x72 1/8" (36x134x1833)



F1 | LONG ANGLE BRACE - A4M01273
(2) 1 1/8"x4"x21 1/2" (30x101x546)



J1 | SPLICE BRACKET - A4M01269
(2) 1 1/4"x5 1/8"x19 5/8" (33x131x500)



H101101 | TORX PAN HEAD
(16) 1/4-20x3/4"



H101053 | STEEL WASHER
(16) 6x20



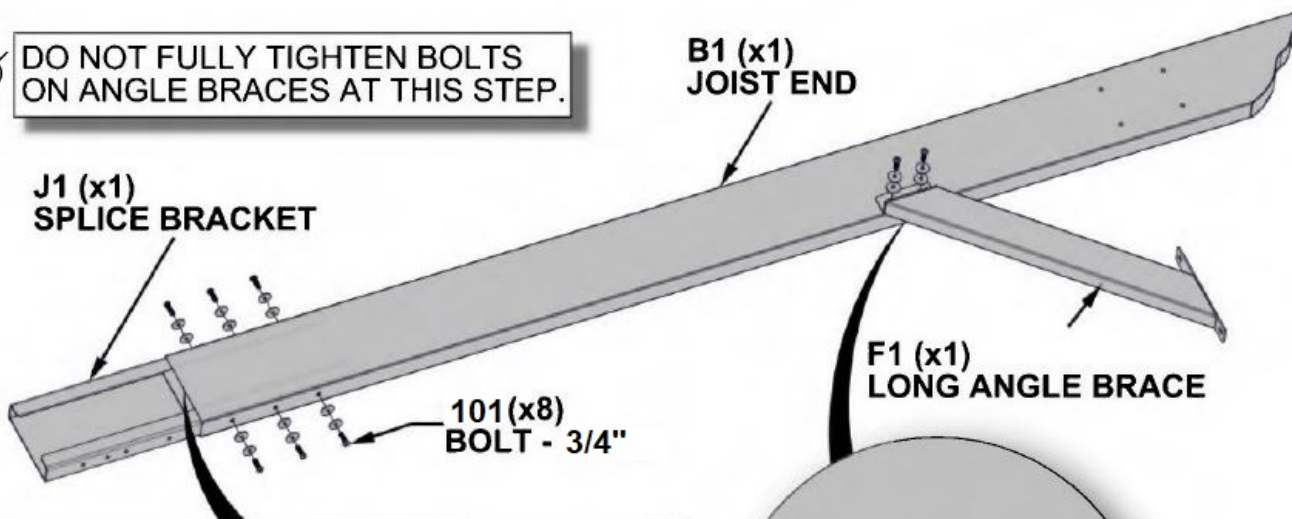
H101054 | SEALANT WASHER
(16)



DO NOT FULLY TIGHTEN BOLTS
ON ANGLE BRACES AT THIS STEP.

J1 (x1)
SPLICE BRACKET

B1 (x1)
JOIST END



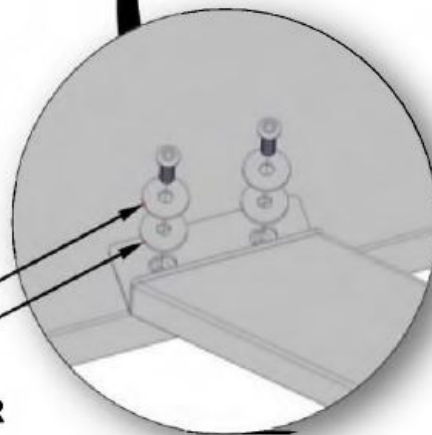
101 (x8)
BOLT - 3/4"

F1 (x1)
LONG ANGLE BRACE

J1 SLIDES INTO B1. LINE UP THREE HOLES
ON J1 WITH THREE HOLES ON B1 AND
INSERT BOLTS TOP AND BOTTOM.

053 (x8)
STEEL WASHER - 6x20

054 (x8)
SEALANT WASHER



REPEAT THIS STEP FOR OTHER JOIST ASSEMBLY.

**B2** JOIST END - A4M01568

(2) 1 3/8"x5 1/4"x72 1/8" (36x134x1833)

F2 LONG ANGLE BRACE - A4M01274

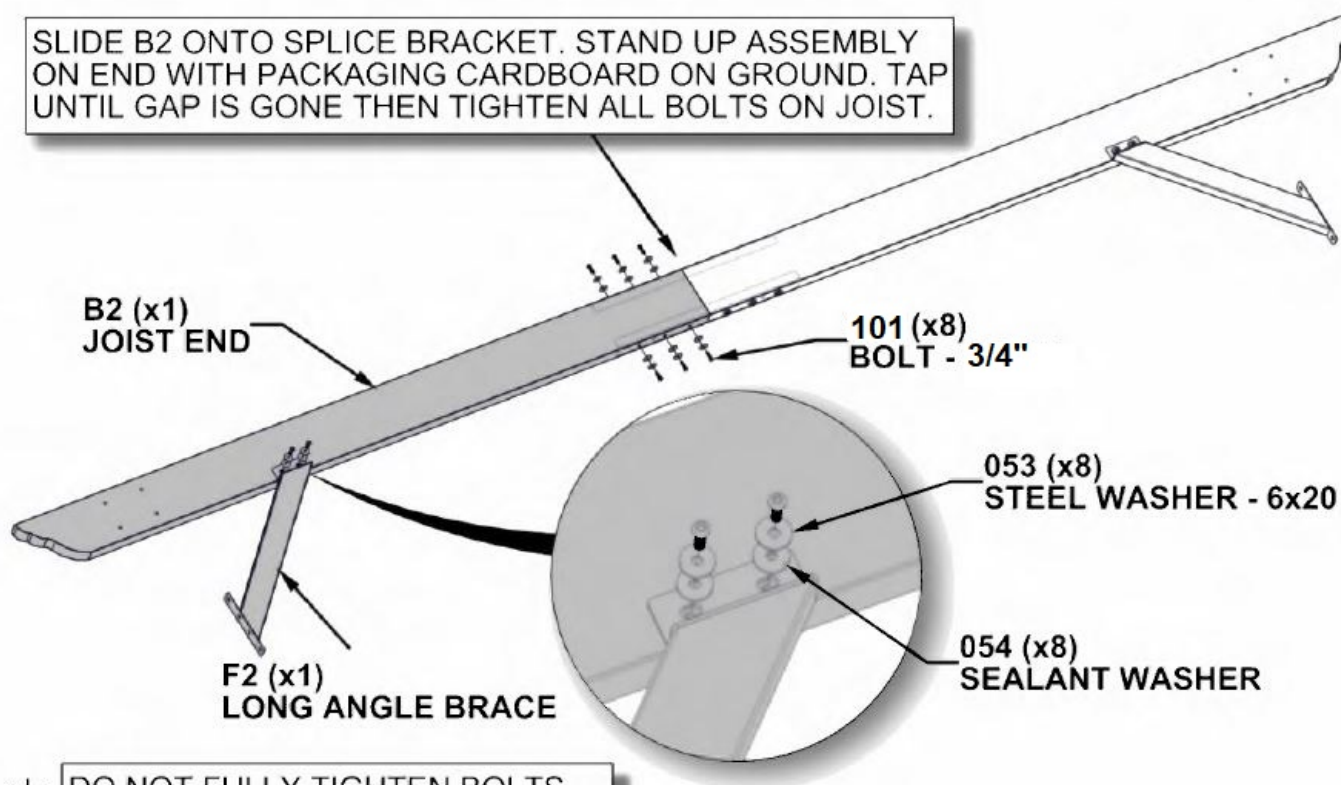
(2) 1 1/8"x4"x21 1/2" (30x101x546)

H101101 TORX PAN HEAD
(16) 1/4-20x3/4"

H101053 STEEL WASHER
(16) 6x20

H101054 SEALANT WASHER
(16)

SLIDE B2 ONTO SPLICE BRACKET. STAND UP ASSEMBLY ON END WITH PACKAGING CARDBOARD ON GROUND. TAP UNTIL GAP IS GONE THEN TIGHTEN ALL BOLTS ON JOIST.



DO NOT FULLY TIGHTEN BOLTS ON ANGLE BRACES AT THIS STEP.

REPEAT THIS STEP FOR OTHER JOIST ASSEMBLY.



PERGOLA ASSEMBLY

STEP 7



(2) JOIST ASSEMBLY - FROM PREVIOUS STEPS



(2) UPRIGHT ASSEMBLY - FROM PREVIOUS STEPS



H101101 | TORX PAN HEAD
(8) | 1/4-20x3/4"



H101053 | STEEL WASHER
(8) | 6x20

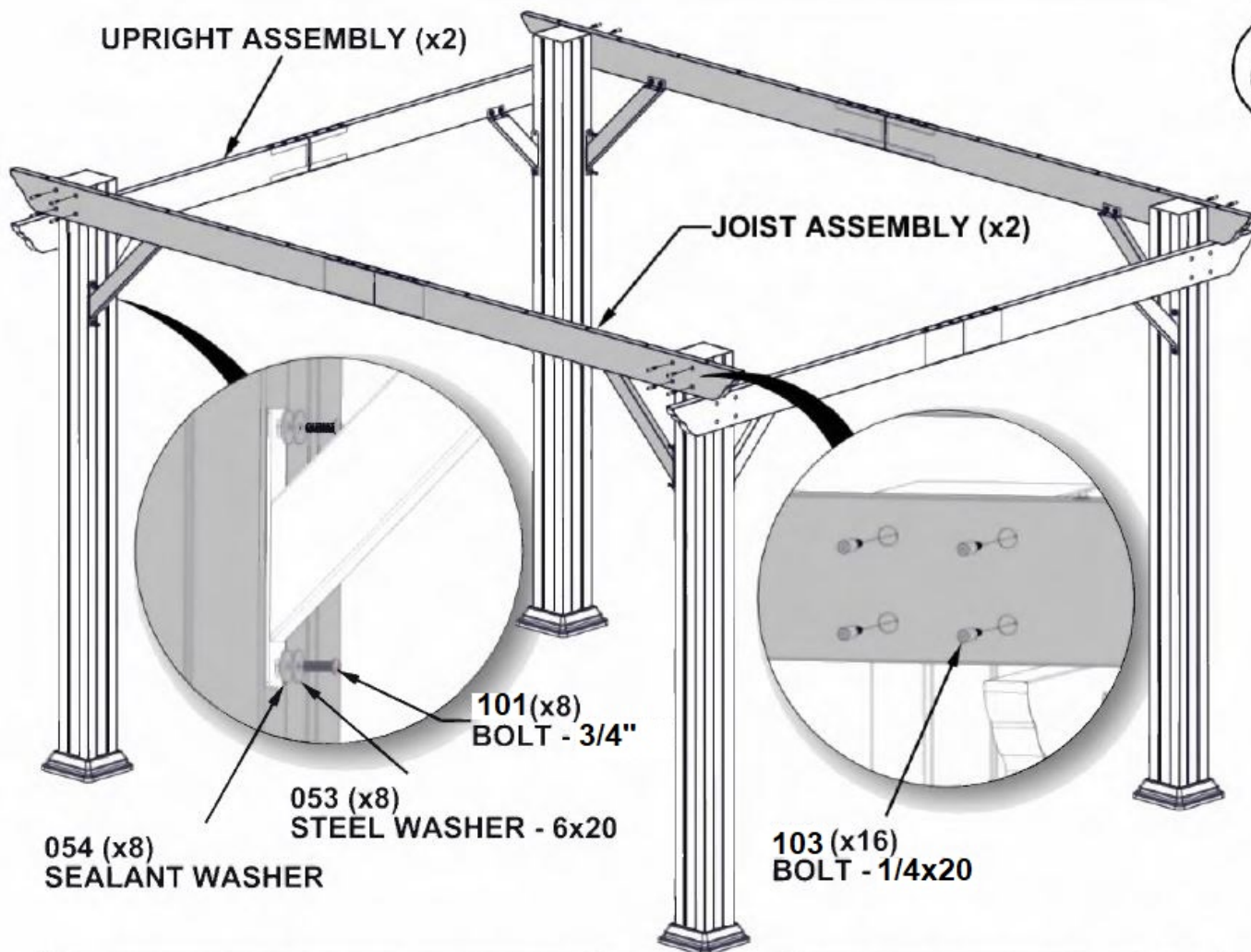
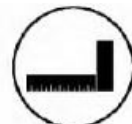


H101103 | TORX SOCKET SCREW
(16) | 1/4-20



H101054 | SEALANT WASHER
(8) |

WITH BOTH UPRIGHT ASSEMBLIES STANDING, ONE JOIST ASSEMBLY IS BOLTED ON WITHOUT FULLY TIGHTENING BOLTS. ONCE ONE JOIST ASSEMBLY IS BOLTED ON, BOLT ON SECOND JOIST ASSEMBLY.



SQUARE UP ALL POSTS TO JOIST ASSEMBLIES AND FULLY TIGHTEN ALL BOLTS.

NOTE: A THIRD PERSON IS HELPFUL FOR THIS STEP.



H101101 | **TORX PAN HEAD**
(16) | 1/4-20x3/4"



H101053 | **STEEL WASHER**
(16) | 6x20



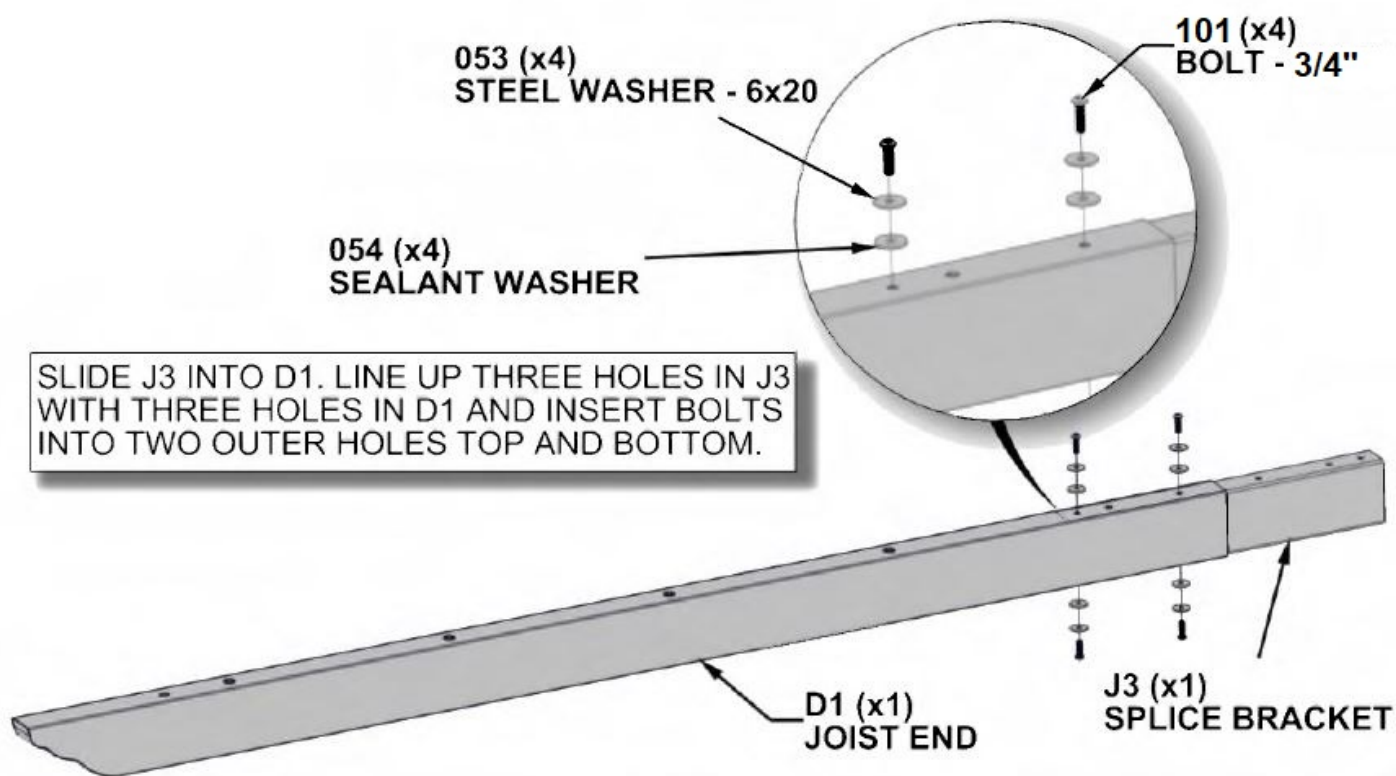
H101054 | **SEALANT WASHER**
(16)

D1 | **JOIST END - A4M01569**

(4) | 1 5/8"x3 1/8"x60 1/8" (40x80x1526)

J3 | **SPLICE BRACKET - A4M01271**

(4) | 1 1/2"x3"x15 3/4" (37x77x400)



DO NOT FULLY TIGHTEN BOLTS AT THIS STEP.

COMPLETE THIS STEP FOUR TIMES.



D1 JOIST END - A4M01569

(4) 1 5/8"x3 1/8"x60 1/8" (40x80x1526)



H101101 TORX PAN HEAD
(16) 1/4-20x3/4"

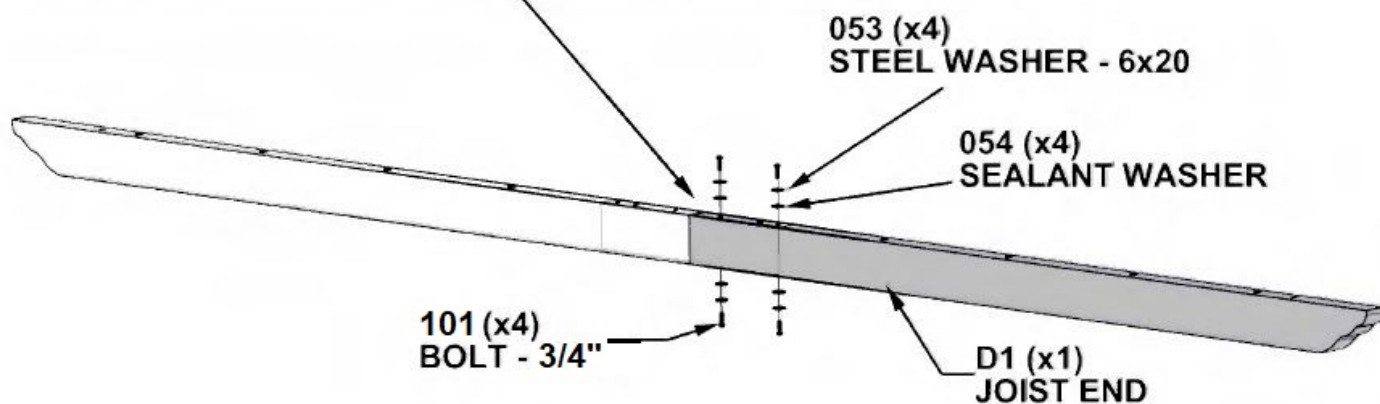


H101053 STEEL WASHER
(16) 6x20



H101054 SEALANT WASHER
(16)

SLIDE D1 ONTO SPLICE BRACKET. STAND UP ASSEMBLY ON END WITH PACKAGING CARDBOARD ON GROUND. TAP UNTIL GAP IS GONE THEN TIGHTEN ALL BOLTS ON JOIST.



COMPLETE THIS STEP FOUR TIMES.



(4) JOIST ASSEMBLY - FROM PREVIOUS STEPS



H101102 TORX PAN HEAD
(8) 1/4-20x4"

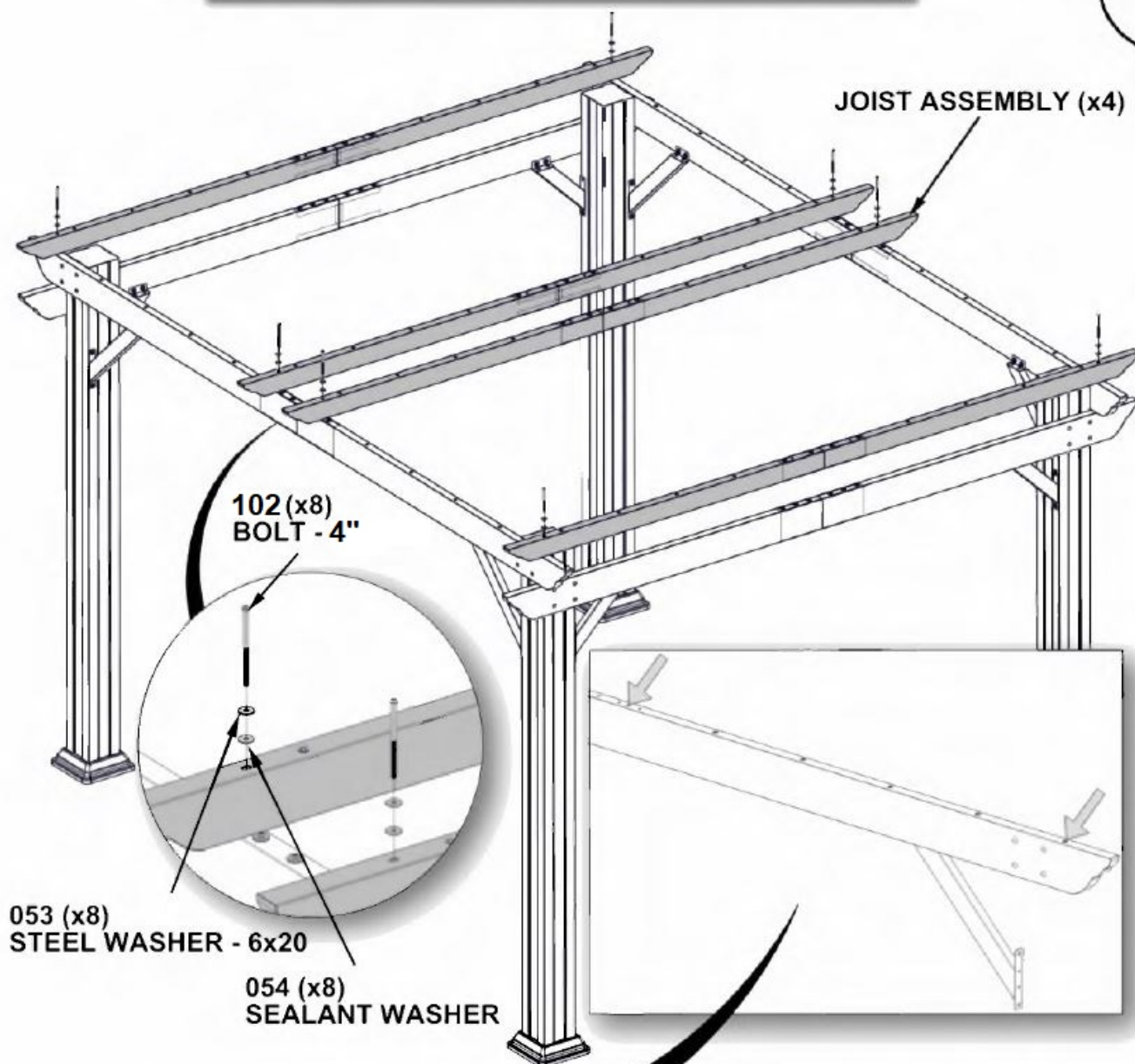


H101053 STEEL WASHER
(8) 6x20



H101054 SEALANT WASHER
(8)

BOLT ONE SIDE OF JOISTS FIRST THEN BOLT OTHER SIDE. DO NOT FULLY TIGHTEN BOLTS AT THIS STEP.



ENSURE JOIST ASSEMBLIES ARE SPACED OUT CORRECTLY AS PLACEMENT IS CRITICAL FOR PURLIN ATTACHMENT.



D2 JOIST END - A4M01285

(8) | 1 5/8"x3 1/8"x60 1/8" (40x80x1526)

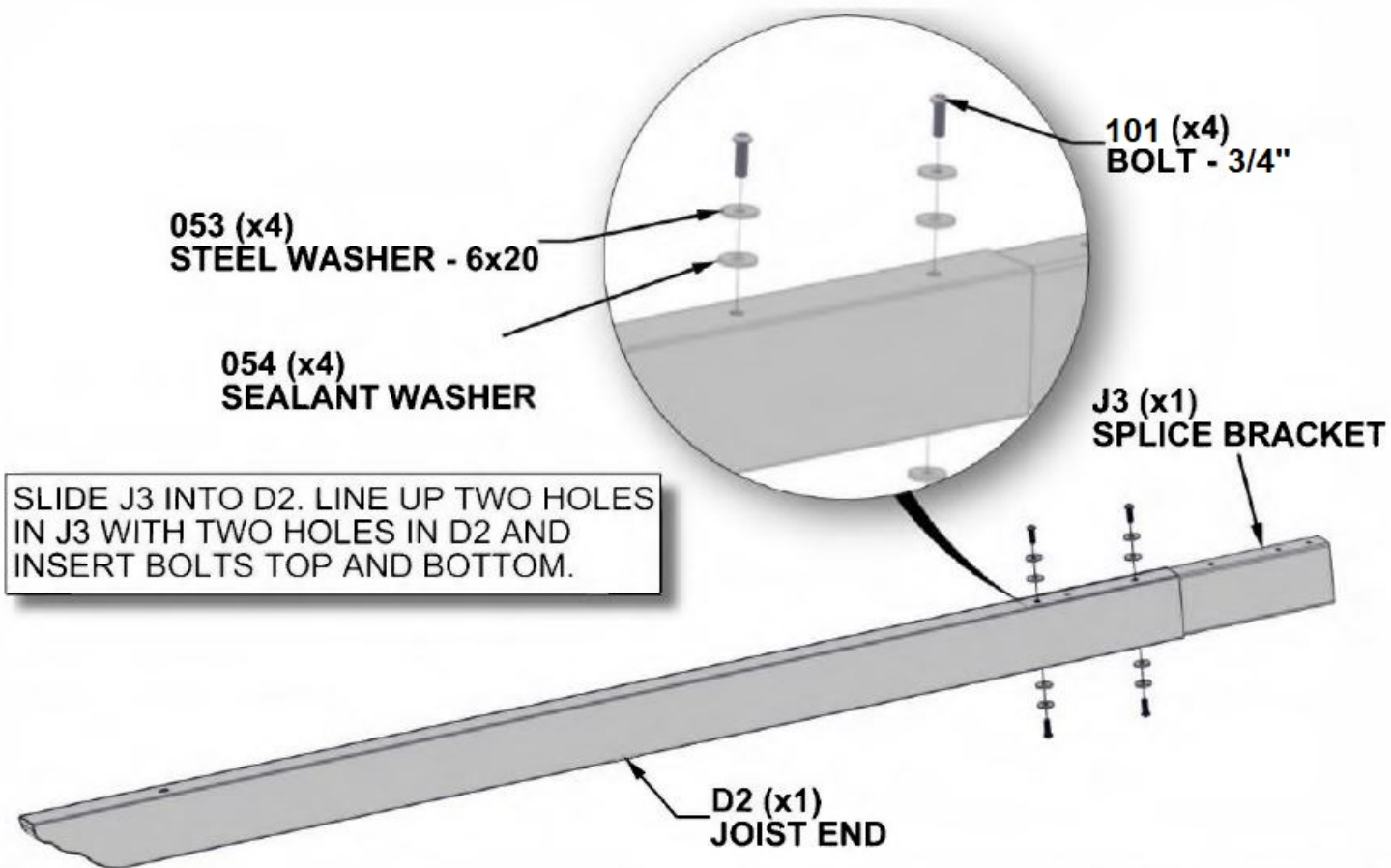
J3 SPLICE BRACKET - A4M01271

(8) | 1 1/2"x3"x15 3/4" (37x77x400)

H101101 TORX PAN HEAD
(32) | 1/4-20x3/4"

H101053 STEEL WASHER
(32) | 6x20

H101054 SEALANT WASHER
(32)



DO NOT FULLY TIGHTEN BOLTS AT THIS STEP.

COMPLETE THIS STEP EIGHT TIMES.



D2 JOIST END - A4M01285

(8) 1 5/8"x3 1/8"x60 1/8" (40x80x1526)



H101101 TORX PAN HEAD
(32) 1/4-20x3/4"

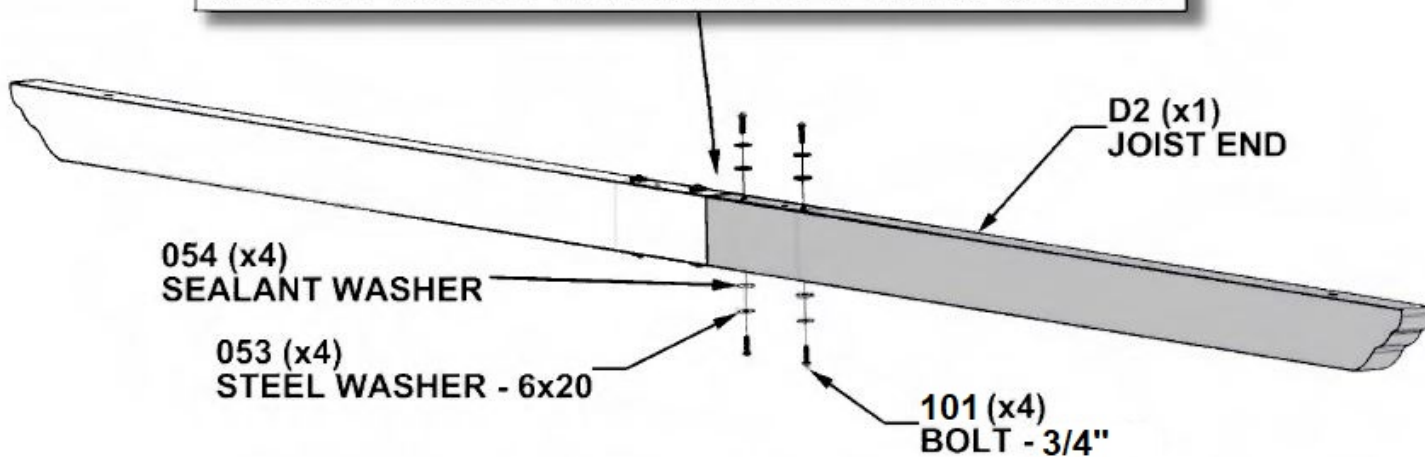


H101053 STEEL WASHER
(32) 6x20



H101054 SEALANT WASHER
(32)

SLIDE D2 ONTO SPLICE BRACKET. STAND UP ASSEMBLY ON END WITH PACKAGING CARDBOARD ON GROUND. TAP UNTIL GAP IS GONE THEN TIGHTEN ALL BOLTS ON JOIST.



COMPLETE THIS STEP EIGHT TIMES.



(8) JOIST ASSEMBLY - FROM PREVIOUS STEPS



H101102 | TORX PAN HEAD
(16) | 1/4-20x4"



H101053 | STEEL WASHER
(16) | 6x20



H101054 | SEALANT WASHER
(16)

BOLT ONE SIDE OF JOISTS FIRST THEN BOLT OTHER SIDE. DO NOT FULLY TIGHTEN BOLTS YET.



JOIST ASSEMBLY (x8)

102 (x16)
BOLT - 4"

053 (x16)
STEEL WASHER - 6x20

054 (x16)
SEALANT WASHER

CENTER ALL JOISTS ONCE JOISTS ARE BOLTED ON. FULLY TIGHTEN ALL BOLTS WHEN JOISTS ARE CENTERED.





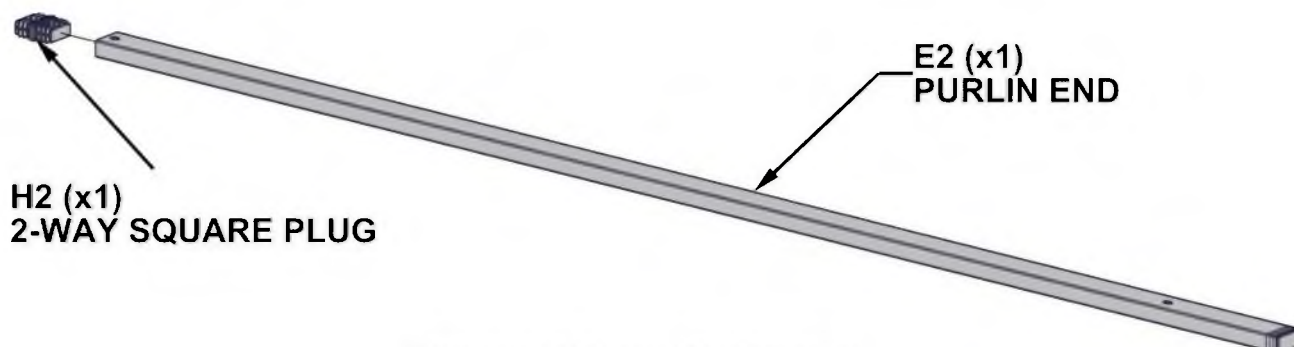
E2 | PURLIN END - A4M01290
(10) $3/4" \times 1\ 5/8" \times 66\ 7/8"$ (20x40x1698)



H2 | 2-WAY SQUARE PLUG- A6P00465
(10) $3/4" \times 1\ 5/8" \times 2"$ (20x40x52)



SLIDE A 2-WAY SQUARE PLUG INTO THE END OF PURLIN.



COMPLETE THIS STEP TEN TIMES.

NOTE: A RUBBER MALLET MAY BE HELPFUL TO GET THE 2-WAY SQUARE PLUG INTO THE END OF THE PURLIN.



(10) PURLIN ASSEMBLY - FROM PREVIOUS STEPS



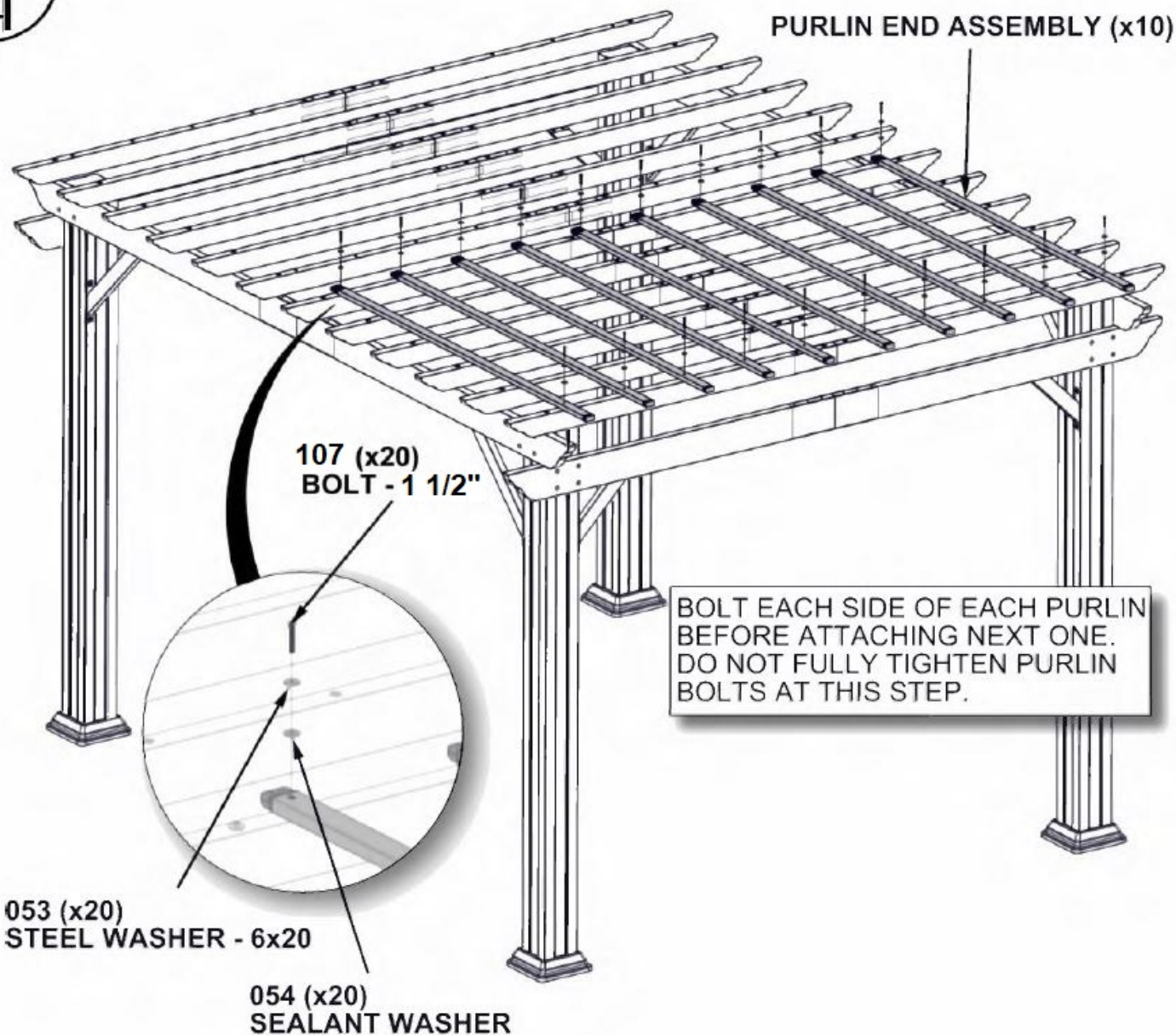
H101107 | TORX PAN HEAD
(20) | 1/4-20x1 1/2"



H101053 | STEEL WASHER
(20) | 6x20



H101054 | SEALANT WASHER
(20)





E1 PURLIN END - A4M01289
(10) 3/4"x1 5/8"x77 5/8" (20x40x1972)



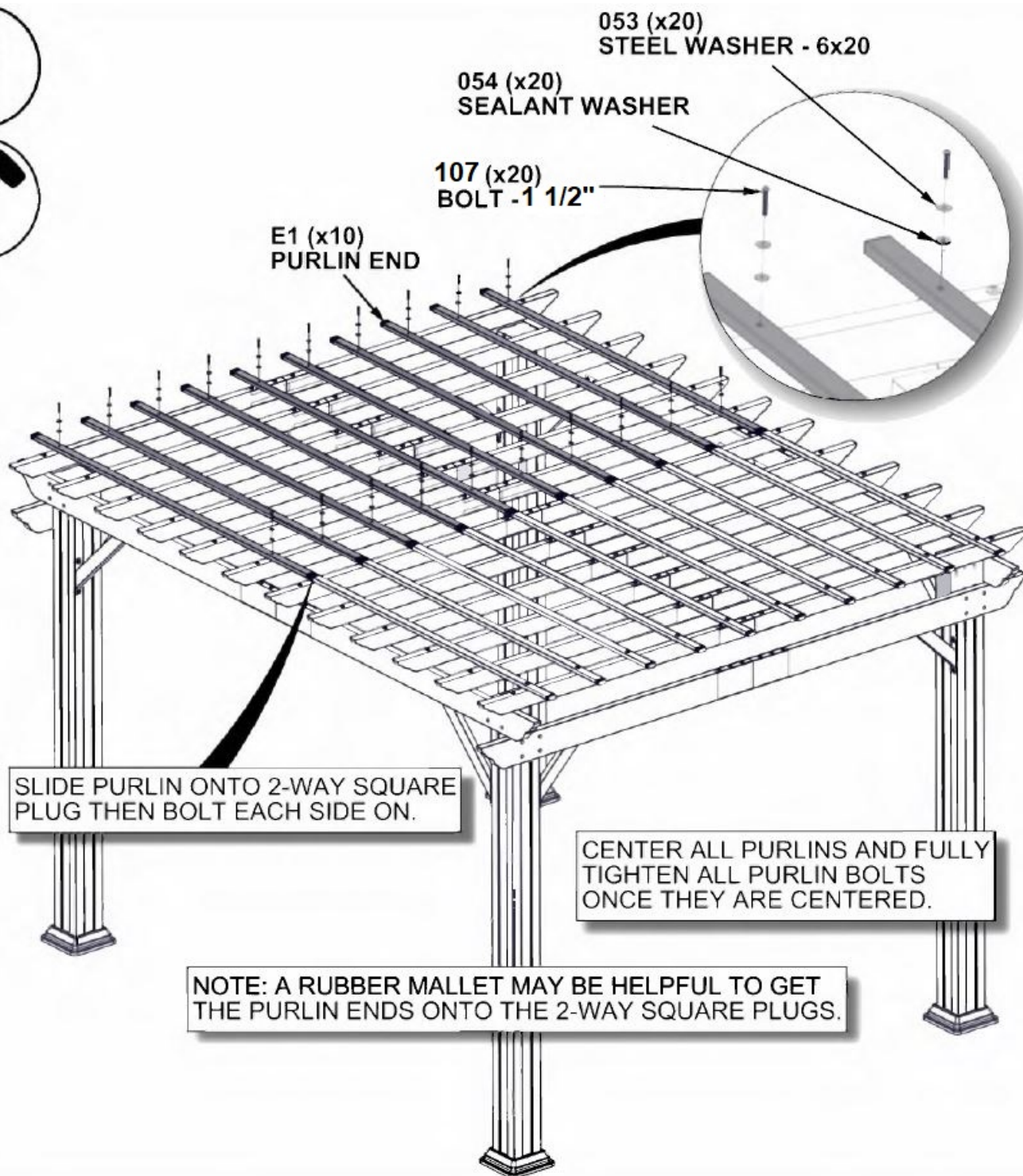
H101107 TORX PAN HEAD
(20) 1/4-20X1 1/2"



H101053 STEEL WASHER
(20) 6x20

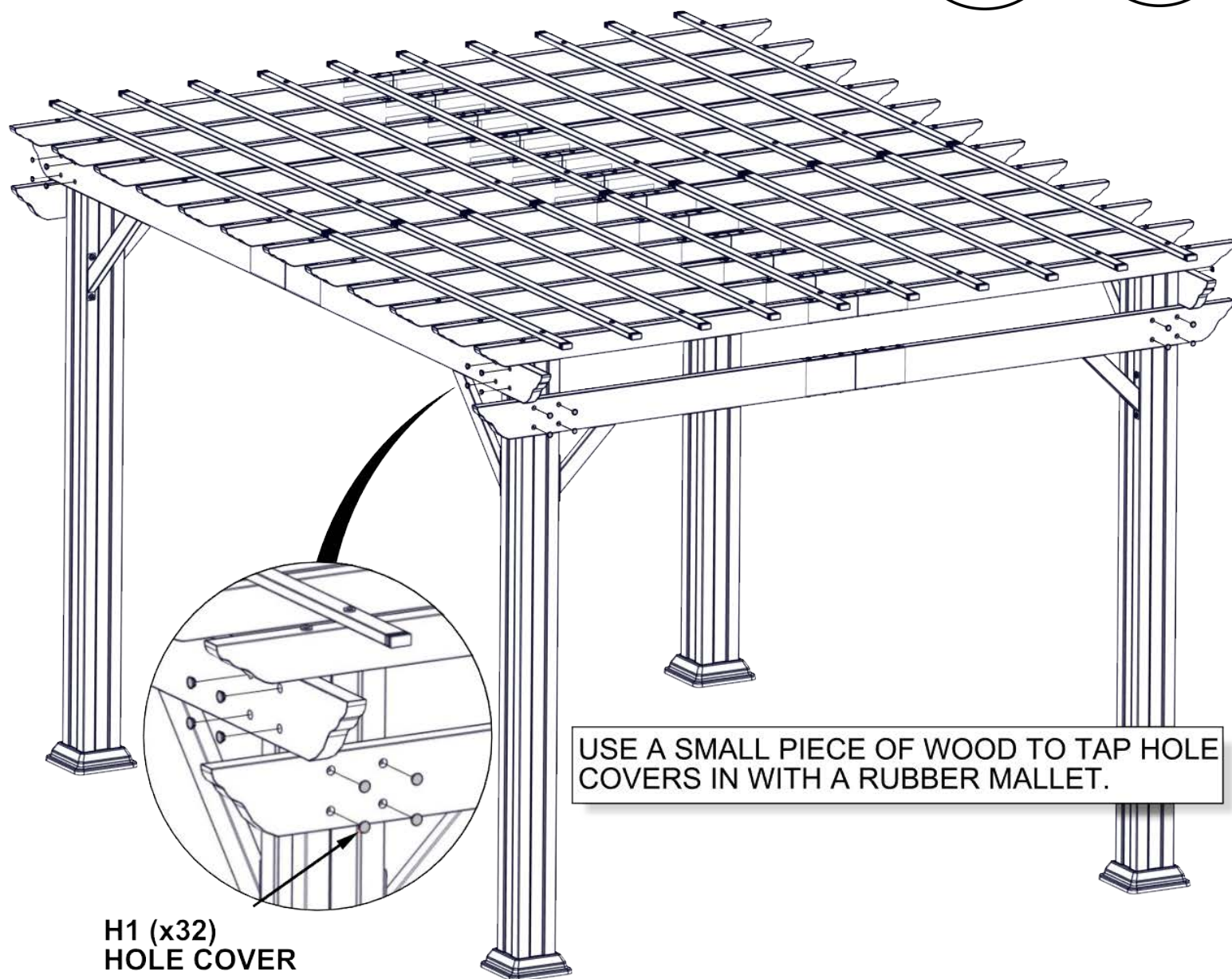
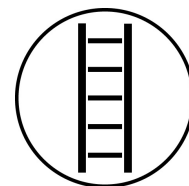


H101054 SEALANT WASHER
(20)





H1 | HOLE COVER-A4M01352
(32)



H1 (x32)
HOLE COVER

USE A SMALL PIECE OF WOOD TO TAP HOLE COVERS IN WITH A RUBBER Mallet.



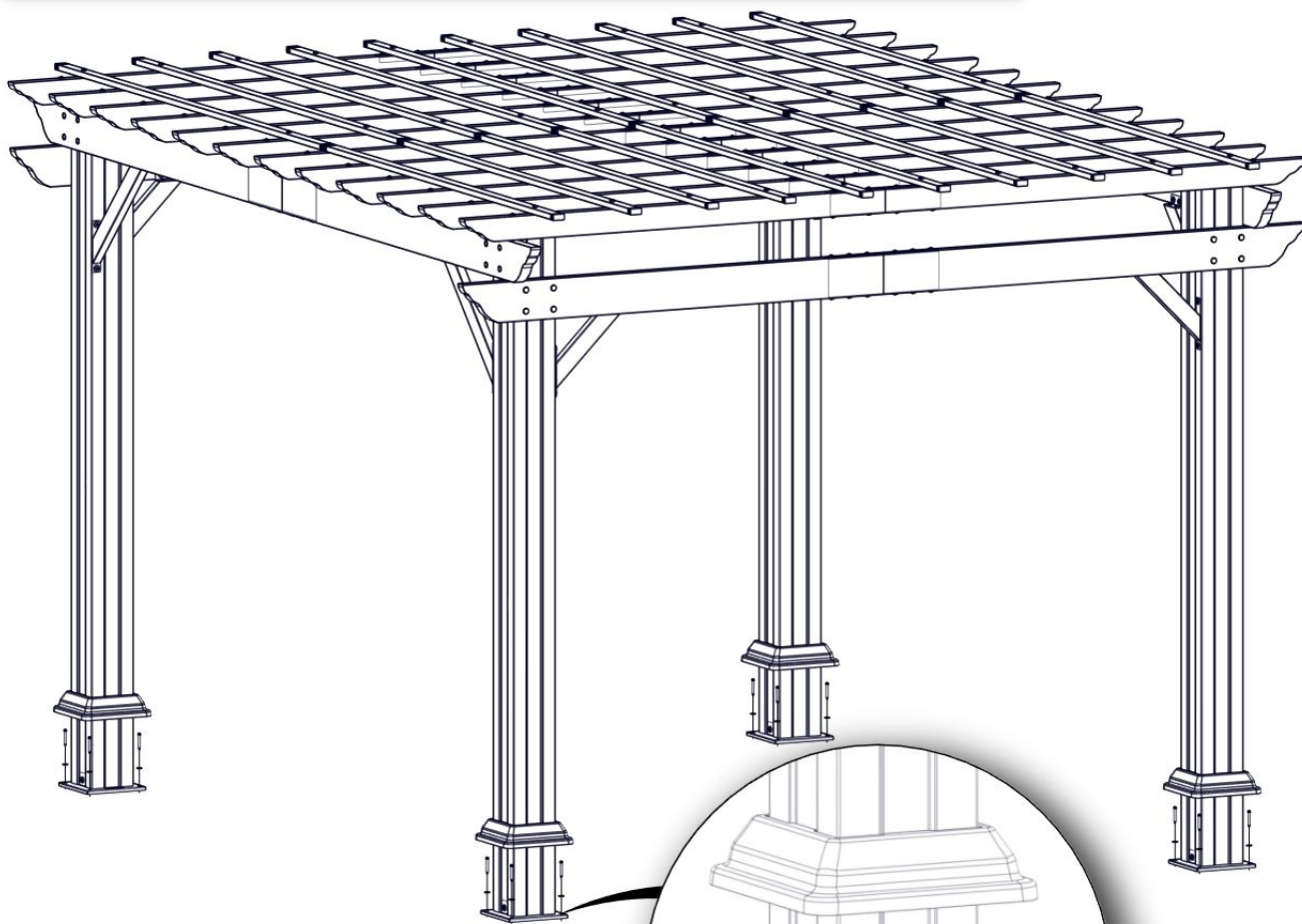
H100120 | SCREW CONCRETE ANCHOR
(16) | 1/4x2



H100630 | WASHER FLAT BLK
(16) | 8x19

MANUFACTURER RECOMMENDS INSTALLATION ON CONCRETE SURFACE OR CONCRETE POST PAD AS SHOWN BELOW.

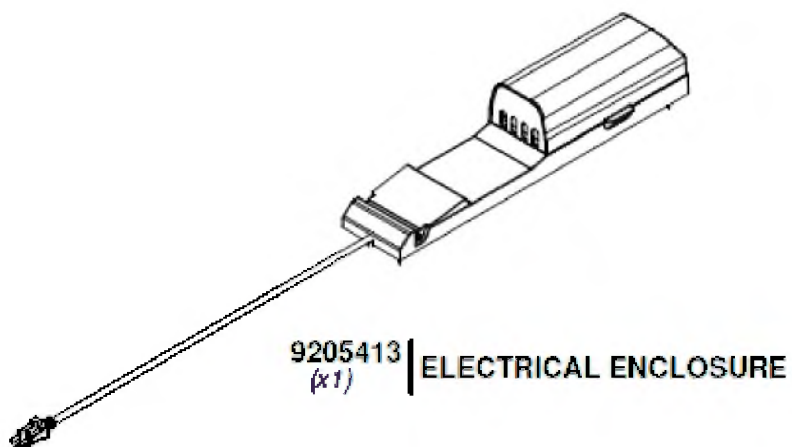
FOR INSTALLATION ON WOOD DECK, YOU MUST ENSURE THERE IS AMPLE STRUCTURAL SUPPORT UNDER THE DECK. HARDWARE NOT INCLUDED FOR DECK ATTACHMENT.



120 (x16)
SCREW - 2"

630 (x16)
WASHER - 8x19

PRE-DRILL HOLES FOR CONCRETE ANCHORS
USING A 3/16" CONCRETE DRILL BIT.



FOR ELECTRICAL ENCLOSURE INSTALLATION REFER TO ASSEMBLY INSTRUCTIONS THAT COMES PACKAGED WITH THE ELECTRICAL ENCLOSURE KIT. INSTALL ON ANY POST THAT IS DESIRED. FOLLOW DIRECTIONS FOR PROPER INSTALLATION.