



**MANUFACTURED BY:**  
**Backyard Discovery**  
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 800-856-4445

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# SOMERVILLE 10x14

Pergola

Model # 2006546B



**Please visit [www.backyarddiscovery.com](http://www.backyarddiscovery.com)**

For the most up to date assembly manual, to register your set, or to order replacement parts  
*Para obtener instrucciones en español, visite [www.backyarddiscovery.com](http://www.backyarddiscovery.com)*



**EASY STEP-BY-STEP  
 3D INTERACTIVE INSTRUCTIONS**

DOWNLOAD THE FREE APP



**INSTALLATION  
 SERVICES  
 AVAILABLE!**  
*See inside for details*



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

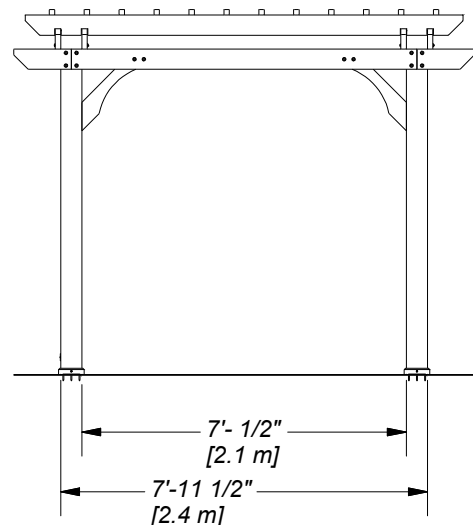
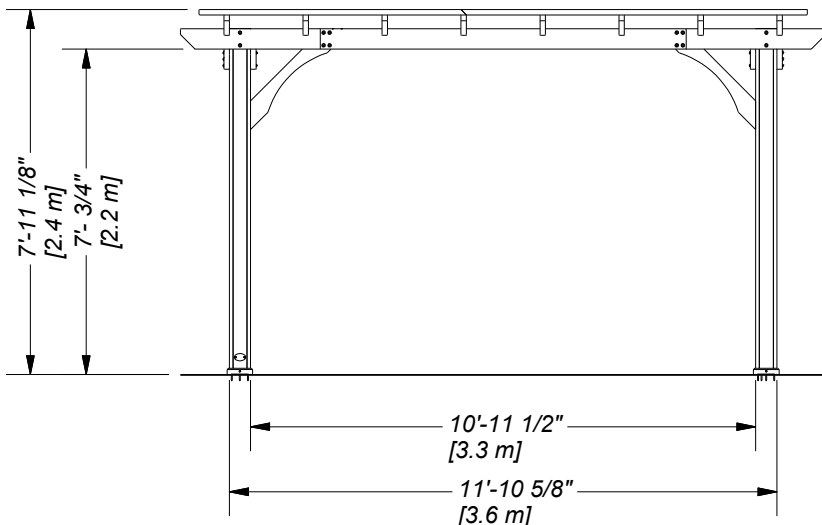
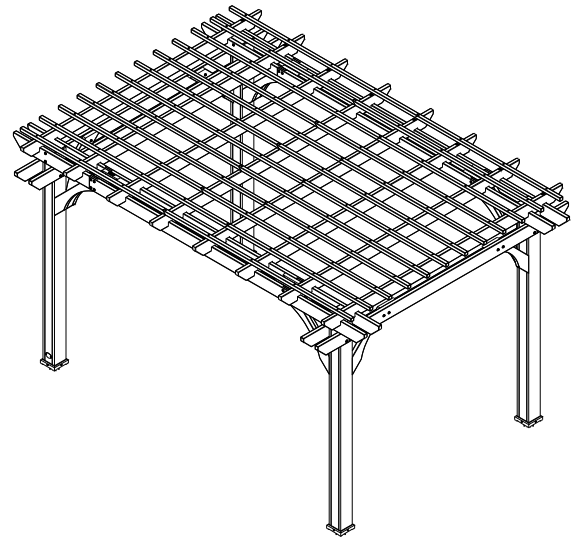
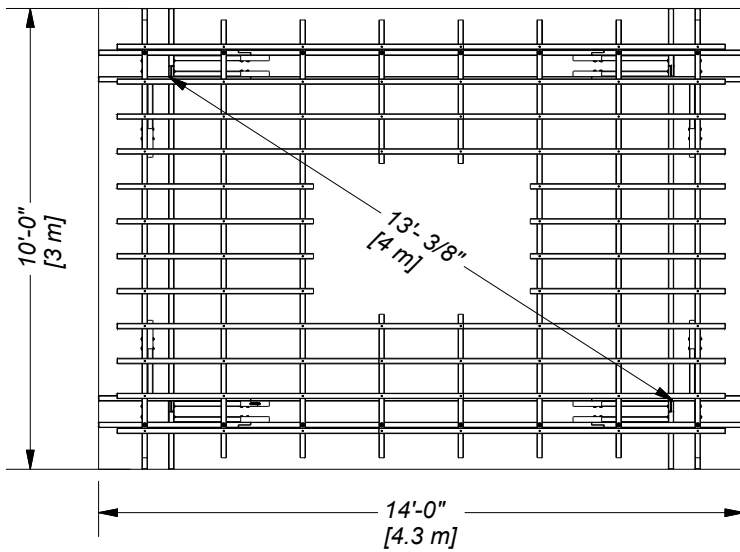
- Pay close attention to the items needed for each step. Make sure you are using the correct hardware for each step. Using incorrect hardware may result in improper assembly.
- Remember to double check for underground utilities and overhead electrical lines.

**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 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.

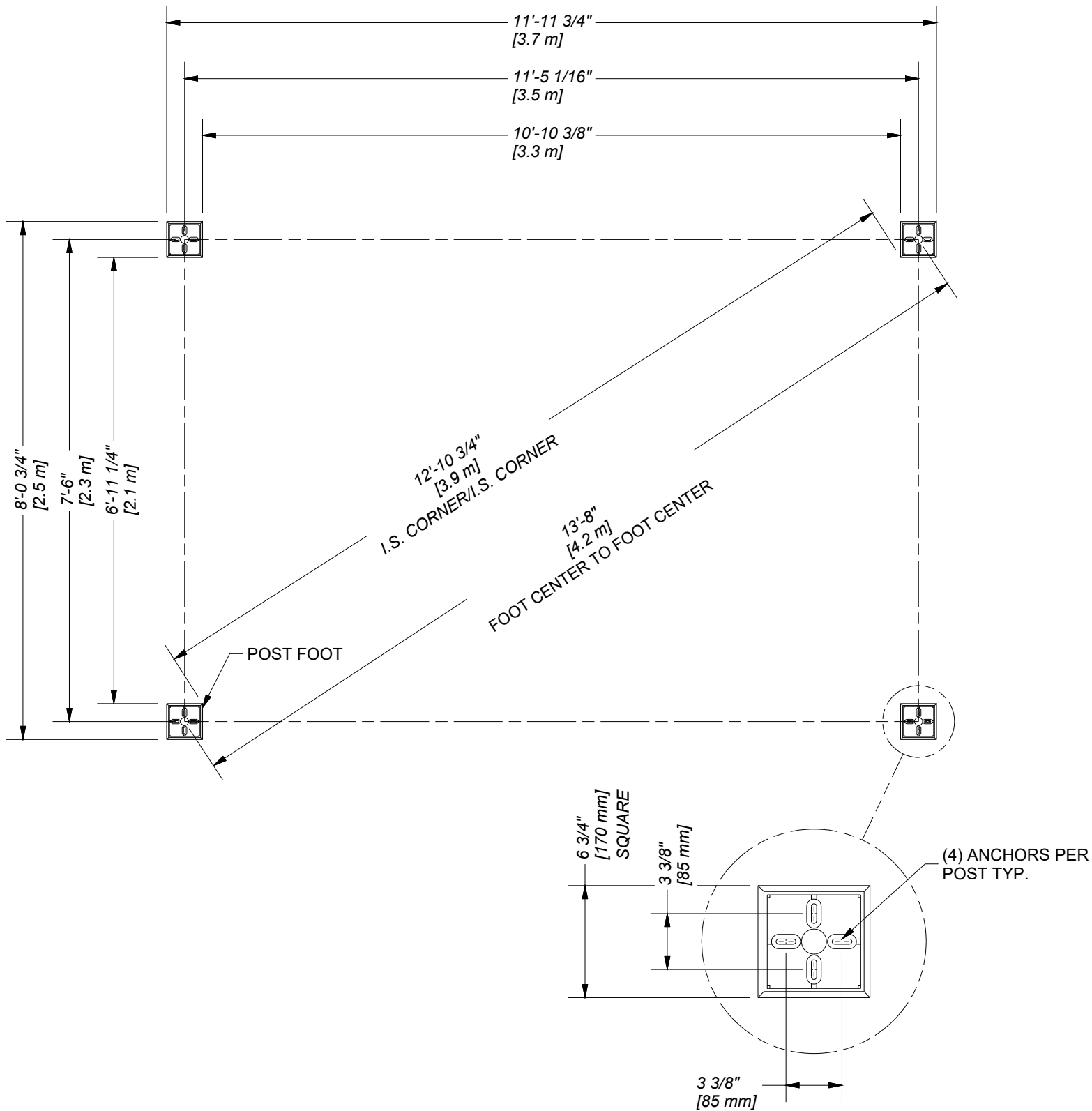
## Ground Dimension

EXAMPLE: 14'-0" (4.3m) x 10'-0" (3m) x 7' 11-1/8" (2.4m)





# ANCHORING LAYOUT





## Wood Components (Not to Scale)



**D01 | JOIST - W4L13476**  
(x2) | 1 3/8"x5 1/4"x95 1/4" (36x134x2420)



**D02 | JOIST - W4L13485**  
(x2) | 1 3/8"x5 1/4"x95 1/4" (36x134x2420)



**D03 | JOIST END - W4L13492**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



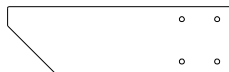
**D04 | JOIST END - W4L13475**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D05 | JOIST END - W4L13484**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D06 | JOIST END - W4L13491**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D07 | JOIST END - W4L13494**  
(x4) | 1 7/16"x5 1/4"x17 3/4" (36x134x451)



**D08 | JOIST - W4L13479**  
(x2) | 1 3/8"x5 1/4"x90" (36x134x2286)



**D09 | JOIST - W4L13477**  
(x2) | 1 3/8"x5 1/4"x90" (36x134x2286)



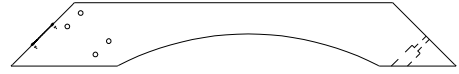
**D10 | JOIST END - W4L13474**  
(x4) | 1 3/8"x5 1/4"x17 3/4" (36x134x451)



Wood Components (Not to Scale)



**D11** | LONG ANGLE BRACE - W4L13482  
(x7) | 1 3/8"x5 1/4"x37 1/8" (36x134x942)



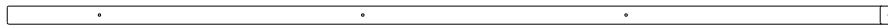
**D15** | LONG ANGLE BRACE W/TAG-W2A03347  
(x1) | 1 3/8"x5 1/4"x37 1/8" (36x134x942)



**D12** | SHORT ANGLE BRACE - W4L13483  
(x4) | 1 3/8"x5 1/4"x29 3/4" (36x134x755)



**D13** | SLOTTED JOIST - W4L13478  
(x8) | 1 3/8"x5 1/4"x114" (36x134x2896)



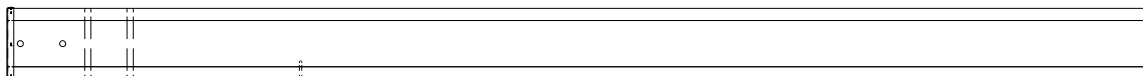
**P01** | PURLIN - W4L13480  
(x12) | 1 3/8"x1 3/8"x69 5/8" (36x36x1768)



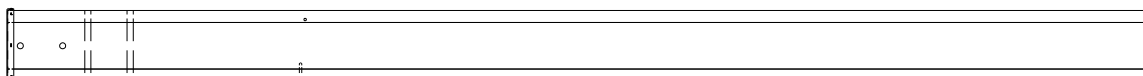
**P02** | PURLIN - W4L13481  
(x12) | 1 3/8"x1 3/8"x90 1/4" (36x36x2291)



Wood Components (Not to Scale)



**UP1** | **PERGOLA POST - W2A03006**  
(x2) | 5 1/2"x5 1/2"x89 1/2" (140x140x2273)



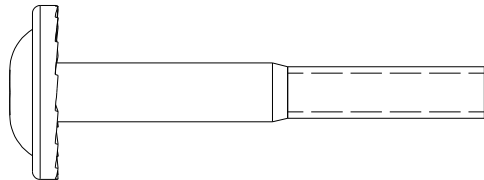
**UP2** | **PERGOLA POST - W2A03008**  
(x2) | 5 1/2"x5 1/2"x89 1/2" (140x140x2273)



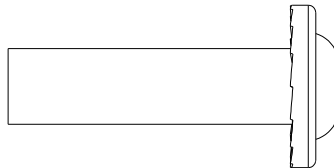
## Hardware Components



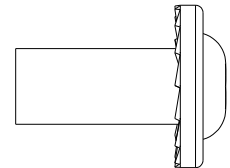
**H100196 | BOLT WH BLK**  
(x26) | 5/16x7-1/4



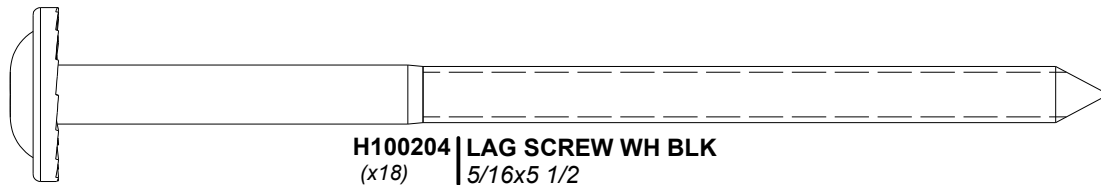
**H100205 | BOLT WH BLK**  
(x42) | 5/16x2-1/4



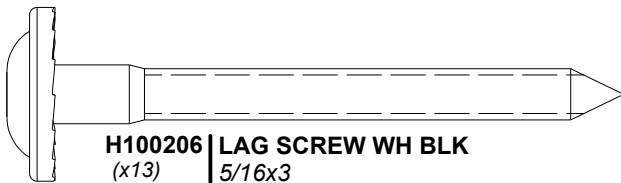
**H100193 | NUT BARREL WH BLK**  
(x26) | 5/16x1-1/2



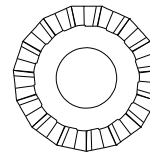
**H100192 | NUT BARREL WH BLK**  
(x42) | 5/16x7/8



**H100204 | LAG SCREW WH BLK**  
(x18) | 5/16x5 1/2



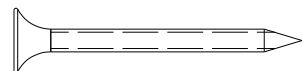
**H100206 | LAG SCREW WH BLK**  
(x13) | 5/16x3



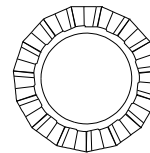
**H100198 | WASHER LOCK EXT BLK**  
(x96) | 8x19



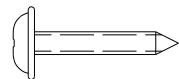
**H100201 | SCREW PFH BLK**  
(x100) | 8x2-1/2



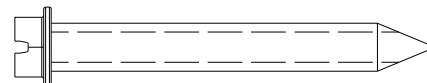
**H100200 | SCREW PFH BLK**  
(x17) | 8x1 1/2



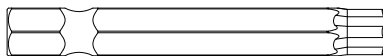
**H100199 | WASHER LOCK EXT BLK**  
(x68) | 12x19



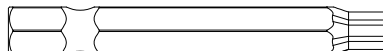
**H100392 | SCREW PWH BLK**  
(x2) | 8x3/4



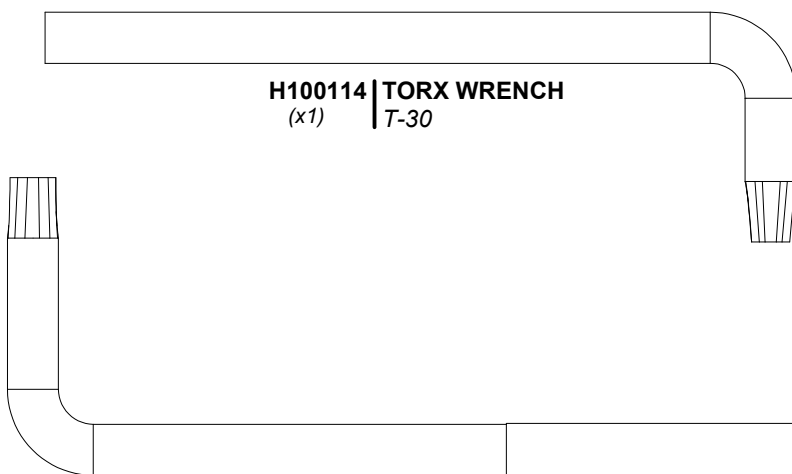
**H100120 | SCREW CONCRETE ANCHOR**  
(x18) | 1/4x2



**A100042** | TORX BIT  
(x1) | T-40



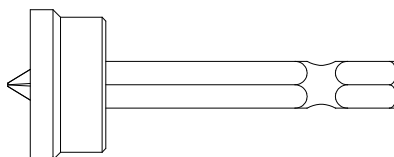
**H100147** | TORX BIT  
(x1) | T-30



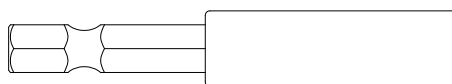
**H100114** | TORX WRENCH  
(x1) | T-30



**A100041** | TORX WRENCH  
(x1) | T-40



**H100764** | SCREW SETTER  
(x1)

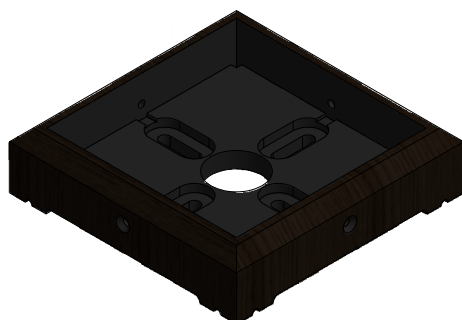


**H101100** | MAGNETIC DRIVER  
(x1)





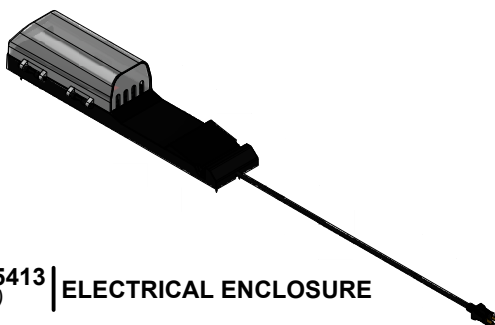
Accessory Components (Not to Scale)



**A100029**  
(x4) | FOOT 142 SQUARE POST



**A100241**  
(x1) | BYD ID TAG (SMALL) WITHOUT AGES



**9205413**  
(x1) | ELECTRICAL ENCLOSURE

# PRE-ASSEMBLY STEP 1 - SORTING PARTS

It is critical for ease of assembly that you take the time to sort and organize the wood and hardware.

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## WOOD PARTS:

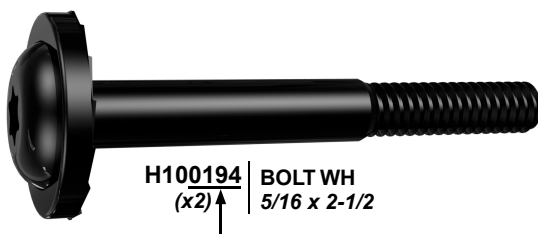
- Organize wood parts by the three-digit, alpha-numeric number stamped on each board (ex. P01).
- If there are multiple boards with the same stamped number, stack those pieces together.
- Stamps can be found on the flat surface of the boards or on the end of the boards.
- Allow yourself plenty of room - the wood pieces can take up a significant amount of space.

**NOTE: CARTONS ARE NOT ORGANIZED BY BOARD NUMBER.**



## HARDWARE PARTS:

- We recommend that you have a separate table to organize the hardware.
- Hardware bags are printed with a seven-digit, alpha-numeric part number.
- You can organize your hardware by part number or group by hardware type (i.e. bolts, nuts, etc.).
- During assembly you only need to reference the last four digits of the number.



# PRE-ASSEMBLY STEP 2 - TOOLS REQUIRED



Cordless Drill or Electric Drill



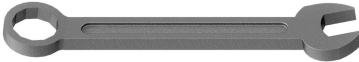
Drill Attachments:  
Phillips Head



1/8", 3/16", 3/8" &  
7/16" Drill Bits



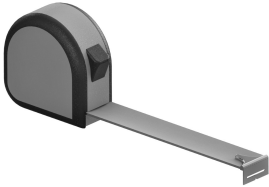
Phillips Screw Driver



Open End  
Wrenches 1/2" &  
7/16"



3/8" Drive Ratchet, 1/2" &  
7/16" STD Sockets, 1/2" &  
7/16" Deep Sockets



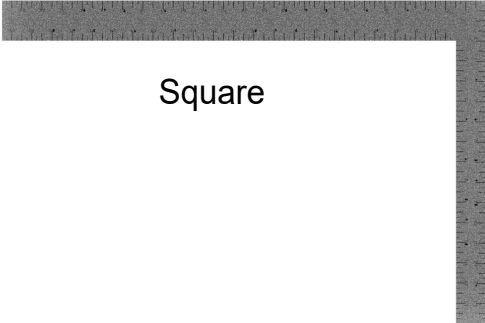
Tape Measure



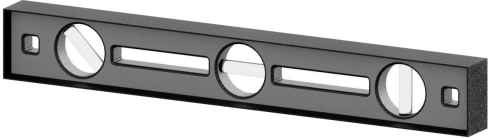
Claw Hammer



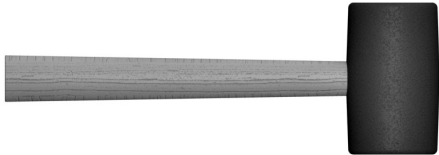
3/8 & 5/16" Nut Drivers



Square



Level 24"



Rubber Mallet -  
Optional

# PRE-ASSEMBLY STEP 3 - 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)



The graphic is a rectangular advertisement for the BILT app. At the top left is the BILT logo, which consists of a stylized hexagonal icon with a dot inside, followed by the word "BILT." in a bold, sans-serif font. To the right of the logo is a large QR code. Below the logo and QR code, the text "Scan for easy 3D instructions" is written in a large, bold, sans-serif font. Underneath this, in a smaller font, it says "Download the BILT app before you begin". To the right of this text are two buttons: "Download on the App Store" with the Apple logo and "GET IT ON Google Play" with the Google Play logo. At the bottom of the graphic is a smartphone screen displaying a 3D assembly instruction. The screen shows a 3D model of a structure with a horizontal beam and a triangular support. A red arrow points to a specific part of the structure. The screen also has a "Partners Needed" button in the top left, a close button (X) in the top right, and a play/pause button in the bottom right.



# STEP 1

**D07** | JOIST END - W4L13494  
(x4) | 1 7/16"x5 1/4"x17 3/4" (36x134x451)

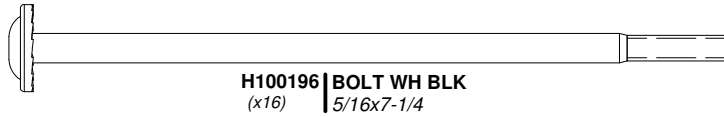
**UP1** | PERGOLA POST - W2A03006  
(x2) | 5 1/2"x5 1/2"x89 1/2" (140x140x2273)

**D09** | JOIST - W4L13477  
(x2) | 1 3/8"x5 1/4"x90" (36x134x2286)

**D10** | JOIST END - W4L13474  
(x4) | 1 3/8"x5 1/4"x17 3/4" (36x134x451)

**UP2** | PERGOLA POST - W2A03008  
(x2) | 5 1/2"x5 1/2"x89 1/2" (140x140x2273)

**D08** | JOIST - W4L13479  
(x2) | 1 3/8"x5 1/4"x90" (36x134x2286)



**H100196** | BOLT WH BLK  
(x16) | 5/16x7-1/4



**H100193** | NUT BARREL WH BLK  
(x16) | 5/16x1-1/2



**H100199** | WASHER LOCK EXT BLK  
(x16) | 12x19



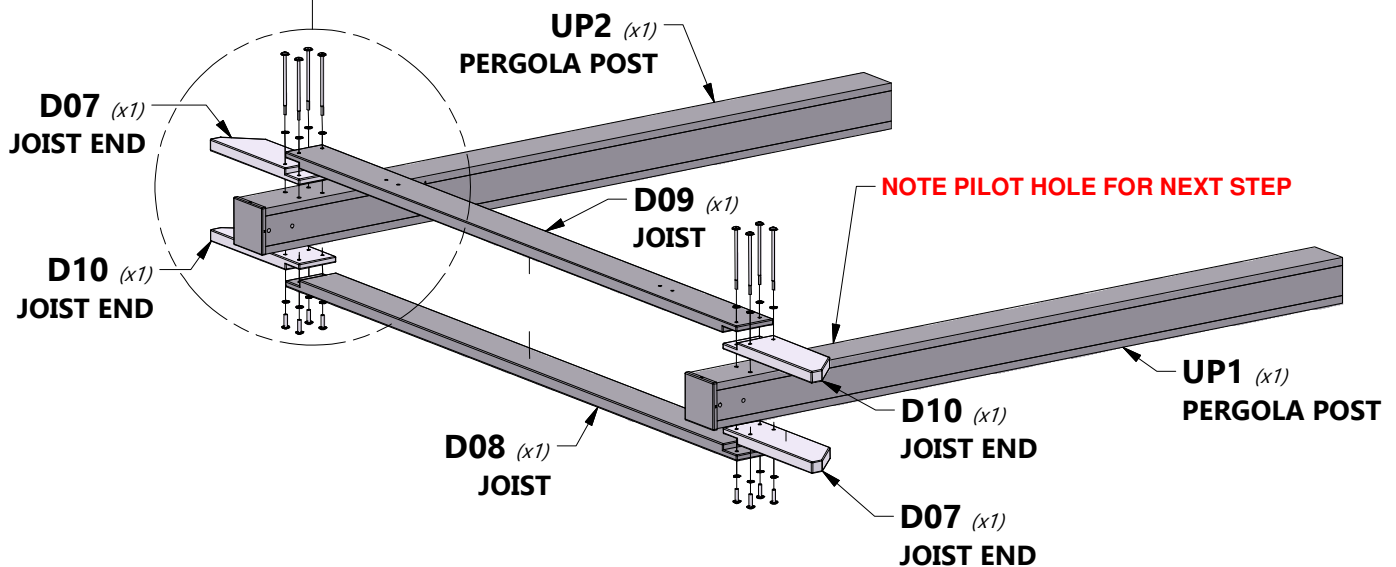
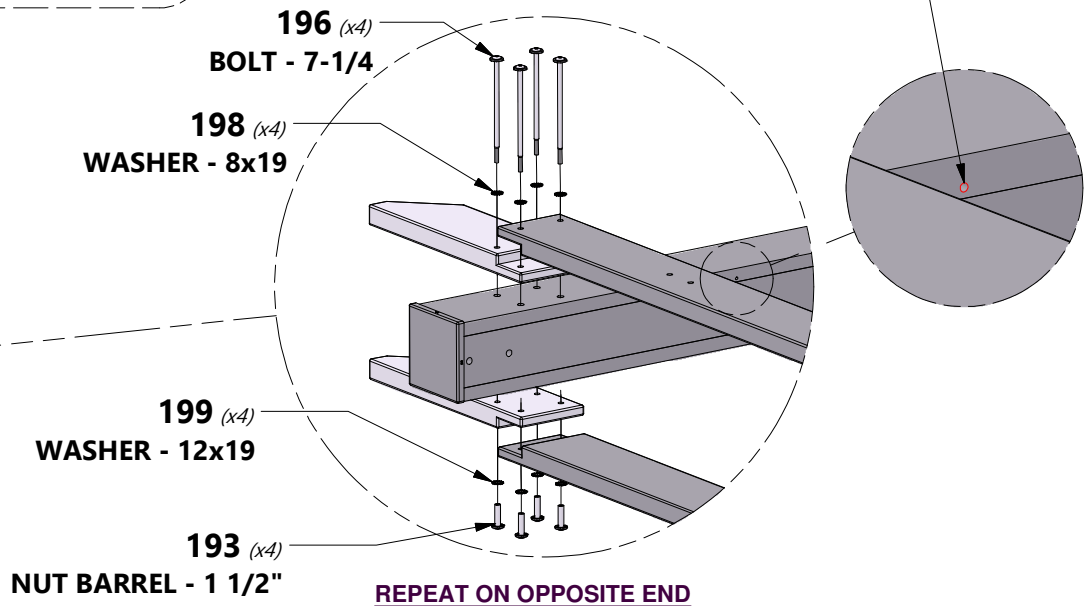
**H100198** | WASHER LOCK EXT BLK  
(x16) | 8x19

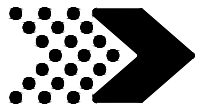
LAY PARTS ON GROUND OR SAW HORSES FOR EASE OF ASSEMBLY.

1. REPEAT THIS STEP TWICE FOR OTHER SIDE.

2. ASSEMBLE AS SHOWN USING THE PRE-DRILLED HOLES IN POSTS.

NOTE PILOT HOLE FOR NEXT STEP

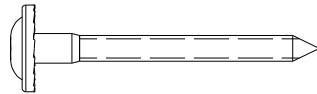




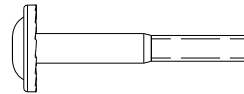
# STEP 2



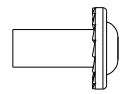
**D12** | SHORT ANGLE BRACE - W4L13483  
(x2) | 1 3/8"x5 1/4"x29 3/4" (36x134x755)



**H100206** | LAG SCREW WH BLK  
(x4) | 5/16x3



**H100205** | BOLT WH BLK  
(x8) | 5/16x2-1/4



**H100192** | NUT BARREL WH BLK  
(x8) | 5/16x7/8



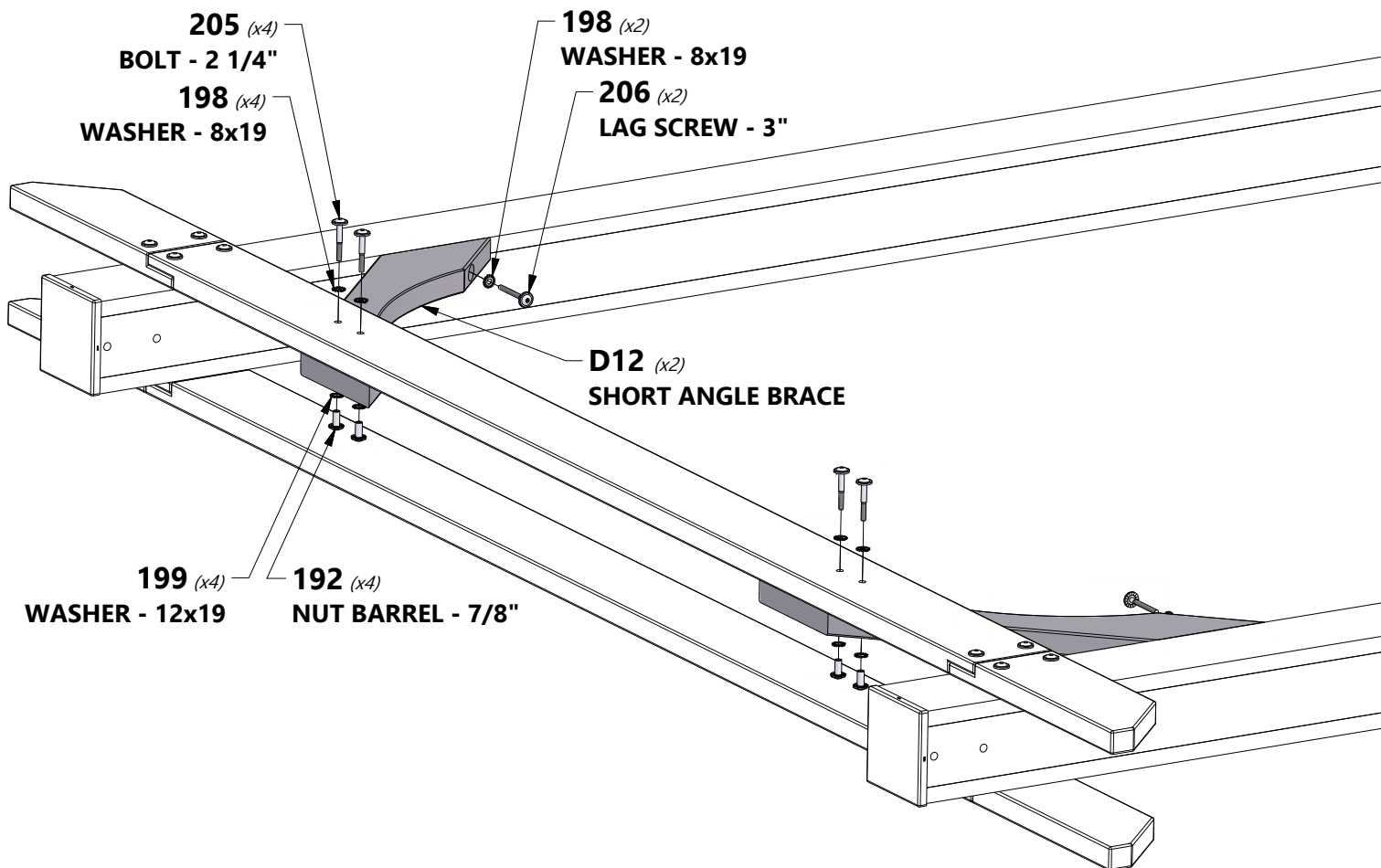
**H100198** | WASHER LOCK EXT BLK  
(x12) | 8x19



**H100199** | WASHER LOCK EXT BLK  
(x8) | 12x19

**1. REPEAT THIS STEP TWICE FOR OTHER SIDE.**

**2. ASSEMBLE AS SHOWN USING THE PRE-DRILLED PILOT HOLES IN POSTS.**



**205** (x4)

**BOLT - 2 1/4"**

**198** (x4)

**WASHER - 8x19**

**198** (x2)

**WASHER - 8x19**

**206** (x2)

**LAG SCREW - 3"**

**D12** (x2)

**SHORT ANGLE BRACE**

**199** (x4)

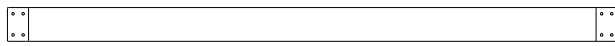
**WASHER - 12x19**

**192** (x4)

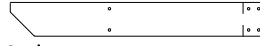
**NUT BARREL - 7/8"**



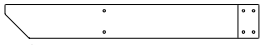
# STEP 3



**D02 | JOIST - W4L13485**  
(x2) | 1 3/8"x5 1/4"x95 1/4" (36x134x2420)



**D05 | JOIST END - W4L13484**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



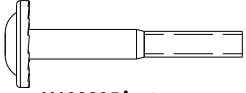
**D03 | JOIST END - W4L13492**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D11 | LONG ANGLE BRACE - W4L13482**  
(x3) | 1 3/8"x5 1/4"x37 1/8" (36x134x942)



**D15 | LONG ANGLE BRACE W/TAG-W2A03347**  
(x1) | 1 3/8"x5 1/4"x37 1/8" (36x134x942)



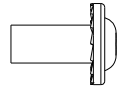
**H100205 | BOLT WH BLK**  
(x16) | 5/16x2-1/4



**H100198 | WASHER LOCK EXT BLK**  
(x16) | 8x19



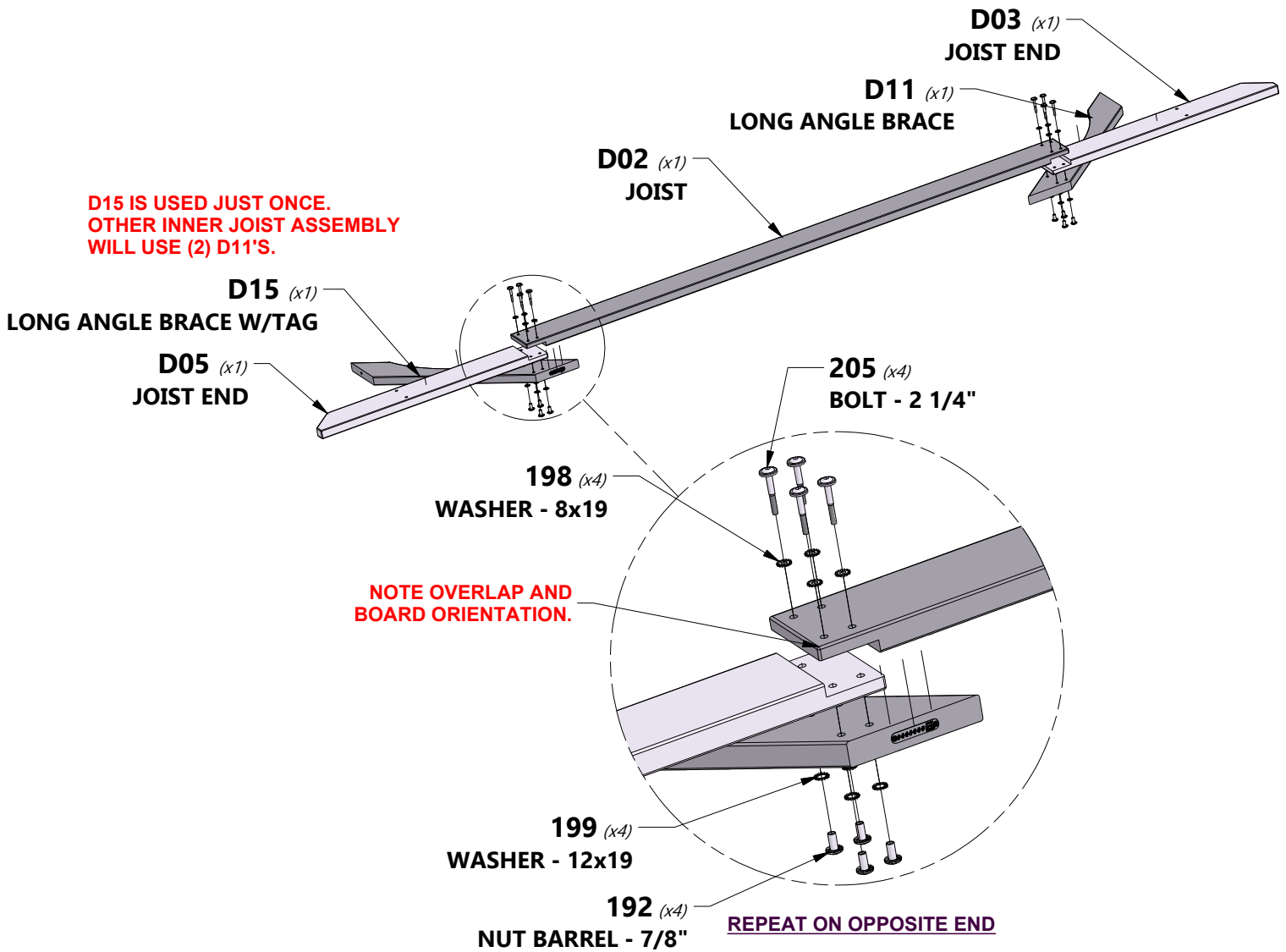
**H100199 | WASHER LOCK EXT BLK**  
(x16) | 12x19



**H100192 | NUT BARREL WH BLK**  
(x16) | 5/16x7/8

**REPEAT STEP TO COMPLETE TWO INNER JOIST ASSEMBLIES.**

**D15 IS USED JUST ONCE.  
OTHER INNER JOIST ASSEMBLY  
WILL USE (2) D11'S.**





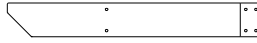
# STEP 4



**D01 | JOIST - W4L13476**  
(x2) | 1 3/8"x5 1/4"x95 1/4" (36x134x2420)



**D04 | JOIST END - W4L13475**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D06 | JOIST END - W4L13491**  
(x2) | 1 3/8"x5 1/4"x39 3/4" (36x134x1008)



**D11 | LONG ANGLE BRACE - W4L13482**  
(x4) | 1 3/8"x5 1/4"x37 1/8" (36x134x942)



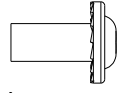
**H100205 | BOLT WH BLK**  
(x16) | 5/16x2-1/4



**H100198 | WASHER LOCK EXT BLK**  
(x16) | 8x19

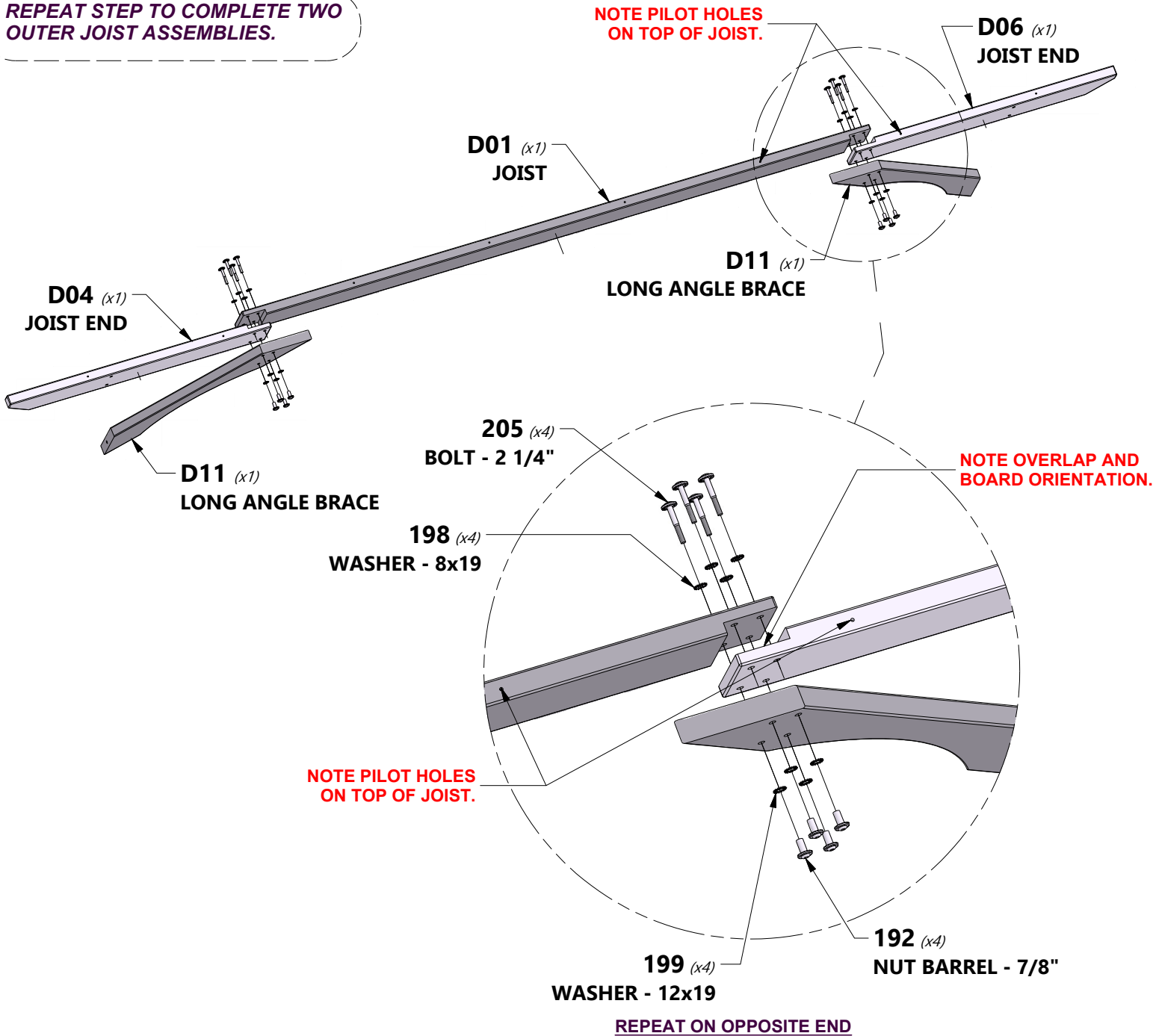


**H100199 | WASHER LOCK EXT BLK**  
(x16) | 12x19



**H100192 | NUT BARREL WH BLK**  
(x16) | 5/16x7/8

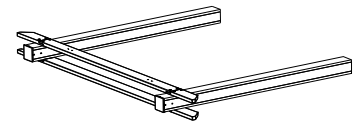
**REPEAT STEP TO COMPLETE TWO OUTER JOIST ASSEMBLIES.**



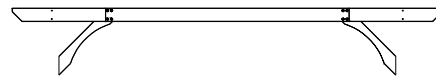




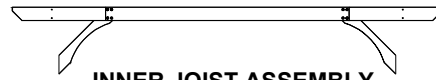
# STEP 5



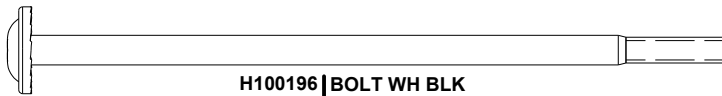
(x2) UPRIGHT ASSEMBLY FROM PREVIOUS STEPS



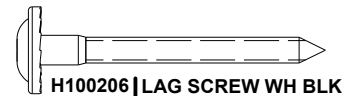
(x2) OUTER JOIST ASSEMBLY FROM PREVIOUS STEPS



(x2) INNER JOIST ASSEMBLY FROM PREVIOUS STEPS



H100196 | BOLT WH BLK (x8) 5/16x7-1/4



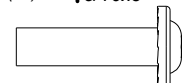
H100206 | LAG SCREW WH BLK (x8) 5/16x3



H100198 | WASHER LOCK EXT BLK (x16) 8x19

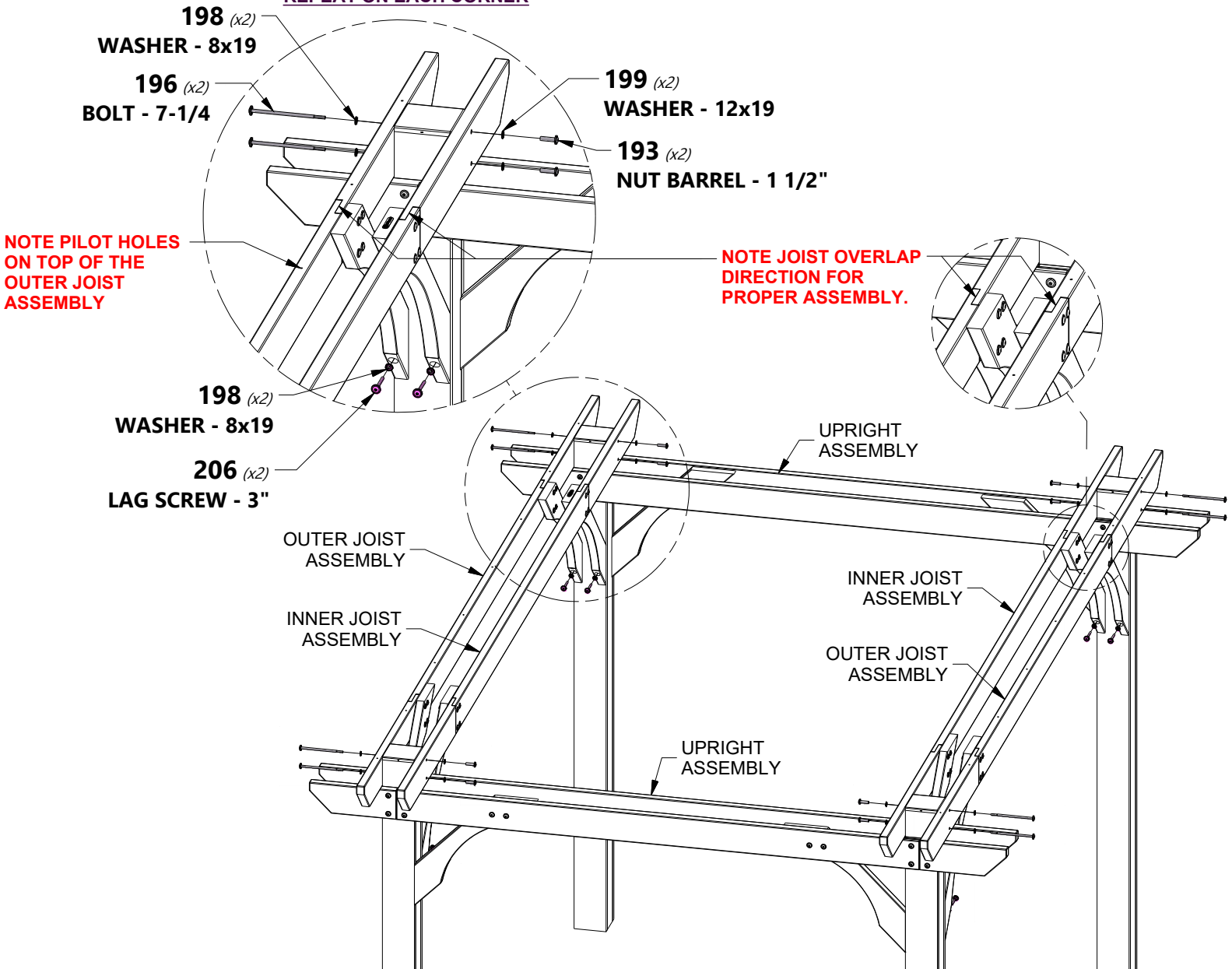


H100199 | WASHER LOCK EXT BLK (x8) 12x19



H100193 | NUT BARREL WH BLK (x8) 5/16x1-1/2

### REPEAT ON EACH CORNER





# STEP 6



**D13** | SLOTTED JOIST - W4L13478  
(x8) | 1 3/8"x5 1/4"x114" (36x134x2896)



**H100204** | LAG SCREW WH BLK  
(x16) | 5/16x5 1/2



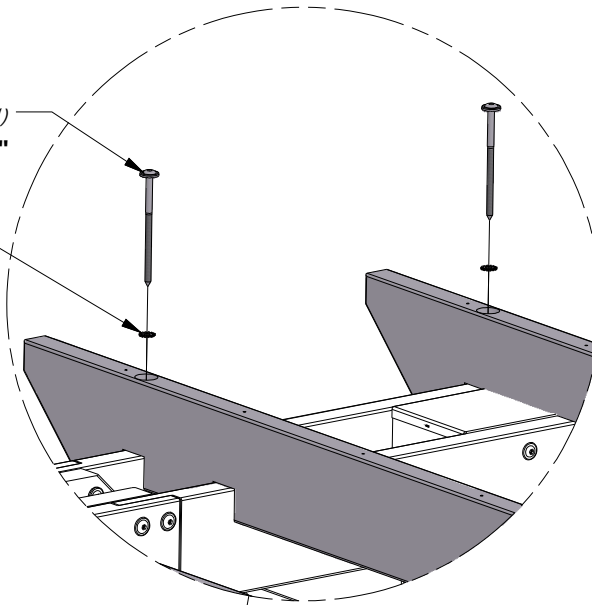
**H100198** | WASHER LOCK EXT BLK  
(x16) | 8x19

**LOCATE AND USE PILOT HOLES IN THE OUTER JOISTS TO MOUNT D13 BOARDS AS SHOWN.**

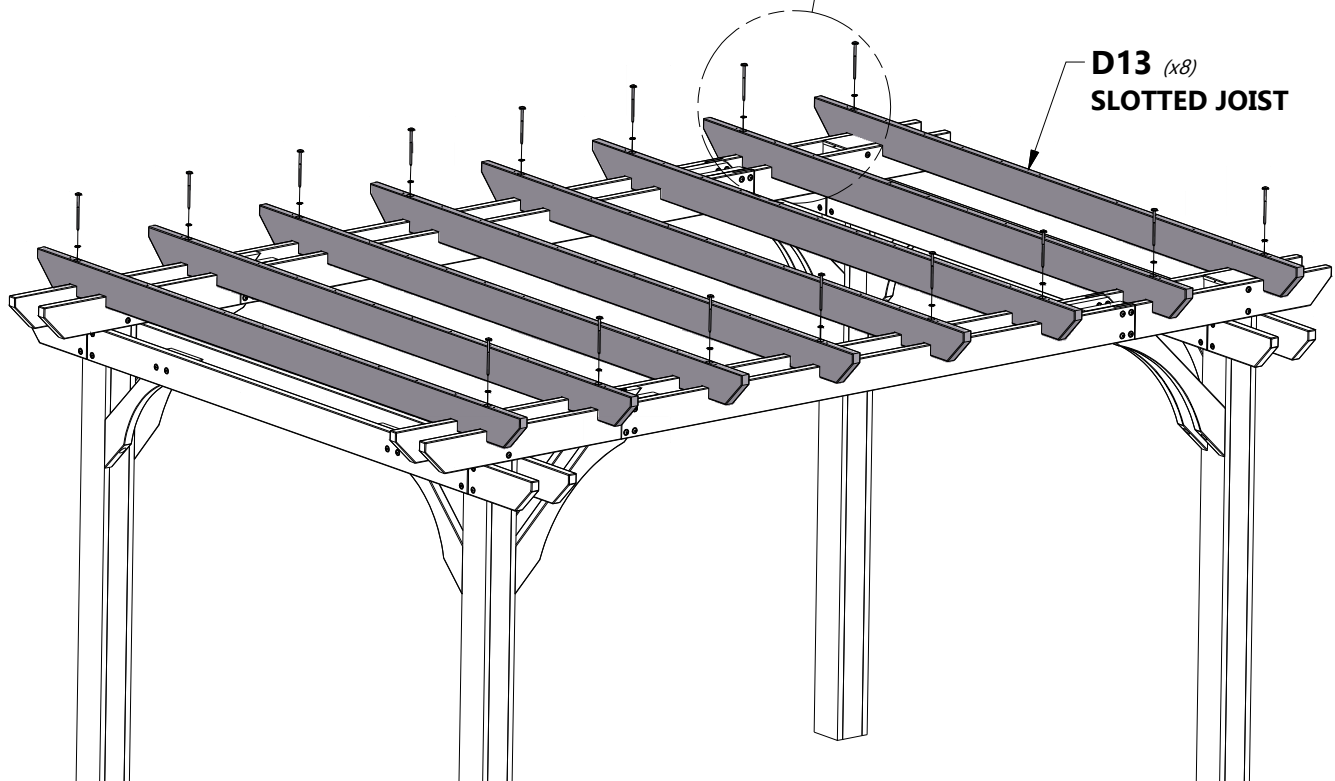
**REPEAT ON OPPOSITE END AND ON ALL JOISTS**

**204** (x1)  
LAG SCREW - 5 1/2"

**198** (x1)  
WASHER - 8x19



**D13** (x8)  
SLOTTED JOIST




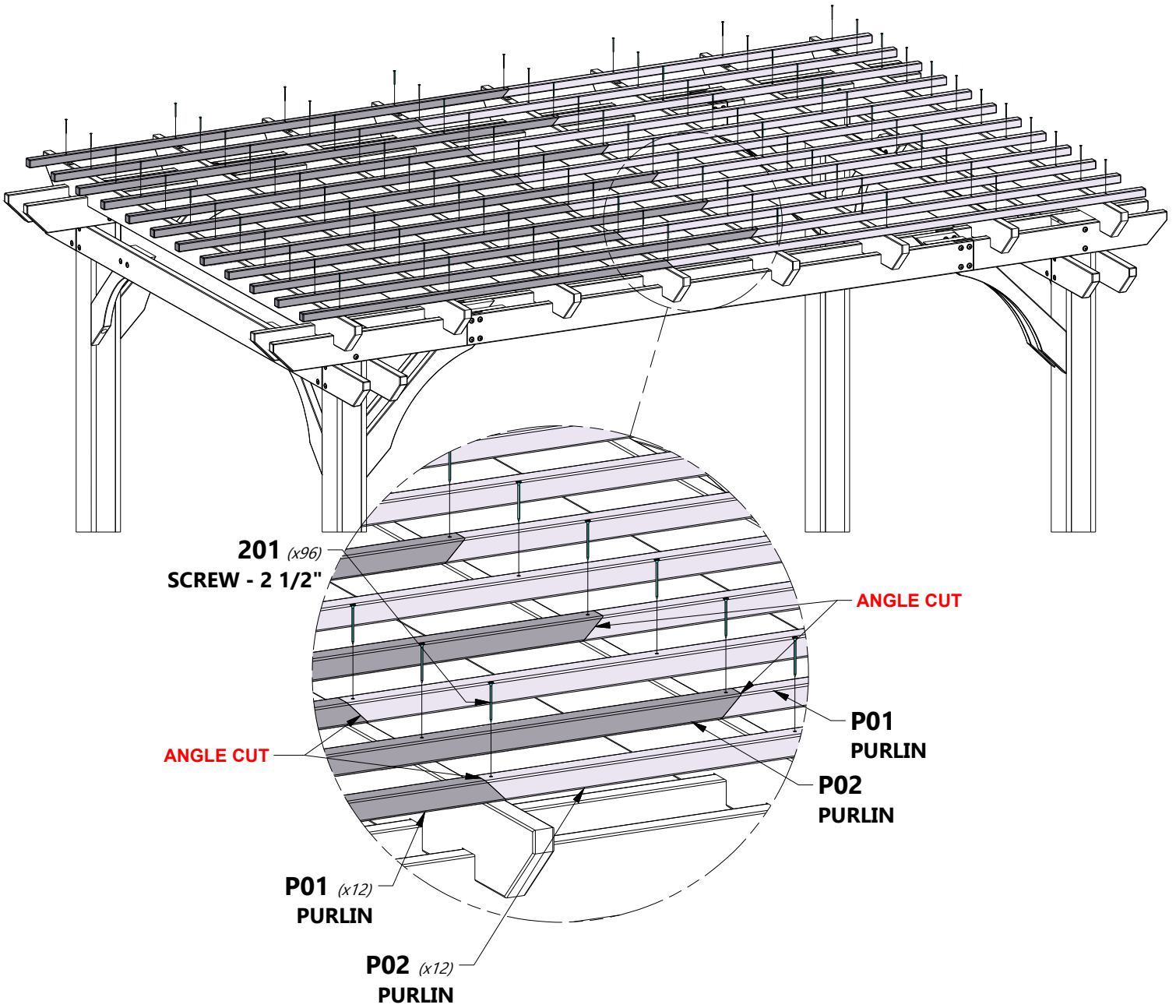


# STEP 7

**P01** | PURLIN - W4L13480  
(x12) | 1 3/8"x1 3/8"x69 5/8" (36x36x1768)

**P02** | PURLIN - W4L13481  
(x12) | 1 3/8"x1 3/8"x90 1/4" (36x36x2291)

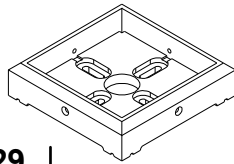
  
**H100201** | SCREW PFH BLK  
(x96) | 8x2-1/2



**ASSEMBLE P01 & P02 BOARDS BY ALTERNATING THEM AS YOU WORK ACROSS THE JOIST BOARDS. AS SHOWN THE ANGLE CUT IN THE P01 & P02 BOARDS SHOULD ALTERNATE WHICH JOIST THEY LAND ON WHEN ASSEMBLED.**



# STEP 8

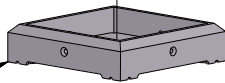
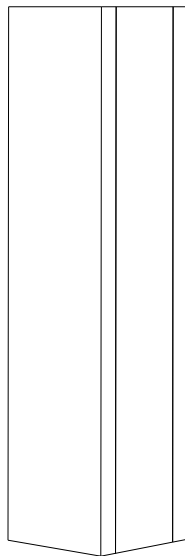


**A100029**  
(x4)

**FOOT 142 SQUARE POST**

**DECIDE WHERE TO PLACE THE PERGOLA. NOTE THIS MOUNTING PROCEDURE IS MEANT TO BE USED ON CONCRETE ONLY.**

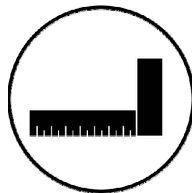
**PLACE THE PERGOLA EXACTLY WHERE IT WILL BE ANCHORED WHEN COMPLETED AND SLIDE A FOOT UNDER EACH POST.**



**029 (x1)**

**FOOT 142 SQUARE POST**

**REPEAT ON ALL POSTS**

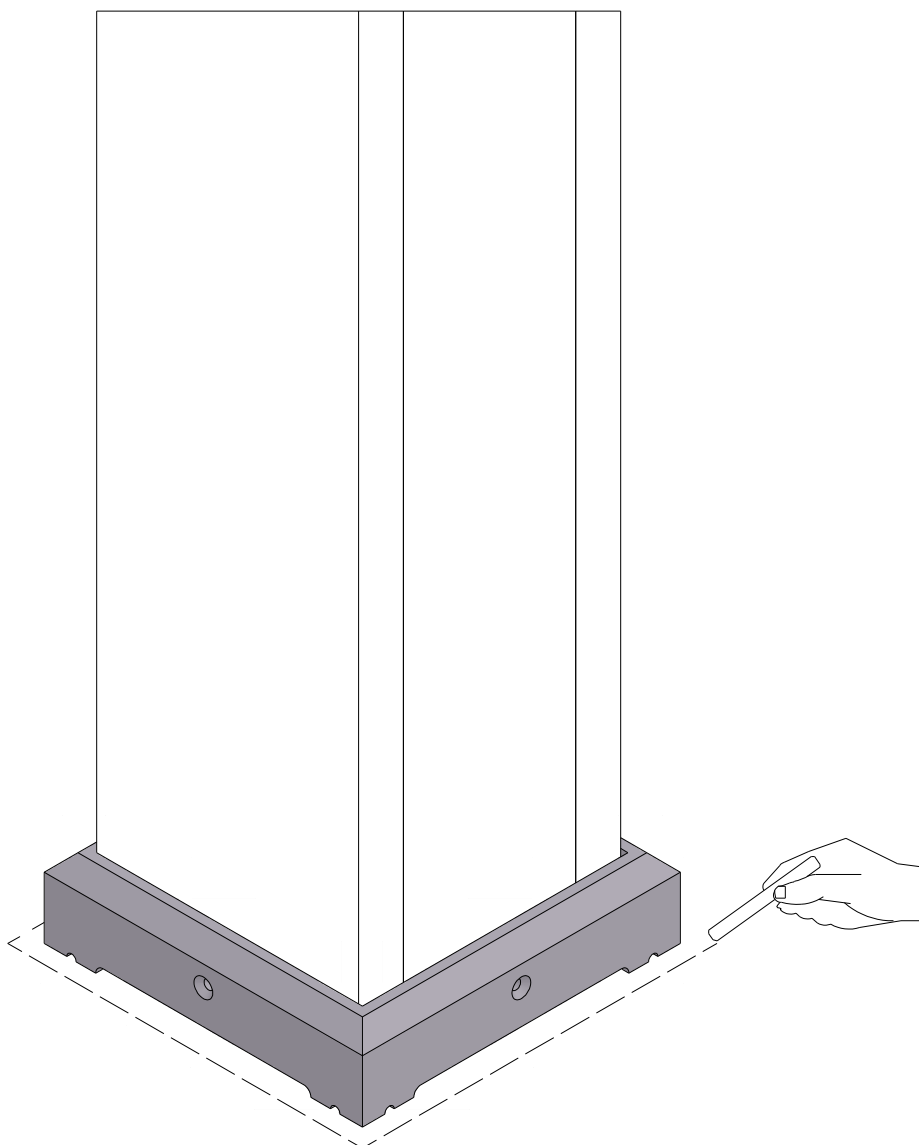


**SQUARE POSTS AND  
TIGHTEN ALL BOLTS AND  
SCREWS AT THIS TIME.**



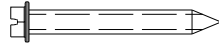
## STEP 9

USE CHALK TO TRACE AROUND THE EDGES OF EACH FOOT TO MARK THE FEET LOCATIONS.





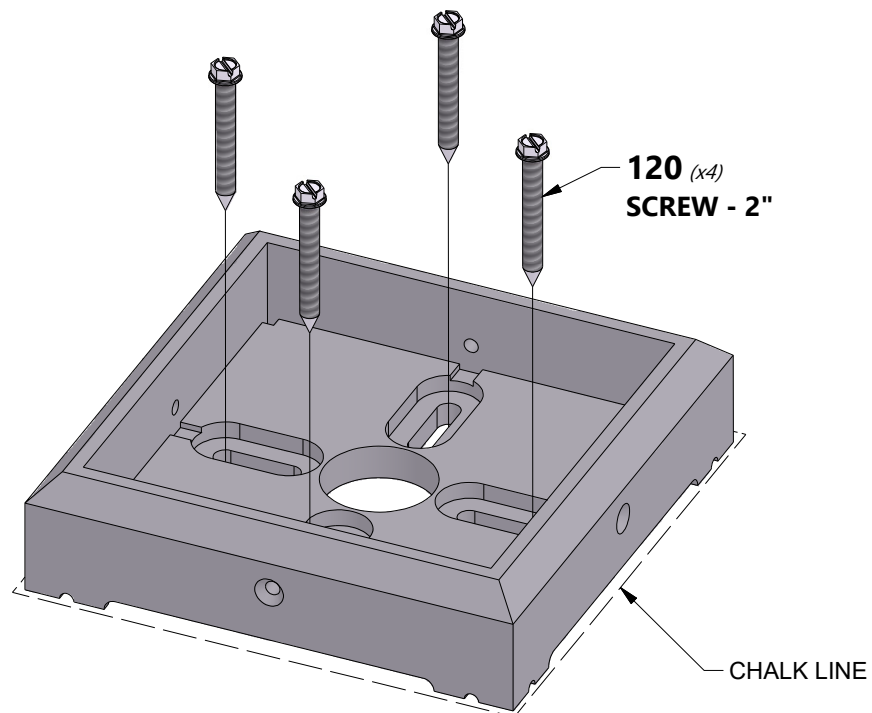
## STEP 10



H100120 | SCREW CONCRETE ANCHOR  
(x16) | 1/4x2

MOVE THE PERGOLA ASIDE AND PLACE EACH FOOT INSIDE THE LINES DRAWN IN THE PREVIOUS STEP. NOW, USE A 3/16" CONCRETE DRILL BIT TO DRILL PILOT HOLES INTO THE CONCRETE PAD.

NEXT, USE THE PROVIDED CONCRETE ANCHORS TO ATTACH EACH FOOT TO THE CONCRETE SURFACE.



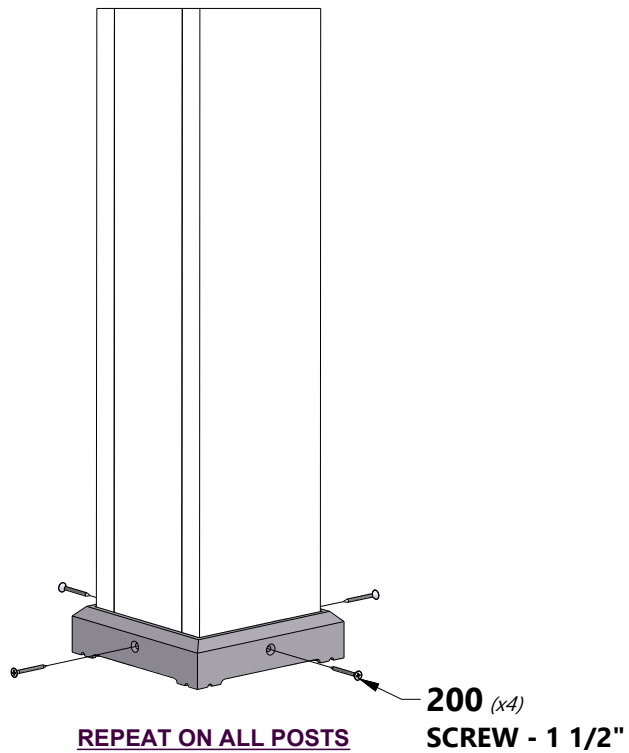


# STEP 11



H100200 | SCREW PFH BLK  
(x16) | 8x1 1/2

MOVE THE PERGOLA BACK INTO PLACE,  
SETTING EACH POST INSIDE A FOOT AND  
MOUNT AS SHOWN USING THE PROVIDED  
HARDWARE.





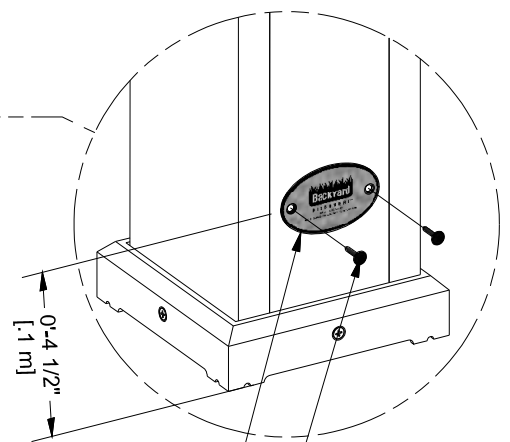
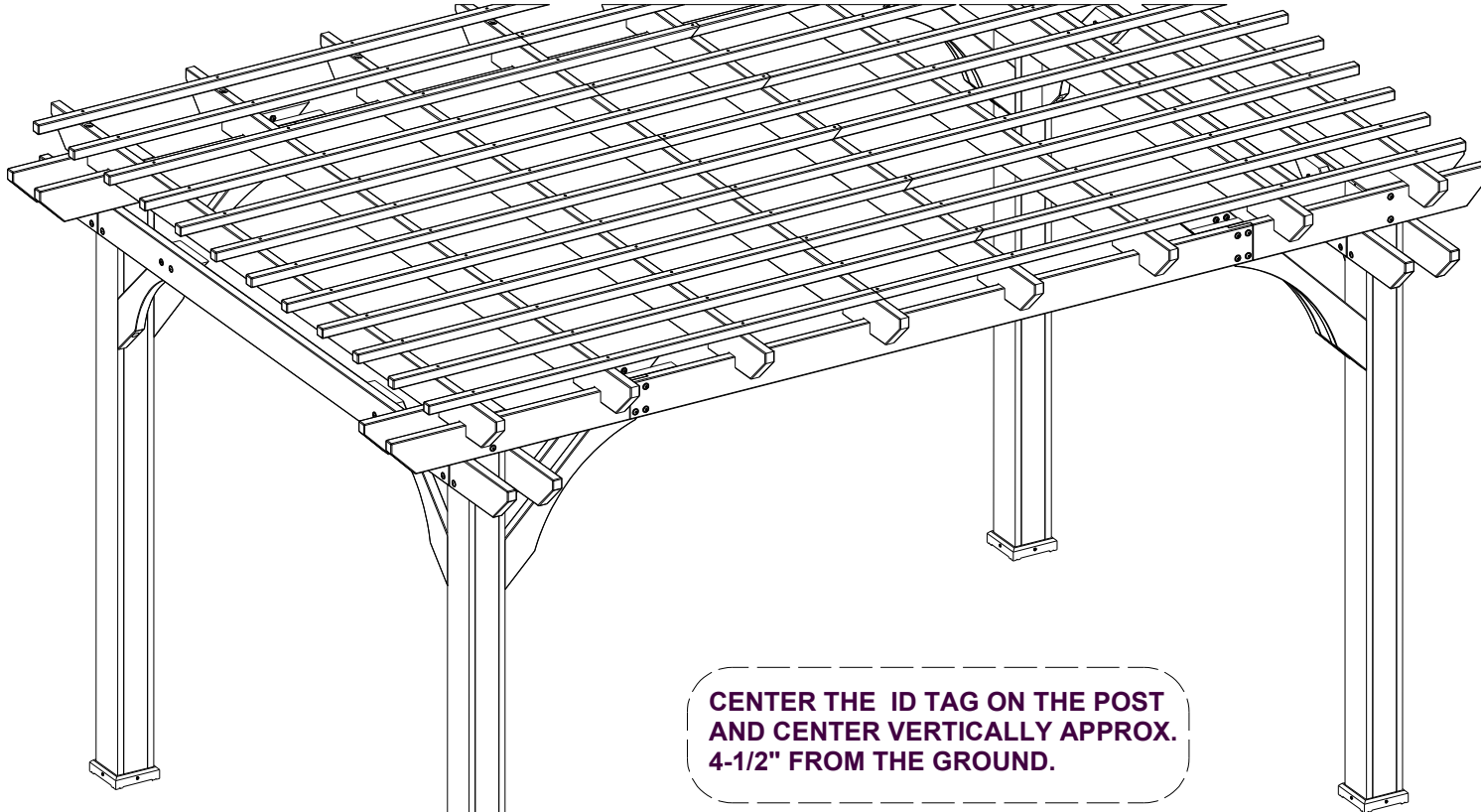
# STEP 12



A100241 | BYD ID TAG (SMALL) WITHOUT AGES  
(x1)



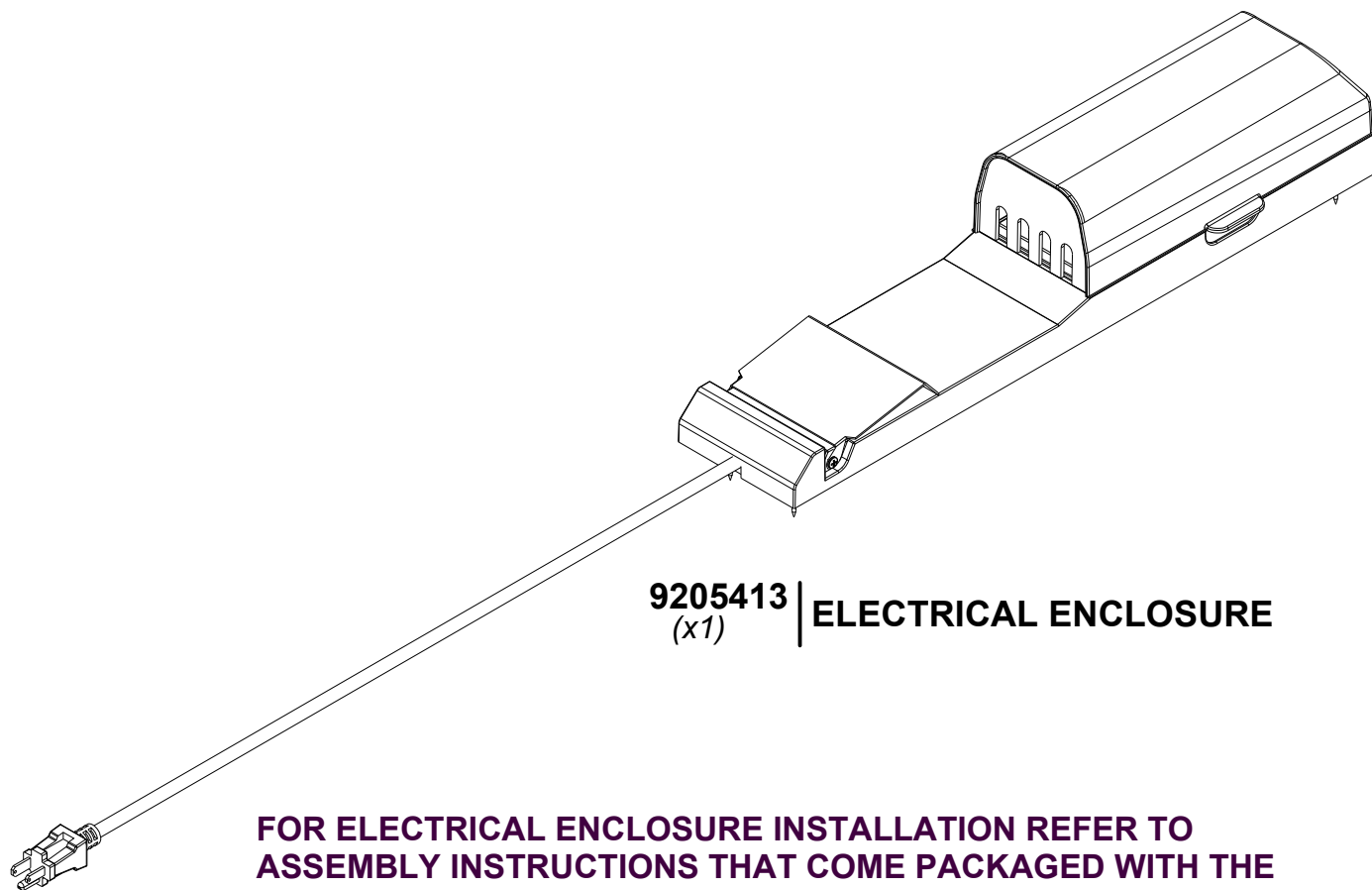
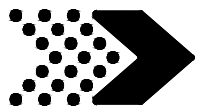
H100392 | SCREW PWH BLK  
(x2) | 8x3/4



241 (x1)  
BYD ID TAG (SMALL) WITHOUT AGES

392 (x2)  
SCREW - 3/4"





9205413 | ELECTRICAL ENCLOSURE  
(x1)

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



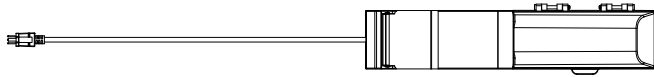
# PowerPort™

Model # 9205413  
Wood Post Mounting Instructions



PowerPort.

MANUFACTURED BY:  
Backyard Discovery  
3305 Airport Drive  
Pittsburg, KS 66762  
800-856-4445

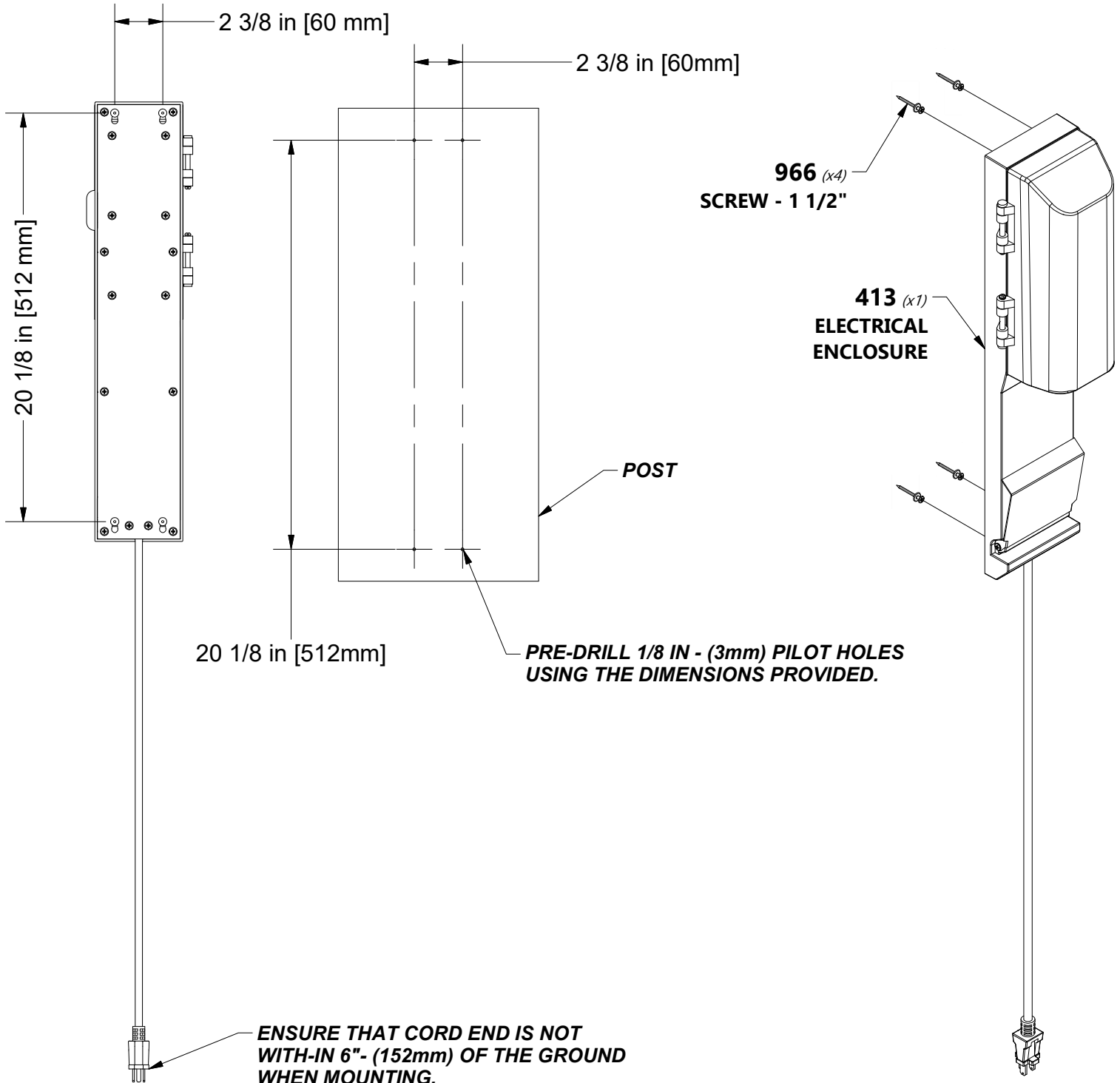


9205413 | ELECTRICAL ENCLOSURE  
(x1)



H100966 | SCREW RAISED HEAD  
(x4) | 8x1 1/2

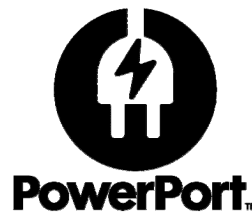
**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)





# PowerPort

Model # 9205413  
Metal Post Mounting Instructions



MANUFACTURED BY:  
Backyard Discovery  
3305 Airport Drive  
Pittsburg, KS 66762  
800-856-4445



A4M01292 | MOUNTING BRACKET  
(x2)

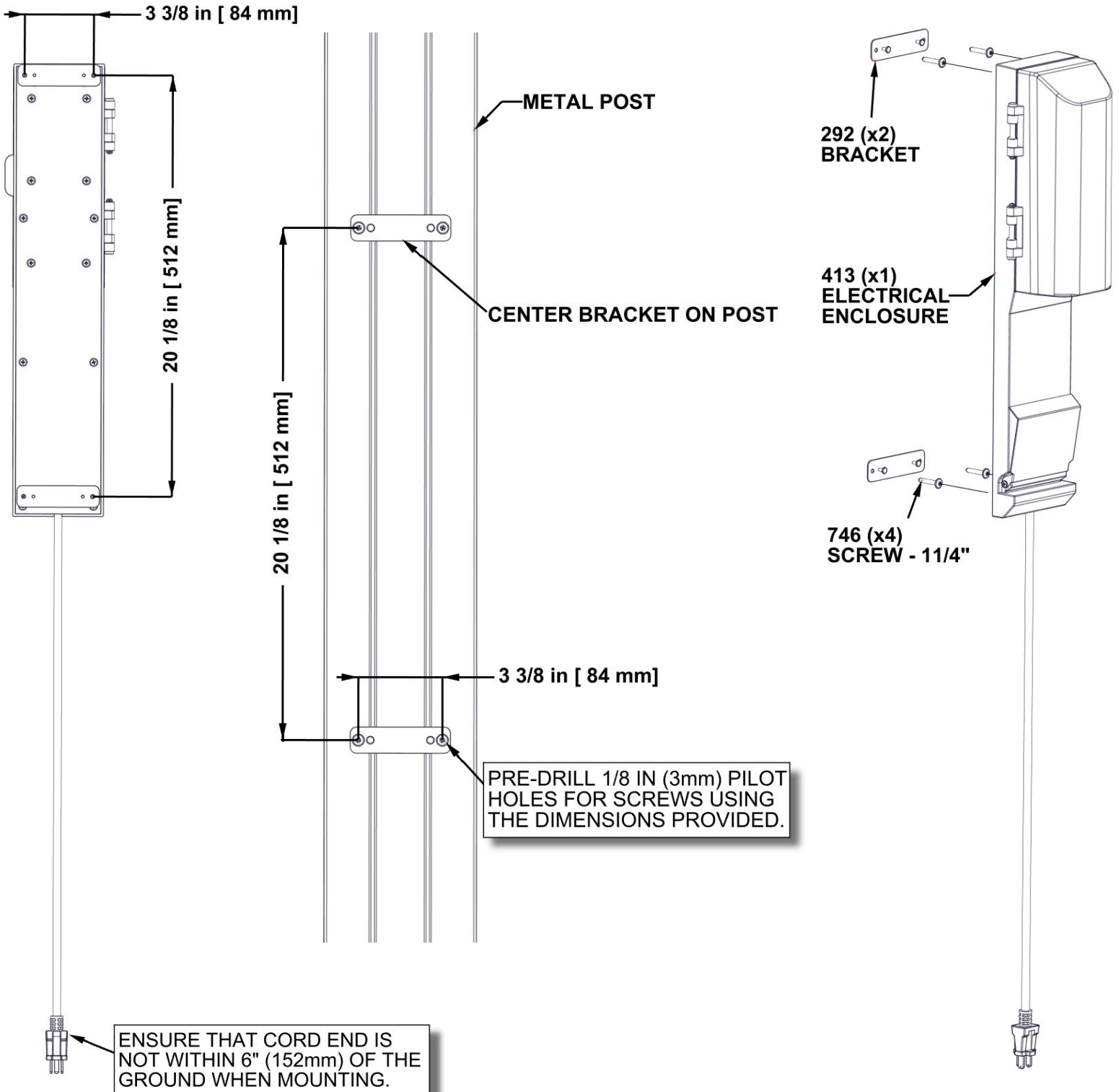


9205413 | ELECTRICAL ENCLOSURE  
(x1)



H100746 | SCREW TAPPING  
(x4) 10x1 1/4"

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



## **FCC MARKING:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## **FCC INSTRUCTIONS:**

**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.