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#6HL Installation Instructions

WARNING: If the information in these instructions is not followed exactly, weakening or failure of the erected structure may result causing property damage, personal injury, or loss of life.

Contents of SKU# 6HL

6x6, Hexagon Elbow Bracket

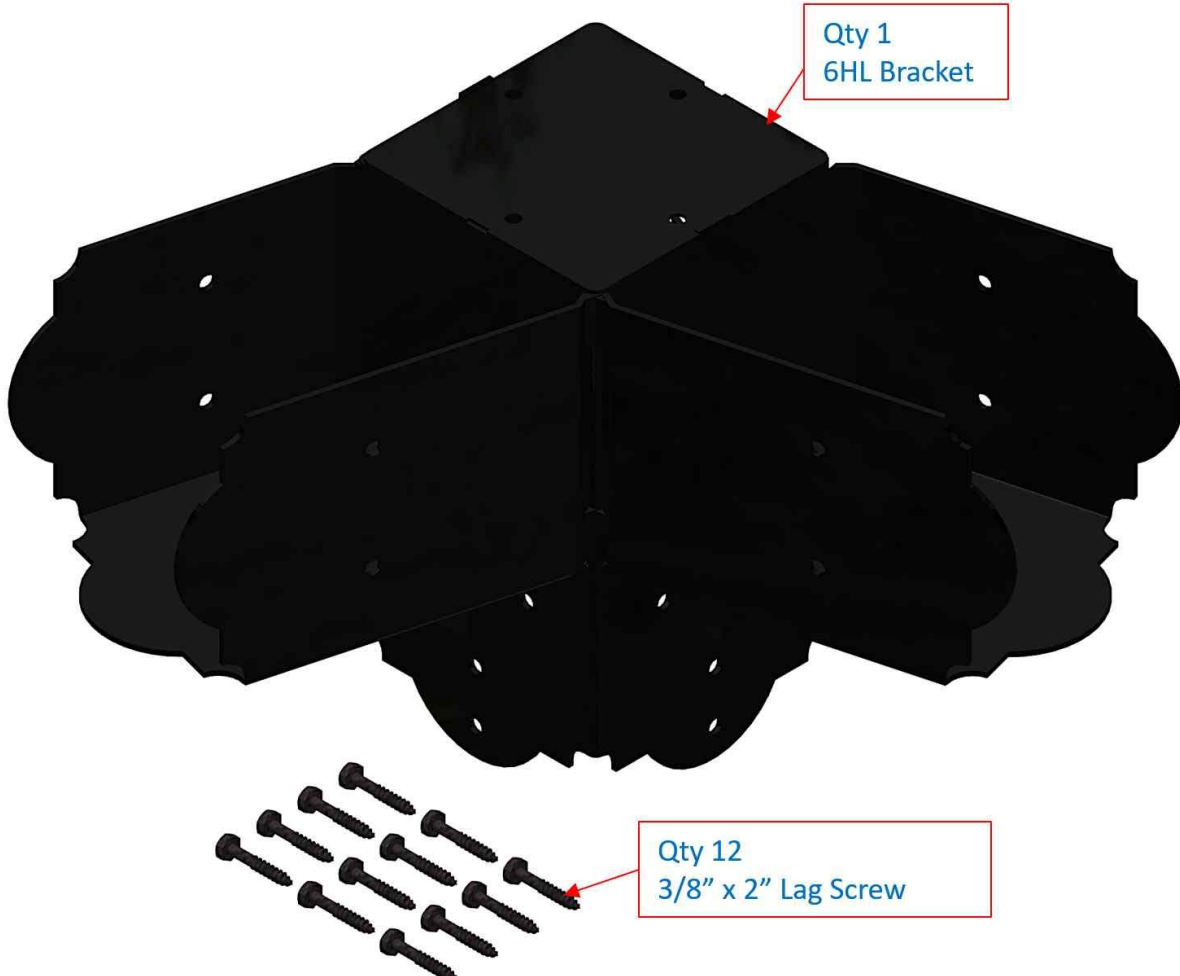


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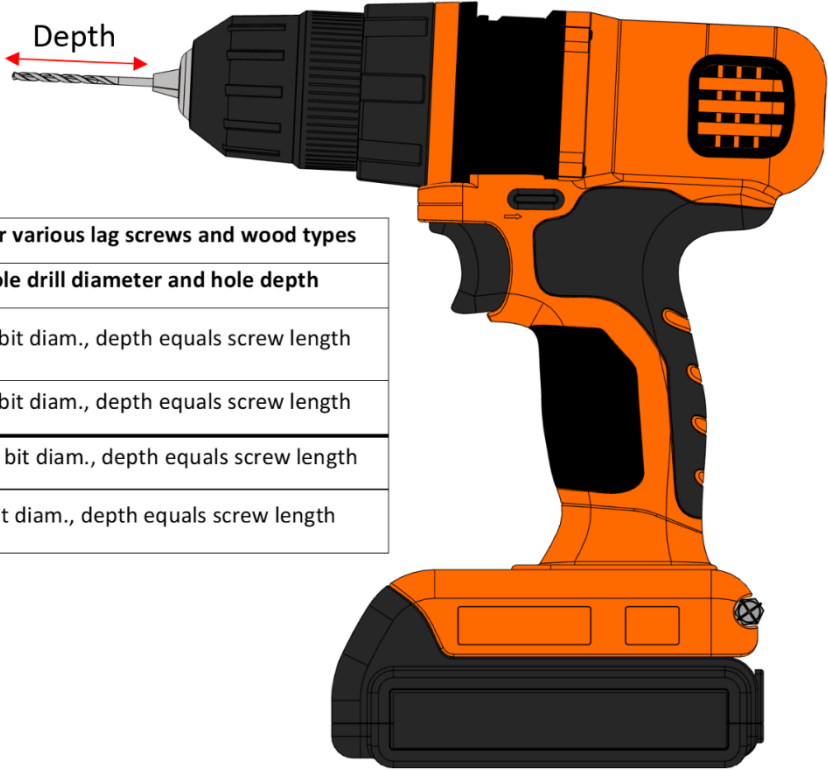
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Proper pilot hole diameter and hole depth for various lag screws and wood types		
Lag Screw Size	Wood Type	Pilot hole drill diameter and hole depth
1/4"	Soft Wood	3/32" drill bit diam., depth equals screw length
	Hard Wood	3/16" drill bit diam., depth equals screw length
3/8"	Soft Wood	11/64" drill bit diam., depth equals screw length
	Hard Wood	1/4" drill bit diam., depth equals screw length

1 GENERAL INFORMATION

1.1 SAFETY AND WARNING INFORMATION

1.1.1 Cautions

CAUTION: Adhere to all safety requirements. Wear safety glasses/goggles when working. Wear safety gloves when handling brackets, hardware, and lumber. Wear hearing protection when using a circular saw, miter saw, table saw, or hammer drill.

INSTALLER: Leave this manual with the consumer. **CONSUMER:** Retain this manual for future reference.

1.2 TOOLS REQUIRED

Listed below, are common tools required for pergola projects. These tools are not included in this kit. Your pergola project may not require all tools. Select and acquire the tools for your project from the “Required for” column in this table.

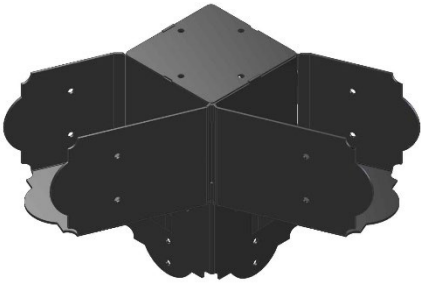
Description	Tool Purpose	Required for	Reference Image
Tape Measure	Measure and verify lengths.	All pergola types	
Framing Level	Verify Level/Plumb	All pergola types	
Drill/Hammer Drill	Drill holes in concrete pads or concrete footing for securing floor anchor brackets. Drill pilot holes for lag screws.	All pergola types	
Ratchet Socket Driver	Drive lag screws into Pergola lumber members.	All pergola types	
9/16" Hex Socket	Drive 3/8" Hex Hd. lag screws.	All pergola types	
11/64" Drill Bit	Drill pilot holes for 3/8" lag screws in soft wood.	All pergola types	
Circular Saw/Miter Saw	Cut headers to length; cut rafters to length.	All pergola types	
Crescent Wrench	Tighten down nut on concrete anchors.	Surface Mount Pergolas	Image not available.
Hammer	Various.	All pergola types.	

1.3 CONTENTS OF BRACKET # 6HL

The contents of this Bracket are shown in the table, below. All hardware for each bracket is placed inside a plastic bag and taped to the individual bracket. This packaging method makes it easy for you to locate the hardware at the location you will be attaching the bracket. The exact quantity needed to attach the bracket is included.

Before you begin your project, take an inventory of all items that you received from us. If any items are missing, contact us directly via email at info@RioOutdoors.com. Include your name and shipping address and your order number, if available. We will respond within 24 hours with a resolution to your problem.

Please note that the bracket parts you receive may appear slightly different than those depicted in these instructions. We perform continuous improvements in our designs and update our current products accordingly. The parts you receive will contain our most-recent improvements and will perform superior to those depicted in these instructions.

Item SKU #, Description	Item Qty	Item Image
6x6 Post Top/Floor 2-way Hexagon Elbow Bracket SKU# 6HL (The hardware required to mount this bracket are taped to the bracket)	1	
3/8" x 2" Lag Screw (This Qty shows the total of this item included in this kit)	12	

1.4 DESIGN INTENTS (INTENDED APPLICATIONS) FOR THE #6HL ELBOW BRACKET

The #6HL Elbow Bracket is designed with a 60-degree elbow angle which, when nested together, create a perfect hexagon shape. The #6HL Elbow Bracket is designed to create a strong and permanent 60-degree joint between two dimensional 6x6 (5.5" x 5.5") lumber members.

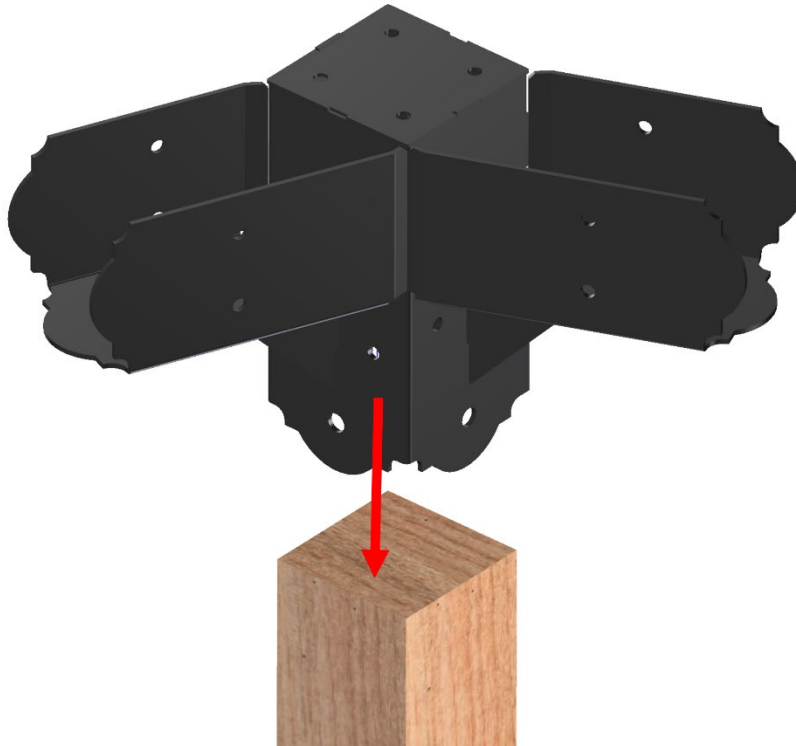
The #6HL Elbow Bracket can be installed at the top of a post to receive 6x6 headers or at the bottom of a post to receive floating 6x6 footers.



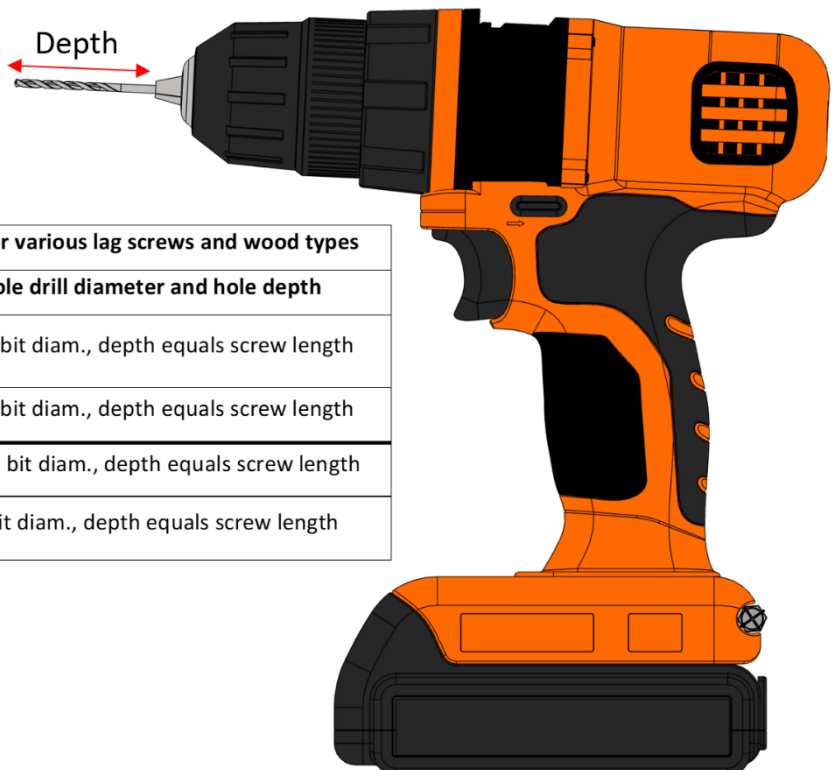
1.5 POST TOP #6HL ELBOW BRACKETS INSTALLATION

1. Slide a #6HL hexagon elbow bracket's tube over the 6x6 post top after aligning the header receiver U-channels in the proper directions. Let gravity work and pull the bracket all the way down on top of the post. If you feel resistance tap lightly on top of the elbow bracket until it slides all the way down.

Note: The same installation procedures apply to use the #6HL bracket as a post base elbow for a floating deck-type structure. Simply attach to the bottom end of a post using the same procedures.



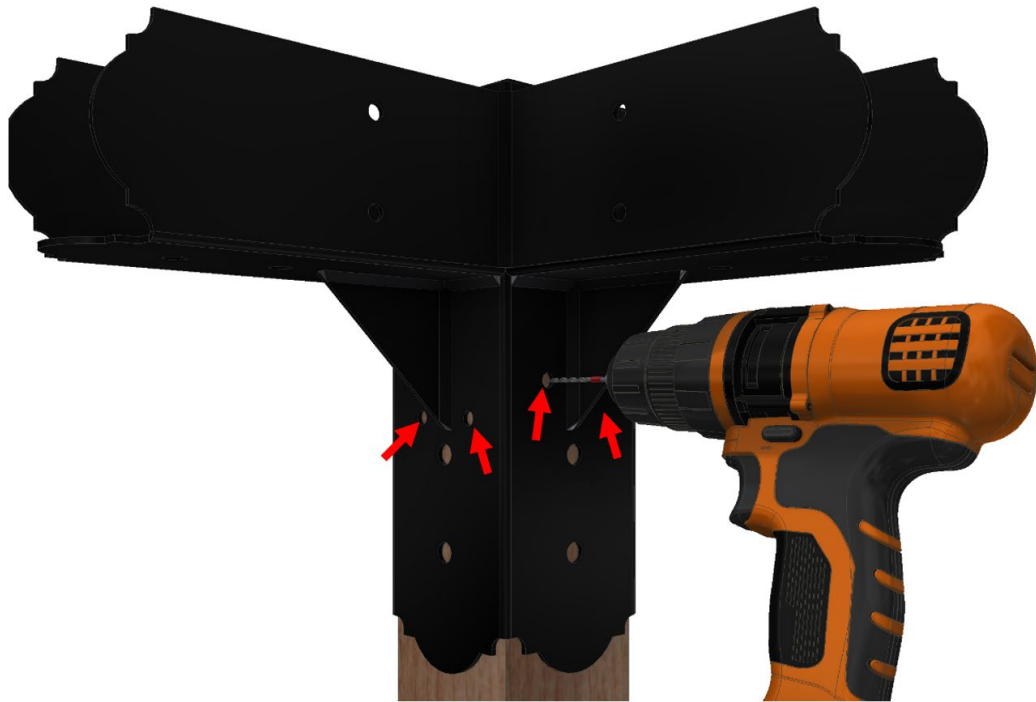
2. Place 11/64" drill bit in drill gun chuck so that 2" of the drill bit is protruding out from the drill chuck tip. Tighten chuck to securely hold drill bit at center of chuck. When drilling pilot holes, drill into the wood until the end of the chuck touches the lumber surface.



Proper pilot hole diameter and hole depth for various lag screws and wood types

Lag Screw Size	Wood Type	Pilot hole drill diameter and hole depth
1/4"	Soft Wood	3/32" drill bit diam., depth equals screw length
	Hard Wood	3/16" drill bit diam., depth equals screw length
3/8"	Soft Wood	11/64" drill bit diam., depth equals screw length
	Hard Wood	1/4" drill bit diam., depth equals screw length

3. Identify the four 9/16" holes which are on the sides of the gussets in the elbow bracket.
4. Drill 11/64" x 2" deep pilot holes at the center of four 9/16" Holes. Locate pilot holes at the center of each 9/16" hole.
5. Drive one 3/8" x 2" Lag Screw through each 9/16" hole into the pilot holes you drilled in step 4, using a 9/16" Socket



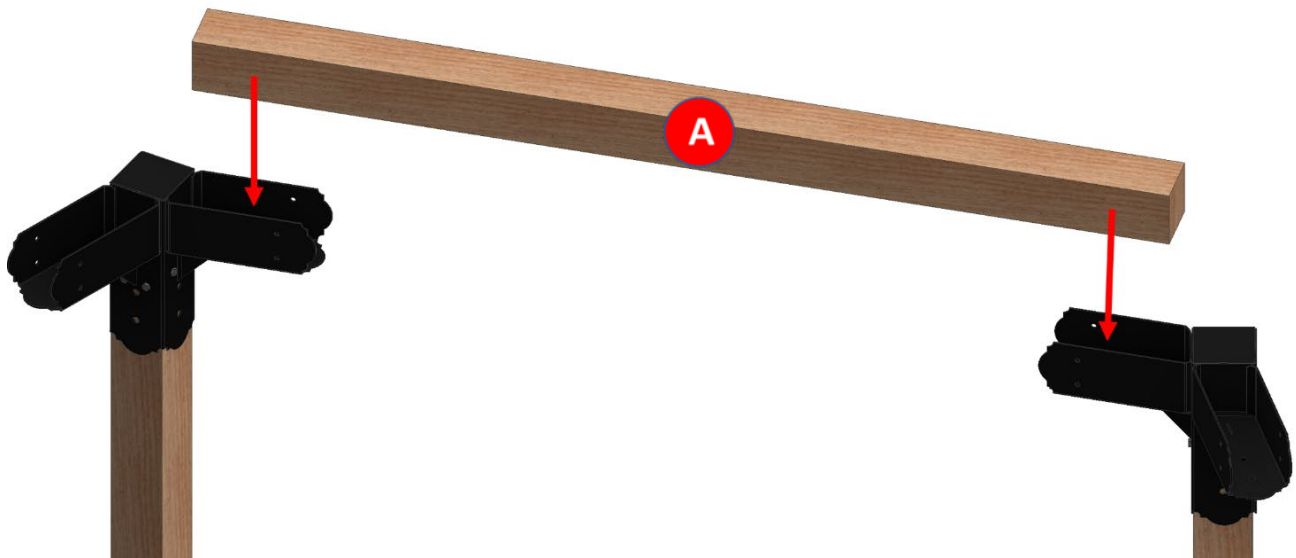
and Ratchet driver. Tighten down each screw.



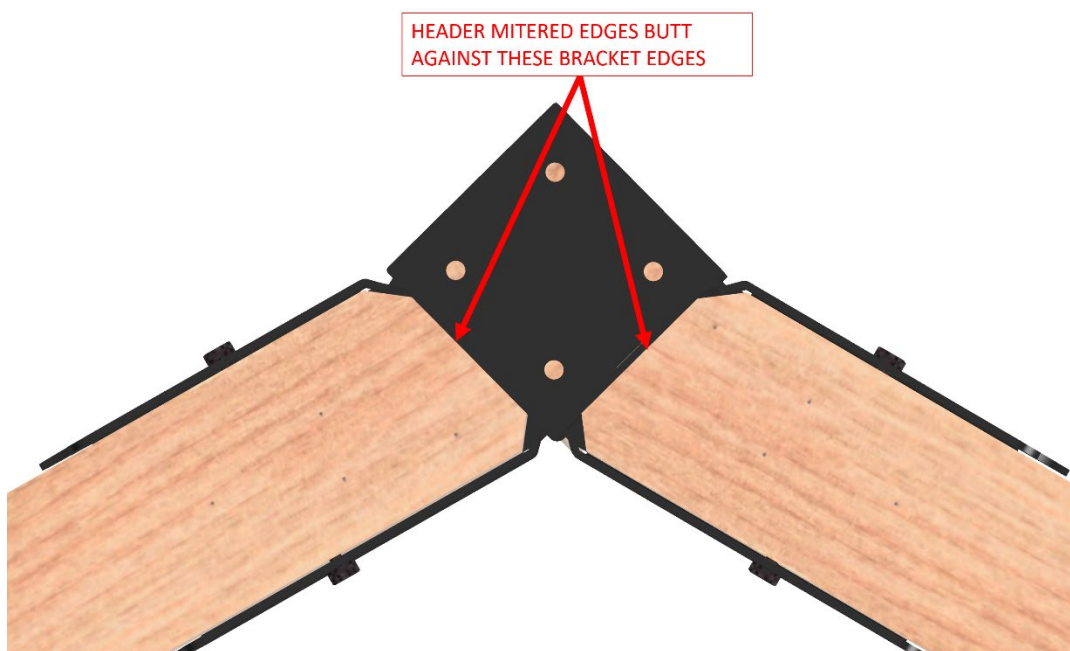
6. Repeat steps 1 through 5 for all post top brackets.

1.6 HEADERS INSTALLATION

1. Lift and place one 6x6 header into the U-channels of adjacent post top brackets.



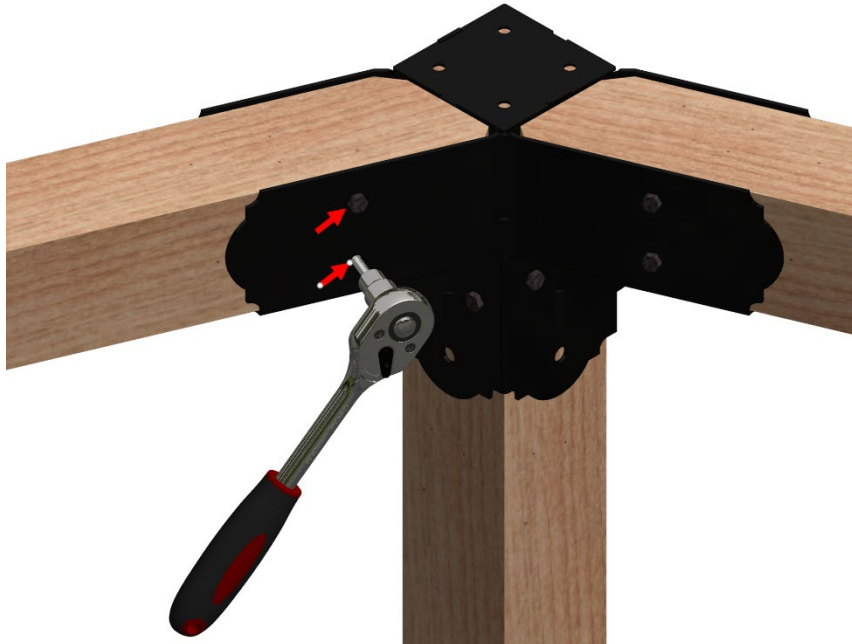
2. The resting positions of headers in the U-channels are shown, below.



3. Locate the two 9/16" holes on each vertical face of the U-channels holding the 6x6 header. Drill 11/64" x 2" deep pilot holes at the center of four 9/16" Holes. Locate pilot holes at the center of each 9/16" hole. Repeat for the opposite end of the header.



4. Drive one 3/8" x 2" Lag Screw through each 9/16" hole into the pilot holes you drilled in step 8, using a 9/16" Socket and Ratchet driver. Tighten down each screw. Repeat for opposite side of the U-channel and the opposite end of the header.



5. Repeat steps 1-4 for all headers.