American Eagle Basketball Systems Assembly Instructions

Thank you for your purchase of an American Eagle Basketball System. These instructions will walk you through the assembly process step by step.

Tools you will need to complete the assembly:

1 – 1 1/8" wrench or an adjustable wrench
2 – ¾" wrench or socket and ratchet
1 – 9/16" wrench
1 – 9/16" socket and ratchet
1 – 2' or 4' level
1 – 8' step ladder or telescopic folding ladder - Preferred

Step 1: Anchor System: Assembly & Installation

WARNING
Please call your local "Call before you dig" center to have the underground utilities marked/located at least 48 hours before you plan to dig. Failure to do so could result in serious or fatal injury.

Remove the (2) U-Bolts, template and hardware bag from the box. Thread (1) nut onto each of the (4) threaded rods leaving 3" of bolt exposed above the nut. Lay the (2) U-Bolts side by side to determine which is the shorter of the two. Insert the shorter U-Bolt into the template first. Thread (1) nut down on top of the template and tighten with an 1 1/8" wrench or an adjustable wrench. Insert the longer U-Bolt into the template creating an X pattern. Thread (1) nut onto theses rods and tighten as above. Using the supplied zip ties secure the threaded rods where they cross creating an X. Place (2) washers onto each of the (4) threaded rods and thread on another nut.
You will need a minimum of 8 bags (80#) of concrete mix. Determine the desired location of the goal and dig a hole to a minimum size of 2' x 2'x 3 1/2' deep. An undersized hole will likely result in an unstable pole that will lean over time. Once the hole is finished, mix the concrete per the instructions on the bag inserting (4) 36" long pieces of rebar (not supplied). Push the anchor down into the wet concrete with the bolts up and the top face of the anchor template level and square with the playing surface. Check and recheck to be sure the anchor remains level and square over the next several minuets as it my settle in the wet concrete. Once you are satisfied that the anchor is in at the correct height and is level, you will need to let the concrete set up per the instructions on the concrete bags. We recommend a <u>minimum</u> of 72 hours cure time before you continue with the assembly of your American Eagle Basketball goal.

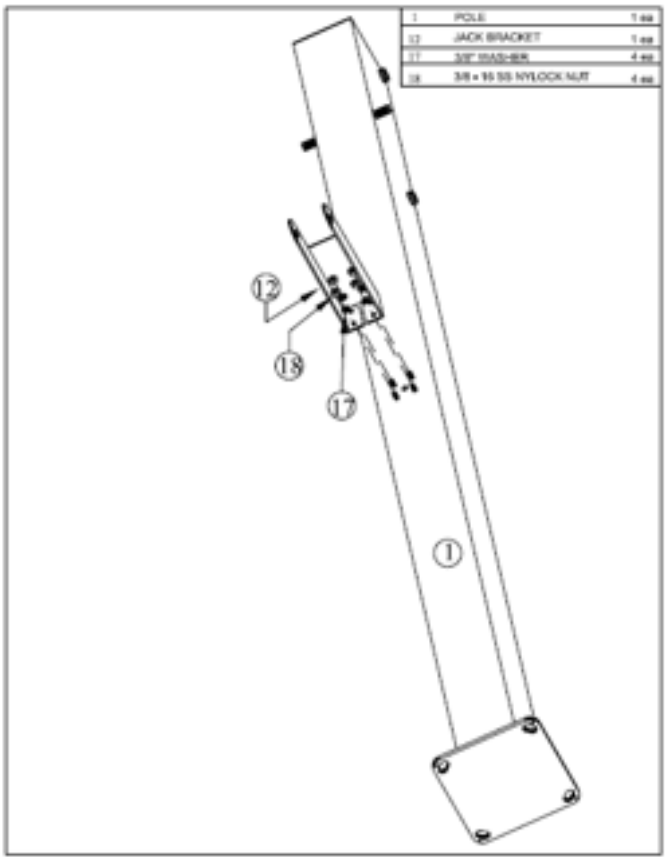
General Overview - Day of Installation

It is a good idea at this point to familiarize yourself with the overall unit. You will find Figure A at the end of these instructions which shows an exploded view of the overall unit. Please remember that all of these parts are fairly heavy and they need to be handled with caution. You will need at least one other person also capable heavy lifting to help with the assembly of this unit. Additional help may be necessary during heavy lifting.

Anchor preparation: Remove the top nut and (1) washer from each of the (4) bolts. Using a small level adjust the nuts on top of the template so they are all level front to back and side to side with each other. Set the top nuts and washers aside for now.

Step 2: Jack Bracket Attachment

Attach the jack bracket to the pole with the open side facing down (towards the base plate) with (4) 3/8" stainless steel washers and (4) 3/8" stainless steel lock nuts. The jack bracket is located in the small long hardware box along with the jack itself. Tighten the 3/8 nuts with the 9/16 socket and ratchet. Refer to the figure below if needed.



Step 3: Lower Arm Attachment

IMPORTANT
Each of the pivot points on the lower arm use a combination of a stainless steel tube, a nylon tube, stainless steel washer and plastic washers. These pieces all work together to provide a corrosion resistant bearing surface for the lower arm to pivot on. There is no metal to metal contact at these joints, therefore it is important that you assemble the components in the correct order.

Locate 4 of the ½"-13 x 3 ½" long stainless steel bolts and slip the following items down onto all 4 of these bolts. They must go on in this order:

1 pc 1 7/8" OD x ½" ID Stainless Steel washer
1 pc 5/8" OD x ½" ID x 2 ¼" long Stainless Steel tube
1 pc 7/8" OD x 5/8" ID x 2 ¼" long gray nylon tube
1 pc 2" OD x 7/8" ID black plastic washer

Utilizing the pole box as a protective working surface in front of the anchor, place the base of the pole against the front set of anchor bolts and rest the pole on the cardboard covered driveway with the jack bracket facing up. Locate the lower "H" or "Y" arm depending on your specific system as well as (2) of the (4) bolt assemblies listed above and an additional (2) black plastic washers that will be placed between the arm and the pole.

While one person lifts and holds the top of the pole at about chest height with the base of the pole positioned against the front anchor bolts the other person(s) will move the lower arm into position. Position the arm below the (2) welded safety catch studs located on the sides of the pole between the upper and lower arm attachment points. Once aligned finger tighten the 1/2"x 3 1/2" bolts. Remember the 2"OD black plastic washer between the pole and the lower arm. Make sure that the washer between the pole and the lower arm fits over the end of the 2 ¼" long gray nylon tube. These washers are important as they prevent any metal to metal contact between the pole and the lower arm. Allow the arm to hang in a vertical fashion and lower the pole so it is supported by the arm. Be careful not to bump into and knock over the pole while being supported by the arm. This is especially important when a H-Arm is being installed. <u>Do not tighten the bolts with the wrench until the jack has been attached to the arm.</u>

Please refer to the illustration on the following page.

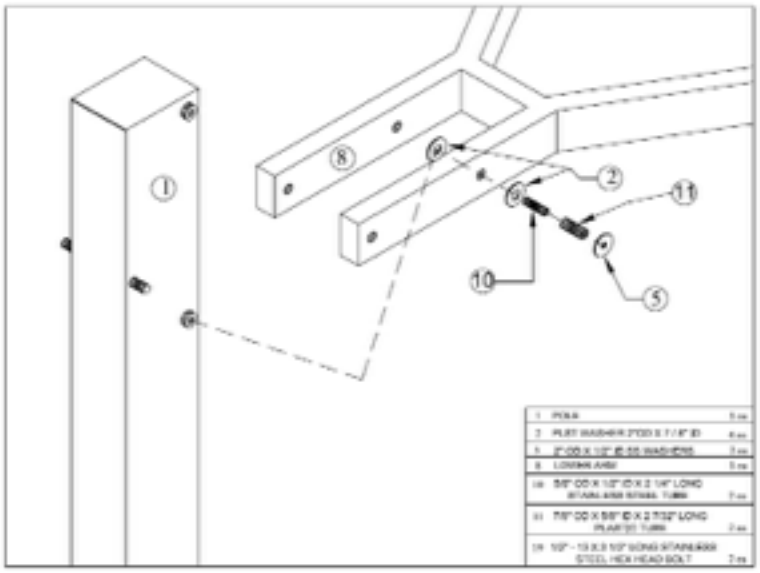


Figure of the lower arm attaching to the pole

Step 4: Attaching the Jack to the Jack Bracket

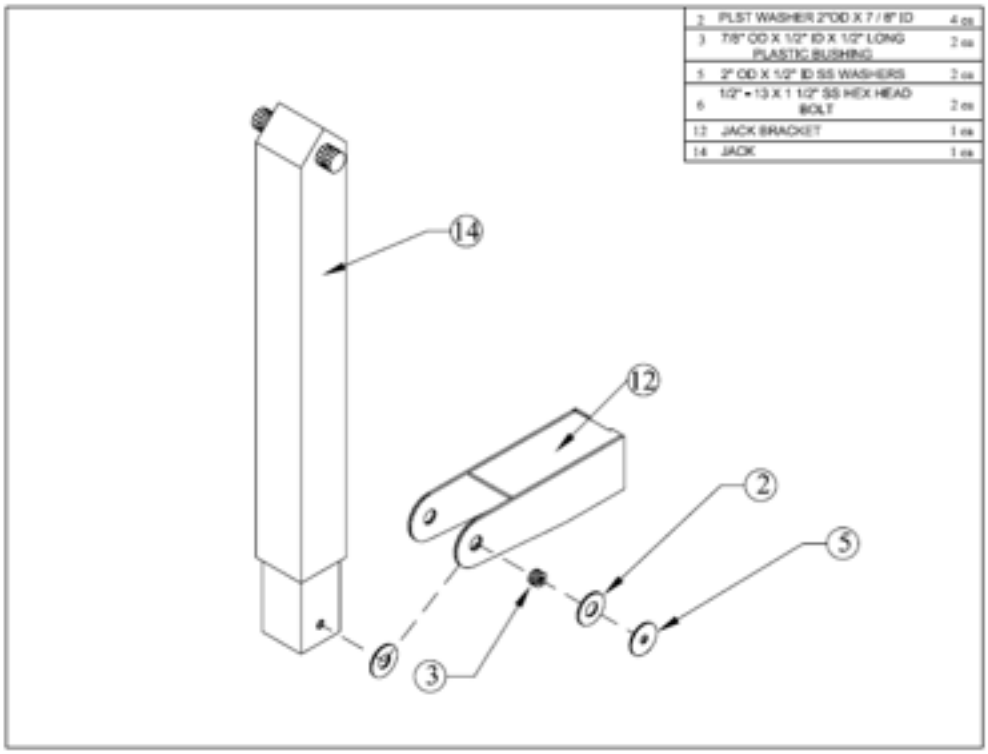
Locate and unwrap the jack leaving the plastic zip tie intact. Attach the handle to the jack and crank it several rotations extending the jack part of the way. Set the jack aside.

Now you are ready to attach the bottom of the jack to the jack bracket. Locate 2 of the ½"-13 x 1 ½" Stainless Steel bolts. Now slip the following parts down onto each of these bolts in the following order:

1 pc 1 7/8" OD x ½" ID Stainless Steel washer
1 pc 7/8" OD x ½" ID x 7/16" long gray nylon tube
1 pc 2" OD x 7/8" ID black plastic washer

While holding the bottom portion of the jack above the jack bracket in one hand, lay the upper portion of the jack on the pole using a piece of cardboard or a styrofoam block from the pole box to prevent the jack from scratching the pole.

Now insert one of the bolts with the 3 parts listed above on it through the hole in the jack bracket and slip another 2" OD black plastic washer between the side of the jack and the jack bracket and start the bolt into the hole in the jack. Then run the bolt in and back it out 2 full turns. Repeat this process with the other bolt and then tighten both bolts securely. These details are shown in the figure on the following page.



Step 5: Attaching the Jack to the Lower Arm

Locate the Jack Pin and the other (2) pivot bolt assemblies from Step 3 as they will be used to attach the jack to the lower arm. The Jack Pin is powder coated black and is 1 ¼" diameter by 7 ¼" long. Remove the plastic zip tie from the top of the jack and slide the jack pin through the jack making sure it passes through the inner components of the jack as well. You may need to apply a small amount or grease to the jack pin in order for it to smoothly pass through the rubber inserts of the jack.

You can now insert the (2) remaining pivot bolts into the lower arm in preparation for attaching the jack. Once inserted into the arm slide the bolts back out of the gray nylon tube just enough so they are flush with the inside of the arm. Again, remember to put the 2" OD black plastic washer on the inside of the lower arm between the lower arm and the jack pin.

With the assistance of another person support the upper portion of the jack while cranking the handle to extend the jack. Extend the jack until the holes in the jack pin line up with the pivot bolts you just inserted into the lower arm. Tighten all (4) pivot bolts in the lower arm at this time. You will need to tighten both jack pin bolts at the same time once they have been started by hand. Be sure to start the bolts by hand to eliminate the slight possibility of cross threading. See the figure on the following page for details.

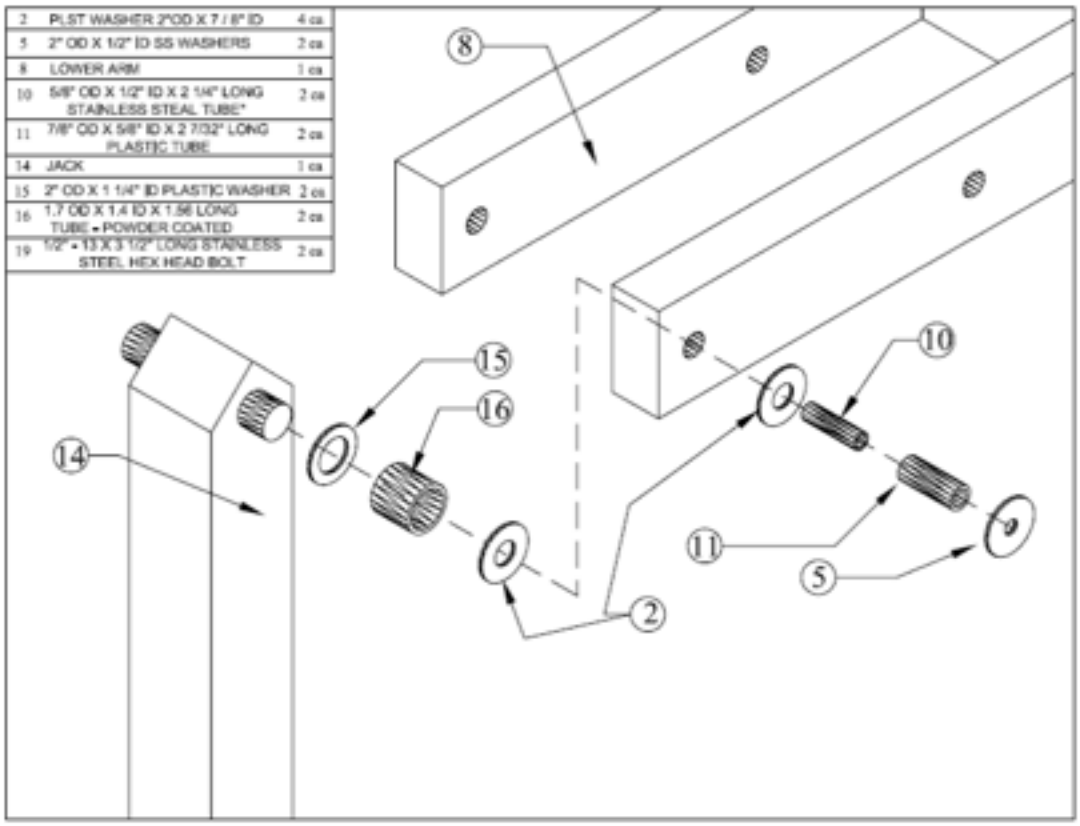


Figure showing the top of the jack to lower arm details.
Note: Items (15) and (16) are no longer used and should be ignored.

Step 6: Attaching the Upper Arms to the Pole

Now you are ready to attach the upper arms to the top of the pole which are located in the backboard box. The upper arms are zip tied to the backside of the backboard frame. Locate the 1/2"-13 x 9" SS bolt. Now place the following parts down onto the bolt in the following order:

1 pc 1 7/8" OD x 1/2" ID Stainless Steel washer
1 pc 7/8" OD x 1/2" ID x 7/16" long gray nylon tube
1 pc 2" OD x 7/8" ID black plastic washer

Now insert the bolt with the 3 parts on it through the hole in the pole end of the upper arm. Then insert a 2" OD black plastic washer between the upper arm and the pole and slide the bolt through the pole. Repeat the layering of washers for the other arm and tighten the bolt securely. Do not over tighten the bolt as this will tend to crush the nylon tube. These details are shown in the figure on the following page.

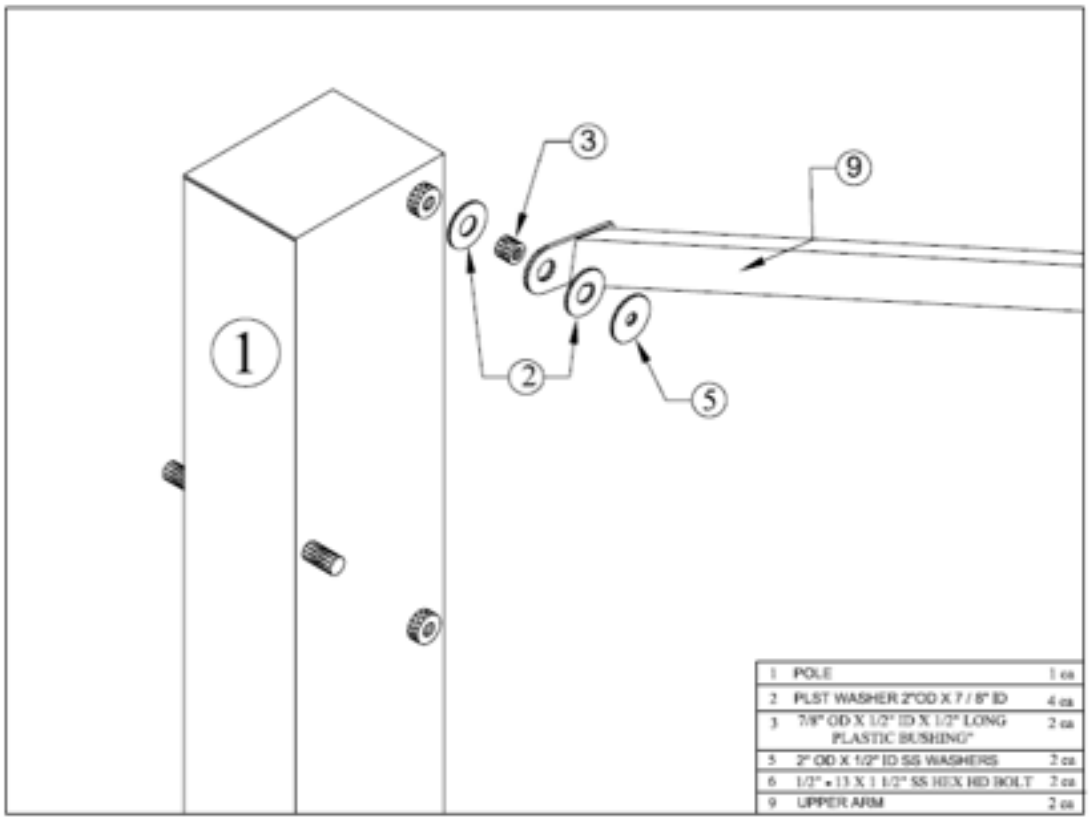


Figure of the upper arm to pole attachment

Step 7: Uprighting the pole

***Warning: The assembled pole is extremely heavy. The following procedure will require <u>at least</u> two adults capable of heavy lifting.**

With one adult positioned at the top of the pole between the upper arms and the second adult squatted down beneath the pole below the lower arm begin to slowly lift the pole. As the pole is lifted both adults will work their way down the pole while fully supporting it at all times until it is resting on the anchor. *(One adult should remain in contact with the pole assembly at all times as it will be front heavy and will not stand on its own without being fastened to the anchor.)* Place a washer on each of the (4) bolts and hand tighten the (4) nuts until they come in contact with the base plate of the pole. Do not fully tighten the nuts at this time as you may need to fine tune the squareness of the blackboard to the driveway once it is installed.

Step 8: Attaching the Backboard Frame to the Lower Arm

Now you are ready to attach the bottom of the backboard to the lower arm. Please note that the lower arm mounts on the inside of the mounting brackets on the backboard frame. Locate 2 of the ½"-13 x 1 ½" Stainless Steel bolts. Now slip the following parts down onto each of these bolts in the following order:

1 pc 1 7/8" OD x 1/2" ID Stainless Steel washer
1 pc 7/8" OD x 1/2" ID x 3/4" long gray nylon tube
1 pc 2" OD x 7/8" ID black plastic washer

Now insert one of the bolts with the 3 parts on it through the hole in the backboard frame from the outside to the inside. Then insert a 2" OD black plastic washer between the lower arm and the backboard frame. Then insert another 2" OD black plastic washer, a 1 7/8" OD stainless steel washer over the protruding gray nylon tube and put a 1/2" – 13 stainless steel nut and tighten the nut securely. Repeat this process on the other side of the lower arm. Be sure to have someone hold the backboard frame upright until you have the upper arms attached securely. The figure below shows the details of the parts used in this step.

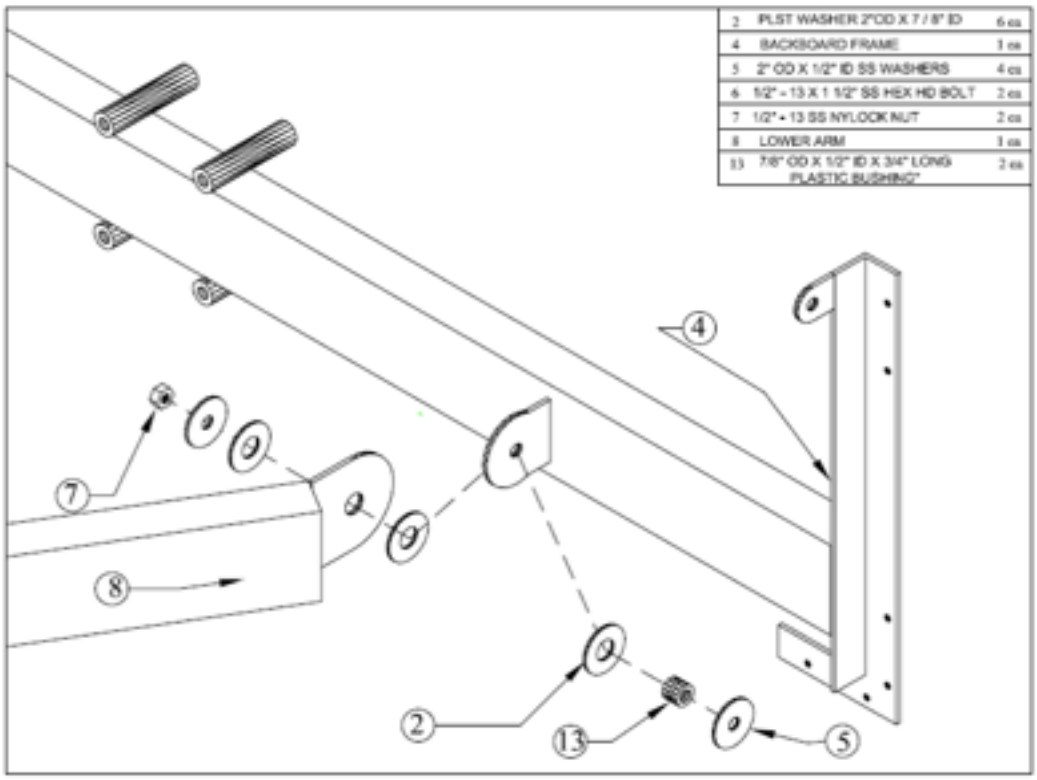


Figure of the lower arm to backboard frame attachment

Step 9: Attaching the Upper Arms to the Backboard Frame

Now you are ready to attach the upper arms to the top of the backboard frame and the pole. Please note that the upper arms mount on the inside of the mounting brackets on the backboard frame. Locate 2 of the 1/2"-13 x 1 ½" Stainless Steel bolts. Now slip the following parts down onto each of these bolts in the following order:

1 pc 1 7/8" OD x 1/2" ID Stainless Steel washer
1 pc 7/8" OD x 1/2" ID x 3/4" long gray nylon tube
1 pc 2" OD x 7/8" ID black plastic washer

Insert one of the bolts with the 3 parts on it through the hole in the backboard frame from the outside to the inside. Then place a 2" OD black plastic washer between the upper arm and the backboard frame. Now insert the gray nylon tube through the hole in the upper arm. Place another 2" OD black plastic washer and a 1 7/8" OD stainless steel washer over the protruding gray nylon tube (on the inside of the upper arm) and thread a 1/2" – 13 stainless steel nut onto exposed end of the bolt and tighten the nut securely. Do not over tighten the bolts as that will tend to crush the nylon tube. These details are shown in the figure below.

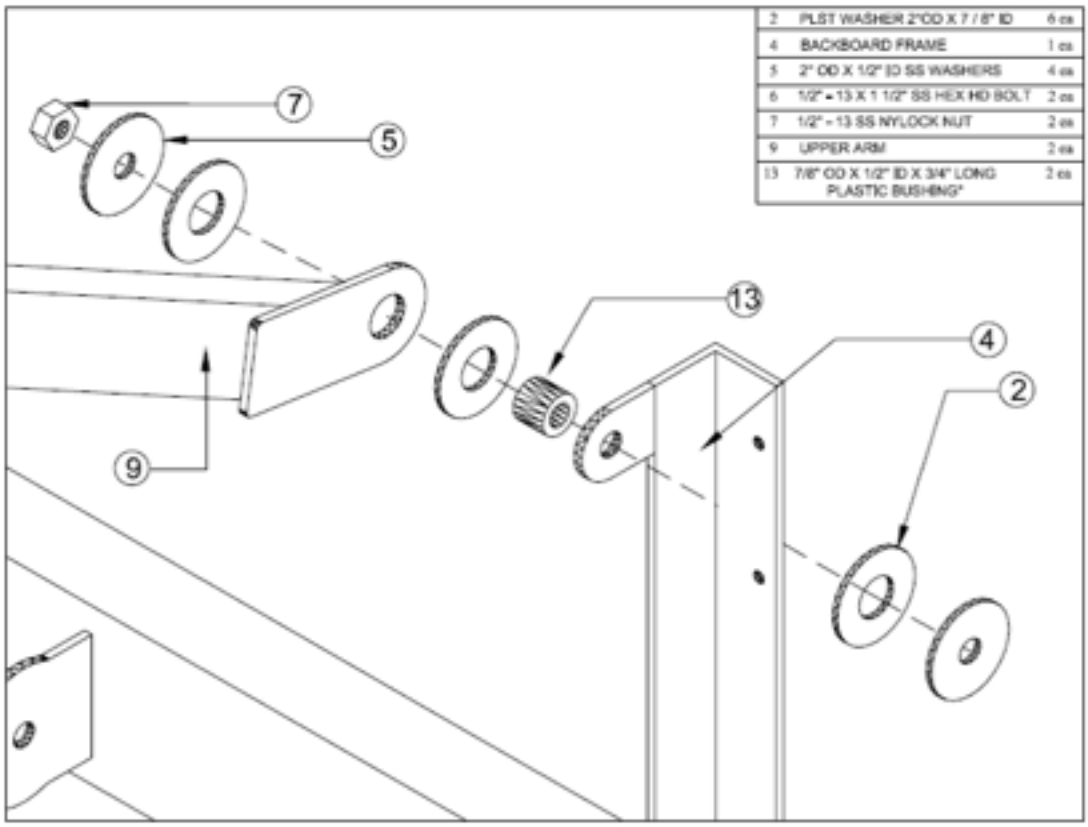


Figure of the upper arm to the backboard frame attachment

Repeat this process with the other upper arm. Again, be sure to have someone hold the backboard frame upright until you have the upper arms attached securely.

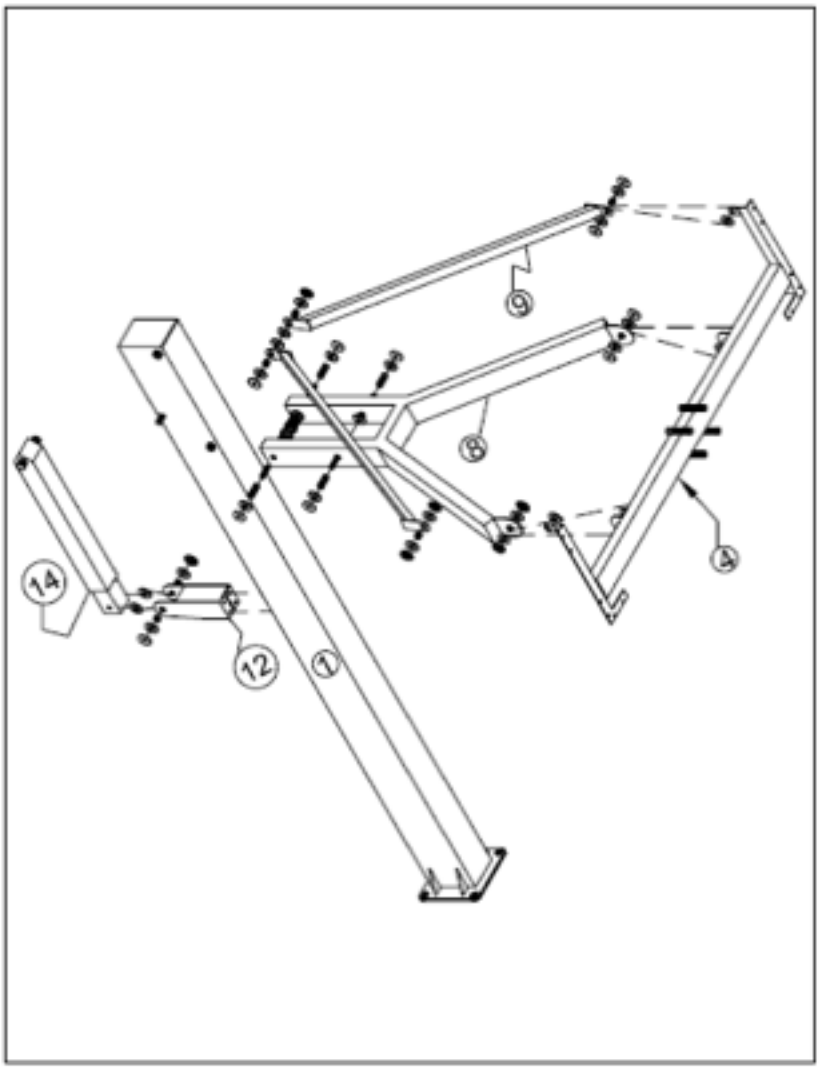
Step 10: Square the backboard to the playing area

Once the backboard has been attached and the hardware tightened, it is time to square the backboard to the playing area. With a ladder positioned in front of the backboard a person can generally grasp the backboard with two hands and fine tune the squareness of the system by rotating it on its anchor. The base of the pole has slotted holes and will allow a small amount of adjustment. Once the backboard is square with the playing area check to see if the pole is level front to back and side to side and adjust the leveling nuts below the base plate if necessary. Once you are satisfied tighten all four nuts on the anchor using the 1 1/8" wrench or an adjustable wrench.

Step 11: Attaching the Rim to the Backboard

Now you are ready to attach the rim to the backboard. If the thin black rubber plate is attached to the backboard remove it by cutting the zip tie and set it aside. The rubber plate may be packed in the rim box if it is not attached to the backboard. Locate 4 of the 3/8" x 4" bolts, 4 of the 3/8" stainless steel nuts, and 8 of the 3/8 stainless steel washers. This hardware pack is located in the rim box attached to the rim cover plate. Now insert 2 of the 4 bolts with one washer on each bolt into the top two holes of the rim and through the top two holes in the backboard. Place a washer on each of the bolts on the back side of the backboard and thread a nut onto both upper bolts. Do not tighten these bolts yet. Now slip the thin black rubber plate behind the rim between the backboard and the backside of the rim plate. Now insert the other 2 rim bolts into the lower holes of the rim. Place a washer on the backside of the backboard and thread on the other 2 nuts. Place a level across the rim parallel to the backboard in order to level the rim from left to right. While a person holds the rim level another person should proceed to tighten the 4 rim bolts starting with the top 2 first. This will require (2) 9/16" wrenches or a 9/16" wrench and a ratchet with a 9/16" socket.

Now locate the rim cover and 4 small screws. Hold the cover up to the lower section of the rim and start all 4 screws. After all the screws are started then you can tighten them securely. Finally install the net per the instruction found in the box with the rim.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