

EDGE UNIVERSAL WAKEBOARD TOWER



INSTALLATION MANUAL

IMPORTANT

Please inspect all parts and read all instructions to ensure proper tower installation and assembly. Please contact Monster Tower or your dealer with any questions regarding your Edge universal wakeboard tower.

XTP - XTREME TOWER PRODUCTS / MONSTER TOWER
1205 Alpha Drive
Alpharetta, GA 30004

PHONE: 877-77-TOWER (877-778-6937) E-MAIL: support@monstertower.com

POINTS TO REMEMBER

PRE-INSTALLATION

- Installation requires more than one person. Please do not try to install alone.
- Inspect boat for easy installation access points. Some boats may need an access hole drilled to reach mounting hardware.
- If the fiberglass in the mounting area is less than 3/8" thick, reinforce it with wood or additional fiberglass for structural integrity.

HARDWARE TIGHTENING

- All hardware is to be hand tightened. Do not use air tools or electric drills to tighten hardware.
- Use Anti-Seize, petroleum jelly, WD-40 or Ivory Soap on all threaded hardware to ensure bolts can be manipulated appropriately and do not seize. Installation could be impaired without this step.
- Inspect and tighten all hardware again after the first use, then maintain tightness regularly for safety.
- If any rattling noise or excessive movement of tower occurs, check all mounting points and hardware to be sure they are tight. Contact Monster Tower (877-778-6937) or see your dealer for any assistance.
- Tower is engineered for one rider at a time. Do not tow tube riders or multiple riders with tower. See warning sticker adhered to the tower for additional precautions.

POST-INSTALLATION

 Have fun wakeboarding with your new tower. If you have any comments about the tower, please contact us. We would love to hear from you. If you need racks, speakers or other accessories, please visit our website at www.MonsterTower.com.

EDGE HARDWARE KIT

Please take the time to inspect all hardware included in the Edge hardware kit. If there are any questions concerning the kit, please contact XTP. All items should be included in the kit pictured below. **Do not** substitute any hardware when installing the tower.

Hardware List				
Item	Metric Dimension	Equivalent Inch Dimensions	Connection	Qty
1	M8 x 50 SHCS / Washer / Nylock	5/16-18 x 2"	Base to boat	8
2	M12 x 85 SHCS / Washer / Nylock	1/2-13 x 3-1/2"	Base to base swivel	4
3	M12 x 35 SHCS	1/2-13 x 1-3/8"	Attach rod end to base swivel	4
4	M12 Rod End Bearings (Heim Joint)	1/2" Rod End Bearing	Base swivel to rod end support	4
5	M12 Flat Hex Nut	1/2" Hex Jam Nut	Jam nut for rod end	4
6		3/8" – 16 x 1.75" Long	Header clamp (location tab)	8
7		3/8" - 16 x 3.5" Long / Nylock	Header clamp through tower	4
8	3" x 2" Metal Backing Plate	3" x 2"	Backing plate for under deck	4
9	Monster Paw Backing Pads	3" x 2"	Pads to boat mounts	8
10	#14 O-Rings (3/4"ID x 15/16"OD)	(optional after install)	Align rod ends to base swivel	4
11	M6 Head Allen Wrench	For M8 Bolts	Supplied tool	1
12	M10 Head Allen Wrench	For M12 Bolts	Supplied tool	1
13	Foil Packet of Anti-Seize Lubricant	This is critical to use on all bolt threads to prevent galling.		
14	3/8 inch drill bit		Supplied Tool	
15	Ratchet Quick Release Knobs		Supplied Hardware (Not Shown)	2
16	Wire Butt Connectors		Ski tow wire to existing wiring	2
SHCS - Socket Head Cap Screw (Bolt) Nylock - Nut with built in locking ring				

Each Tower is complete with 4 different legs and a header assembly. Each leg is identified as A for "Aft" or B for "Bow". There are 2 pieces for each B leg as it has a breakaway used for folding. The number 1 identifies the Port legs (A1 and B1), while the number 2 identifies the Starboard legs (A2 and B2). Pictured and labeled on following page.

Need Help? Call: 1-877-77-Tower or your local dealer

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Parts Descriptions

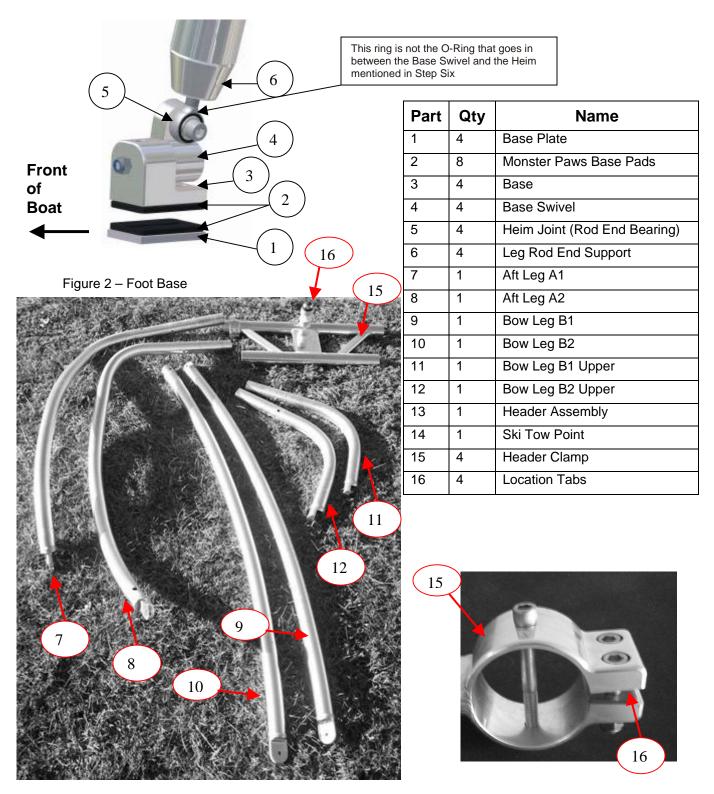


Figure 1 (Right) – Header Clamp Assembly
Figure 3 (left) – Tower Legs and Header Assembly

LAYOUT AND INSTALLATION

The following items will be needed for installation and are not included:

- Drill with reverse
- 9/16" wrench or socket (may need an extension)
- 1/8", 5/16" Drill Bits
- General purpose grease
- Masking Tape (optional)
- Vacuum
- ANTI-SEIZE, Petroleum Jelly, WD-40 or Ivory Soap

- Wire cutters
- Tape measure
- Pencil or Marker
- Tarp
- 100" of string
- 1/4" or 3/8" PT Plywood (if needed for reinforcement
- Assistance from a friend
- Safety Glasses (always use when drilling fiberglass or metal)

Lay all parts on a tarp or blanket to avoid scratches or damage to any parts during installation.

Step One – Measure Mounting Points

Plot out locations for the **mounting points**. This is where the tower will attach to the boat.

Stance/Spread

The Edge fits bow widths of 60" to 85" and aft widths of 79" to 100".

The minimum distance between the bow and aft legs is 60", while the maximum is 100". A spread outside of this range will weaken the tower. An approximate 87.5" spread will generally provide a good height and look to your tower, although this is only a general guideline.

To determine the final standing height of the tower you must take into account the distance from the bottom of the boat to the mounting points.

Access

Check for mounting points that provide easy access to the side of the hull for placement of the mounting hardware. This could be through a speaker or behind an upholstered panel. If the fiberglass in the mounting area is less than 3/8" thick, reinforce it with wood or additional fiberglass for structural integrity.

Some boats may require you to cut an access hole through an interior wall for easier assembly. If this is necessary you should use a hole saw to cut through the wall and a "pie plate" which looks similar to a plastic speaker cover, to hide the hole after tower assembly. Check with your dealer or marine supply store for a pie plate. Be sure to pick the same size of hole saw as the pie plate you find.

Also be aware of any wiring or plumbing within the hull that may be damaged by drilling. Pick a new spot if such items are in the way, or ensure they are out of the way during drilling.

Selected mounting points must have a space at least as wide as the foot block.

You may want to use masking tape to protect the gelcoat of your boat from scratching while drilling, but it is not required. If used, cover estimated mounting point locations with masking tape prior to marking any measurements.

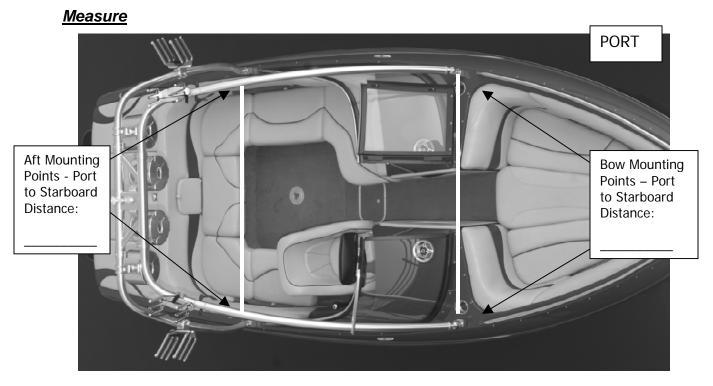


Figure 4 - Mounting Points

As a guideline, bow mounting points are usually 2" to 4" in front of the windshield, and aft mounting points are usually between 2" to 6" behind the windshield. As you plan your tower's placement, keep the ski tow centered over the boat. Before taking measurements, be sure your boat is level. Crank the trailer up or down accordingly.

BOW - Pick a bow mounting point on the port side of the boat. Measure from the nose of the boat to that point and match that distance on the starboard side. It is important the measurements be directly across from each other. Mark these mounting points on the boat with a pencil or marker. (See the "Side Mounts" section for information about that type of mounting location.)

Measure across the bow mounting points from the port to starboard side and record it above if you want help remembering it. Remember that your bow width range must be between 60" to 85".

AFT - Measure from the port bow measurement back to an appropriate aft mounting point. Match that distance on the starboard side. Mark these mounting points on the boat with a pencil or marker. (See the "Side Mounts" section for information about that type of mounting location.)

As a double check, measure from the back of the boat on each side to the aft mounting point to be sure the measurements are directly across from each other.

Measure across the aft mounting points from the port to starboard side and record it on the previous diagram if you want help remembering it.

Remember that your aft width must be between 79" to 100".

Side Mounts

If the gunnel of the boat is smaller than the foot block or gasket (when the foot block or gasket is placed parallel to the gunnel), you must mount the foot on the side of the boat.

When side mounting, find the flattest (smallest curvature) location to attach the foot block. Ensure the distance from the gunnel to the mounting point is identical on both sides. When taking your port to starboard measurements, you must measure over the side of the gunnel.

NOTE: If a set of your tower mounting points is on a curved surface and the gaps between the hull and the gasket are over 1/8", you will need to find a flatter (less curved) location for the foot, or call XTP for additional gaskets.

<u>Marking</u>

With mounting points that are within the maximum width requirements, you can proceed to finalize your measurements. Center one of the gaskets over each of the four (4) mounting points. Use the gasket as a pattern to mark the two holes for drilling at each mounting point for a total of eight (8) holes.

NOTE: Double-check your measurements, making sure you have the same measurement on both sides of your boat.

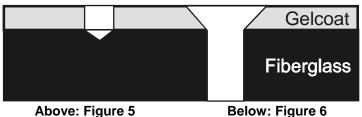
You are now ready to drill the holes.

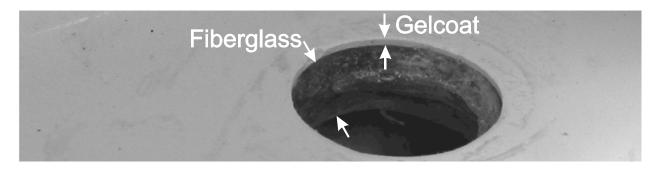
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Step Two - Drill Holes for Base/Foot Assembly

Understand the following procedures before drilling to ensure a clean hole through the deck. Boats have a very hard gelcoat surface with fiberglass under the gelcoat as shown.





The gelcoat is a very thin layer approximately 1/16th" thick and the fiberglass below it is normally about 3/8" thick. IMPORTANT: If the fiberglass below the gelcoat is less than 3/8" thick, you need to add reinforcement to build up the thickness to at least 3/8". You MUST run the drill in reverse while drilling the holes or the gelcoat will chip because it is very brittle. Remember to always run the drill in reverse for the entire hole. Finish the hole by putting a slight angle (chamfer) on the edge of the gelcoat turning the ½" drill bit by hand (without the drill) as shown on the right side in the above diagram to further protect the boat.

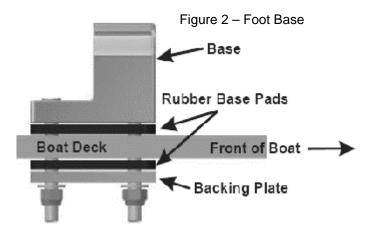
This is also a great time to have someone with the vacuum to remove the fiberglass as you are drilling. To drill the holes follow the below procedures.

- Begin with a 1/8" bit and run the drill in reverse until you are through the fiberglass.
- Repeat the same step as above with the 5/16" bit running in reverse.
- Now use the 1/2" drill bit to create a chamfer as shown on the right in figure 6.
 Do not use a drill but turn the bit by hand to create a cleaner chamfer.
- Using the backing plate, double check the location of the second hole for each base and then drill the second hole the same as above.
- Confirm the two Item 1 bolts will go through the backing plate and the two holes without binding. If needed, drill the holes to 3/8" for clearance.
- Optionally, you can use a small piece of sand paper to radius the edge of the chamfer to remove the slight edge.

Continue for each of the eight (8) holes.

Step Three – Foot Placement and Assembly

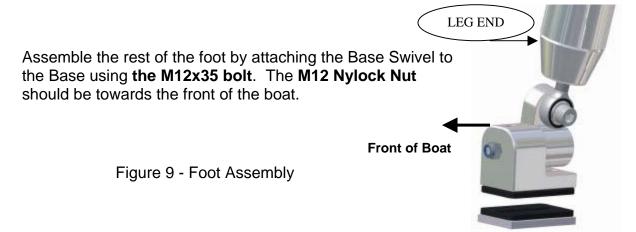
Once the holes have been drilled, position the foot base so the rounded tall end is facing the front of the boat. Insert the **5/16" (M8) bolts** through the top of the foot assembly and the rubber pads (hollow section toward fiberglass), insert bolts through the new holes in the boat's deck. **Remember to apply Anti-Seize to the entire length of the M8 bolts.**



Secure the second rubber gasket (hollow side facing hull) and then the backing plate from the underside of the hull with the **M8 Washers and Nylock Nuts** as shown to the left.
Tighten these by hand, do not use a drill or driver. There is not a specific torque specification since each boat is different.

Tighten until you begin to see the rubber gasket getting squeezed

down. Check the base to make sure it is tight and if needed, turn another ¼ turn and repeat until the base is rigid. Note: You can optionally add non-adhesive caulk/sealant between the top of the boat and the rubber gasket to ensure a waterproof seal. If you are adding wood to the underside of your deck, the wood will go between the deck and the rubber base pad under the deck of the boat.



<u>IMPORTANT:</u> The Heim joint should always be positioned to the back of the base as shown in Figure 10. This ensures the base does not contact the rear leg when the tower is folded for storage. The base swivel can be mounted with the M12x35 bolt either towards the inside of the boat or on the outside depending on necessary clearance. The M12 Nylock Nut should be towards the front of the boat.

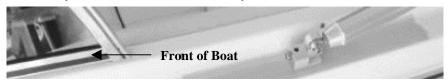


Figure 10 – Foot Placement – Joint Base to the Back of the Boat

A1 LEG

Step Four – Header Clamp Attachment

Outside of the boat, lay out your header with the ski tow facing the back of the boat with the A1 leg on the Port side and the A2 leg on Starboard side.

Slide a header clamp onto each end of the aft parts of the header with the side for the location tab and bolts facing the front of the boat.

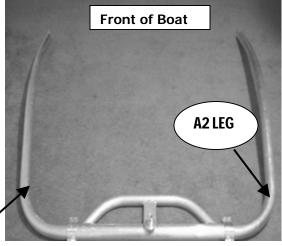


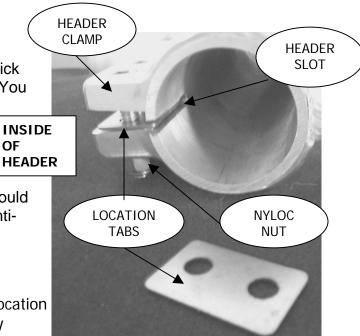
Figure 11 - Aft Leg Layout (different tower model may be pictured)

Location Tab

Attach the location tabs to the Aft header clamps. The location tab **will not** be flush with the edge of the clamp, but rather will stick out about 1/8" on the INSIDE of the clamp. You may have to flip the location tab around to ensure it sticks out. The tab helps keep the clamp from rotating and binding during assembly. See **Figure 12**.

Use Nylock nuts to secure the bolt. Nuts should be on the underside of the header. Apply antiseize to all threaded hardware.

Figure 12 - Location Tab Assembly



Put a header clamp onto the header assembly for each aft leg. Make sure that the location tab is placed into the slot on the header. The header clamp should be sitting in the slot about 1/8" inside the header. Tighten to hold the clamp onto the header, but don't tighten all the way.

Before inserting legs into the header you need to pull the wire for the ski tow light.

Step Five – Connecting Ski Tow Anchor Light

You need to run the Coast Guard approved ski tow anchor light wire out of the header on the appropriate side to go through the **A1** or **A2** leg depending on the location of your auxiliary lighting.

Locate Auxiliary Lighting

Determine on what side of the boat the ski tow light will be connected. Usually the wire can be spliced into any auxiliary lighting which is often on the starboard side, however; if you have any questions, check you owners' manual or call your dealer to help you find the appropriate location.

Once you have found where to splice in the ski tow wire choose which **aft (A) leg** that you will pull the wire through.

Important: Make sure that you have disconnected your battery(s) to prevent the risk of shock when working with electrical components.

Exit Hole

There is a small hole near the base of the aft leg that can be used as an exit hole for the wires. However, if you later add speakers, this hole may not be large enough in diameter to accommodate all the wires. If you choose to create a larger exit hole, use the 3/8" bit included in the hardware kit to drill a hole at least 2" above the end of the leg as an exit hole for the ski tow anchor light wire. Choose a location that will result in the wire exiting closest to the wires in your boat to which it will need to be spliced.

Wire Threading – 2 Methods

Vacuum Method:

On the open end of the chosen **aft (A) leg** (end opposite the exit hole), put a vacuum hose. If the vacuum hose is smaller than the pipe diameter, use some masking tape or your hands to create a good seal. The idea is to get the string threaded from the exit hole through the open end of the pipe for the purpose of attaching it to the wire and pulling the wires back through the pipe and out through the exit hole.

Take the 100" piece of string and thread it into the exit hole. Turn the vacuum on to pull the string through the leg while you continue to feed it through. If it's not sucking the string by itself attach a small portion of a plastic bag to the string and try sucking it through. You may want to tie the other end of the string around the end of the pipe to ensure the vacuum won't take all of it.

When you have string through the opposite end of the leg, (you may need to fish out the string with a coat hanger) tie or tape the string to the ski tow wire coming out of the header. Be sure the tape or knot is small enough to be pulled out through the exit hole in the leg.

Wire Method:

An alternative method is to use 7' or so of light, semi-flexible wire that can be pushed up from the exit hole, around the bend of the tower leg and to the opening. Do not lose the

end at the exit hole. Attach the ski tow light wire to the threaded wire with tape. Be sure the taped section can still pass out through the exit hole.

Then at the exit hole, pull the wire with the attached ski tow anchor light wire back down the tower leg and out the exit hole.

After the ski tow anchor light wire is outside of the exit hole, use Butt Connectors for splicing it into boat wiring. Make sure that the wire is pulled tight so as not to interfere with the **(aft) A leg** telescoping inside the header assembly. See **Figure 13**.

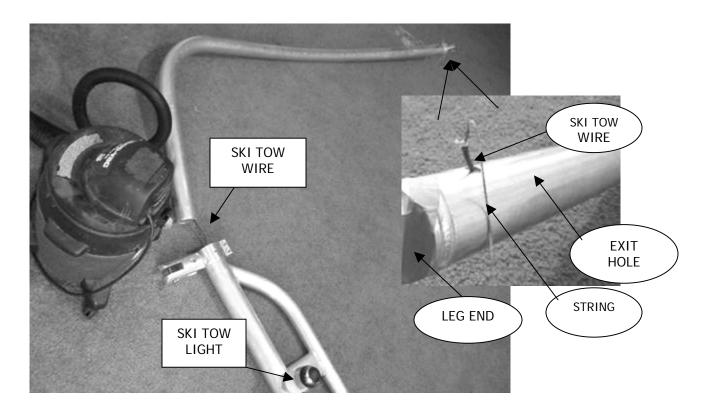


Figure 13 - Ski Tow Wire Threading (different tower model may be pictured)

NOTE: Do not attempt speaker installation at this time. Wait until tower is set up and rigid to find appropriate speaker mounting points.

Step Six – Aft Leg Attachment



Before moving the rear legs and header/top section to the boat, check that the Heim joints are screwed into the end of each leg as far as possible as shown to the left.

While still outside of the boat and with the parts laid out on a tarp or blanket, place the **aft (A) legs** into the header. **A1** is the Port side and **A2** is the Starboard side. You may need to use WD-40 or baby powder to help the legs slide into the header. Get the legs evenly inserted on each side so that the distance between the two male pins at the end of the legs is approximately the same distance as between your two aft feet (See the distance you recorded earlier in these instructions.) The legs must be inserted into the header a minimum of 4".

With the help of a friend, pick up the header and both aft legs and place it inside of your boat with the header resting on the back and the legs lined up to be placed into the aft feet. You may want to use a towel or cushion to prevent scratching the surface of your boat.

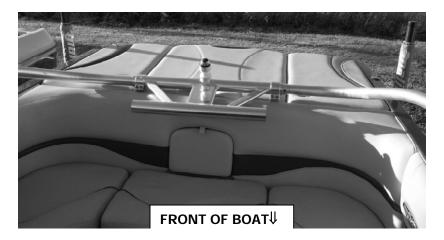


Figure 14 - Header and Aft Legs Lined Up

Align the legs up so they can be attached to the corresponding aft base mount. You may need to telescope the legs in or out of the header or have your friend slightly twist them to get the right angle. Don't worry about perfectly centering the header just yet.

Use the **M12x35 bolts** coated with Anti-Seize to attach the Heim joint to the Base Swivel. It is important to use the supplied o-ring on the M12x35 bolt in-between the base swivel and the Heim joint to prevent metal to metal contact.

Note: The o-ring is only used to align the Heim joint to the base swivel and is not needed after installation.

Repeat for the other aft leg.

Step Seven – Header Centering

Square up the ski tow so it is lined up with the centerline of the boat. Measure from the ski tow to each foot. When the distances are equal, the ski tow and header are centered.



Figure 15 - Measure from ski tow to aft foot on each side

Flip up the header so it is now perpendicular to the boat. Ensure your ski tow remains centered. Snug up the aft header clamps to keep the legs in place, but still don't tighten them all the way.

Step Eight – Bow Leg Attachment and Assembly

Slide the remaining two header clamps on the header with the location tabs on the inside. Follow a similar assembly as described in **Step Four** to attach location tabs. Apply anti-seize to all threaded hardware.

Insert the open end of the short portion of each **bow (B) leg** into the appropriate side of the header. B1 is the Port Side and B2 is the Starboard Side. You may need WD-40 or baby powder to make it easier to slide the legs into the header.

Snug up the bow header clamps enough so the legs don't easily fall out, but don't tighten all the way. Apply anti-seize to all threaded hardware.

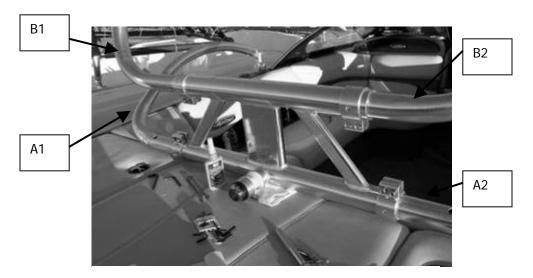


Figure 17- Header with Legs Attached

Attach the bow legs to the base mounts in a similar manner as the aft legs were mounted to the base mounts. **B1** is the Port Side and **B2** is the Starboard Side. Apply anti-seize to all threaded hardware.

See Figure 19.

With the help of a friend, raise up the header to join one of the two B legs together using the two (2) black handled bolts. You may have to rotate the header so it is fairly level and adjust the depth that the B legs are inserted into the header to line up the legs.

Check that your header is centered by measuring down from the ski tow to each bow or aft foot. Slide the bow legs in or out more to even up the sides. When the distances are equal your header is centered.

Step Nine – Tighten All Bolts – Drill Final Holes

Tighten

Now that every part has been assembled, with the provided 5/16" hex wrench and any other size wrench needed, go around the tower and hand tighten every bolt, from foot assembly to header assembly. This will ensure tower strength and stability.

Note – When tightening bolts, make sure the jam nuts on the Heim joints are tightened up to the tower. If they are not your tower will rattle.

After everything has been properly tightened, and with the tower remaining upright, you are ready to drill and secure the 3/8-16 x 3.5" bolt through the header clamp, header, and legs.

DO NOT overlook this step as this ensures stability and strength of the tower and will void your warranty if left undone.

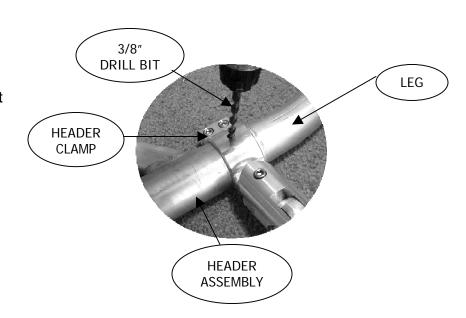


Figure 18 - Drill Hole Through Header

Drill

Wearing safety glasses and using the 3/8" drill bit provided, find the hole already in the header clamp and drill through the top and bottom of the header clamp on both ends so you have a hole all the way through the header and leg. See **Figure 20**.

You may want to have a friend hold a vacuum under the drill to collect the metal shavings.

After the holes are drilled, place the 3.5" long bolt through and use the 3/8" nyloc nuts on and hand tighten.

NOTE: It is required that you hand tighten all bolts again after the first few uses and regularly check for tightness. Any movement or rattling may mean bolts are loose or tower is not assembled correctly. If you have any questions or concerns, please contact your dealer if it was installed there, or call Monster Tower for assistance.

Congratulations! Now your new Edge tower is complete and ready for use.

How To Fold Your EDGE Tower

When you fold the tower you will need to remove the black handles used on both sides of the front legs. Be careful not to lose the handles. The aft section will fold backwards. The bow legs can be rested on the sides of the windshield or laid forward on the bow. Please have assistance when folding a tower with any accessories installed. Speakers especially add a lot of weight to a tower.

You may want to use a cushion or towel to avoid scratches to your boat or interior when you lay the legs down.



Safety Precautions For Tower Use

- This wakeboard tower should be used to tow a wakeboarder or skier only.
- Do not tow more than one (1) person at a time from this tower.
- **Do not** use this tower for towing parasails, kites, tubes, inflatable towables or other watercraft.
- Do not jump or dive off this tower.
- **Do not** climb on, hang on, or sit on top of the tower at any time.
- **Do not** allow passengers to sit behind the rope attachment point when the tower is in use.
- Check to be certain all bolts are tight and in place before each use of the tower.
- Accessories may increase the weight of the tower. Do not fold tower without assistance.
- Do not use the tower if bolts are loose, missing or the tower shows cracks or other signs of stress.
- When using this tower, watch for low bridges, overhanging tree limbs or power lines that may come in contact with the tower.
- Use of this tower may affect the boat driver's vision and lines of sight.
 Improper use may overstress the tower, imbalance the boat, or allow the tow rope to contact passengers.
- Failure to adhere to these guidelines may cause personal injury or death.

WARRANTY

Xtreme Tower Products (XTP) warrants that for a period of five (5) years from the date of retail sale, XTP will repair directly, or supply parts for the repair of any material cracks, factures, or structural failures that are a result of a manufacturing defect. Anodizing and any hardware corrosion are specifically excluded, as its care and use cannot be controlled by XTP. Any modification or improper use, not approved in writing by XTP shall void this warranty. XTP's obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages resulting from delay or improper installation of the tower. No dealer, retailer, or manufacturer is the agency of XTP and may not assume for XTP any liability in connection with this warranty. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

A return authorization must be obtained from Monster Tower prior to the return of any product for any reason. Please call Customer Service at 1-877-586-9377 to obtain confirmation. When you ship the item, please use appropriate shipping insurance and include a copy of the invoice as well as the reason for return. Defects must be reported to XTP in writing or via phone within 30 days of discovery.