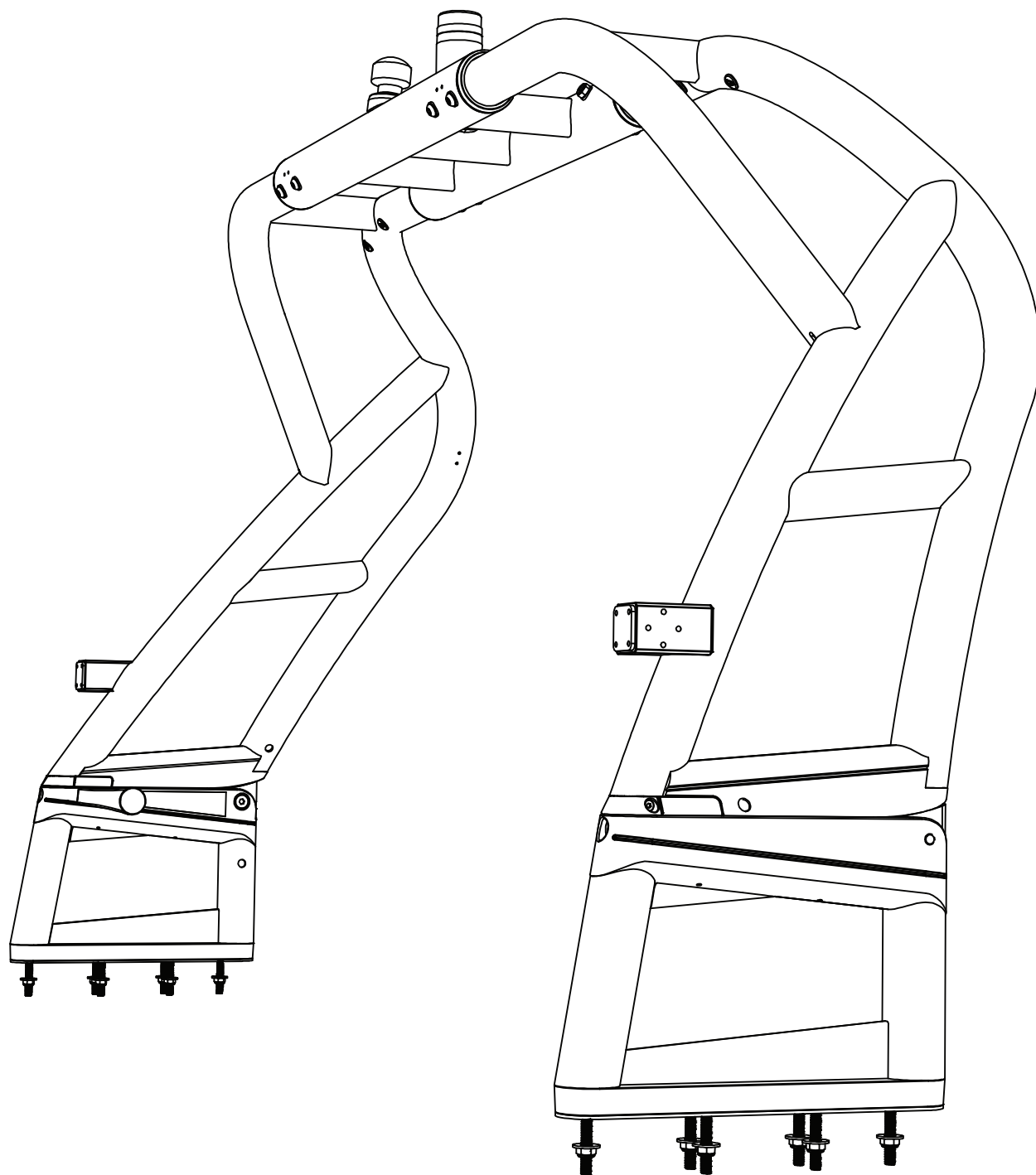


ROSWELL.

WAKE-AIR



OEM Roswell Aviator Tower Installation Instructions

C910-3116 & C910-3117

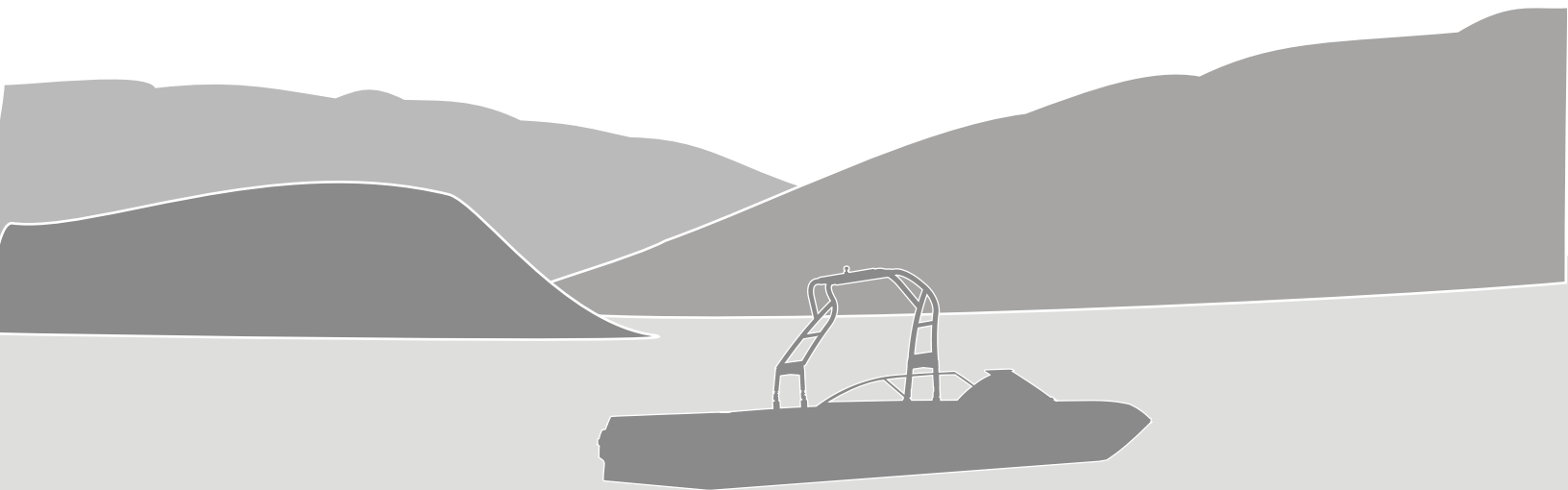
Thank you for purchasing the best tower in the world. We at Roswell started a revolution in the wakeboard industry back in 1998 and continue to push the boundaries today. We are fully committed to going past industry expectations every day to make your wakeboard experience more enjoyable. With the input of our team riders, our goal remains to redefine the wakeboard industry day in and day out. We will not be confined to our desks; we are out on the water testing our full line of products to take any unnecessary hassle out of your wakeboard experience. Thanks again for choosing Roswell and keep an eye out for more dominating technology throughout the season...

Sincerely,

Robert Oswell
Owner, Designer, Wakeboarder

NOTES

- We suggest reading through the installation procedures in their entirety before beginning the actual installation. Failure to do so may result in damage to your boat and possible injury to you and/or your friends. **PLEASE FOLLOW THE INSTRUCTIONS PROVIDED WITHIN.**
- This process will require a minimum of two people. The tower needs to be lifted on to the boat, so 2 or 3 people makes the job go well and protects your boat at the same time.
- Throughout these instructions, you will see the need for permanent strength Loctite (red). **IT IS EXTREMELY IMPORTANT THAT THESE STEPS ARE CAREFULLY FOLLOWED.**



SETUP

Prepare your workspace:

Clear an area near the boat. Make sure there is an unobstructed path from the boat to the setup area. We suggest assembling the tower on a dropcloth to prevent damaging or scratching the finish of the tower. Make sure there are no overhead obstructions (rafters, garage door, hanging light fixtures, etc.)

To properly support the tower, a 5/8" minimum boat deck/hull thickness is recommended. Proper reinforcement procedures can be found on page 7 of this manual.

Unpack the tower:

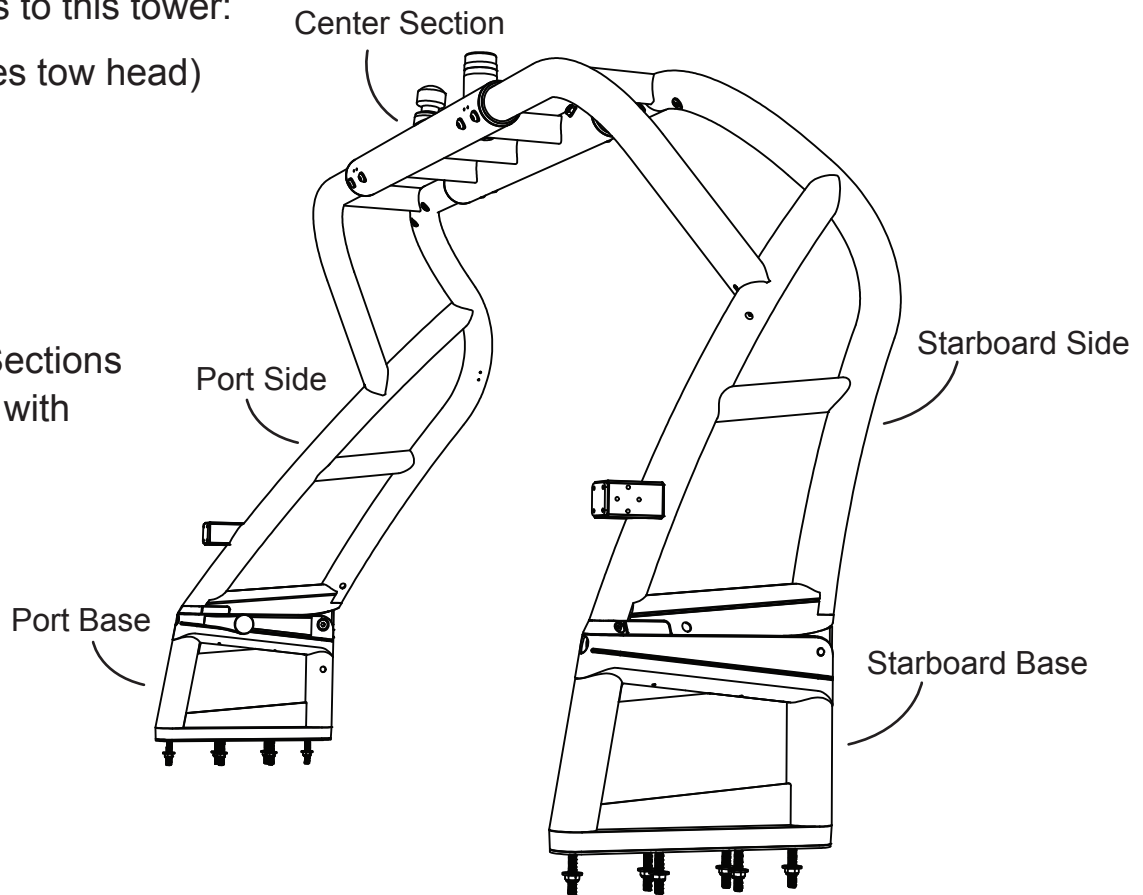
Be careful to avoid marking or scratching when removing the tower from its packaging. As you unpack each part, carefully lay them out on the dropcloth.

Tower sections:

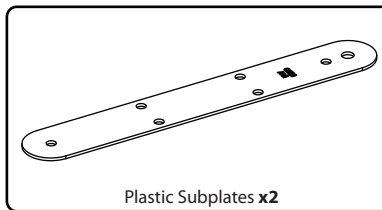
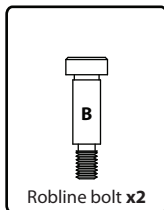
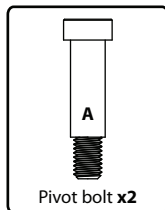
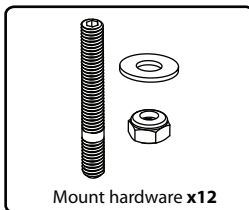
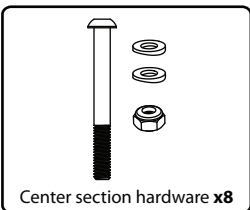
There are 5 main sections to this tower:

1. Center Section (includes tow head)
2. Port Side (left)
3. Port Base
4. Starboard Side (right)
5. Starboard Base

The Port and Starboard Sections should be clearly marked with P & S Stickers.



Additional Parts and Hardware:



Tools you will need:

7/32" Allen Key
1/4" Allen Key
3/16" Allen Key
5/16" Allen Key

Torque & Socket Wrench
Red Loctite
Blue Loctite
9/16" Deep Socket
9/16" Wrench

Drill

1/8" Drill Bit
3/8" Drill Bit
27/64" Drill Bit
Countersink Bit

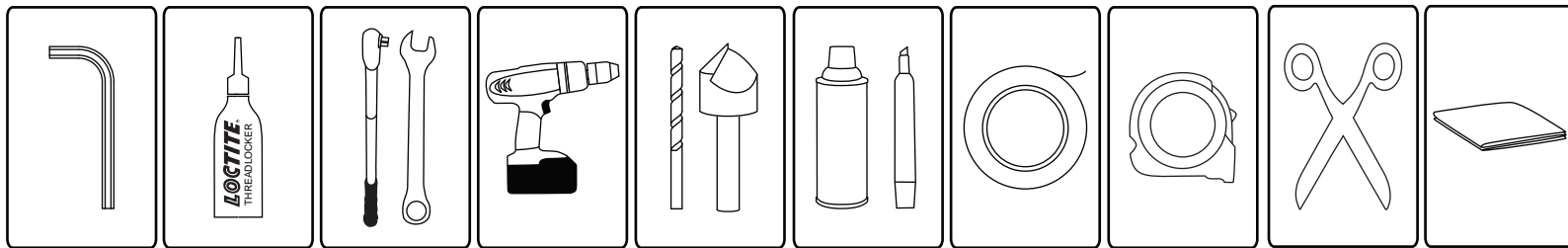
Anti-Seize
Marker

Low Tack
Masking Tape

Tape Measure

Scissors

Drop Cloth



Note

Remove the hardware as necessary to ensure that parts are not lost. You may want to take pictures of the pre-assembled parts to use as a reference in case you need to take them apart.

This tower is designed to work with boats that have a beam width of 79 to 96 inches. If your boat's beam width is between 96 and 102 inches, contact your local dealer to obtain a wider center section. If your boat's beam width falls outside these dimensions, contact Roswell Wake-Air for further support.

A

ALL ASSEMBLY SHOULD OCCUR ON A PROTECTIVE DROPCLOTH TO AVOID DAMAGING PAINTED SURFACES

Apply Red Loctite to the pivot bolt and fasten the starboard side section to the starboard base by passing the bolt through the front axis point as shown below. Repeat for the port side.

Torque bolt to 25ft/lbs

5/16"

LOCTITE THREADLOCKER

A x2

B

Lay each assembly on it's side. Pivot the side section and lower the robline thimble(1) down into the robline opening, then apply Red Loctite, insert and fasten bolt (2). Repeat for the port side.

Torque bolt to 25ft/lbs

1/4"

LOCTITE THREADLOCKER

B x2

1)

2)

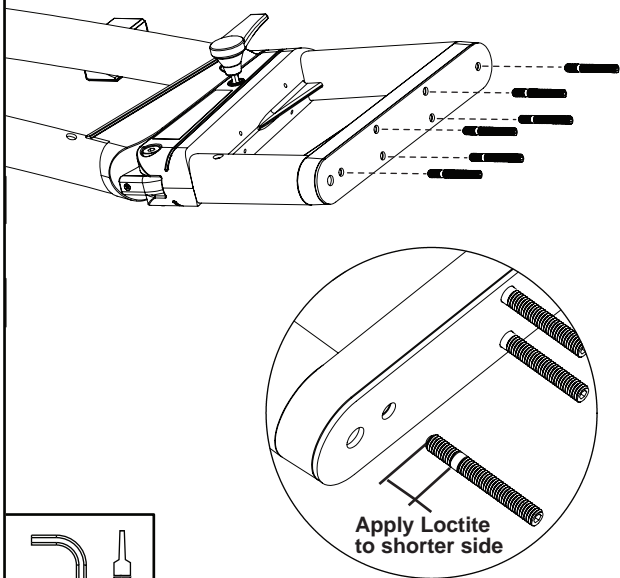
C

To lock the base and side section together, rotate the cam latch handle until locked. Repeat for the port side.

Note: refer to cam latch decal on tower base for proper cam latch use.

D

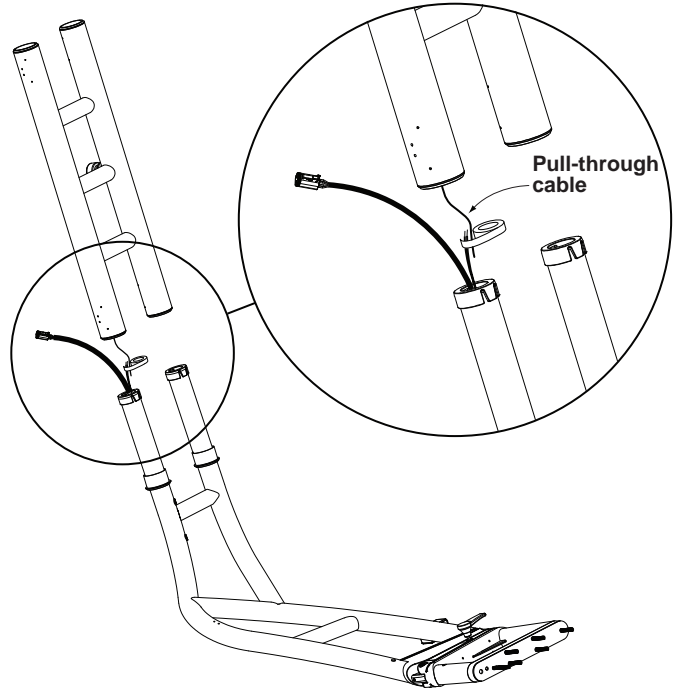
With each side section assembly still on its side, thread 6 threaded mounting bolts into each mount. Apply Red Loctite to each threaded mounting bolt and carefully thread the shorter threaded ends into the bottom of each mount.



Torque bolts to 25ft/lbs

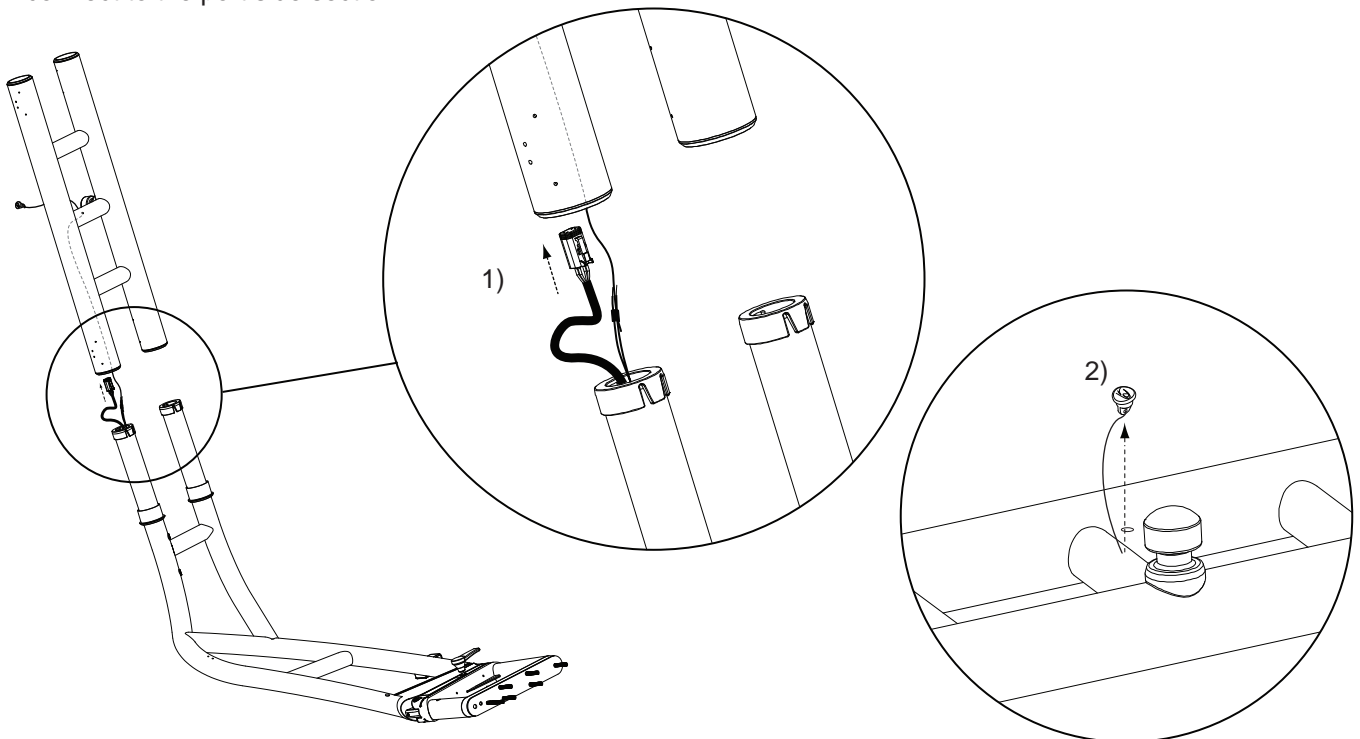
E

Ensure the starboard side section is still on its side. Inside the front tube of the starboard side section there is a Deutsch wiring harness with two wires loose about a foot back from the end. Attach these two wires to the pull-through cable which is tucked inside the center section by taping them together with electrical tape.



F

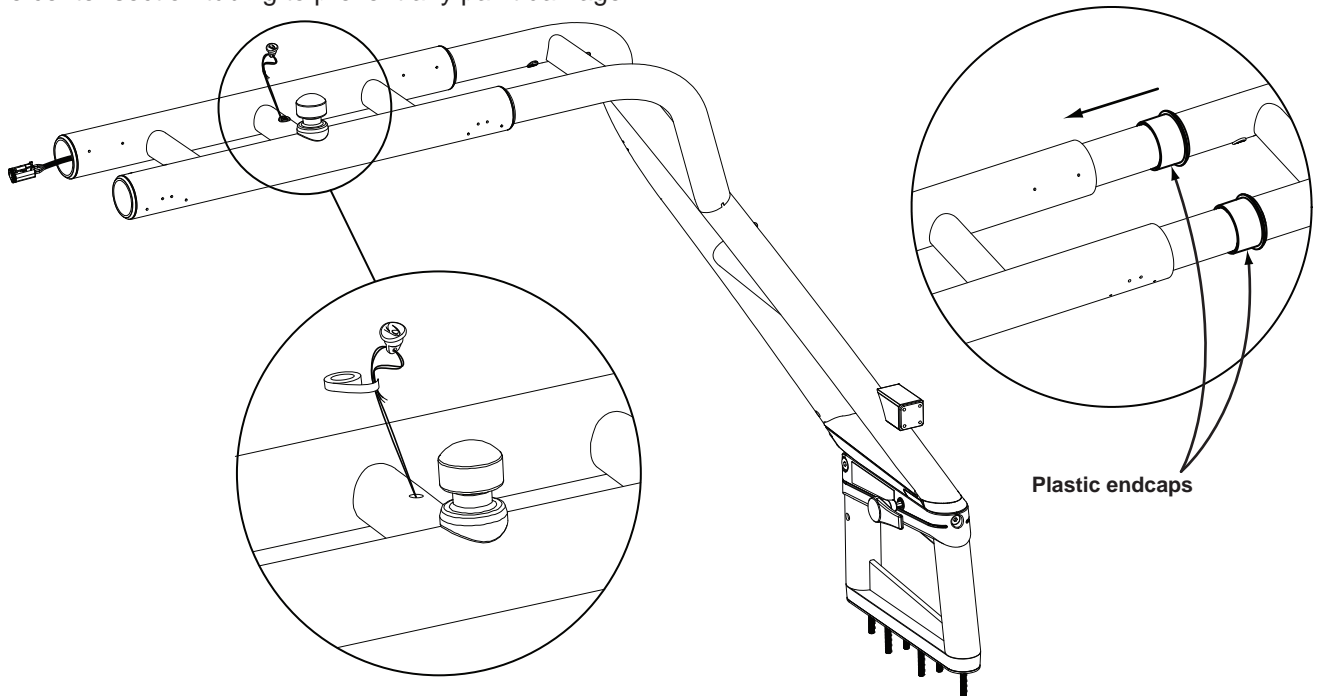
- 1) Insert and slide the Deutsch harness into the center section tubing until the slack is gone.
- 2) Pull the wire plug on the center tube of the center section to lead the harness through the center section. The Deutsch harness should appear almost exiting the opposite end of the center section tubing, pull the Deutsch harness through, this will connect to the port side section.



G

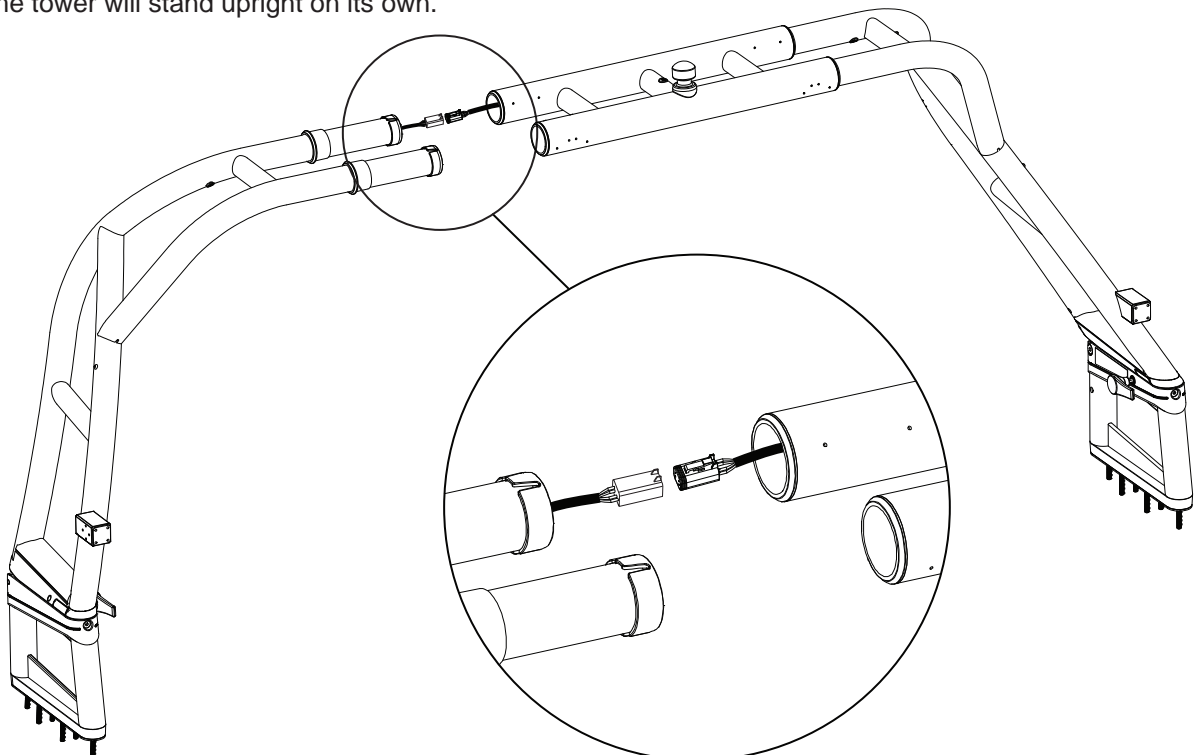
Pull the pull-through cable until the two wires come through the center hole. Remove electrical tape and connect wires to your Roswell SI Nav Light (refer to SI Nav Light instructions for installation steps). If you are not installing the SI Nav Light at this time, re-connect the two wires to the plug by looping them through the eyelet on the plug and taping it shut with electrical tape, carefully feed wire back into tubing and re-insert the plug.

Carefully slide the center section onto starboard side section. Make sure to insert the plastic endcaps on the side section into the center section tubing to prevent any paint damage.

**H**

Carefully stand the tower sections upright and connect the starboard Deutsch harness to the port harness. Carefully slide the center section onto the port side section and insert the center section plastic endcaps.

At this point the tower will stand upright on its own.



I

Remove the 2 plastic subplates from the tower box. Use the subplates to place on your boat deck and determine the optimal position for your tower. It is important that the subplates are installed parallel from the starboard side to the port side. Use the long straight edges of the subplates to measure if they are parallel.

Roswell recommends installing the mounts at the following distance from your boat's windshield:

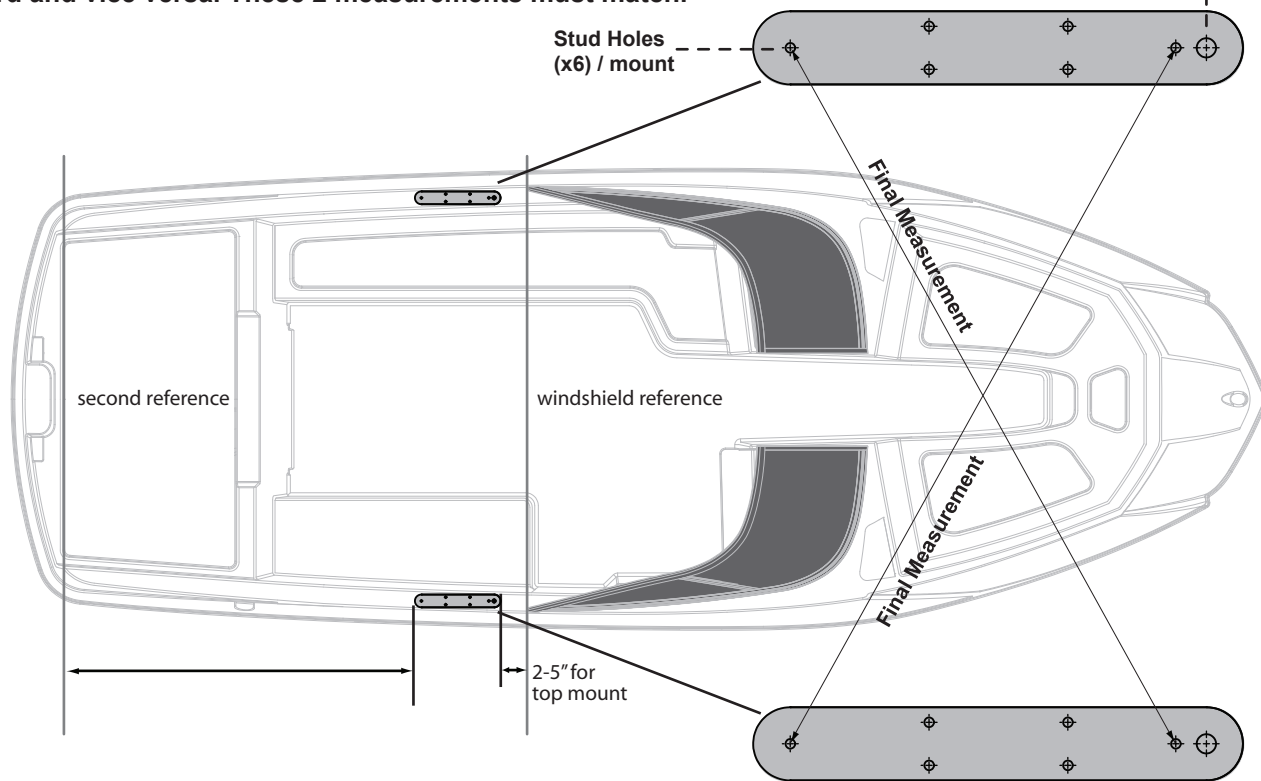
- 2 to 5 inches away

Please note: windshields vary from side to side on some boats and should not be used as the only reference to properly center your tower.

To make sure your subplates are perfectly aligned, measure from a second symmetrical reference point to the subplates. Once both subplates have the same measurements from both reference points on each side, the mount templates will be positioned correctly.

Roswell also recommends as a final check to measure diagonally from the rear threaded port mounting bolt to the forward threaded Starboard and vice versa. These 2 measurements must match.

PLEASE NOTE :
Wiring Hole (x1) / mount
Always towards the front of the boat



J

Once the desired mounting position is determined, stick some low tack tape over and around the area (this will protect the gel-coat from scratches or chipping). Take a minute to double check that the subplates are within the recommended placement guidelines, are the same on both sides of the boat, and are parallel to each other. Once confirmed, tape down the subplates to the boat deck.

Note - Make sure both mounts are clear of any cleats, rubrail, vents, windshield, etc. by at least 1". If there is interference with any of the items mentioned above, you will need to adjust the subplate positions to find the best fit.

To properly support the tower, a 5/8" minimum boat deck/hull thickness is recommended. Proper reinforcement must be added if the deck/hull thickness is less than 5/8". Roswell's recommended instructions for reinforcing a fiberglass hull are detailed in Step K.

If the boat's hull is greater than 5/8" thick, please continue on to Step L.

K

The following is Roswell's recommended procedure for correctly reinforcing the mount locations on a fiberglass boat deck for a wakeboard tower

- Materials:**
- 40 – 150 grit sandpaper
 - 1/2" ABS plastic or marine treated plywood (ideally 2 pieces 5 x 24" or larger)
 - Short strand fiberglass auto body filler (any auto body supply store, NAPA)
 - Catalyst for auto body filler
 - Putty knife
 - Acetone
 - Drill bit (3/16" & 21/64") & counter sink bit
 - 4 – #8 wood screws

1. Determine the area best suited for the wakeboard tower mount.
2. Look inside the boat (under panels etc.) to make sure you can access the area.
3. Take a measurement on the inside of the deck where the reinforcement would be bonded.
4. Make sure the area is flat to limit customizing of reinforcement material.
5. Cut plastic to the maximum size allowed to be installed in the area.
6. Scuff the surface of plastic with 40 – 150 grit sandpaper that will be bonded to the boat.
7. Using acetone, clean off glue or dirt where reinforcement is to be bonded.
8. Use 40 – 150 grit sandpaper to scuff the fiberglass surface on deck interior to make for better bonding.
9. Using a 3/16 drill bit, drill a hole centered between the 2 mounting bolt holes.
10. Mix enough short strand fiberglass auto body filler and catalyst to butter the scuffed surface of 2 of the plastic reinforcement blocks
11. Butter 1/4" – 3/8" thick of auto body filler onto the scuffed surface of the plastic.
12. Push the plastic with filler onto the scuffed area of the boat deck with a side to side and up and down motion. This will create a suction effect.
13. Insert a #8 screw into the centre hole you just drilled, securing the plastic to the boat deck.
14. Wipe up any excess putty as it appears with acetone and a cloth.
15. Repeat steps 9 through 14 for the other side of the boat.
16. Material should be ready to drill in 2 – 3 hours depending on the amount of catalyst used.

NOTE: The more catalyst used in the filler will accelerate the cure time, but will make the bond more brittle. The general mix would be 3/4" cup of auto body filler mixed with 2 – 3" string of catalyst (refer to body filler instructions). Use a putty knife and fold the two materials together until colours have mixed evenly.

L

Once the subplates are secured in place, and the boat deck/hull has been reinforced if necessary, use a 27/64" drill bit to drill the mount holes. Also use the 27/64" drill bit for the wiring hole on each side.

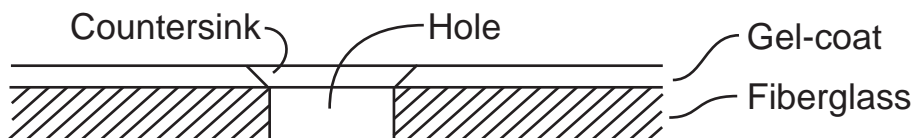
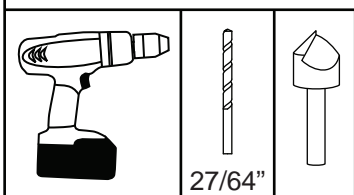
Important Note:

Countersink these holes just enough to break the gel-coat surface away from the hole edge, this will help prevent gel-coat cracks. Remove the tape from under both mounts on each side after each hole is countersunk.

Note - Holes must be drilled perpendicular to the boat deck/hull and mounts to provide proper support to the tower.

If you have reinforced the deck/hull using the recommended procedures detailed in Step K, you can now remove the two #8 reinforcement screws used to hold the reinforcement material in place.

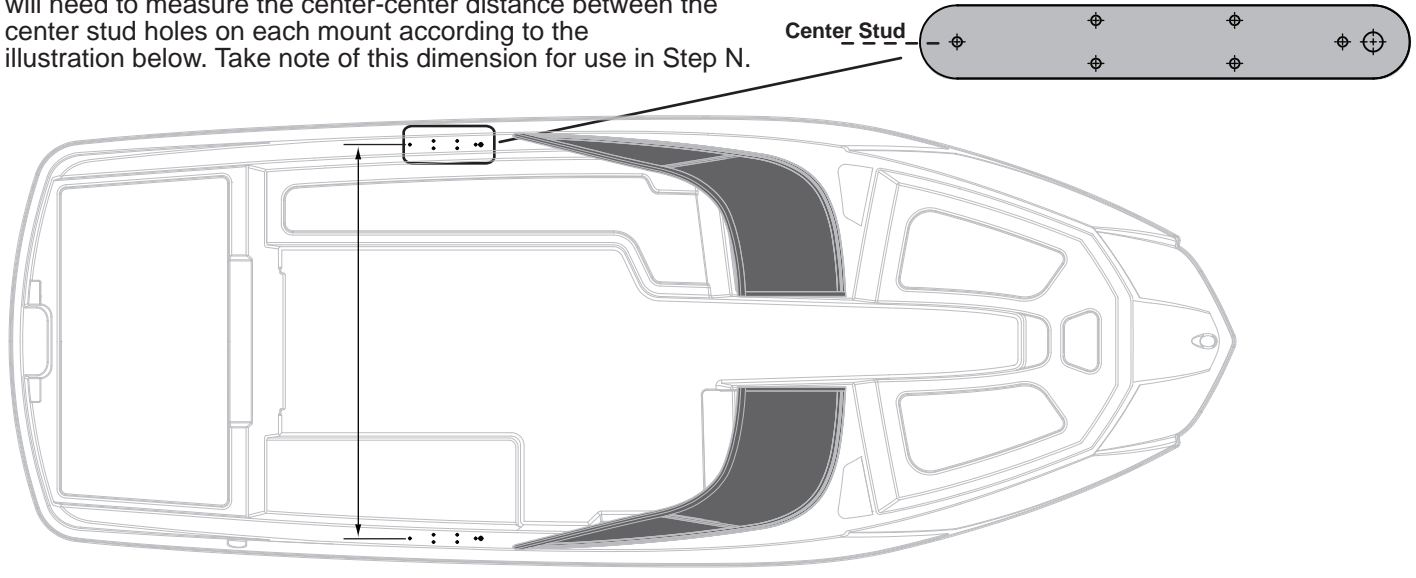
SECTION VIEW



M

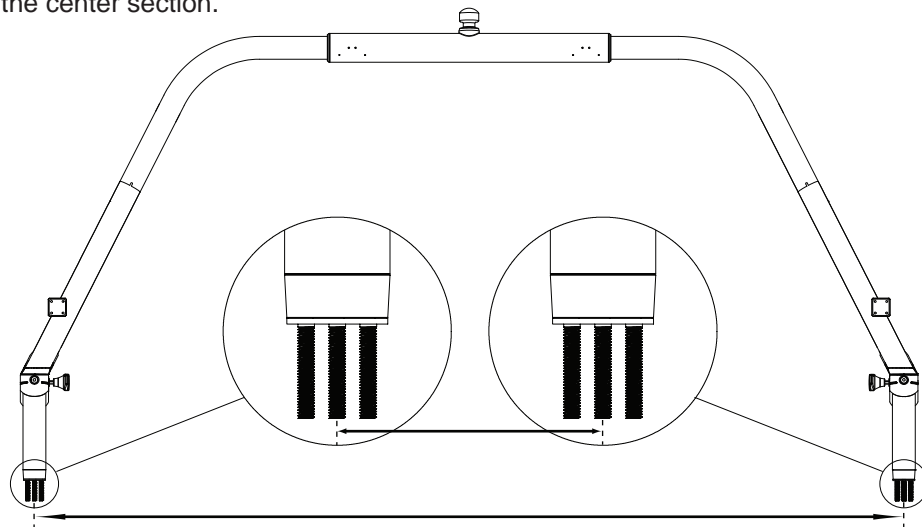
To determine the positioning of the adjustable center section you will need to measure the center-center distance between the center stud holes on each mount according to the illustration below. Take note of this dimension for use in Step N.

Center Stud



N

Referencing the width measurement taken in Step M, measure the center-center distance between the center mounting threaded bolts and adjust the tower components accordingly to match this measurement. This will help to determine the correct location of the center section.

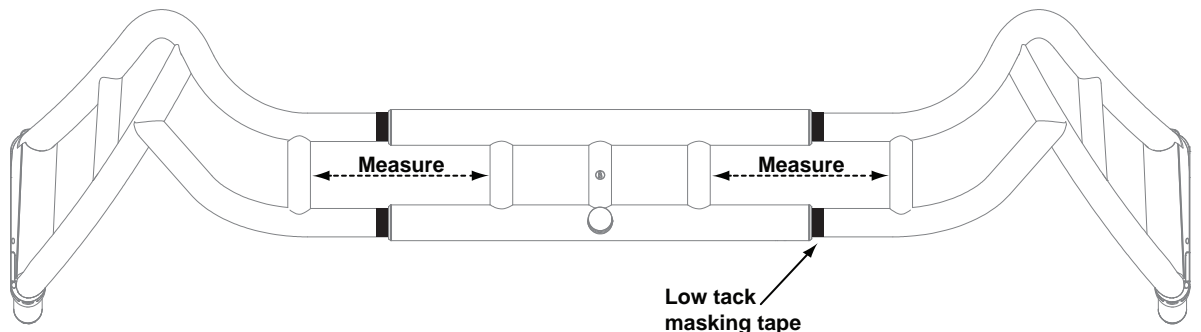


O

To make sure the center section is centered between the side sections, measure from the two tubes on each side as illustrated below. Once these two measurements are equal the center section will be centered.

Note: You will need to go back and forth a few times to ensure both the width measurement and the center section positioning are correct.

Once all measurements are finalized, stick some low tack tape around the side section tubing where they intersect with the center section. This will serve as a guide in case any of the components move while drilling in the next steps.

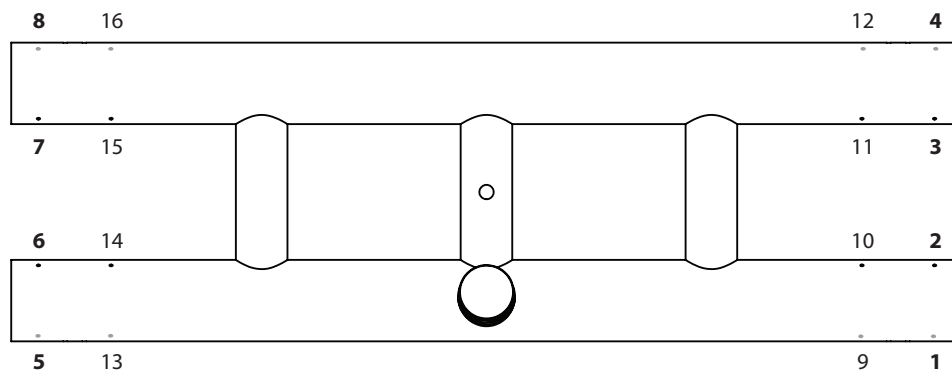


P

The center section has 16 starter holes that require incremental drilling and assembly according to the instructions to follow. It is important to follow these directions to ensure your tower is properly installed.

Before drilling make sure to have another person holding the tower steady. Also make sure the center section is lined up with the masking tape guidelines added in the previous step, and that the center section endcaps are properly inserted.

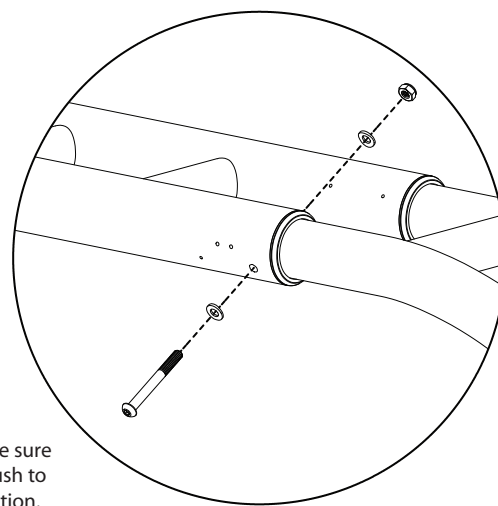
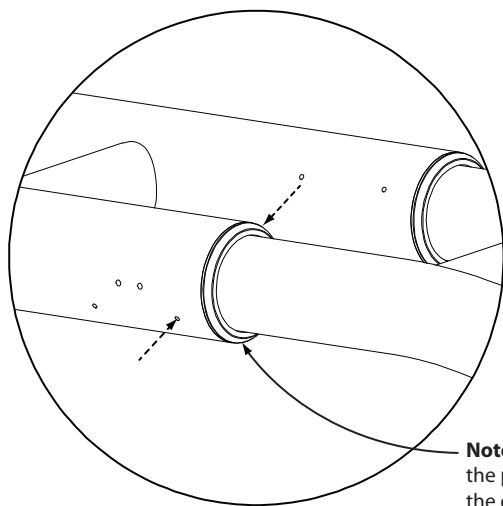
Each through-hole requires drilling a set of 2 holes (for the bolt to pass all the way through), reference the diagram below for the recommended pattern for drilling the holes. You will notice the outside holes must be drilled first, this is so you can align and assemble each side with the masking tape guidelines on both side sections. Once the outside holes are assembled, the tower will be solid enough to drill the inside holes without risk of the tower moving out of alignment.



Note: We recommend inserting a bolt after each hole set is drilled (1,2; 3,4; etc.). This will reduce the risk of the tower moving out of alignment during the following sets of drilling.

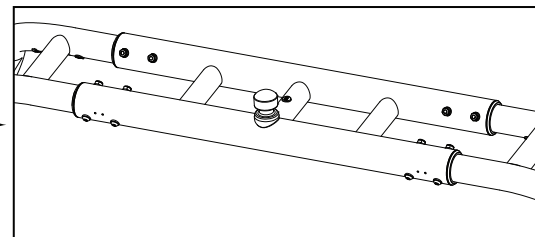
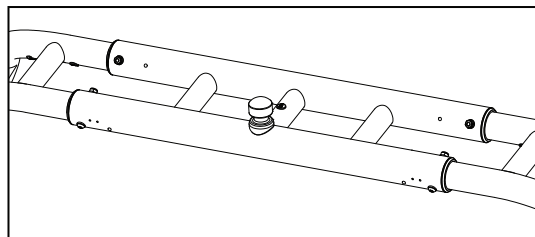
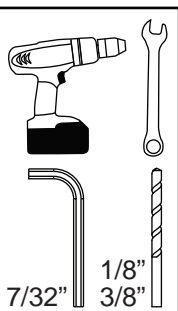
Q

Drill the outside pilot holes first with a 1/8 drill bit, then again with a 3/8 drill bit. Insert the first bolt and repeat for the remaining 6 outside holes. Fasten all 4 outside bolts with 2 washers and a locking nut as illustrated below.



Note: before drilling, make sure the plastic endcaps are flush to the ends of the center section.

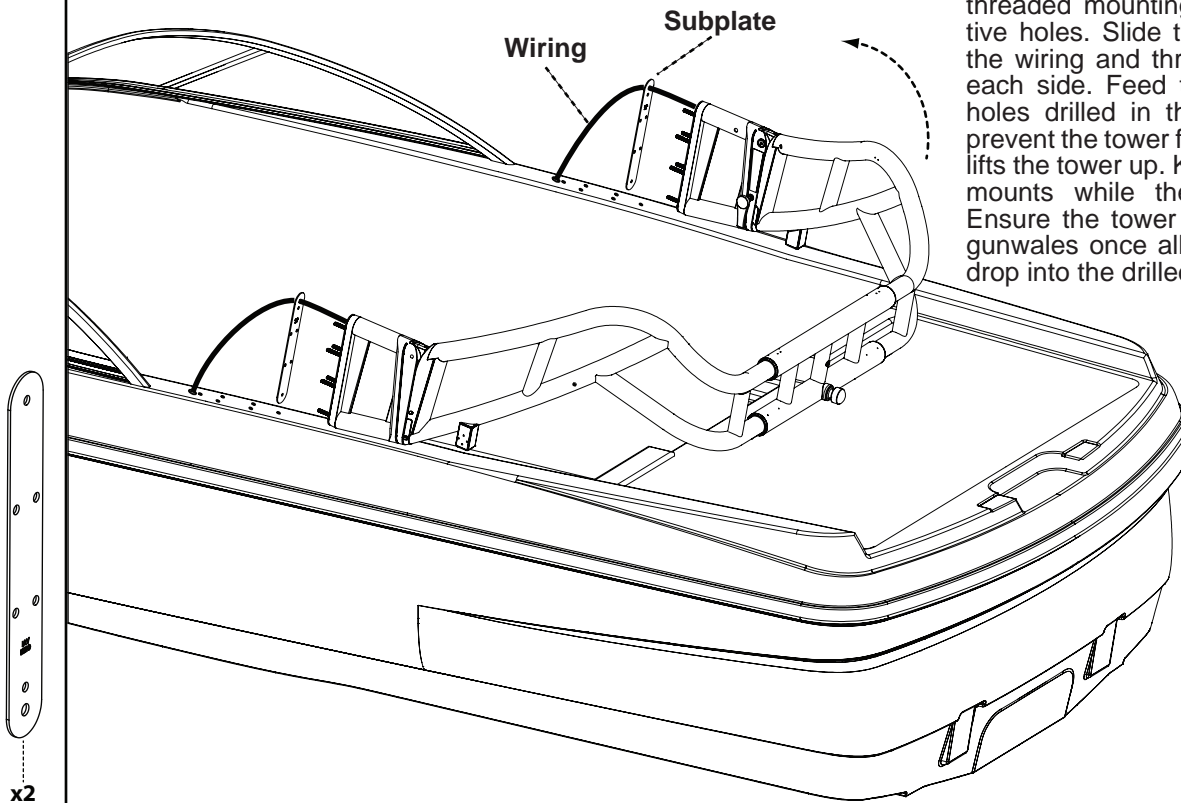
Once all 4 bolts are fastened, repeat drilling process for inside holes. Fasten all 4 inside bolts as illustrated.



R

Mounting the tower on your boat requires at least 2 people.

First lift the tower horizontally (as illustrated) over the boat with the front of the tower facing up. Next line up the rear center threaded mounting bolts with their respective holes. Slide the plastic subplates over the wiring and threaded mounting bolts on each side. Feed the wiring into the wiring holes drilled in the boat. Have 1 person prevent the tower from sliding while the other lifts the tower up. Keep hands away from the mounts while the tower is being lifted. Ensure the tower is sitting properly on the gunwales once all threaded mounting bolts drop into the drilled holes.



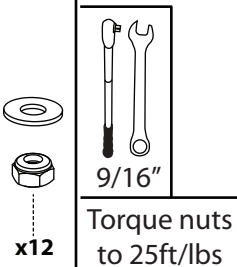
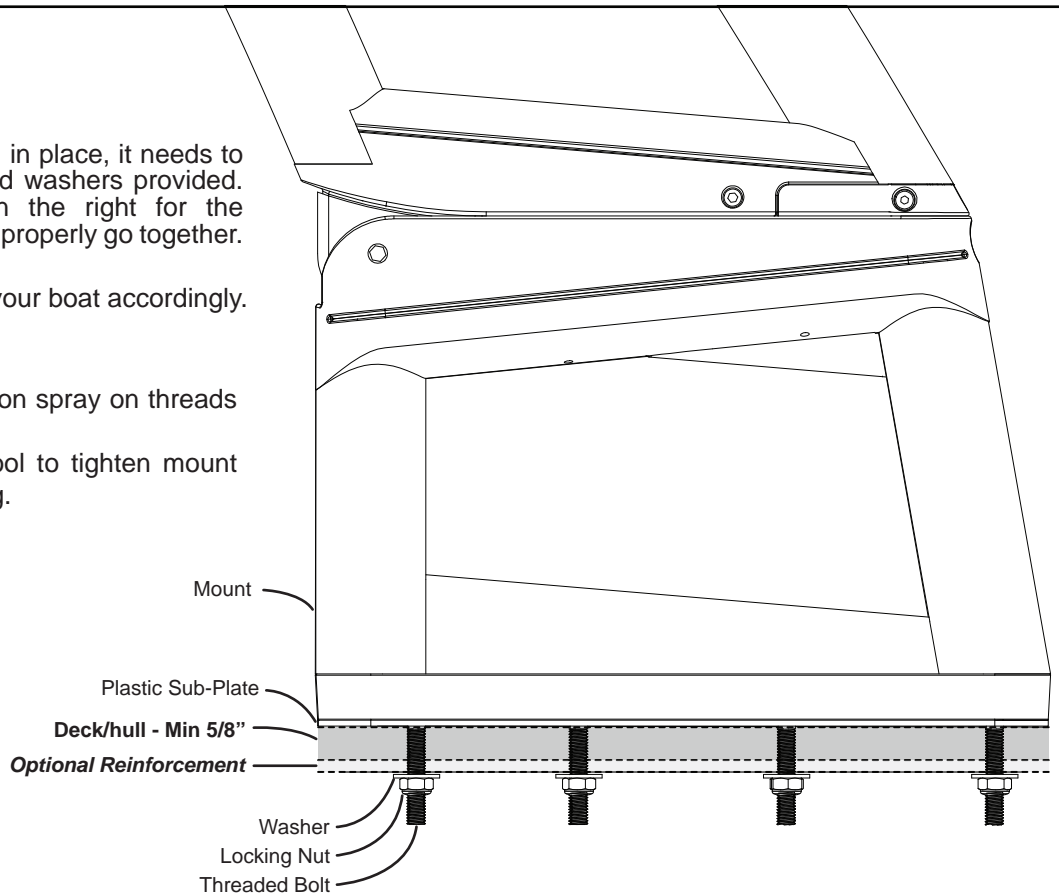
S

Now that the tower is up and in place, it needs to be secured with the nuts and washers provided. Refer to the illustration on the right for the sequence of how these parts properly go together. Tighten well.

Connect the tower wiring to your boat accordingly.

Note - Use anti-seize or silicon spray on threads to prevent bolts from galling.

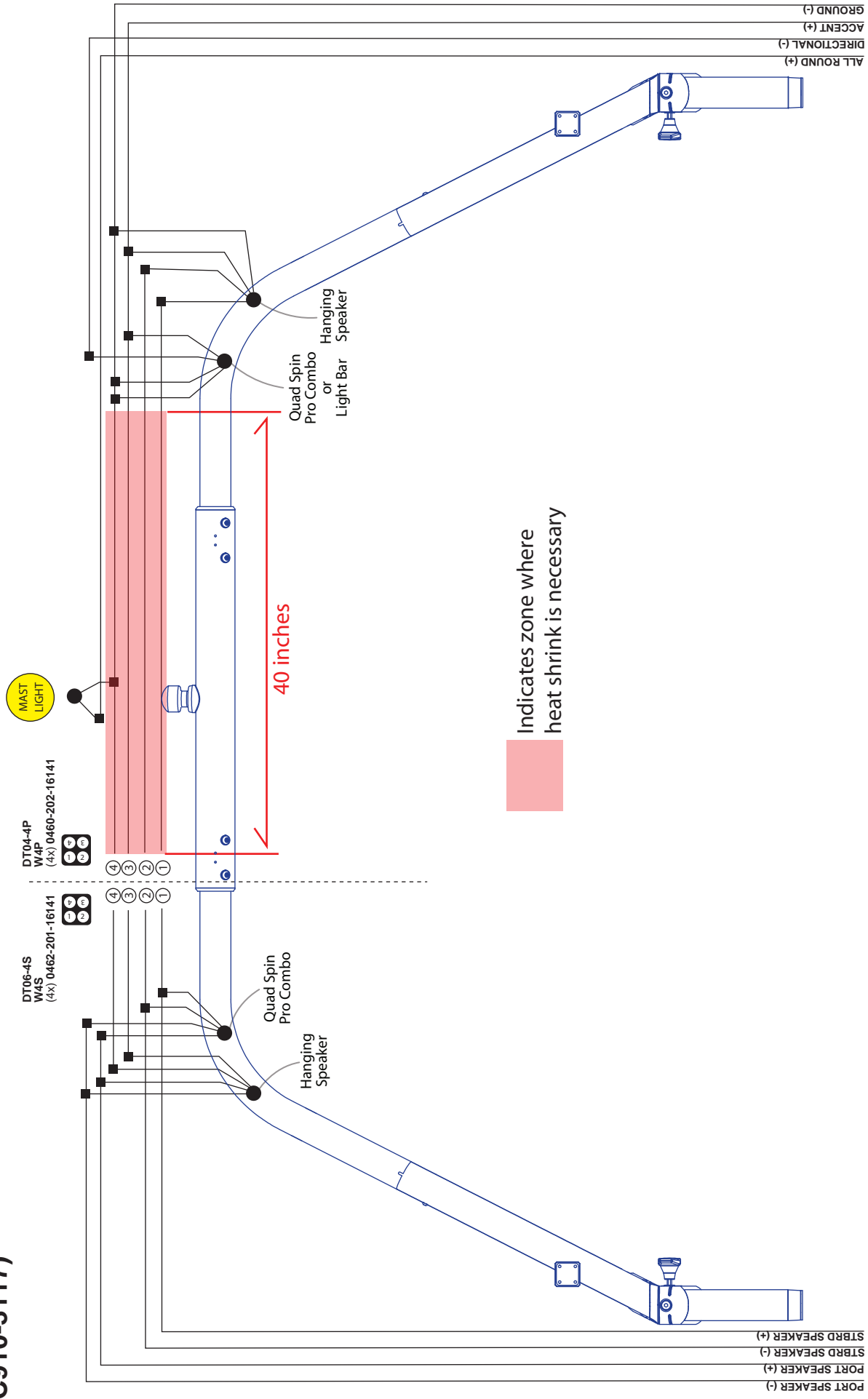
Note - Do not use power tool to tighten mount nuts as this can cause galling.



OEM Aviator Tower - Wiring Diagram

- (C910-3116)
- (C910-3117)

Revised November 19th, 2013



- | | | | |
|---|-------------------|-------------------|-----------------|
| ① | PORT SPEAKER (-) | GREEN & BLACK - | 16 AWG 16 AWG |
| ② | PORT SPEAKER (+) | GREEN + | |
| ③ | STBRD SPEAKER (-) | PURPLE & BL ACK - | |
| ④ | STBRD SPEAKER (+) | PURPLE + | |
| ① | ALL ROUND (+) | DARK GREY + | 16 AWG 16 AWG |
| ② | DIRECTIONAL (-) | DARK BLUE - | |
| ③ | ACCENT (+) | LIGHT BLUE + | |
| ④ | GROUND (-) | BLACK - | |
-
- | | | | |
|---|-------------------|-------------------|-----------------|
| ① | PORT SPEAKER (-) | GREEN & BLACK - | 16 AWG 16 AWG |
| ② | PORT SPEAKER (+) | GREEN + | |
| ③ | STBRD SPEAKER (-) | PURPLE & BL ACK - | |
| ④ | STBRD SPEAKER (+) | PURPLE + | |

Indicates zone where heat shrink is necessary

REAR VIEW OF TOWER AT WIDEST DISTANCE

WARRANTY

3 YEAR LIMITED PARTS AND STRUCTURE WARRANTY- Roswell manufactured products are warranted to be free from defects in materials and workmanship for a period of 3 years from the first retail sale date. Warranty will be determined by Roswell's warranty department only and will at our discretion be repaired or replaced within the first three years.

Excluded in the limited warranty is damage due to misuse or improper care. If a Roswell Wake Air product fails due to defective materials or workmanship after the original warranty period, it will, at manufacturer's option, be repaired or replaced for a charge.

This limited 3 year warranty is in effect as long as the original owner keeps the product and is not transferable.

3 YEAR LIMITED PARTS AND STRUCTURE WARRANTY- Roswell Wake Air warrants that for a period of 3 years from the date the tower is sold at retail, that Roswell will repair directly, or supply parts for the repair of any material cracks, fractures or structural failures that are a result of a manufacturing defect. Any modifications or improper use, not approved in writing by Roswell Wake Air, shall void this warranty. Roswell Wake Air is not responsible for personal injury or damage to the boat caused by the use of any Roswell product. No dealer, retailer or manufacturer is the agent of Roswell Wake Air and may not assume for Roswell any liability in connection with this warranty. This warranty is in lieu of all other warranties, expressed or implied, including any warranty of merchantability or of fitness for a particular purpose.

Defects must be reported within 30 days of receipt.

1 YEAR LIMITED ESTHETIC WARRANTY- Roswell products are warranted to be free from defects in the clear coat, paint and anodizing for a period of 1 year from customer purchase date. Warranty will be determined by Roswell's warranty department only and will at our discretion be repaired or replaced within the first year.

Excluded in the limited aesthetics warranty is damage due to misuse or improper care. **Coated surfaces as well as all hardware corrosion/oxidation are specifically excluded from the 1 year warranty as their care, maintenance and used environment cannot be controlled by Roswell Wake Air.** If the coating has an issue due to defective materials or workmanship after the original 1 year warranty period, it will, at manufacturer's option, be repaired or replaced for a charge.

This limited 1 year warranty is in effect as long as the original owner keeps the product and is not transferable.

DAMAGE DUE TO MISUSE OR IMPROPER CARE IS EXCLUDED.

Never modify the tower. Use only Roswell Wake-Air brand aftermarket accessories such as hanging speakers, light bars or mirror arms; all available from your authorized Roswell dealer. **MODIFICATIONS OR UNAPPROVED ACCESSORIES MAY VOID THE WARRANTY AND OR RESULT IN FAILURE OF THE PRODUCT.**

Disassembly and/or repair must only be performed by an authorized Roswell dealer. **UNAUTHORIZED SERVICE WILL RENDER THE WARRANTY NULL AND VOID, AND COULD CAUSE THE TOWER TO MALFUNCTION.**

WARNING & DISCLAIMER

- This product is to be used for the sole purpose of wakeboarding, wakesurfing, airchairing, and kneeboarding.
- Ensure that all set screws, nuts, and bolts are in place and secure prior to using your product.
- Periodically check that all bolts, screws, and nuts are tight. Even with Loctite they may loosen over time.
- Never travel at high speeds (i.e. towing the boat on a trailer) with wakeboards, wakesurfers, skis, etc. in the racks. If you own quick release racks or speakers, we suggest sliding them off during travel and stowing them safely in the boat or vehicle.
- Be cautious when driving your boat on the water or on a trailer if you have board racks. They may decrease your clearance into a garage or slip.
- Please feel free to contact us with any questions regarding your new product. A Roswell representative can be reached at **1-855-962-9253** or by email at: **info@roswellwakeair.com**

OWNER'S MANUAL**PLEASE READ COMPLETELY TO GAIN A FULL UNDERSTANDING OF THE OWNER'S MANUAL BEFORE OPERATING THIS PRODUCT**

THANK YOU FOR PURCHASING YOUR NEW TOWER. HERE AT ROSWELL WE APPRECIATE YOUR BUSINESS AND STRIVE TO MAKE YOUR ON-WATER TIME THE BEST IT'S EVER BEEN. WHAT FOLLOWS IS A GUIDE TO HELP YOU USE YOUR TOWER TO ITS FULL POTENTIAL.

Should you experience problems that cannot be resolved by an authorized Roswell Wake-Air dealer, please contact our customer service centre at 1-855-962-WAKE(9253).



THIS MANUAL CONTAINS IMPORTANT INFORMATION FOR THE PROPER USE AND CARE FOR YOUR ROSWELL WAKE-AIR TOWER. ROSWELL TOWERS ARE DESIGNED WITH MANY FEATURES THAT ARE UNIQUE TO THE ROSWELL LINE. IT IS THUS VERY IMPORTANT TO CAREFULLY READ THE INSTRUCTIONS PROVIDED IN THIS MANUAL IN ORDER TO UNDERSTAND THE CORRECT USE OF YOUR TOWER.

DISREGARDING ANY OF THE SAFETY PRECAUTIONS, INSTRUCTIONS CONTAINED IN THIS OWNER'S MANUAL, OR ANY OF THE PRODUCT WARNING LABELS MAY CAUSE INJURY OR DEATH.

Notice – This owner's manual has been prepared to familiarize the owner/operator with the various features of the tower, maintenance, and safe operating instructions. This information is essential for the proper use of this product. We are pleased to receive any comments on the content and format of this manual, as well as the product warning labels.

OWNER'S MANUAL

GENERAL WARNINGS

Before using your Roswell tower it is important to completely read and understand all the instructions provided in this owner's manual, any accompanying inserts, and labels affixed to the tower. If you have any questions or do not fully understand these instructions, please consult your authorized Roswell dealer or contact us directly at info@roswellwakeair.com or contact our customer service centre.

Before each use, perform a complete pre-ride inspection following the instructions provided in this manual. Check the entire tower to confirm there are no signs of damage. Check to ensure the tightness of all bolts. Bolts must be tightened after each use on the water. **IF ANY SIGNS OF DAMAGE OR MALFUNCTION ARE FOUND, DO NOT ATTACH ANYTHING TO THE TOWER UNTIL IT HAS BEEN INSPECTED AND SERVICED BY AN AUTHORIZED ROSWELL DEALER. FAILURE TO FOLLOW THESE GUIDELINES MAY INCREASE THE RISK OF ACCIDENTS OR EQUIPMENT DAMAGE TO THE TOWER AND/OR BOAT.**

The tower is intended to tow a maximum of two wake boarders at one time and no more than 400lbs (181kg) collectively.

Do not boat under any solid object such as a bridge or overpass without first checking the necessary clearance with the tower on the boat.

Never hang from the tower. Do not climb or sit on the tower.

Never attach a tow rope to anything other than the tow head.

Be aware of the tow rope at all times. Ensure that it is not attached to anything on the tower other than the tow head, and that the rope is clear of any cleats or objects on the boat before pulling the rider up and out of the water.

Obey all boating laws and regulations in your area.

OWNER'S MANUAL

Follow the Water Sports Responsibility Code as follows:

Water Sports Responsibility Code

Be aware that there are elements of risk in boating, skiing, and riding that common sense and personal awareness can help reduce. Know your ability level and stay within it.

To increase your enjoyment of the sport, follow the "Water Sports Responsibility Code".

It is your responsibility to:

- Familiarize yourself with all applicable laws, the risks inherent in the sport, and the proper use of equipment.
- Know the waterways where you will be skiing or riding. Do not ski or ride in shallow water, near shore, docks, pilings, swimmers, or other watercraft. Boaters are responsible for the wake they leave behind and any damage cause by that wake.
- Always have a person other than the boat driver as an observer and agree on hand signals before starting.
- Always wear a U.S. Coast Guard type III (PFD) life vest.
- Read your owner's manual and inspect your equipment prior to use.
- Ski or ride within your limits. Always ski or ride in control and at speeds appropriate for your ability.
- Always turn ignition off when anyone is near watercraft power drive unit.
- Carbon Monoxide (CO) poisoning from engine exhaust may cause injury or death.
- Never "Platform Drag" or touch a swim platform while the engine is running.
- Not operate watercraft, ski or ride under the influence of alcohol or drugs.
- Respect the waterways that we have access to and acknowledge that water is a precious resource we are allowed to use – water use is not a right, it can be taken away!

**Water Sports Industry Association
2012**

OWNER'S MANUALGENERAL TOWER MAINTENANCE

Check all tower hardware before every use on the water. We recommend keeping a set of Allen wrenches on your boat for this purpose.

Do not use the board racks as entry/exit handles to get in and out of the boat – they are not designed for this purpose.

Check the clearance between your tower and any overhead obstacles including bridges, canals etc.

Always check the clearance when storing your boat in a garage etc.

NEVER USE CLEANERS ON YOUR TOWER!

The Aviator has been treated with our automotive paint coating that forms a protective layer. A mild soap and water combination may be used to remove travelling grime or water spots. Use only a soft cloth and never use any chemical cleaners.