



## Comptech Adjustable Swivel Release

The patented Swivel Release has been in development for over 3-1/2 years. The basic design allows riders to quickly interchange ropes by using an additional clevis. The rope clevis swivels in the three rollers located in the end of the housing. When you pull on the manual release cord these three rollers tip out and release the clevis. By pushing the clevis into the three rollers they will tip in and lock into operating position. **For all you flippers this is a real load-bearing swivel and has almost no drag.** People have commented that you notice the rope not fighting you when you flip.

A spring and plunger assembly inside the housing controls the automatic part of the release. The release pressure is infinitely variable in pressure from 100 to 800 pounds. In testing we found that an average size rider takes 150 pounds of pull to get up on a plane. Once your up the load drops to around 50 lbs. **So what do you do if you want to run the release at 100 pounds?** Set the adjuster to 200 pounds, get up and have the observer back the nut down to 100 pounds. Just that easy! You want to go up to 800 pounds turn the adjuster to 800 pounds and keep on riding. (Just a FYI we tested the release with a knee board and saw over 400 lbs pull across the wake. We saw spikes of over 550 lbs on wake jumps)

**How do you know where to set the Release load setting at?** There is a gauge on the side of the Release that shows you how many pounds have been exerted on the unit. Push the white pin to zero and set the release to 800 pounds. Ride as you would normally and have someone in the boat see how far the pin moved on the graduated scale. If you never went above 300 pounds then set the adjuster at 400 lbs. and enjoy. They can even do this while you are still riding. When learning new tricks that require low line tension, set the adjuster to a lower level. Just remember, if you pull if off, don't go flying at the wake to do a front flip or you will have a rope in your hands without a boat pulling you! The other option would be to leave the Release at your standard setting and have an observer ready to pull the manual release.

- 1) True roller bearing type swivel release. 10 second rope change.
- 2) Gauge to read load applied by skier.
- 3) Adjustable range from 100-800 pounds.
- 4) Breakaway load can be adjusted while riding.
- 5) Manual release can be used if wanted.
- 6) All parts anodized aluminum or Stainless Steel. Many parts are heat-treated.
- 7) Only plastic part is the gauge reading pin and the swivel bushings.
- 8) Repeatable load + or - 20 lbs at release setting. The load does not drift lower with each tug.

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## Instructions:

- 1) Mount release to boat rope pylon by bolting the assembly to the pylon with the bolts supplied. **MAKE sure the thick horseshoe bushing mount is to the rear of the assembly.** Tighten the nylock nuts evenly until the unit just gets snug on the pylon then back it off  $\frac{1}{4}$  -  $\frac{1}{2}$  turn until the unit rotates freely around the pylon. **Failure will occur if you reverse the triangle wedge mount with the horseshoe mount.**
- 2) Pull the emergency release cable to release the clevis from the unit. Attach the ski rope to the release clevis and insert back into the swivel release. If the release is accidentally set by pushing on the release rollers before installing the clevis, (they are flush or not pointing out at the center)(**fig. 1**) then pull on the cable handle and push down on the SS housing in the direction of the arrow in (**fig.1**) to pop the rollers out at an angle to cock it for clevis installation. (**fig. 2**) The unit should now allow the clevis to be installed and set to use by pushing back on the rollers with the clevis. You should see and hear the rollers lock onto the clevis.



Fig. 1



fig. 2

- 3) Give the rope several good tugs to make sure it is really locked in. As you get use to it, you will feel more comfortable about if you have it locked.
- 4) Set the load adjuster to 800 lbs. Push the load memory gauge pin back to zero and go out and ride. This is how you will learn how stiff you need to set the emergency release adjuster nut.

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- 5) Read the load reading on the load pin after a hard ride. Take that number and set the load adjuster nut to 100 lbs **more** than the reading on the load memory gauge. Remember, if you did not ride hard, you can and will get a release when you least expect it. **We have found the highest loads measured were on takeoff at the wake for a really big air maneuver, not just skiing along and pulling on the handle.** If you want to use the safety device at 100 pounds you may need to start out at 200 lbs to get the skier up then back down the setting to 100 lbs while underway to avoid the unit releasing. In testing we saw loads over 100 lbs on take off.
- 6) The release assembly is mounted to the tower mount through a flexible joint. This was done so the assembly does not influence the rope by hanging down from the weight. The unit will flex up and down 15 degrees without any wear. It can be flexed straight up and down, but this can prematurely wear out the rubber bushing and will need to be replaced, so this is not recommended.
- 7) To release the rope and clevis assembly, just pull down on the emergency cable handle.
- 8) The spring can be changed to a different range if needed for lighter loaded tricks. It will need to be sent back to Comptech for the changes.

**Maintenance:** This is a precision device so it is best to treat it like one. Try and keep water and dirt out of it. You can lightly spray WD-40 etc. on the roller assembly to protect them and use a bit of marine grease on the threads for the adjuster nut. Keep the cable straight and try not to kink, as this will cause premature wear and failure.

**Warranty:** Comptech warrants the Swivel release to be free of manufacturing and assembly defects. Each Release has been tested on an electronic load test rig to confirm the performance of the unit. If there are any defects or problems within the first year, ship it back to Comptech and it will be repaired at no charge and we will pay the return freight to you. This Release is covered for what would be called normal use and abuse in a water ski/wake board/Sky Ski application. Returning the unit packed full of dirt, fish guts etc. voids the warranty.

**Waiver:** Water skiing, Wake boarding, and Sky skiing are all dangerous sports. Even with all the work that went into this product there are certain risks involved in watersports and we cannot promise this will keep you from getting hurt. **Misuse of this product could lead to DEATH or SERIOUS BODILY injury.** Comptech assumes no responsibility or liability of how the product is used and to the safety of the product in all cases. **THE CONSUMER ACCEPTS ALL RESPONSIBILITY FOR USING THIS DEVICE IN ALL INSTANCES.**

**This product has been Granted Patent # 6,776,116 B2**

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# COMPTECH WATERSPORTS

PATENT #6,776,116 B2

