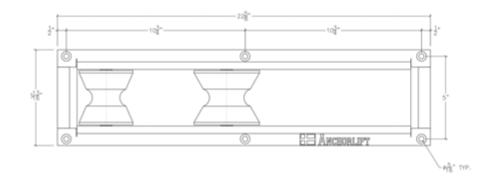


# User Manual and ASTOR ROTATION Installation Guide

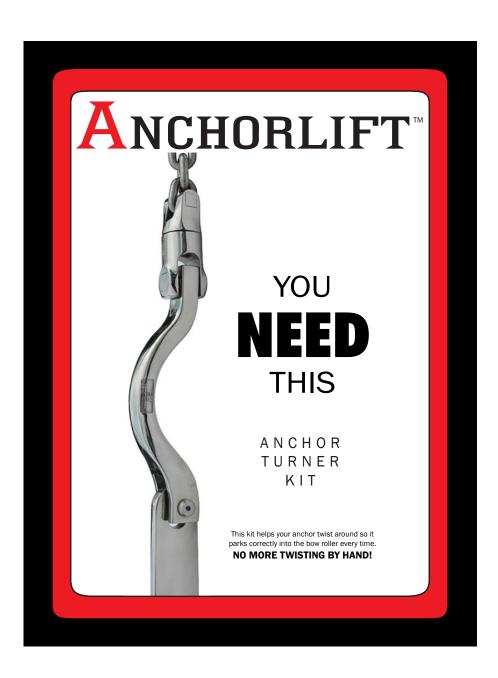


www.anchorlift.com



Our Anchorlift windlass and accessories are heralded for their durability and performance. Based on an all Stainless Steel AISI 316L production platform, we take great pride in providing products that will endure the test of time and the harsh elements they are exposed to. We back these claims with an industry leading 5 Year Warranty that reflects our pride in our products and their reliability.

For Parts and Service: www.anchorlift.com





**Thank you for choosing Anchorlift windlass systems.** Please take the time to read the instructions contained in this User Manual & Installation Guide carefully. This will fully explain and illustrate for you the proper installation and general maintenance of your windlass for years of dependable operation.

Please ensure that you thoroughly read and understand the complete operational and safety requirements of the windlass before you begin. READ THIS USER MANUAL THOROUGHLY BEFORE INSTALLATION OF YOUR WINDLASS!

### **WARNING!**

Windlasses are designed to deploy and retrieve anchors, DO NOT use the equipment for other purposes.

# **WARNING!**

To avoid personal injury, keep clear of the windlass while it is operating.

### WARNING

Always secure the rode kit, chain or rope (preferably with a chain stopper) before navigation of vessel.

# **WARNING!**

Make sure that electrical power is shut off when working on the windlass or performing maintenance.

NOTE: Improper installation will result in a void of the warranty!

# **Getting Started:**

Check the contents of the box. The standard package consists of: Windlass deck unit, Gear Box/Motor unit, Solenoid, Clutch Handle, Mounting Hardware, Drilling Template and Quick Install Guide.



Additional products recommended for all installations: Helm Switch, Circuit Breaker, Foot Switch Kit & Radio Remote (optional).

90801 90080-90175 90900B 92004













# **Tools Required:**

Pencil Drill Drill Bit Hole Saw Rasp / File Metric wrench set Metric Allen wrench set **Pliers** Wire Snips/Crimps

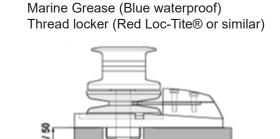
# **Deck Thickness:**

Barracuda: 20 - 40mm, 3/4" - 1 1/2" Dolphin: 25 - 50mm, 1" - 2" Mako: 25mm to 65mm, 1" - 2.5"

**Aquarius:** up to 190mm / 7.5"

Note: For deck thickness greater than the maximum measures mentioned here please contact Anchorlift Customer

Support for available options.



**Supplies Needed:** 

Masking Tape

The Gear Box is fitted with a removable mounting flange that can be mounted on both sides of the gear box. It's

important that the motor is mounted as far away from the chain pipe hole as possible. See illustrations below:

Photos of motor gear box installations



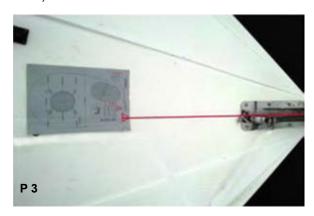
# **IMPORTANT!!**

Protect the gear box and electric motor with suitable anti-corrosion spray such as CRC® Heavy Corrosion Inhibitor, Corrosion X®, Tectyl® or similar product. See pictures P 1 & P 2.



# Preparation:

The windlass is to be placed in the correct position by aligning the gypsy with the bow. The rope or chain needs to be level with the deck and wound around the gypsy at an angle of about 180 degrees. (See photo **P 3**)

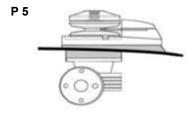


# Before drilling holes, you must check the following:

1) There are to be no obstacles below the deck. There must be enough space for the chain/rope (Rode Kit) to fall properly 12-18 inches.

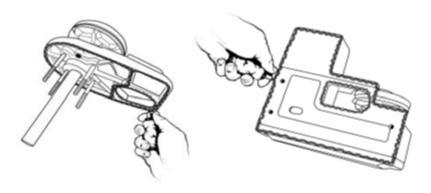


2) Make sure the top and bottom surfaces of the deck are as parallel as possible. If necessary, compensate for any differences to prevent windlass base & gearbox from being damaged.



3) Once the ideal position has been found, place the drilling/mounting template in position and mark all the holes. Barracuda, Dolphin & Mako models are equipped with 8mm stainless steel bolts. When installing the windlass use a 10mm drill bit for the bolt holes.

Before installing turn the windlass over and supply a suitable bead of sealant as shown below.





# **WARNING!**

Make sure that the windlass shaft and gear box bushing are well greased with suitable marine grease before installation (See photo **P 1**).

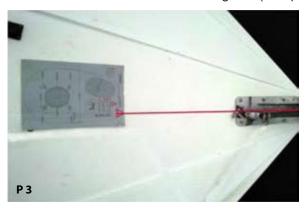




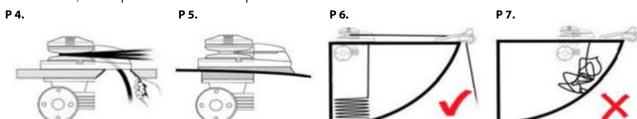
### **IMPORTANT!!**

Protect the gear box and electric motor with suitable anti-corrosion spray such as CRC® Heavy Corrosion Inhibitor, Corrosion X®, Tectyl® or similar product. See pictures P 1 & P 2.

Make sure to position the windlass so that the center line of the chain / rope aligns with the bow roller in a horizontal plane, and that the vertical line is within 10 degrees (See photo **P 3**) of the rope / chain gypsy.



Drill and cut out holes to the size detailed on the template. Make sure that the chain pipe hole is angled and smooth to allow the chain / rope / rode kit to easily pass through it (See drawing **P 4**). Note: With a sandwiched deck construction, it is important to seal the exposed surface.



**NOTE:** Care should be taken when installing the windlass to ensure that the vertical drop below the chain pipe exit is maximized. Remember that rope coils unlike chain, and will require as much anchor locker space as possible (See drawings **P 6** and **P 7**).

Place the Windlass Deck Unit in position and connect the Gear Box/Motor. Fit the shaft into the Gear Box while aligning the key into the keyway. Align the deck bolts to the holes in the gear box flange and push firmly to the underside of deck. It may be necessary to move the motor/gear box up and down the shaft to make sure the grease is completely covering the entire shaft. Apply thread locker to exposed threads and assemble with stainless steel hardware supplied. After installation: Use anti corrosion marine protection on the motor and gearbox. See photo **P 2**.



# **WIRING DATA:**

**ELECTRICAL:** See the appropriate wiring diagram for the correct electrical installation of your windlass model.

# **WARNING!**

Always use a circuit breaker to protect the windlass motor and electrical cables.

# Cable sizes

We recommend the use of the following cables, switch-wiring and circuit breaker sizes:

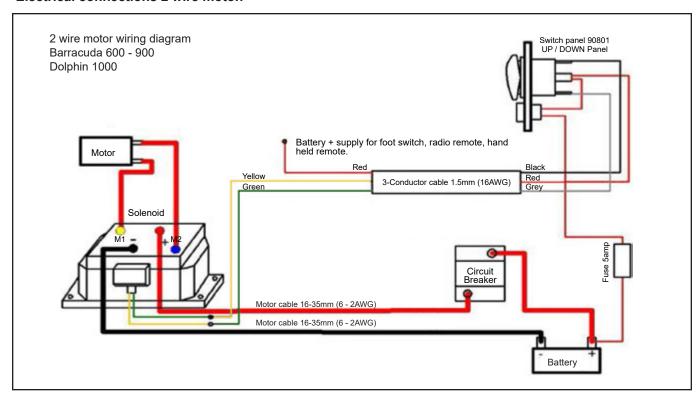
Windlass	Cable length: 0	)-8m 0-24ft	over 8m 24ft		Circuit Breaker
Barracuda 600	16mm2	4-6AWG	25mm2	4AWG	80amp (90080)
Barracuda 900	25mm2	4AWG	35mm2	4AWG	100amp (90100)
Dolphin 1000	25mm2	4AWG	35mm2	2AWG	100amp (90100)
Mako 1500 12v	35mm2	2AWG	50mm2	2AWG	135amp (90135)
Mako 1500 24v	25mm2	2AWG	35mm2	2AWG	80-100amp (90080-90100)
Aquarius 2500 24v	35mm2	2AWG	50mm2	0AWG	135amp (90135)
Aquarius 3000 24v	35-50mm2	2-0AWG	50mm2	0AWG	175amp (90175)

# Note:

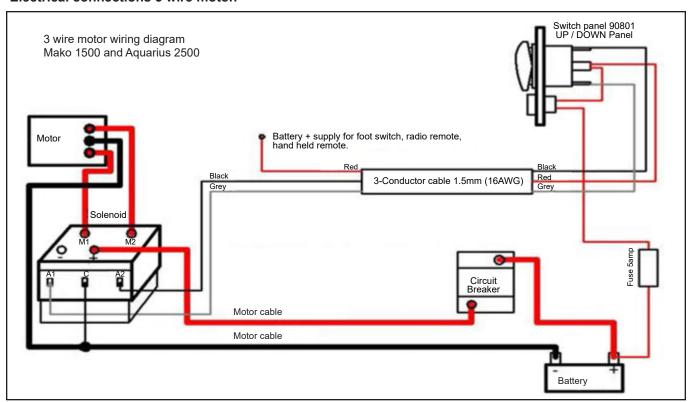
- A) Cable and terminals should be suitable sizes.
- B) Windlass performance is directly related to cable size and length.
- C) Voltage drop over the wiring run must not exceed 2 volts.



# Electrical connections 2 wire motor.



# Electrical connections 3 wire motor.

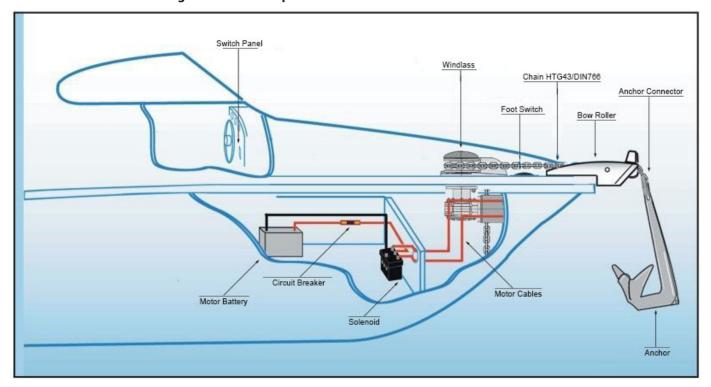


# **WARNING**

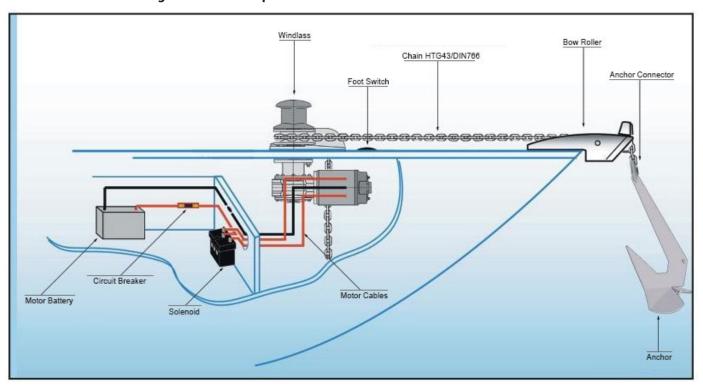
MAKE SURE THE ELECTRICAL POWER IS SWITCHED OFF BEFORE WORKING WITH ELECTRIC CABLES.



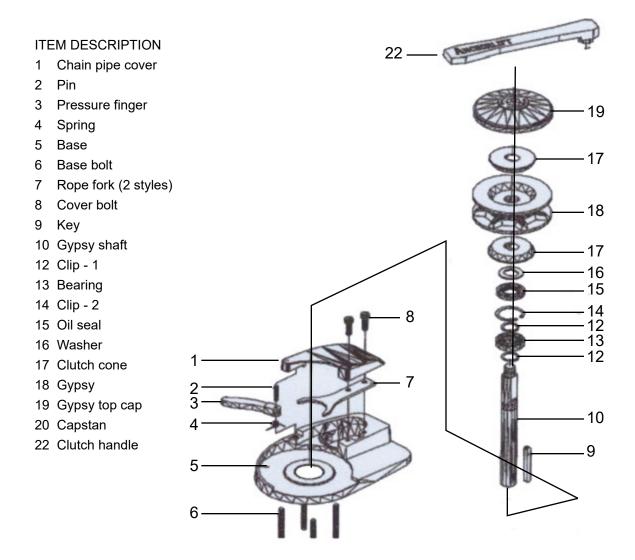
# Motor boat installation using the vertical low profile windlass model with 2 wire motor.



# Sail boat installation using the vertical low profile windlass model with 3 wire motor.







Basic maintenance and cleaning needs to be performed to keep this unit working properly:

**Recurring:** Any salt deposits must be removed to avoid corrosion and damage to the equipment. Wash thoroughly with fresh water after each use. Polish the unit to prevent staining using auto polish or stainless steel cleaner.

**Once a year:** Remove the top cap and gypsy and perform required maintenance:

Use the handle (22) to remove the Gypsy Top Cap (19). Remove the top Clutch Cone (17), loosen the Cover bolts (8) on the Chain Pipe Cover (1) and remove both parts. Pull away the Pressure Finger (3) from the Gypsy (18) and remove the Gypsy. Remove bottom Clutch Cone (17).

Clean all the parts to prevent corrosion and grease the Shaft (10) and Gypsy (18) where the clutch cones seat (17). Use suitable marine grease ONLY! Reassemble following the instructions and drawings above.

# **WARNING**

MAKE SURE THE ELECTRICAL POWER TO THE MOTOR IS SHUT OFF WHEN WORKING ON THE WINDLASS.

CAREFULLY REMOVE THE CHAIN OR ROPE FROM THE GYPSY.



Anchorlift windlasses are designed to operate using chain only and chain/rope combinations. The table below shows a selection of chain and rope that is specified for each model. Note: Chain specification is HT G43 Windlass Chain. Rope specification is 8 – 24 plait, double braided.

Visit: www.anchorlift.com for additional information regarding correct chain / rope / rode kit combinations for your model.

**NOTE:** Before use, make sure that you have the correct gypsy for the chain or chain/rope combination you have chosen.

# Rope:

Model:	Gypsy:	Rope:
Barracuda	5-6mm DIN766 1/4"	12-13mm - 1/2"
Dolphin	8mm DIN766 5/16"	14-16mm - 9/16" - 5/8"
Mako	8mm DIN766 5/16" + 3/8"	16mm - 5/8"
Aquarius	10mm ISO 3/8" + 1/2"	N/A

# **Chain: USA and Canada Standard:**

Model	Size	Weight	Dimensions	Breaking	Windlass Model	
		ft	inside	load		
HT1/4"	1/4"	0.74 lbs	0.845 x 0.41"	6700 lbs	Barracuda	
HT5/16"	5/16	1.03 lbs	1.03 x 0.51"	8900 lbs	Dolphin	Mako
HT3/8"	3/8"	1.48 lbs	1.22 x 0.59"	13500 lbs	Mako	Aquarius
HT1/2"	1/2″	2.57 lbs	1.59 x 0.76"	25000 lbs	Aquarius	



Original chain HTG43



# **USA and Canada Standard Galvanized ISO HTG43 Chain**

Part Number	Rope	Length	Chain	Length	Total	Fits Windlass
DB1/2-150	1/2"/12mm	150ft / 45m	1/4" / 7mm	15ft / 4.5m	165ft / 50m	Barracuda
DB1/2-200	1/2"/12mm	200ft / 60m	1/4" / 7mm	15ft / 4.5m	215ft / 65m	Barracuda
DB1/2-250	1/2"/12mm	250ft / 90m	1/4" / 7mm	15ft / 4.5m	265ft / 80m	Barracuda
DB1/2-300	1/2"/12mm	300ft / 75m	1/4" / 7mm	20ft / 6m	320ft / 97m	Barracuda
DB5/8-150	5/8"/16mm	150ft / 45m	5/16" / 8mm	15ft / 4.5m	165ft / 50m	Dolphin / Mako
DB5/8-200	5/8"/16mm	200ft / 60m	5/16" / 8mm	15ft / 4.5m	215ft / 65m	Dolphin / Mako
DB5/8-250	5/8"/16mm	250ft / 75m	5/16" / 8mm	20ft / 6m	270ft / 82m	Dolphin / Mako
DB5/8-300	5/8"/16mm	300ft / 90m	5/16" / 8mm	20ft / 6m	320ft / 97m	Dolphin / Mako
DB3/8-150	5/8"/16mm	150ft / 45m	3/8" / 10mm	15ft / 4.5m	165ft / 50m	Mako
DB3/8-200	5/8"/16mm	200ft / 60m	3/8" / 10mm	15ft / 4.5m	215ft / 65m	Mako
DB3/8-250	5/8"/16mm	250ft / 75m	3/8" / 10mm	20ft / 6m	270ft / 82m	Mako
DB3/8-300	5/8"/16mm	300ft / 90m	3/8" / 10mm	20ft / 6m	320ft / 97m	Mako

Type 316L Stainless Steel Grade S4 Chain

SSDB1/2-150	1/2"/12mm	150ft / 45m	1/4" / 7mm	15ft / 4.5m	165ft / 50m	Barracuda
SSDB1/2-200	1/2"/12mm	200ft / 65m	1/4" / 7mm	15ft / 4.5m	215ft / 50m	Barracuda
SSDB1/2-300	1/2"/12mm	300ft / 90m	1/4" / 7mm	20ft / 6m	320ft / 97m	Barracuda
SSDB5/8-200	5/8"/16mm	200ft / 60m	5/16" / 8mm	15ft / 4.5m	215ft / 65m	Dolphin / Mako
SSDB5/8-250	5/8"/16mm	250ft / 75m	5/16" / 8mm	20ft / 6m	270ft / 82m	Dolphin / Mako
SSDB3/8-300	5/8"/16mm	300ft / 90m	5/16" / 8mm	20ft / 4.5m	320ft / 97m	Dolphin / Mako
SSDB3/8-200	5/8"/16mm	200ft / 60m	3/8" / 10mm	15ft / 4.5m	215ft / 65m	Mako
SSDB3/8-250	5/8"/16mm	250ft / 75m	3/8"/10mm	20ft / 6m	270ft / 82m	Mako
SSDB3/8-300	5/8"/16mm	300ft / 90m	3/8"/10mm	20ft / 6m	320ft / 82m	Mako









### **Frequently Asked Questions**

- Q: Nothing happens when I use the Up & Down switches. What could be causing this?
- A: It could be a shortage of power to the Up & Down switches. Try flipping the On/Off switch several times. Check and clean the terminals. See if the fuse has blown.
- Q: The solenoid clicks but the windlass will not go up or down. There is sufficient power to the solenoid, but not to the windlass. What is the problem?
- A: Check the power supply for the windlass motor. Make sure power is going from solenoid to motor. See if the main fuse has blown. (This is not the same fuse for the motor and the solenoid. The main motor fuse is from 70 150 amps and the solenoid is 5 amps)
- Q: The windlass works normally, but doesn't have enough power to haul the anchor. What could be causing this?
- A: The windlass clutch is too loose. Use the windlass handle to tighten the clutch.
- Q: The windlass operates normally, but the chain does not come in or the chain gets jammed on the windlass or underneath the windlass. What is causing this?
- A: Check to make sure the chain is not getting caught when going through the chain pipe. The hole in the deck needs to be cut at an angle to prevent the chain from getting hung up. This is also a common problem with new chain (with a lot of galvanizing on the chain). Bring the chain out and then in again. Another problem can be the storage room for the chain. If this is too small the chain can get jammed. If the chain gets stuck without you noticing, the main fuse might blow.
- Q: My windlass seems weak and powerless, and the drop and haulage speed is slow. What causes this?
- A: Your battery is week, remember we are dealing with a lot of power consumption. Remember to use the correct cable size for the motor. The main fuse might blow under these circumstances.
- Q: I have an older Dolphin 1000 and my motor has three (3) posts. The new replacement motor only has two (2) posts. What do I do with the third wire?
- A: If replacing an old motor with a new motor you must also change the solenoid to our Part Number: 90503. Connect the two (2) hot wires to the motor and cut back the negative wire where the solenoid is and hook the negative on to the new solenoid #90503.
- Q: I have a Stingray Model and don't see any parts available on your site?
- A: The Stingray Model was discontinued in 2009 and we no longer carry any replacement parts. We recommend you upgrade your windlass to the Barracuda Vertical Model.
- Q: I have lost a bolt to my Anchor Connector/Swivel and need a replacement?
- A: Our Anchor Connectors/Swivels are made using a single piece of 316L Stainless Steel. Each bolt is specific to that unit. We do not carry replacement bolts and you will need to purchase a new Anchor Connector/Swivel. We recommend using a Thread Locker product on the threads of all bolts used in a marine environment to prevent them from backing out.
- Q: I bought my Anchorlift through a Private Seller/On Line and it doesn't work, what's my warranty?
- A: Anchorlift & Salt Gear products are covered under warranty if purchased through an Authorized Reseller only. Proof of purchase is required to verify. We stand behind all of our products, but we cannot warranty anything that was purchased from an unauthorized party.
- Q: My solenoid says 90503 but it doesn't look like the one in the picture?
- A: The older models had the 90503 Solenoid and it has since been modified and issued a new part number which is: 90501. If your existing solenoid has three (3) brass tabs on the side with four (4) posts on top, you will require the new part number: 90501 (12v) or 90504 (24V) Solenoid as a replacement.
- Q: What Windlass do I have on my boat, I don't see a Part Number?
- A: Unfortunately, there are no part numbers on older windlasses BUT it is easy to figure out which model you have. First: look at your motor for a label that will have the model indicated on it: Barracuda, Dolphin, Mako or Aquarius. Second: measure the size of your chain, ¼" = Barracuda models, 5/16" = Dolphin or Mako models (depending on chain size) and 3/8" = Mako or Aquarius. Third: check your Gypsy for markings embossed on it that will indicate chain size: ¼" 6mm, 5/16"-10mm, etc. and lastly you can help determine which windlass you have by the size of your boat: Up to: 30ft. = Barracuda 600, 35ft. = Barracuda 900, 45ft. = Dolphin 1000, 75ft. = Mako and up to 90ft. + = Aquarius.

NOTES:			



### **Limited Product Warranty**

Anchorlift warrants to the original purchaser that your purchase (the "Product") shall be free from defects in materials and workmanship under normal use for a period of five (5) years from the date of purchase. Anchorlift does not warrant that the operation of the Product will be uninterrupted or error-free. Anchorlift is not responsible for damage arising from failure to follow instructions relating to the Product's use. 5-year limited warranty applies to the following Anchorlift products: Windlass Head Units, Bow Rollers, Rode Splice, Swivels and Turners. 1 year limited warranty applies to: Motors and Gear Boxes. This limited warranty does not cover normal wear parts. 6-year Limited warranty applies to Salt Gear brand inflatable fenders ONLY. Limited Lifetime Warranty applies to Anchors only and warrants that the product will be free from material defects in and failure of material and workmanship from the date of purchase of the product by original purchaser. Warranties are not transferable. Electrical parts such as, but not limited to solenoids, switches, circuit breakers, remote controllers and combo packs are not covered by warranty. This Limited Warranty does not cover the technical services provided by Anchorlift to owners of the Product.

### Remedies

If a manufacturing defect arises and a valid claim is received by Anchorlift within the Warranty Period, Anchorlift will, at its option and to the extent permitted by law, either (1) repair the Product at no charge, using new or refurbished replacement parts or (2) replace the Product with a new or refurbished Product. These are your sole and exclusive remedies. Shipping and handling charges may apply except where prohibited by applicable law. This Limited Warranty is valid only in the jurisdictions where the Products are sold by Anchorlift itself or through its authorized resellers or agents, and is valid to the extent permitted by the applicable laws of such jurisdictions. Any replacement product will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer, or for any additional period of time that may be applicable in your jurisdiction.

### **How to Obtain Warranty Service**

To obtain warranty service, you must obtain an RMA number and deliver the Product, in either its original packaging or packaging providing an equal degree of protection, to the address below:

Anchorlift

830 NE 24th Lane, Unit #F

Cape Coral, Florida 33909 USA

In accordance with applicable law, Anchorlift requires that you furnish proof of purchase details and/or comply with registration requirements before receiving warranty service. For specific instructions on how to obtain warranty service on your Product, visit the website (www.anchorliftdirect.com).

### **Exclusions and Limitations**

This Limited Warranty applies only to the Product(s) manufactured by or for Anchorlift that can be identified by the "Anchorlift" or "Salt Gear" trademark, trade name, or logo affixed to it. The Limited Warranty does not apply to any anchorliftdirect.com products and services other than the Product.

This warranty does not apply to a Product or part of the Product that has been altered or modified (e.g., to alter functionality or capability) by anyone who is not a representative of Anchorlift. In addition, this Limited Warranty does not apply: (a) to damage caused by use with non-Anchorlift products; (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (c) to damage caused by operating the Product outside the permitted or intended uses described by Anchorlift or with improper voltage or power supply. Natural wear and tear to the windlass models and windlass accessories is not covered by the Warranty. This Warranty does not apply to products that were damaged due to negligence, improper installation, improper use or any other actions not specified. Windlasses should not to be used to haul the seabed to the boat, or drag the boat to the anchor. This Warranty shall be voided if the equipment is altered or repaired by unqualified personnel. 5-Year Warranty does not include Rode Kits (rope/chain combinations) other than the splice where the chain attaches to the rope. Anchorlift is not responsible for any damages to the gear box/motor or any other parts caused by Anchorlift windlass models & accessories.

No Anchorlift reseller, agent, or employee is authorized to make any modification, extension, or addition to this Limited Warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

# **Implied Warranties**

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES (INCLUDING WARRANTIES OF MERCHANT-ABILITY AND FITNESS FOR A PARTICULAR PURPOSE) SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. Some jurisdictions do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to you.

### **Limitation of Damages**

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANCHORLIFT SHALL NOT BE LIABLE FOR ANY INCIDENTAL, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE OR OTHER, RESULTING FROM ANY BREACH OF EXPRESS OR IMPLIED WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, EVEN IF ANCHORLIFT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some jurisdictions do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### **Governing Law**

This Limited Warranty shall be governed by the laws of the State of Florida, USA, without giving effect to any conflict of laws principles that may provide the application of the law of another jurisdiction.

### **National Statutory Rights**

Consumers in some jurisdictions may have legal rights under applicable national legislation governing the sale of consumer goods, including, without limitation, national laws implementing EC Directive 99/44. These rights are not affected by the warranties in this Limited Warranty.

# Complete Windlass System

Barracuda Boats to: 35ft



Dolphin Boats to: 45ft



Mako Boats to: 65ft



Mako C Boats to: 65ft

Aquarius C Boats to: 90ft



Chain to anchor swivel connectors

964408 Chain 5-6-7mm 1/4" 964410 Chain 8-10 5/16-3/8" 964411 Chain 10 3/8" 964412 Chain 10-14mm 3/8-9/16" 964420 Chain 16-20mm 5/8-3/4"



**Bow Plank Rollers** 



90113, 90114 & 90115

Anchors: Up to 8kg/17lbs





90104 Anchors: Up to 30kg/66lbs

Anchors: Up to 50kg/110lbs





Anchors: Up to 30kg/66lbs



Anchors: Up to 50kg/110lbs



Ascronsippe CX Anchors Boats 20 - 90 ft. Solid Stainless Steel Sizes: 15kg / 33lbs to 80kg / 176lbs Lifetime Warranty



TPX Anchors Boats 20-90 ft. Solid Stainless Steel Sizes: 6 kg / 13.2 lbs to 120 kg / 264 lbs Lifetime Warranty

# **Control Units**

90801



WINDLASS

90800

90900B

90080-90175





90503

90501





Autodrop 4 channel Radio Remote 91354





Rope Chain Combo Double Braid Polyester Rope Galvanized or Stainless steel chain

1/4" chain 1/2" rope 5/16" chain 9/16" rope 5/16" chain 5/8" rope 3/8" chain 5/8" rope



