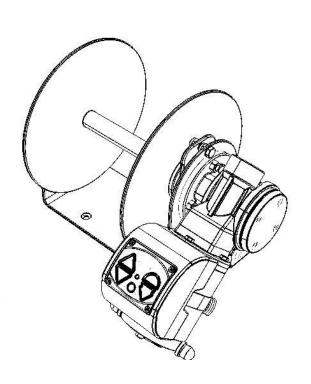
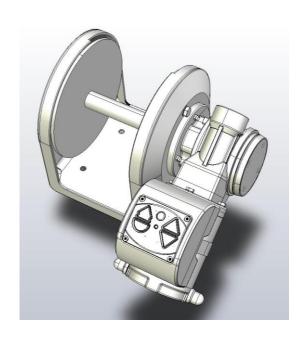


TRAC

INSTALLATION AND OPERATING INSTRUCTIONS

**Titan 450™ Drum Winch** T10240 T10230 Titan 300™ Drum Winch





If you have any questions or difficulty installing this product, we are here to help!

# First **READ THIS MANUAL**.

If you still need help, call us from 9 am to 4 pm (Central time) Monday – Friday.

(615) 462-6224

**Note**: At this time, we provide Phone Support in English only.



## **Installation and Operating Instructions**

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain this anchor winch. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

**Unpacking** - When unpacking, inspect carefully for any damage that may have occurred during transit. Make sure the winch is correctly installed before putting unit into service.

**GENERAL SAFETY INFORMATION** - Throughout this manual potential safety hazards will be noted with the following terms. Please read and understand these terms before operating the product.

## A DANGER

Danger means a hazard that <u>WILL</u> cause death or serious injury if the warning is ignored.

# **AWARNING**

Warning means a hazard that <u>COULD</u> cause death or serious injury if the warning is ignored.

# **A** CAUTION

Caution means a hazard that MAY cause minor or moderate injury if the warning is ignored. It may also mean hazard that will only cause damage to property.

### SAFETY ISSUES

Read this user manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Only persons well acquainted with these rules of safe operation should be allowed to use the winch.

## **A DANGER**

### Rope breakage.

- 1. Never allow anyone to be positioned between the anchor and the winch. If the rope breaks it could snap back with enough force to cause injury.
- 2. Never substitute cable for rope. Cable is not an acceptable anchor line as it does not stretch and is easily frayed. If cable breaks it can snap back with more force than a rope.
- 3. This product is intended to lift typical marine anchors. Do not attempt to lift or move people or other objects.
- 4. Inspect entire rope for weakness, wear or kinking (short tight twist or curl) before each use. Replace worn rope.

## **A DANGER**

### Electrical shock and fire hazards.

- 1. If possible, do not extend the battery wires, doing so can reduce winch performance. If you can shorten the wires, this will improve performance slightly. If you must extend the wires, wire selection must be made based on AWG wire size selection charts for 100 amp circuits.
- 2. Wire that is too small could result in overloading and a fire. Larger gauge wire will improve product life. Use 4 AWG 105c wire up to 15 ft. (4.6m), 2 AWG 105c wire up to 25 ft. (7.6m). Splice the additional wires directly to the wires coming out of the winch CU (Control Unit). DO NOT open the CU and try to replace the existing wires with heavier wire. Warranty will be void and a satisfactory result will not be attained. Cut the existing battery wires about 12 inches (30cm) from the CU and splice to extended wires with a sealed connection.
- 3. Opening the Control Unit will void the product warranty unless instructed by a TRAC Service Technician.
- 4. Use a 100-amp circuit breaker or fuse near the battery. This breaker protects the wire between winch and battery.
- 5. Make sure any crimped electrical connections do not pull apart easily.
- 6. Always disconnect the battery positive wire from the battery before attempting to install, relocate, or service the winch.



**DANGER**Boat trailering hazards – As a precaution, when the boat is being trailered, the anchor must be secured inside the boat or tow vehicle. If the anchor were to break free while trailering, it could cause serious damage and/or injury.

# **AWARNING**

### Anchoring hazards.

- 1. Damage to the winch WILL occur if operator drives boat while anchor is down. Dragging the anchor will damage the winch.
- 2. Do not exceed the capacity of the winch. If the circuit breaker halts operation of the winch during retrieval or deployment; the winch may have been overloaded. The winch Control Unit, located on the winch motor, has an internal circuit breaker to prevent damage from overload. If tripped, the circuit may be reset at the switch by pressing the RESET button. A second circuit breaker (or fuse) is to be located at the battery for proper installation.

# **▲WARNING**

### **Entanglement hazards.**

- 1. Never place any object or tool in the rope spool while retrieving or deploying the anchor. The tool or object could become tangled in the rope resulting in serious injury and/or damage to the winch.
- 2. Do not wear loose fitting clothing, scarves, or neck ties during the operation of the winch. Loose clothing may become caught in moving parts resulting in injury or death.
- 3. Do not operate the winch if any person is near the rope or rope spool.
- 4. Do not operate the winch under the influence of drugs and/or alcohol.

## **▲** CAUTION

**Storage and Maintenance** – For storage, it is best to disconnect positive wire from battery.

### WINCH DESCRIPTION

This drum winch retrieves and deploys anchors using rope and up to 20 feet of optional chain. This anchor winch features power-up, power-down, Free Fall Down and ON/OFF operation. All operations are located on two control switches. One switch is located on the Control Unit for easy operation at the winch itself. A second switch may be located at the helm, or anywhere the installer chooses.

### **PRODUCT SPECIFICATIONS**

	TITAN 450™	TITAN 300™
Maximum Rode Weight	60 lbs. (27kg)	60 lbs. (27kg)
(weight of the anchor, line, chain)		
Line speeds:		
Free-Fall Down	500 FPM (152m)	500 FPM (152m)
Power Down	65 FPM (20m)	70 FPM (21m)
Power Up	55 FPM (17m)	60 FPM (18m)
Winch Dimensions:		
Motor at 30 degrees	L 14" x W 15" x H 12"	L 12.5" x W 13" x H 9"
	(35.6cm x 38.1cm x 30.5cm)	(31.8cm x 33cm x 24cm)
Motor angled upright	L 10" x W 15" x H 14.5"	L 10" x W 13" x H 13.5"
	(25.4cm x 38.1cm x 36.8cm)	(25.4cm x 33cm x 34.3cm)

#### Other Specifications:

Permanent magnet 1800 watt DC Motor, 12V nominal

Normal operation will use 20-70 amps. Current limited at 120 amps.

Frame, drum, and hardware made from marine grade stainless steel

Sealed 4-gauge battery lead wires 6' (2m)

Mounting Bolt Pattern (LxW): 4-3/4" (120mm) x 3-1/2" (90mm), 4 bolt staggered



### **INSTALLATION**

### **TOOLS REQUIRED:**

- 1. Electric Drill with 7/8" (22mm), 5/16" (10mm) and 1/8" (3mm) Drill Bits
- 2. Adjustable (Crescent style) wrench
- 3. Socket and driver

### **MATERIALS REQUIRED**

- 1. Mounting Hardware For Titan 450 use countersink head bolts for Titan 300 use hex head or round head bolts.

  4 sets- 5/16 (10mm) stainless steel bolts (length = mounting surface + 1.5" (40mm), washers, and lock-nuts.
- 2. Wire if longer than 2 meters is required.

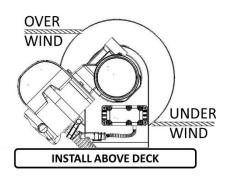
### **INSTALLING ANCHOR WINCH ON BOAT DECK**

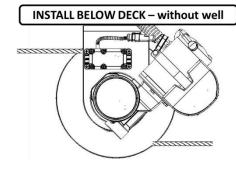
The anchor winch can be installed above or below deck. It is important that the anchor roller line up with the centerline of the rope drum for proper loading of rope. To install the anchor winch, follow these steps.

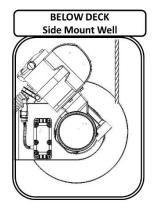
- 1. Place the winch in location and directly inline and centered with the anchor roller.
- 2. Examine both sides of the installation surface for obstructions to bolts and wire routing.
- 3. Mark the winch bolt locations and wire holes if any are required.
- 4. Remove winch, drill necessary holes, seal holes with marine grade silicone sealant.
- 5. Seal the exposed deck material inside the hole with marine silicone sealant.
- 6. Secure the winch to the deck. Consider using large fender washers and backer board under the deck to ensure the greatest strength and to spread the load.

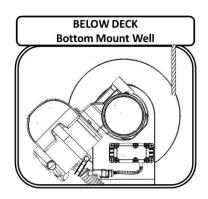
### INSTALLING ANCHOR WINCH IN THE ANCHOR WELL

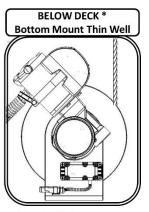
Identify location of winch, battery wire and switch wire. Follow steps 1-7 to install. If installing in a narrow anchor well, it might be necessary to rotate the gear-motor 90 degrees as shown. To rotate the gear-motor, remove battery positive wire from battery. At the winch location, snip and remove plastic wire ties around the wire harness to make added wire length available. Locate the bolts holding the gearbox to winch frame. Remove nuts, remove bolts, rotate gear-motor (without removing gear-motor) to the desired location. Reinsert bolts, attach and tighten the nuts. Group extra wire in a bundle and secure with new plastic wire ties.











\* Requires 90 degree rotation of the gear motor on the frame.



#### **INSTALLING THE SWITCH PANEL**

This winch includes a second switch and connector cable. Determine the location of the second switch (usually at the helm). Hold the switch in the desired location and mark the center hole location and drill a 7/8" (22mm) hole for the connector to pass through. Pass the switch connector through the hole and lay the switch flat on the installation surface. Align to switch, mark four screw holes, remove switch. Drill the four marked screw holes with 1/8" (3mm) drill bit. Route the connector cable between winch and second switch location. Install switch with four self-tapping screws provided. Excess cable can be coiled and tied off with plastic cable ties.

#### THE CIRCUIT BREAKER

This winch includes over-current circuit protection to protect the winch from overload. An additional 150-amp circuit breaker or fuse is recommended to protect the battery wire between the winch and battery. Position for the fuse or breaker close to the battery.

### WIRING SELECTION & SPECIFICATION

## **A DANGER**

Using incorrect wire can result in overloading and a fire. Using incorrect circuit breakers may result in melting of wire insulation and possibly a fire. DO NOT use electrical wire sizes smaller than recommended in AWG wire selection charts. Larger gauge wire will improve product life. Use 4 AWG up to 15 ft. (4.6m), 2 gauge up to 25 ft. (7.6m). Always use larger wire if you can.

# **A DANGER**

- Always disconnect battery positive wire from the battery before attempting to install, relocate, or service the winch.
- Make sure all crimped electrical connectors meet industry standards.

# **▲** CAUTION

- Follow order of wiring steps to ensure power is not applied to winch until wires and circuit breakers are installed.
- Keep wires away from intense sources of heat. Be sure newly installed wires are away from any bare wires.
- Never attach the circuit breaker to the negative terminal of the battery.

#### WIRING

Route the battery wires between winch and battery. Connect the RED positive (+) wire to the LOAD side of the circuit breaker. Connect the BLACK negative (-) wire connects to the battery negative terminal.

# **A** CAUTION

### **ROPE TO DRUM ATTACHMENT**

Route the rope through the davit or anchor rollers to the winch drum. Insert the rope through the metal loop located on the drum center tube, wrap the rope around the drum center tube and tie in a knot. Pull the rope to confirm your knot is holding as well as you require. Make sure the rope is not tangled and not looped around anything and is free to wrap on the spool. If no rollers are present, hold the rope on center of drum about 3 to 6 feet away. While holding light to moderate rope tension, ask a mate to press the "UP" direction on the switch and hold UP button until the rope is wrapped on the drum. Release the switch button at any time during the rope loading process, to pause, or if an unsatisfactory wrap is occurring. The installer may wish to load the rope "levelwind" manor (wrapping the rope back and forth in neat rows on the drum), however when the winch is normally used for anchoring, the rope will wrap on the drum in a random manor. Wrapping in a random manor will give you a true sense of when the drum is full and no additional rope or chain will fit. When the rope or chain makes contact with the frame under the drum, no addition rope or chain will fit without causing the free-fall to stop working correctly.

### **ANCHOR CHAIN TO ROPE ATTACHMENT**

Use a threaded link to attach rope eye-splice to chain and chain to anchor. Some shackles can interfere with anchor docking.



### **RODE RECOMMENDATIONS**

<b>BOAT WEIGHTS</b>	BOAT LENGTHS							
Light Boat	20'-24'	24'-28'	28'-32'	32'-36'	36'–40'	41'-45'		
Medium Boat	16'-20'	20'-24'	24'-28'	28'-32'	32'-36'	36'-40'	•	
Heavy Boat	12'-16'	16'-20'	20'-24'	24'-28'	28'-32'	32'-36'	•	
TRAC MODEL	RODE DIAMETER OPTIONS							
	3/16"	1/4"	9/32"	5/16"	3/8"	1/2"	9/16"	5/8"
	(5mm)	(6mm)	(7mm)	(8mm)	(9.5mm)	(12.5mm)	(14mm)	(16mm)
Titan 450	700 ft ^	500 ft*	330 ft*	300 ft*~	200 ft*	100 ft *	60 ft ^	40ft ^
Titan 300	400 ft ^	300 ft*	200 ft*~	180 ft*	120 ft*	100 ft ^		

<sup>~</sup> TRAC Anchor Rope Offerings

### **SAFETY CABLE ATTACHMENT**



When the boat is being transported by trailer, the anchor must be placed in the boat and secured. If the anchor were to break free during trailering, it could cause serious damage and injury. An anchor safety cable is only designed to hold the anchor in place when the boat is underway in the water and is an insufficient safety measure while trailering your boat.

It is the responsibility of the boat operator to assure the anchor is safely secured each time the anchor is retrieved. The operator may optionally install an anchor safety cable for use while the boat is underway.

### **DRUM WINCH OPERATION**

**UP/DOWN** – To lower the anchor, press and hold the button with the downward pointing arrow. Release the button when you wish to stop letting rope out. To raise the anchor, press and hold the button with the upward pointed arrow. Release the button when the anchor is docked or when you wish to stop the retrieval of the anchor.

**FREE FALL** – To release the anchor rode press the "FREE FALL" button twice. With two (2) button presses the drum will be released allowing the anchor to fall quickly. After the anchor has reached bottom, the boat should be allowed to drift, letting out additional rope. When ready to begin to hold an anchored position, press the LOCK or UP button.

LOCK - Pressing the LOCK button will lock the winch and prevent any additional rope from letting out.

**UP** – To raise the anchor, press and hold the switch in the "UP" position.

RESET – Press the RESET button if the winch stops operating and red LED on the switch panel is flashing on and off.

### Helpful hints:

- 1. After the anchor is deployed, avoid using the DOWN button to let rope out. Excessive powering down could create a rope tangle. A better technique is to use FREE FALL to let more rope out.
- 2. Keep all surfaces clean using water, mild environmentally safe cleaners and a soft cloth. Do not use abrasive cleaners.

### TROUBLE SHOOTING GUIDE

Loading the rope and chain:

- If there is a buildup on one side of the drum, the winch has been installed off-center. The drum must be both centered and square to the roller or davit. Build up to one side of the drum indicates drum is not on center or not square to the roller.
- If when retrieving the anchor, the drum becomes filled and the rope or chain contacts the bottom frame of the winch, you have exceeded the drum capacity.

#### Anchor fails to fall

- Press the DOWN switch is activated, confirm the anchor will deploy normally.
- Press FREE FALL to confirm drum is released and free to spin.

<sup>\*</sup> plus 20 ft. of chain

<sup>+</sup> plus 15 ft. of chain

<sup>^</sup> no chain



#### Over-run

• If the rope tangles or spills over the side of the drum, apply tension on the rope while pressing the UP or DOWN button in the appropriate direction to unwind the tangle.

### **Actuator Malfunctions**

- Check for power present on the connector (CU side) when unplugged and FREE FALL or LOCK buttons are pressed.
- Check electrical connector.
- Clean any salt build up.

### No Power

- Check reset LED button on switch. Reset if needed.
- Check electrical connections.
- Confirm battery power is present.

### **Breaker Trips**

• If the anchor is stuck on the bottom and you hold your finger on the UP switch, the circuit breaker will trip. Reset the circuit breaker, drive your boat toward the anchor, and press the UP button when the rope becomes slack.

It is customery to maneuver the boat closer to the anchor when raising the anchor. Care must be taken to NOT drag the anchor with the boat's power. This will cause product damage or injury. Do NOT use the anchor winch to pull the boat to the anchor position. Motor the boat toward the anchor while retrieving the anchor rope.

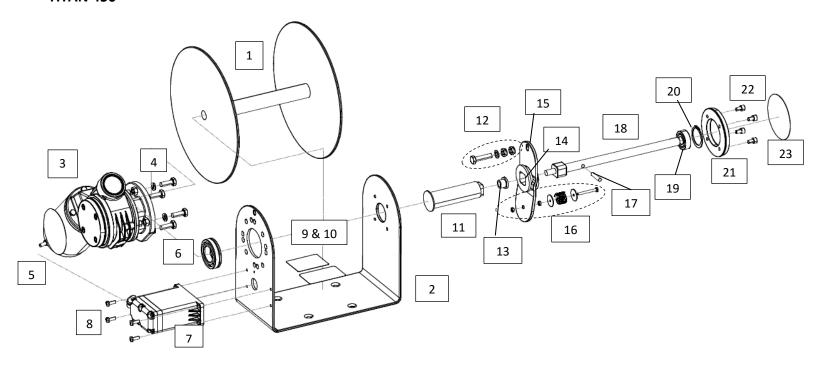
### **DRUM WINCH PARTS**

If ordering a part, provide the product model as well as the part number.

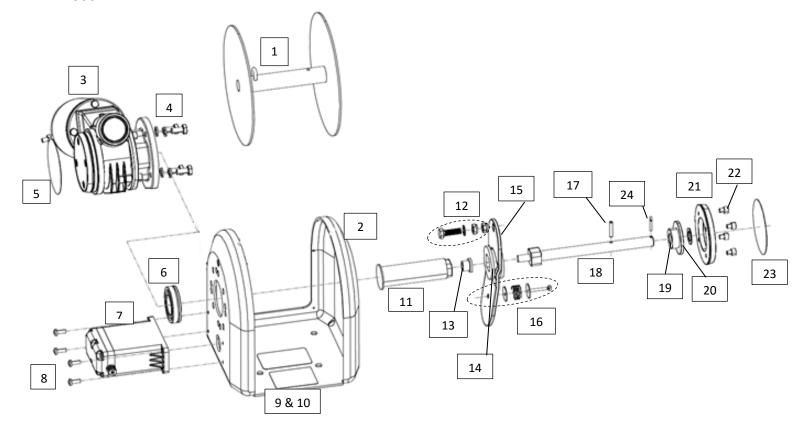
PART #	DESCRIPTION	QTY	PART #	DESCRIPTION	QTY
1	Spool	1	21	Bearing Cap	1
2	Frame	1	22	Screws for Bearing Cap	4
3	Gear Motor	1	23	Label for Bearing Cap	1
4	Gear Motor Mounting Screws and Washers	4	24	Cotter Key	1
5	Gear Motor Label	1			
6	Gear Motor Output Shaft Bearing	1	30	Screws for Switch	4
7	Actuator	1	31	5 Button Switch	1
8	Actuator Mounting Screws	4	32	Loom Cover	1
9	Serial Number Label	1	33	Second Switch Cable with Connector	1
10	Warning Label	1	34	Extension Cable for Second Switch	1
11	Output Shaft	1	35	Control Unit Housing (Top and Bottom)	2
12	Screw for Actuator Plate	1	36	Solenoid	1
13	Bushing	1	37	Circuit Board	1
14	Drive Coupler	1	38	Motor Wire – Long	1
15	Actuator Plate	1	39	Motor Wire – Short	1
	Return Spring and Hardware for				
16	Actuator Plate	1	40	Actuator Cable	1
17	Set Screw	1	41	Battery Wire (POS+)	1
18	Spool Tube	1	42	Battery Wire (NEG-)	1
19	Bearing for Spool Tube	1	43	Screws for Control Unit Housing	4
20	Retainer Ring	1	44	Antenna Wire (DO NOT CUT)	1



### **TITAN 450™**

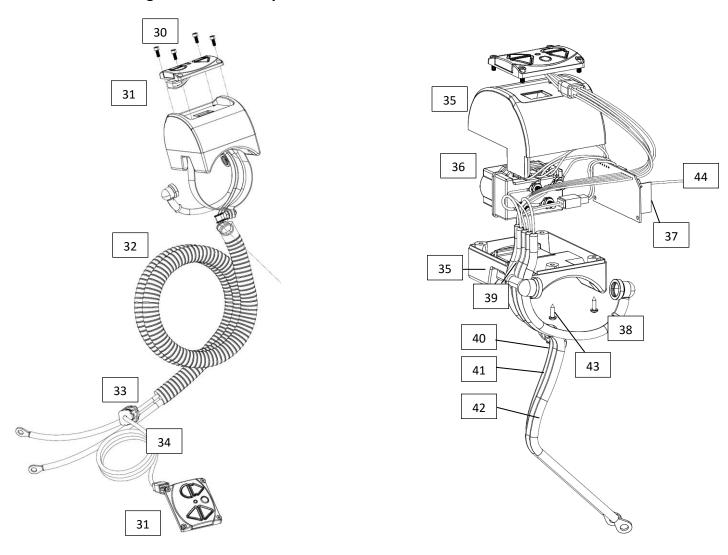


### **TITAN 300™**





### Control Unit & Wiring Harness Assembly for Titan 450 & Titan 300



### **TRAC Anchor Winch Limited Warranty**

This limited warranty is provided by TRAC Outdoor Products Co (TRAC) to the original consumer purchaser (purchaser) of the TRAC Anchor Winch. This limited warranty is not transferable to any other party. TRAC will at it option repair or replace any part(s) of the TRAC Anchor Winch which may be found by TRAC to be defective within two (2) years of purchase. In the unlikely event warranty service is required, TRAC will pay the shipping charge to the purchaser for any part(s) which may be shipped by TRAC. For warranty repair or replacement, the purchaser must provide dated proof of purchase and notify TRAC of the request for warranty service. The original purchaser will notify TRAC by email at info@TRAC-Outdoor.com or by phone at 615-462-6224 for warranty service. TRAC will attempt to provide parts needed to repair the winch. If the winch is to be returned, purchaser will be provided a Return Goods Authorization (RGA) to include with any return for warranty service which will be shipped at the purchaser's expense to the address provided. The purchaser must use reasonable care in maintenance and operation of the product in accordance with this manual. Failure to follow the instructions in the manual will void the warranty. This warranty covers defects in material or workmanship of the TRAC Anchor Winch. This warranty does not cover failure that results from misuse, improper installation, accident, abuse, neglect, modification, or improper maintenance. There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two (2) years from the date of purchase. Any damage to watercraft resulting from proper or improper use of this TRAC Anchor Winch is not covered under this warranty. Costs of installation or repair by service centers or marine repair facilities are not covered by this warranty. This is the exclusive remedy and any liability for any and all incidental or consequential damages or expenses whatsoever is excluded. Some states do not allow limitations on how long an implied warranty lasts, or do not allow exclusion or limitation of incidental or consequential damages, the above limitations may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.