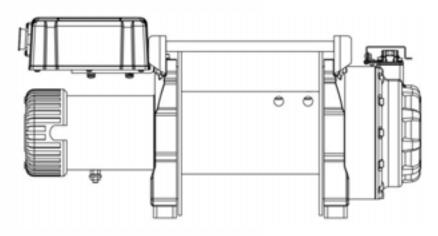


# SUPERWINCH TIGER SHARK 66.7kN EN 24V Winch

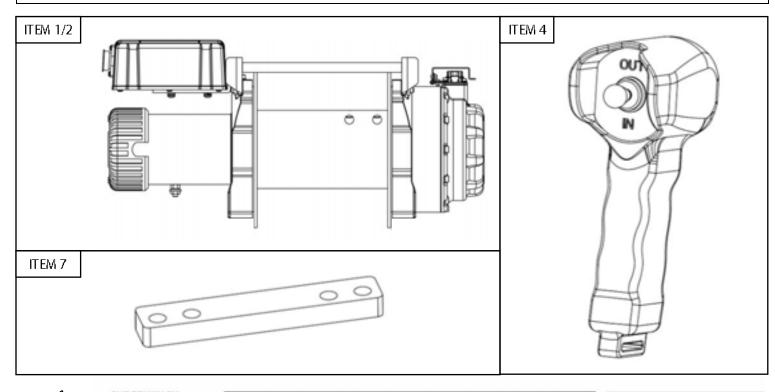


PART NUMBERS:

1518100: Tiger Shark 66.7kN EN 24V Winch

# **CONTENTS**

ITEM	QUANTITY	DESCRIPTION	
1	1	WINCH	
2	1	CONTROL BOX	
3	1	FAIRLEAD	
4	1	WIRED REMOTE	
5	1	GROUND CABLE	
6	1	CIRCUIT BREAKER	
7	2	SPACER	
8	4	LONG M12 HEX HEAD BOLT	
9	4	MEDIUM M12 HEX HEAD BOLT	
10	2	SHORT M12 HEX HEAD BOLT	
11	10	M12 SPLIT LOCK WASHER	
12	10	M12 FLAT WASHER	
13	2	M12 HEX NUT	
14	2	M6 SOCKET HEAD BOLT	
15	2	M6 SPLIT LOCK WASHER	
16	2	M6 FLATWASHER	
ANTI-SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL FASTENERS TO PREVENT THREAD DAMAGE AND GALLING			



## **PRODUCT SPECIFICATIONS**

### 1518100: Tiger Shark 66.7kN EN 24V Winch

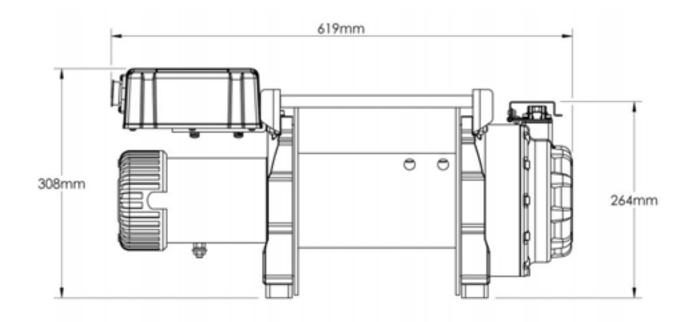
Motor: Series wound 6.8hp/5.0kw, 24V DC

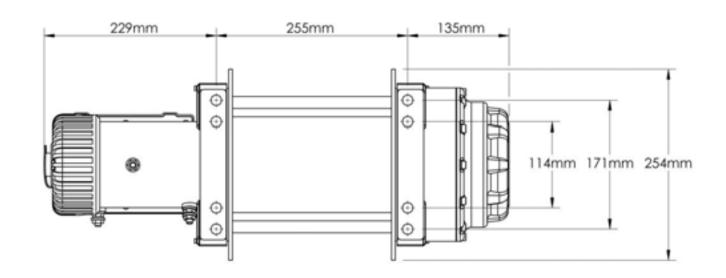
Gear Ratio: 345:1

First Layer Rated Line Pull: 66.7 kN

Drum Diameter: 127mm

Drum Length: 212mm

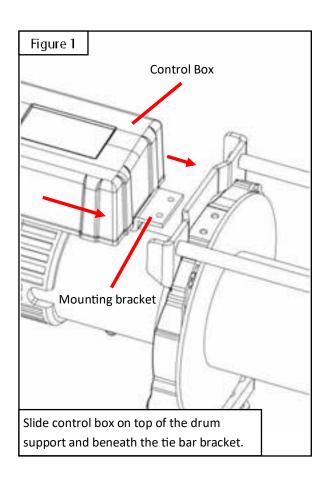


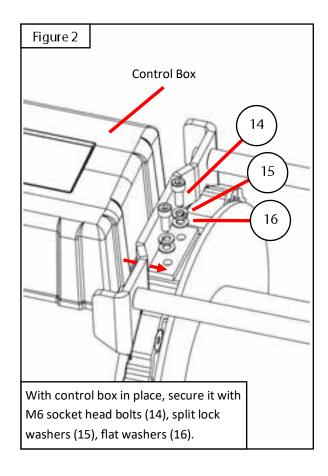


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## INSTALLATION INSTRUCTIONS

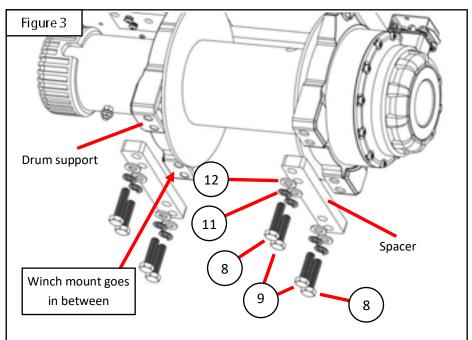
- 1. Remove contents from box, verify if all parts listed are present and free from damage. Failure to identify damage before installation could lead to a rejection of any claim. Note: Carefully remove the winch as the control box will be loose
- 2. Carefully read and understand all instructions before attempting installation. **Ensure that all mounting hardware is** torqued to specifications prior to use.
- 3. Using supplied M6 hardware (items 14-16), install the control box by sliding the control box mounting bracket on top of the drum support and beneath the tie bar bracket. See Figure 1.
- With the control box in place, secure it with M6 socket head bolts (14), split lock washers (15), flat washers (16).
   See Figure 2.

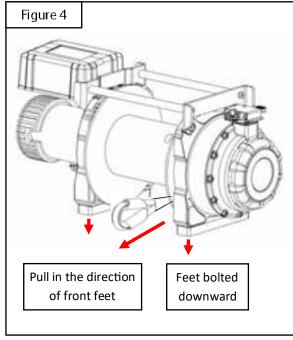




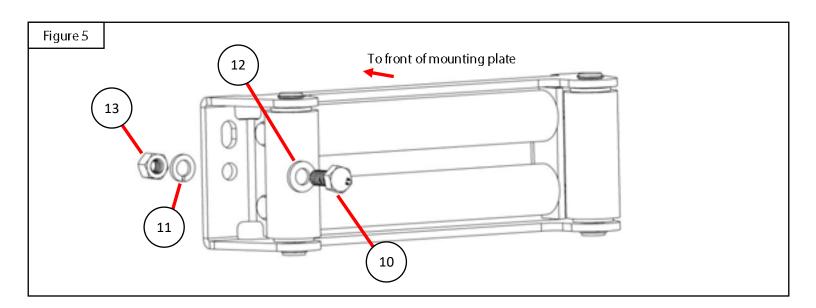
5. In order to properly install the Tiger Shark Winch, you will need to use a heavy duty winch mount. **Ensure the winch** mount/bumper is rated for your vehicle weight and pulling power of the winch.

- Before mounting the winch, position the spacers between the bottom of the drum supports and the top of the winch mount. See Figure 3.
- 7. Carefully set the winch on the mounting location. Line up the mounting holes and using supplied M12 hardware, loosely assemble the winch to the mounting location. Note: The medium M12 bolts are to be used on the inner bolt patter and the long M12 bolts are to be used on the outer bolt pattern. See Figure 3.



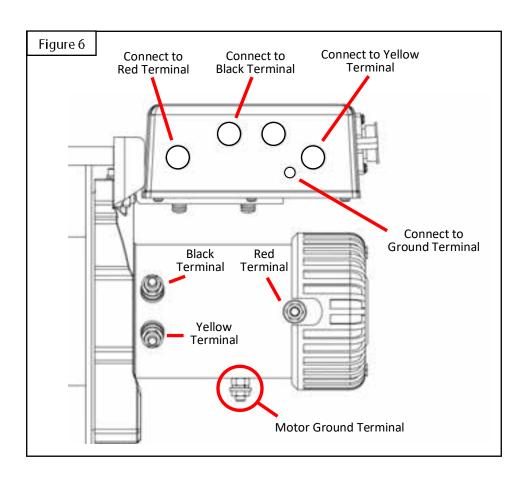


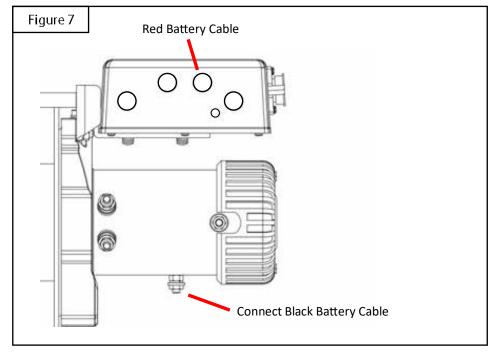
- 8. Adjust the winch as needed and torque M12 Bolts to 50-55 ft-lbs.
- 9. Locate the roller fairlead and mount it to the winch plate or bumper using supplied M10 Hardware. See Figure 5.



10. Route the red battery cable and black battery to the battery using zip-ties as needed. Connect the red cable to the positive terminal. Connect the black cable to the bottom of the motor side and then to the battery's ground terminal.

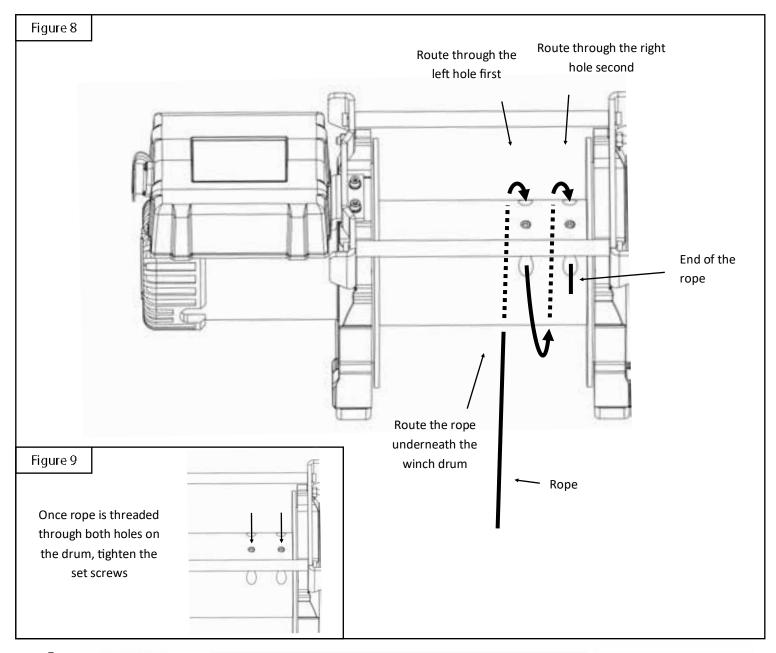
Note: Be sure to route the cables away from hot spots or sharp edges. See Figures 6 & 7.





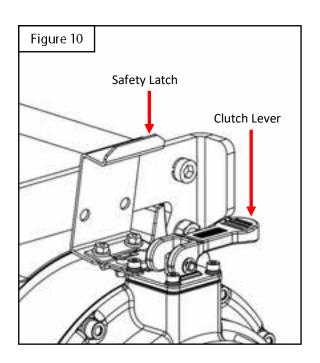
## **ROPE INSTALLATION (ROPE NOT INCLUDED)**

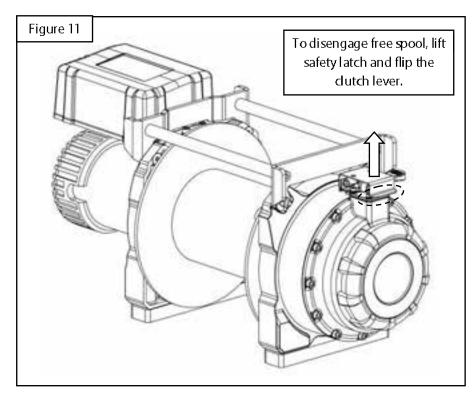
- Route the winch rope underneath the winch drum and back over the top running it through the first drum hole, and
  back around the drum and through the second drum hole on the right. Once rope is in place, tighten the set screws
  securing the rope to the drum. See Figures 8 & 9.
- 2. Connect the remote and rotate the drum on the winch outward until the end of the cable is facing the front. **Ensure**that the rope is routed under the winch (underwound). Damage will occur if not underwound. Carefully pull the cable through the fairlead. Connect your hook to the fairlead with the clevis pin and cotter pin.
- Connect the hook to a tow point or shackle on your vehicle. Winch in until the rope is pulled tight. Rotate the hook so
  that it sits flush on the fairlead. You can also set the hook on the face of the fairlead, but take caution as scratching
  may occur.
- 4. Install the hand saver strap on the hook.

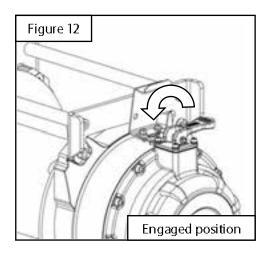


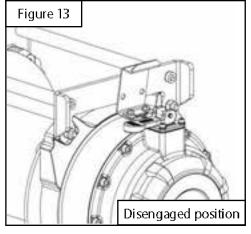
## FREE-SPOOL OPERATION

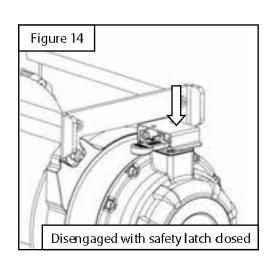
- 1. To free-spool winch cable first ensure there is no tension on the rope or clutch.
- 2. Lift the safety latch and flip the clutch lever towards the front of the winch. See Figures 10-14.
- 3. Using the supplied hand saver, Pull out cable as needed.
- Once the cable is spooled to desired position flip the clutch lever back to the engaged position and close the safety latch to re-engage the winch.









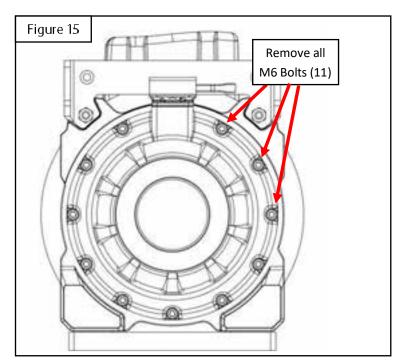


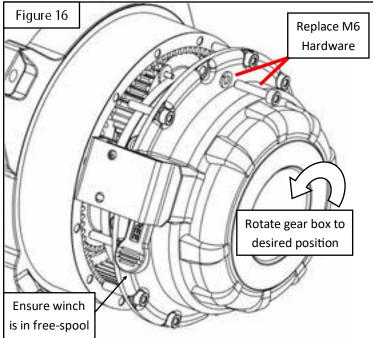
## **CLOCKING THE GEARBOX**

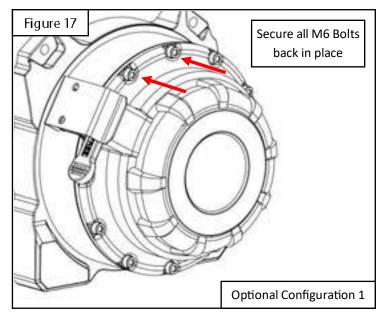
This winch can be "clocked" on the gearbox side for easier clutch handle access in certain mounting situations: hey

- To clock gearbox firstly disconnect the winch from the power supply. Flip the clutch handle so that the clutch is in the free-spool position.
- 2. Remove the (11) M6 bolts attaching the gearbox cover. See **Figure 15**.

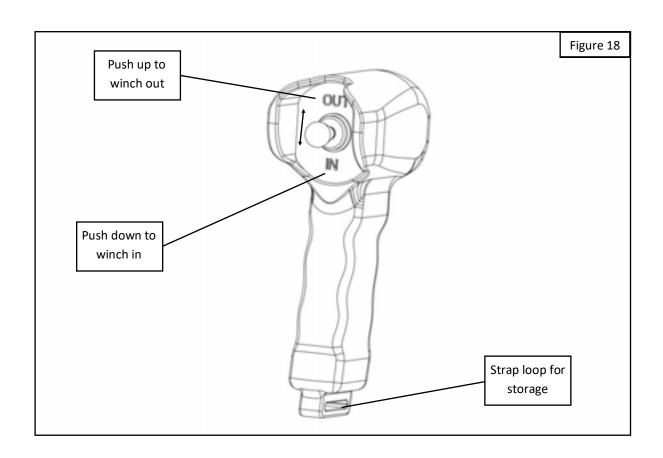
  Note: Ensure that the gearbox cover does not fall when the bolts are removed.
- 3. The winch can be "clocked" every 30 degrees or through every bolt hole. **Without removing the gearbox,** carefully rotate it to the desired position. See **Figure 16**.
- 4. Secure the M6 hardware back into place and torque M6 hardware to 7-8 ft lbs. See **Figure 17**. **Note:** Ensure the gasket is lined up before installation

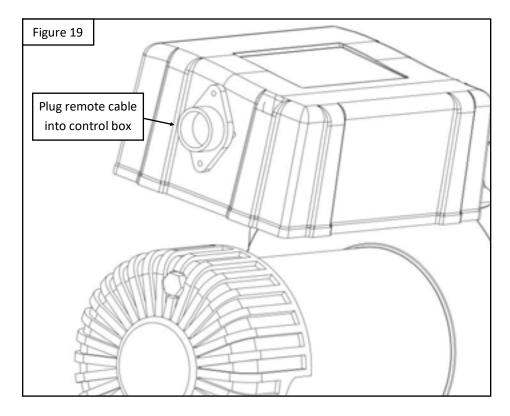






# **REMOTE FEATURES + OPERATION**





## WINCH OPERATING INSTRUCTIONS

Every winching situation has the potential for serious personal injury. To minimize that risk, read this User's Guide carefully. Familiarize yourself with the operation of your winch before using it. Your constant focus on good judgment and winch safety are of great importance. Your winch includes safety icons, warnings and cautions in multiple areas. Please observe carefully and refer to these warnings include below. The winch contains moving parts and sharp edges which can result in cuts, burns, lacerations and/or amputations.



1. Read Owners Manual



2. Electric Shock Hazard



3. Fire and Burn Hazard



4. Hot Surface Hazard



5. Moving Parts Hazard



6. Sharp Edge Hazard



7. Always Use a Handsaver Strap



8. Always Keep Clear of Winch, Rope and Load



9. Always Properly Seat Load in Throat of Hook.



10. Always Use a Shackle or Strap When Attaching the Hook to an Anchor Point



Always Wear Personal Protection Gear.



12. Always Wear Heavy Protective Gloves.



13. Never Apply Load to Hook Tip or Latch.



14. Never attach the hook back on to the rope.



15. Never Put your fingers into the hook.



16. Never touch the rope when in tension or under load.



17. Never use winch as a hoist.



18. Never use a winch to secure a load in place.



19. Never use a winch to lift or move people.



20. Never wind rope over top of drum.



21. Risk of explosion.

#### **OPERATION WARNINGS**

- Improper use or overloading of the winch can result in a release of load or rope failure.
- Before winching a load, be sure the free-spool is fully in the engaged position.
- Always apply load to the throat (center) of the hook.
- Always be certain anchor will withstand load.
- Always ensure hook latch is closed and not supporting load.
- Always operate the winch with an unobstructed view of the winching operation.
- Always seat load in throat of hook. Always take your time when rigging and include a reasonable factor for safety. Never operate a
  winch with less than 5 turns of wire rope around the winch drum. Never operate a winch with less than 8 turns of synthetic rope
  around the winch drum.
- Always use a hook with a latch. Never apply load to hook tip or latch.
- Never disengage the free-spool while winch is under load.
- Always mount winch so that rope feeds through fairlead on front of winch parallel to the mounting surface and does not rub
  across housing or base.
- Always use tackle, hooks, pulley blocks, straps, etc. rated in excess of the load capability of the winch. Never exceed the winch rated capacity.
- Never hook the rope back onto itself, use a sling or strap to secure to anchor point.
- Never mount the winch inverted (base upward) or put the winch mounting hardware in a direct tension condition.
- Always inspect the winch rope/cable before use. Ropes and cables must be replaced if damaged.

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#### RIGGING AND WINCHING

Rigging is the act of connecting the pulling mechanism to the anchor point. Rigging often involves materials such as tree saver straps, nylon straps, pulley blocks, and shackles. The use of these materials is discussed later in this section. Regardless of the materials used, selecting the anchor point is vital.

- In some discumstances the vehicle on which the winch is mounted is the anchor point. In these situations the vehicle with the
  winch is not stuck. It is being used to move another object. When anchoring the pulling vehicle, set the parking brake and block or
  chock the wheels. Keep the vehicle's foot brake depressed and place the automatic or manual transmission in neutral. Always consult vehicle's owner's manual for load capacity and other specifications of your vehicle.
- In a vehicle recovery situation where a winch equipped vehicle is NOT being used as the anchor point, always select a solid object
  that is more than adequate to resist the winch loads applied. This could be a tree, rock or other vehicle. If hooking to a tree or rock
  always use a tree-saver strap. If using a second vehicle as an anchor point, always be sure that the tow point on the vehicle is securely mounted to the vehicle's frame and will fully resist the winch load.
- The anchor point selected should create a straight pull for the winch, as much as possible in the given situation. Long pulls at side
  angles can damage your winch or rope. In all cases, NEVER wrap the winch rope around a load or anchor point and connect the
  hook back to the rope. ALWAYS use a strap or tow point to connect the winch hook to the load or anchor point.
- For trailering applications, always be sure that the tow point on the vehicle or item to be winched will resist the winch load applied, and will not damage the vehicle, item, or winch rope. Align an unobstructed path to the car that you are loading. Minimize contact with the wire or synthetic rope and the trailer or other objects.
- Now that you have selected an anchor point you can begin rigging. No two winching situations are the same. Always wear proper safety equipment suitable to your unique situation.
- When winching, use a winch dampener (See Figure 17), blanket, or heavy jacket to place over the winch rope, to protect people
  and property. This is done to direct energy to the ground in case of winch rope breakage. Monitor your rigging during winching to
  be sure that your dampener is not caught up in fairleads or pulley blocks. Always keep safety your top priority during winching.
- Never allow the winch rope/cable to chafe against sharp edges.
- Wear gloves while handling winch rope/cable.

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SUPERWINCH

Once the Rigging is set, you are ready to Winch. Always keep safety in mind during winching. Keep all observers a distance from the winching operation equal to the length of rope that is in use. For recovery applications, understand how the load you're winching will move. If the vehicle is stuck, understand why. Is the vehicle simply in slippery mud? Is an ade or skid plate caught on a rock? Understanding why the vehicle is stuck is a key point. If there is a large rock right in front of your axle, frame, or skid plate, you can winch all day and the only thing you'll accomplish is bending something, or burning out your winch (See Below). Check for obstructions. Sometimes no amount of winching forward will pull the vehicle up and over an obstacle. If the winch is struggling, re-evaluate. Remember—Sometimes the correct path out is back the way you got in.

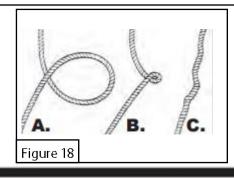


- Take up slack in the rope and rigging slowly.
- Once the rope and rigging are taut, carefully review the rigging again to check for binding or obstructions.
- During winching, apply power to the winch smoothly, and observe all parts of the winching operation while the winch is running. Watch the winch, rigging, rope, and vehicles involved. Listen to the winch for signs that the winch is pulling easily or if it is heavily loaded. Be attentive and observant at all times. If the winch appears to slow considerably or change its sound, stop powering the winch and review the situation.
- Check the winch motor to be sure that the winch does not overheat. Allow time for the winch to cool or re-evaluate your rigging. With more practice and experience you will learn to recognize the winch's sounds and ability.



#### De-Rigging

- When the vehicle has been recovered or the load has been moved to a stable position and winching is complete, secure the
  vehicle or load and release the tension on the rope by powering cable out just enough to slacken the rope. DO NOT USE THE
  WINCH TO SECURE LOADS DURING TRANSPORT.
- 2. Disassemble the rigging, and return components to their storage area.
- 3. Ensure the cable is not kinked, or coiled up as shown in **Figure 18.** Uncoil as necessary or else **damage will occur.**
- 4. Power the winch IN until the hook is approximately 3 feet (1 meter) from the winch. NEVER hold the hook with your hand—ALWAYS use the hand saver.
- Secure the hook to its stowed position (a shackle or tow hook) and jog the winch in slowly, approximately 1 second at a time, until the winch cable is snug
- 6. DO NOT CONTINUE TO WINCH. Simply snug up the rope to a secure position. Do not attach the hook to any part of the winch, such as a tie bar, free-spool control, etc. Use caution if pulling the thimble or hook all the way to the fairlead, Fairlead damage, leading to rope damage may occur, a better practice is to secure the hook off to a side tow hook or other structure.



# **TROUBLESHOOTING GUIDE**

Symptoms	Possible Cause(s)	Corrective Actions
Motor will not operate or runs in one direction only	1. Bad connections or broken wires. Most	1. Check all wiring. Look for loose connections, corrosion, and broken or damaged wires. Any wires that appear damaged must be replaced. Check handheld controller for damaged wiring or damaged or corroded plug and socket connections. <b>Caution:</b> Always use two wrenches when loosening or tightening motor and solenoid connections. Otherwise motor or solenoid damage can occur.
	2. Damaged or stuck solenoid. This is most likely caused by not holding the inner nut to keep the stud from turning when attach ing wire to solenoid.	2. Caution: Disengage free-spool before performing this test to prevent powering the winch drum. If a solenoid sticks once, it is likely to stick again and must be replaced immediately. Tap solenoid to free stuck contacts. For individual single-coil solenoids, check by applying voltage to the small solenoid terminal. Be sure solenoid is grounded back to battery. For multiple-coil block-style solenoids, disconnect existing connections, ground center terminal, and apply voltage to outer terminals one at a time. A solenoid that is not stuck will make an audible "click" when first energized.
	3. Handheld switch inoperative.	3. Replace switch.
	4. Damaged motor	4. Replace or repair motor. Review Brushed. Brushes may be sticking or worn.
	5. Solenoid is not grounded.	5. Check ground path between battery negative and solenoid.
	6. Weak or dead battery.	6. Recharge or replace battery. Check charging system
Winch will not shut off	1. Solenoid stuck "on"	If solenoid sticks on, reverse direction and hold trigger switch on until the power lead can be disconnected.
Motor runs extremely hot	1. Long period of operation.	1. Allow to cool.
	2. Damaged motor.	2. Replace or repair motor.
	3. Damaged brake.	3. Replace or repair brake.
Motor runs but with in- sufficient power or line speed	1. Weak Battery	1. Recharge or replace battery. Check charging system. Ensure you are using a dual battery setup
	2. Battery to winch wire too long.	2. Use larger gauge wire.
	3. Poor battery connection.	3. Check battery terminals for corrosion. Clean as required.
	4. Poor ground.	4. Check and clean connections.
	5. Damaged Brake.	5. Repair or replace Brake.
Motor runs but drum does not turn	1. Free-spool not engaged	1. Engage Free-spool.
Winch runs backwards	1. Motor wires reversed.	1. Recheck wiring.
	2. Solenoid wired incorrectly.	2. Recheck wiring.
	3. Winch rope is overwound instead of under wound.	3. Re-wrap rope around drum so that it is under wound.
Will not hold load	1. Excessive load.	1. Reduce load or double line.
	2. Worn or damaged brake.	2. Repair or replace brake.

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### **WARNING**

Failure to follow these instructions could lead to death, personal injury, and / or property damage.

#### **FASTENERS:**

All SUPERWINCH supplied fasteners must be utilized and installed in accordance with the installation instructions and apply torque to the specifications as defined. DOUBLE CHECK ALL FASTENERS BEFORE INITIAL USE, AND PERIODICALLY IN THE FUTURE TO ENSURE PROPER FUNCTION AND SAFETY.

#### **EYE PROTECTION:**

ALWAYS WEAR SAFETY GLASSES OR GOGGLES DURING THE INSTALLATION PROCESS TO AVOID PERSONAL INJURY.

#### **FOR CALIFORNIA RESIDENTS ONLY-PROP 65 WARNING:**

Some products may contain chemicals such as DEHP, which can cause cancer, birth defects or other reproductive harm. For more info go to www.p65warnings.ca.gov





For more information on this and other products, or to be put in contact with a Superwinch sales rep or distributor, call (800) 323-2031 or email info@superwinch.com

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