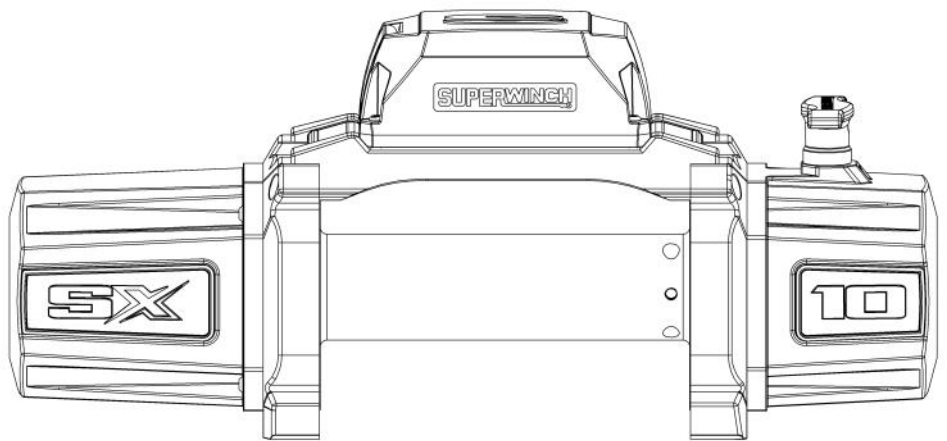




SX10 & SX12 RECOVERY WINCHES



*SX10 shown

PART NUMBERS:

1710203: SX10SR

1712203: SX12SR

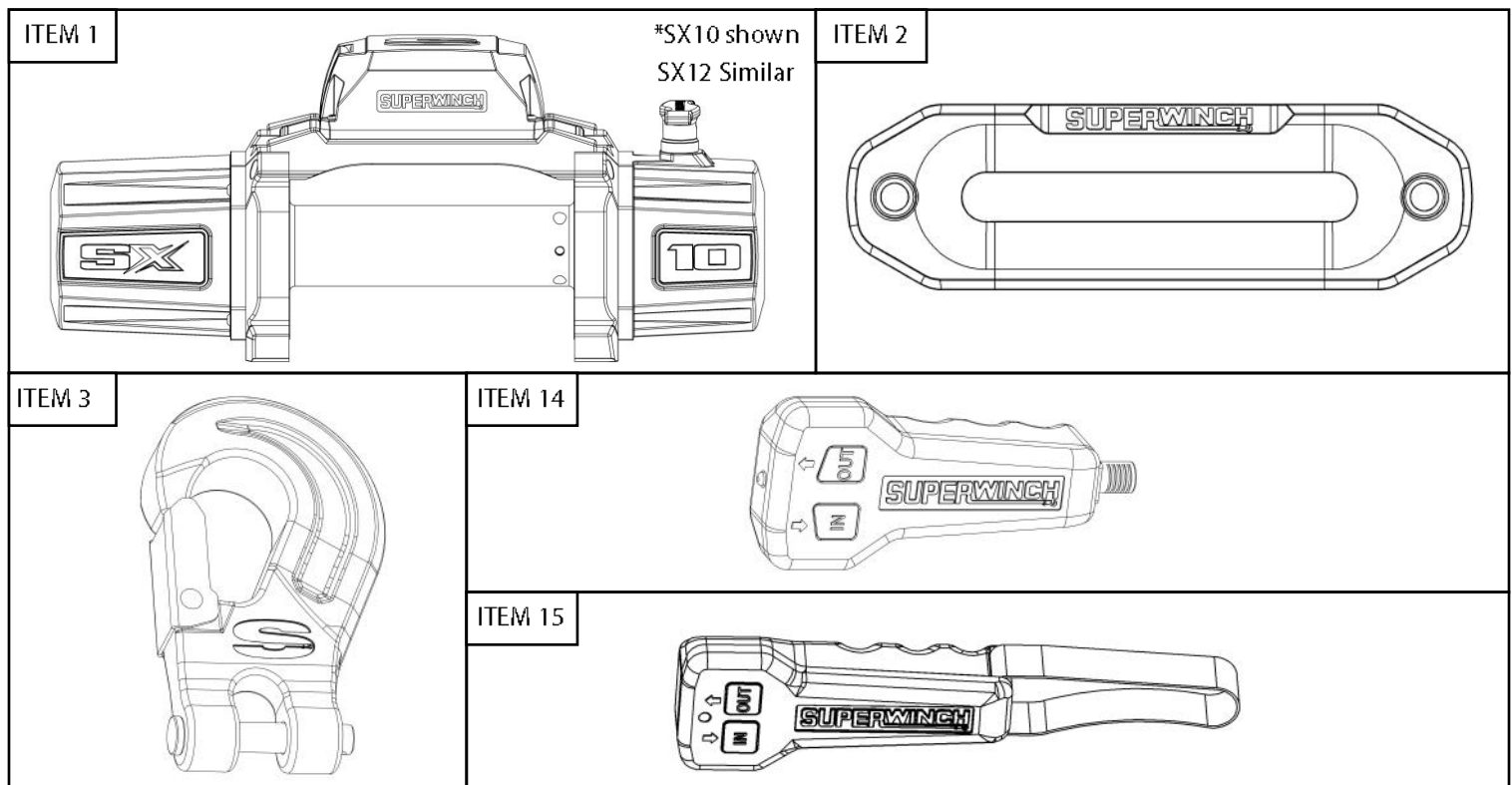


**SAVE THESE
INSTRUCTIONS**

CONTENTS

ITEM	QUANTITY	DESCRIPTION
1	1	WINCH
2	1	FAIRLEAD
3	1	HOOK
4	1	HAND SAVER STRAP
5	4	M10 HEX HEAD BOLT (YELLOW ZINC)
6	4	M10 SPLIT LOCK WASHER (YELLOW ZINC)
7	4	M10 FLAT WASHER (YELLOW ZINC)
8	4	M10 SQUARE NUT (YELLOW ZINC)
9	4	M4 SELF DRILLING SCREW (YELLOW ZINC)
10	2	M10 SOCKET HEAD BOLT
11	2	M10 FLAT WASHER
12	2	M10 SPLIT LOCK WASHER
13	2	M10 SERRATED FLANGE NUT
14	1	WIRED REMOTE
15	1	WIRELESS REMOTE
16	1	SYNTHETIC ROPE

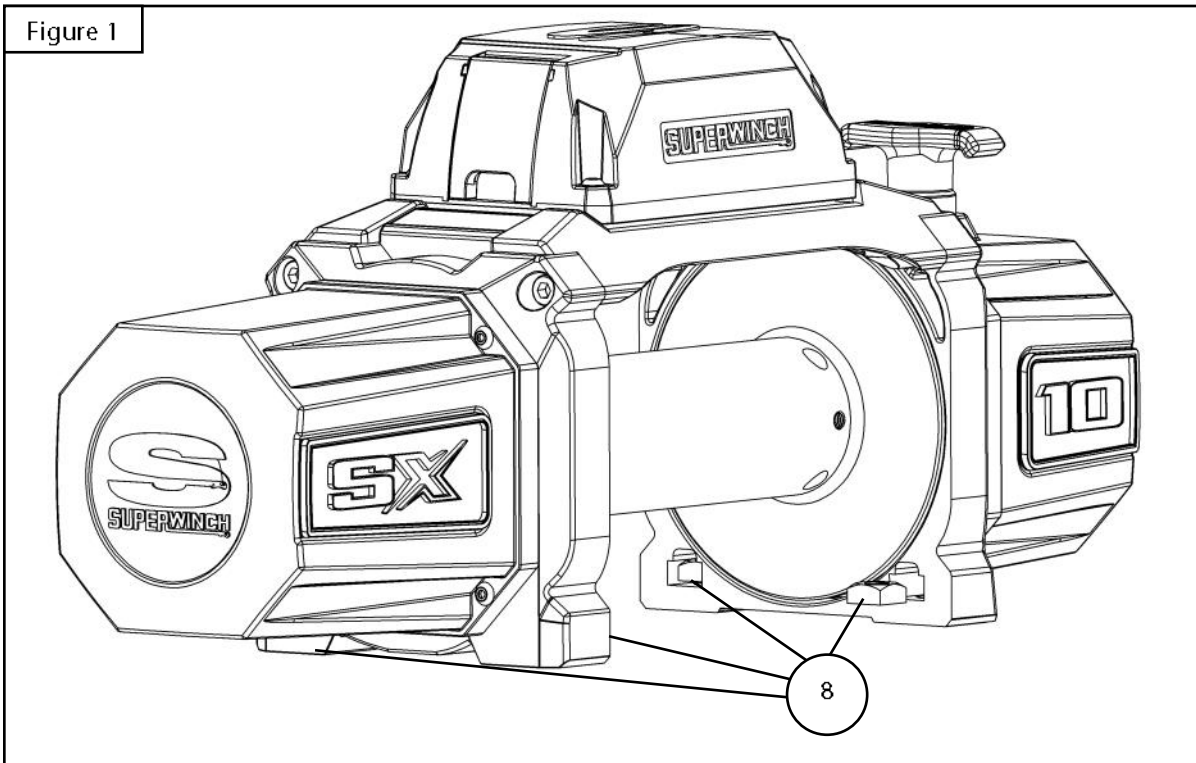
ANTI-SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL FASTENERS TO PREVENT THREAD DAMAGE AND GALLING



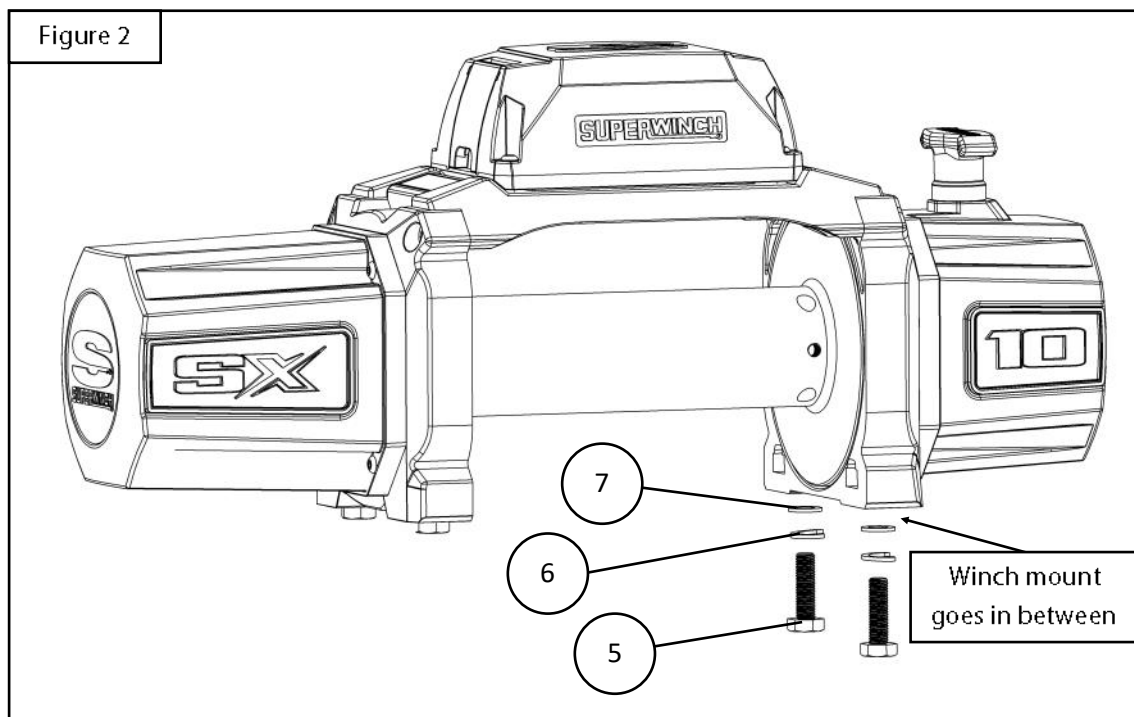
INSTALLATION INSTRUCTIONS

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.**
 2. Carefully read and understand all instructions before attempting installation. **Ensure that all mounting hardware is torqued to specifications prior to use.**
-
3. In order to properly install your new SX Winch, you will need to use a winch mount or winch bumper. **Ensure the winch mount/bumper is rated for your vehicle weight and pulling power of the winch.** In order to ensure the best performance, it is **highly recommended to run a dual battery 12V setup with the winch.**
 4. Start by inserting the supplied (4) M10 Square nuts into the feet of the winch. See **Figure 1.**

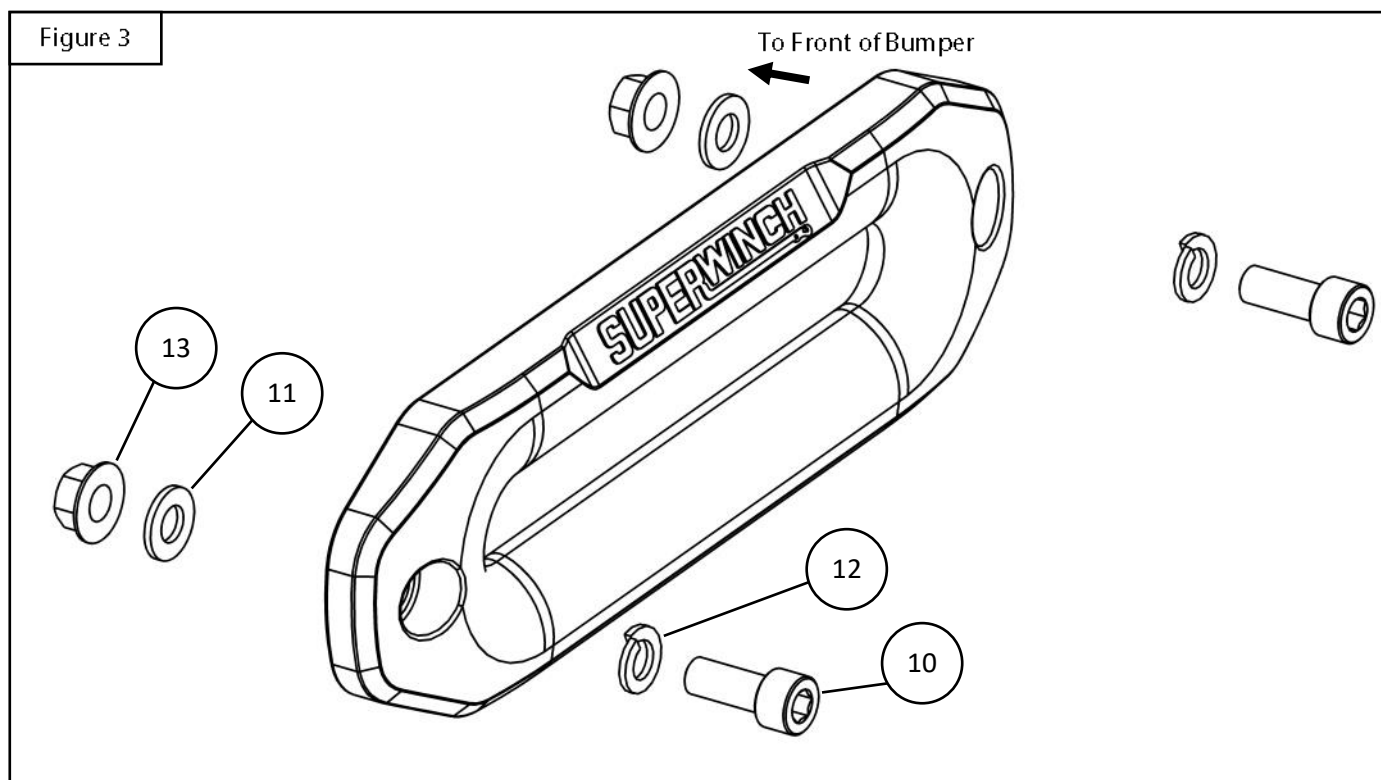
Figure 1



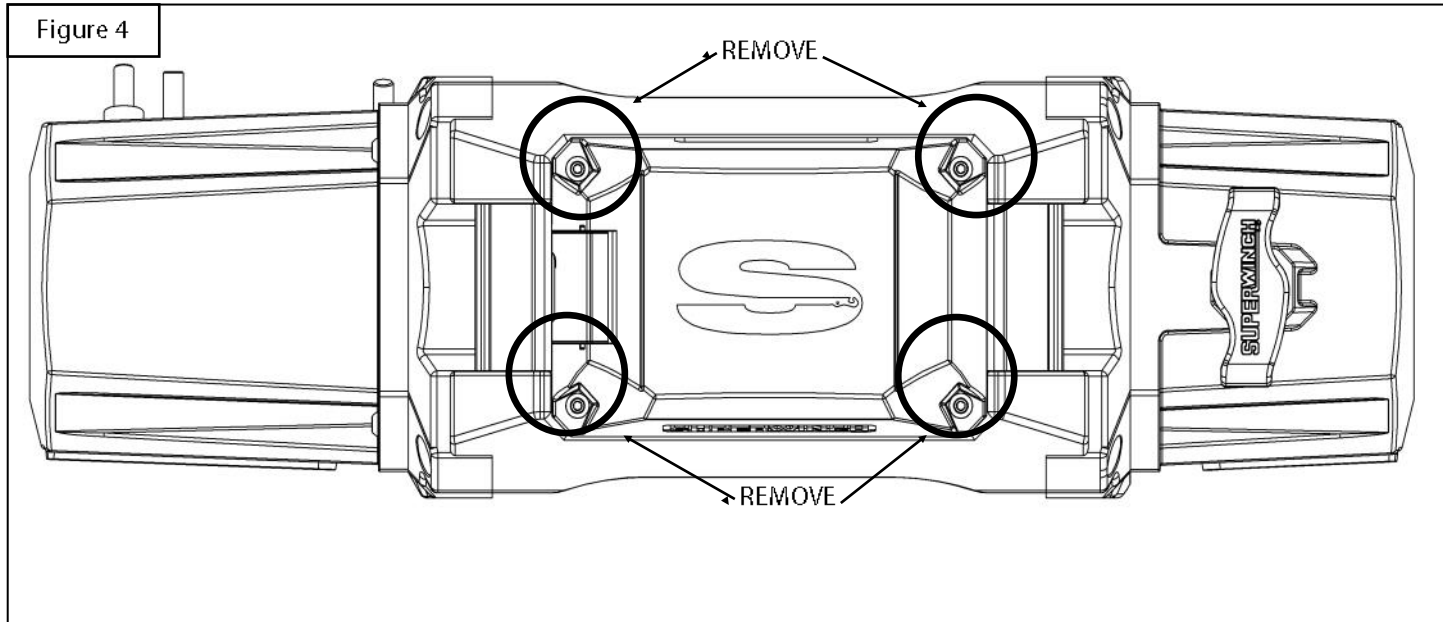
5. Carefully set the winch on the mounting location. Line up the mounting holes and using M10 hardware, loosely assemble the winch to the mounting location. See **Figure 2**.



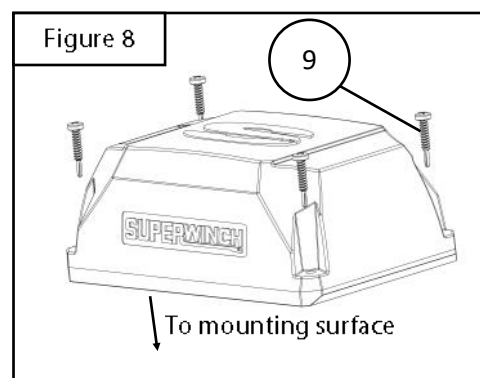
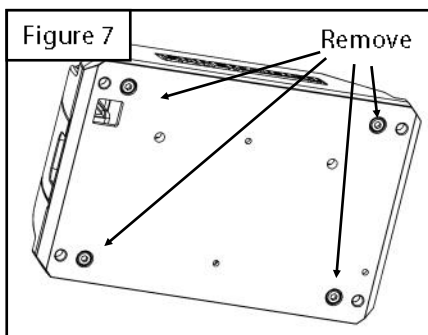
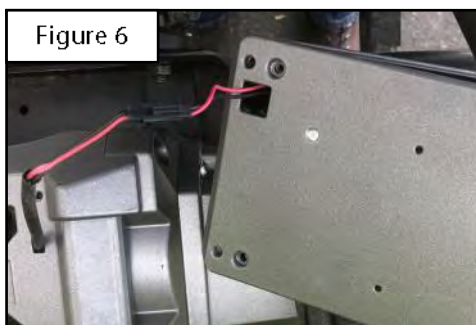
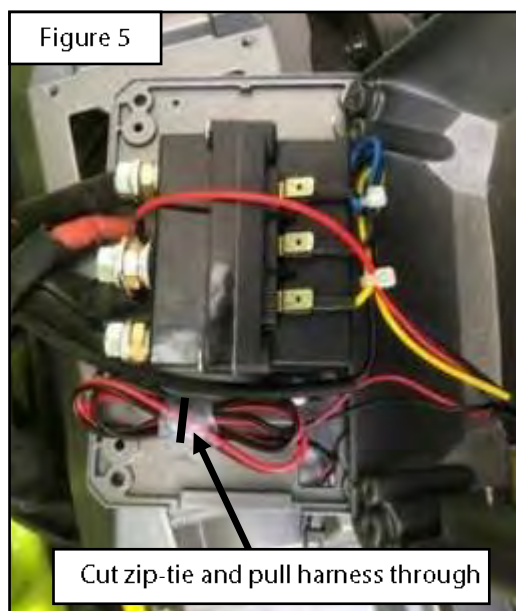
6. Adjust the winch as needed and **torque M10 Bolts to 40 ft-lbs.**
7. Locate the roller fairlead and mount it to the winch plate or bumper using supplied M10 Hardware. See **Figure 3**.



8. The control box on the winch can be remote mounted off of the winch if desired. If you want to relocate the control box, perform the following steps:
- Remove the control box by removing the 4 button head screws holding it in place. See **Figure 4**.



- Disconnect drum light wiring harness. See **Figure 5**.
- Remove bottom plate from control box. See **Figure 6**.
- Cut the zip-tie retaining the wire bundle and pull through the bottom of the box. See **Figure 7**.
- Route drum wiring through the back of the control box.
- Re-install the bottom plate to the box.
- Re-connect the drum light harness.
- Re-locate control box to the desired position using supplied M4 self drilling screws. See **Figure 8**.
- Re-route drum light wiring avoiding sharp edges/hot areas.



9. Run the wiring through your vehicle's engine bay to your 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 9-10**.

Figure 9

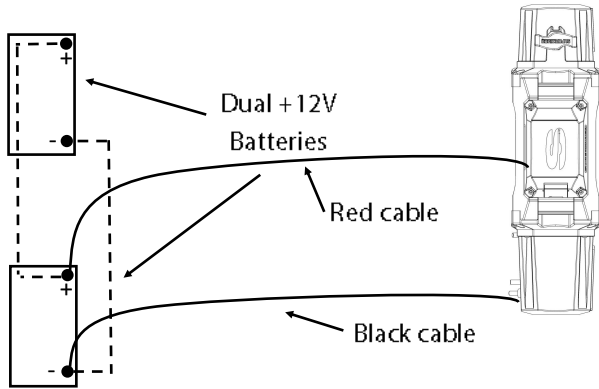
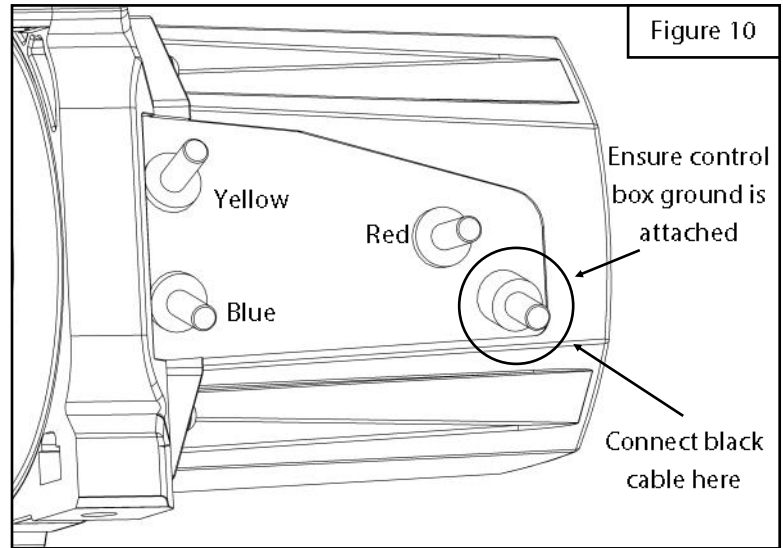


Figure 10



10. Connect your 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. See **Figure 11-12**.

Figure 11

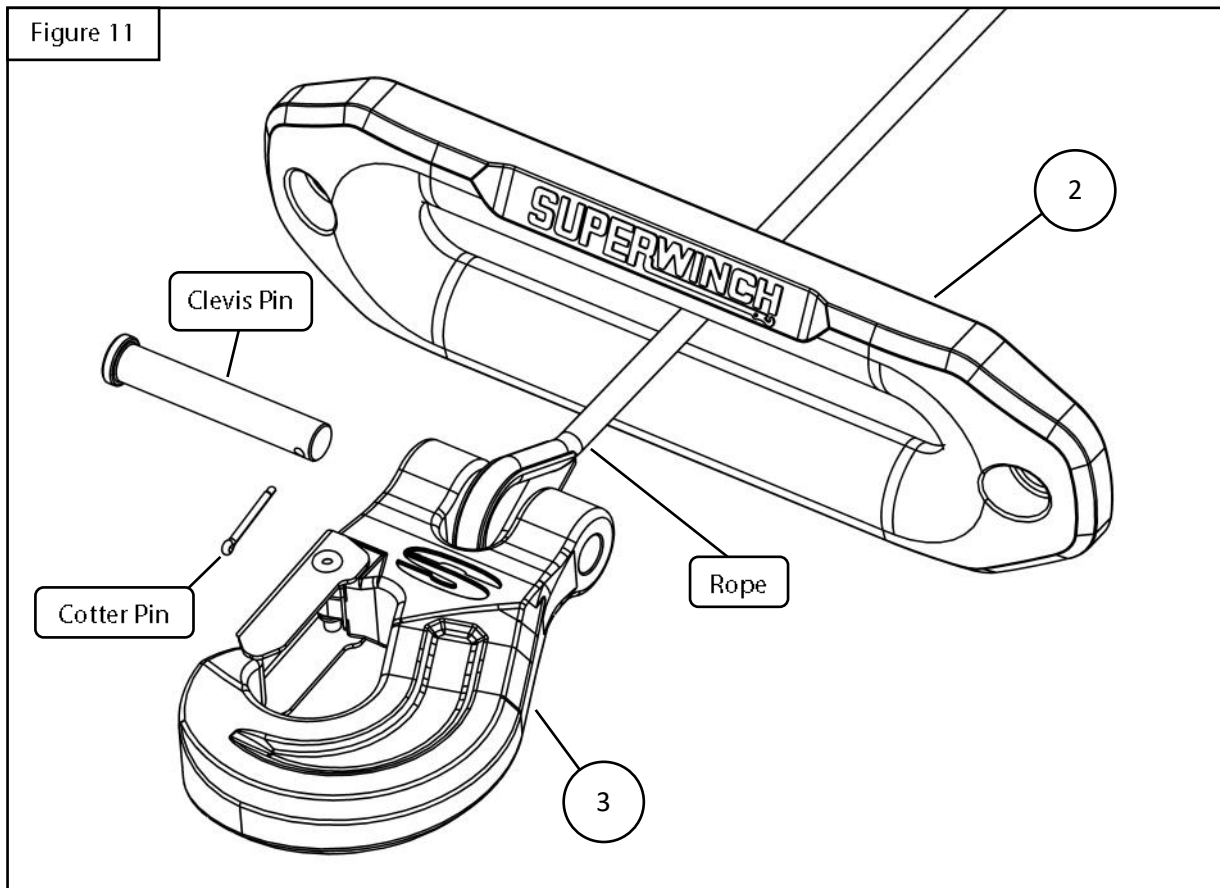
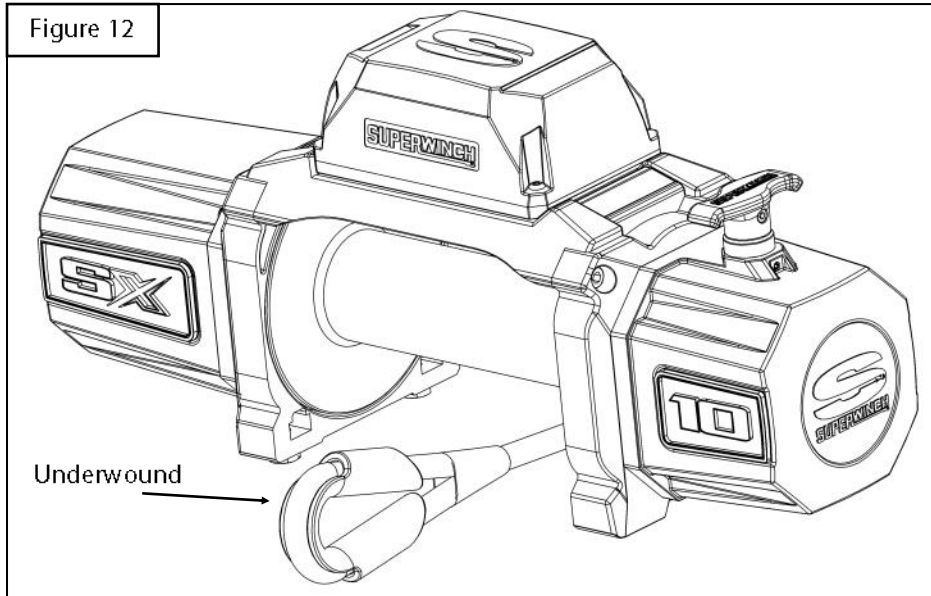


Figure 12



11. 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.
12. Install the hand saver strap on the hook. The installation is now complete.

FREE SPOOL OPERATION

To Freespool

Figure 13

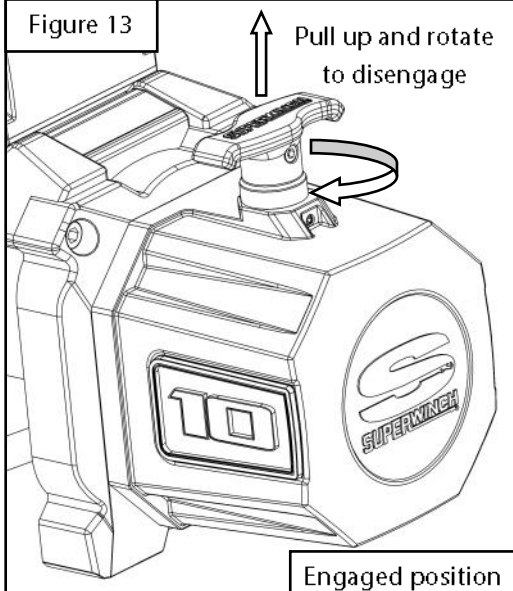
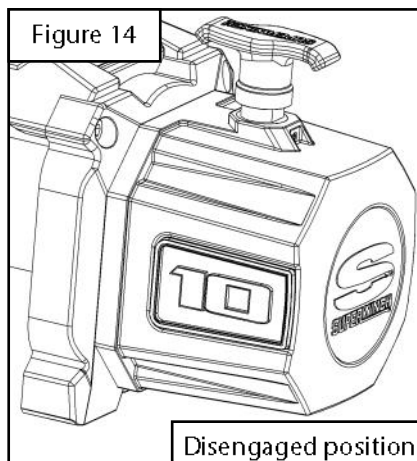


Figure 14



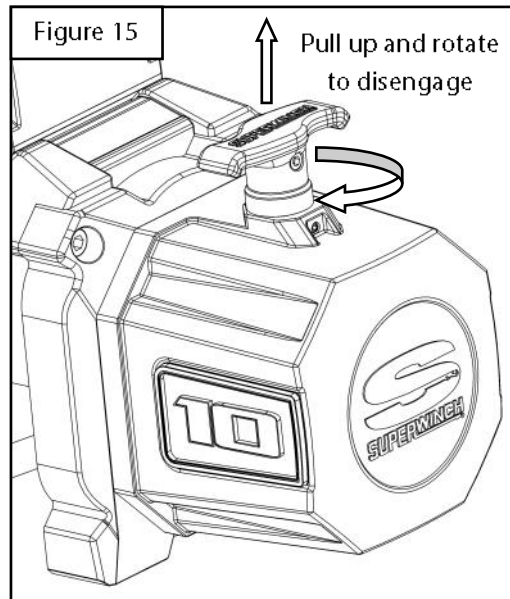
To freespool the cable off the winch:

1. Ensure there is no tension on the clutch.
2. Pull up on the clutch handle and rotate 90 degrees. See **Figure 13**.
3. Using the supplied hand saver, Pull out cable as needed.
4. Pull up on handle and spin 90 degrees again to engage the winch.

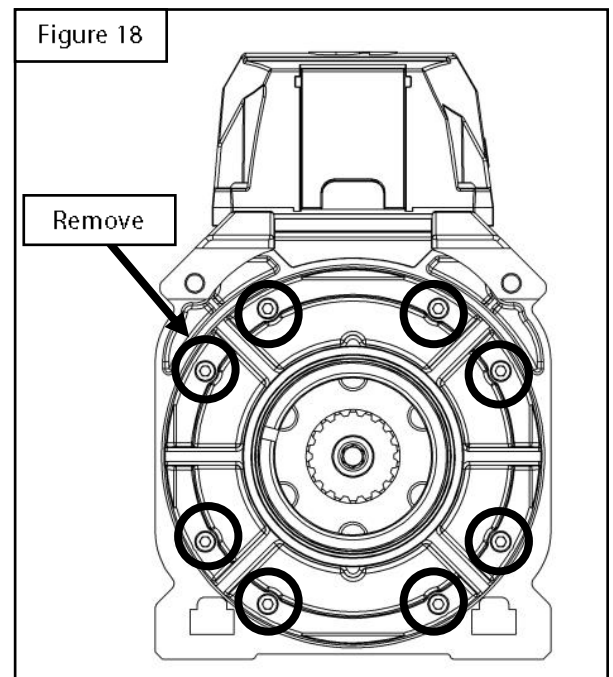
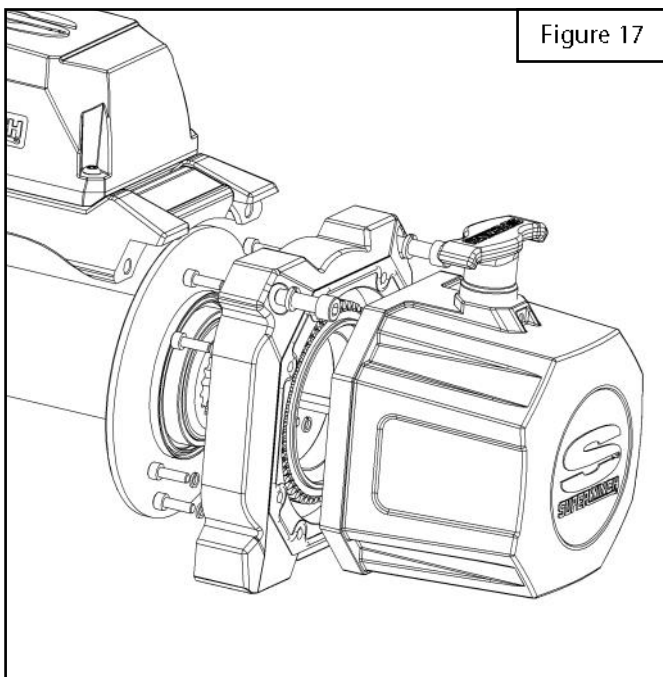
CLOCKING THE GEARBOX

The SX winch can be “clocked” on the gearbox side for easier clutch handle access in certain mounting situations:

1. Disconnect the winch from the power supply. Pull and twist the clutch handle so that the clutch is in the free spool position. See **Figure 15**.
2. Stand the winch up onto the motor cover.
3. Remove the (2) M8 bolts attaching the gear box end of the winch to the tie bar and remove gear box end. See **Figure 17**.

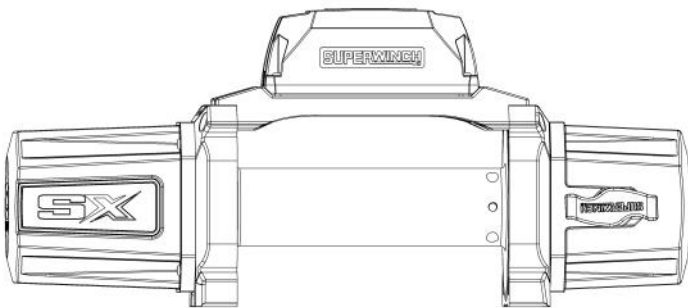


4. Remove the tie bar from the winch.
5. Separate the gearbox assembly from the drum and rest of the winch.
6. Remove the eight bolts that attach the gear box to the drum support. See **Figure 18**.



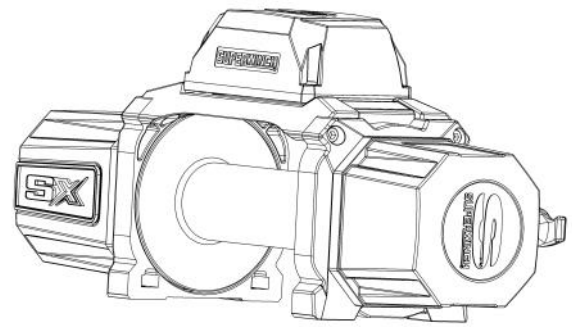
7. Rotate the gear box to the desired position. Figures **19-21** show possible configuration types.
8. Replace the eight bolts that attach the gear box to the drum support. See **Figure 22**.
9. Torque M5 bolts in a star pattern to 50-55 in-lb. See **Figure 23**.

Figure 19



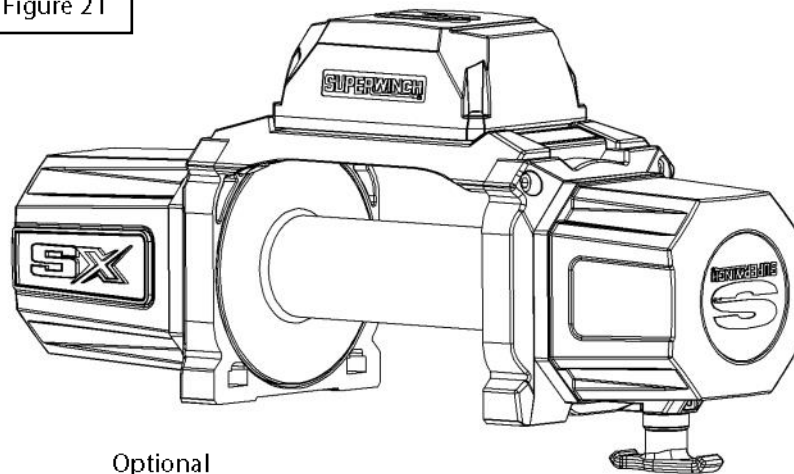
Optional
configuration 1

Figure 20



Optional
configuration 2

Figure 21



Optional
configuration 3

Figure 22

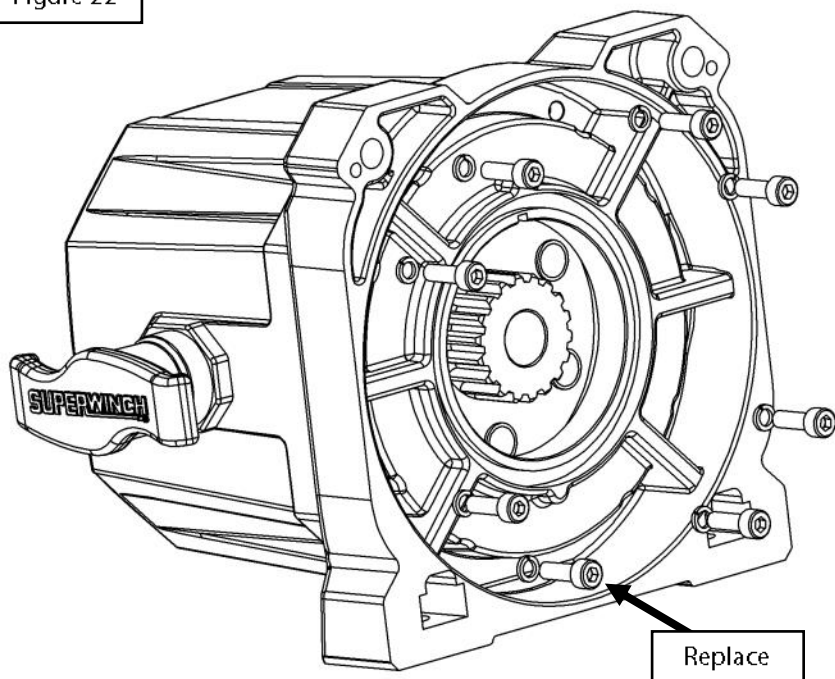
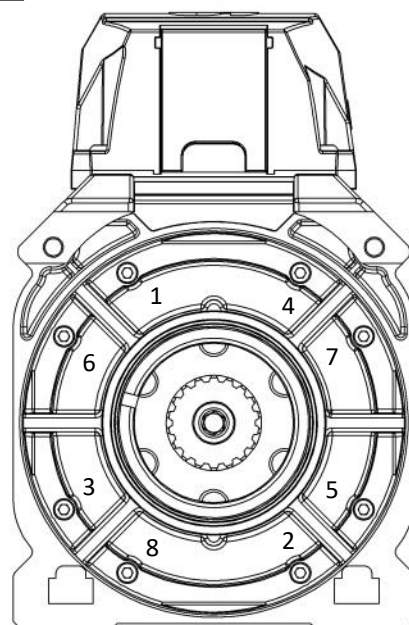
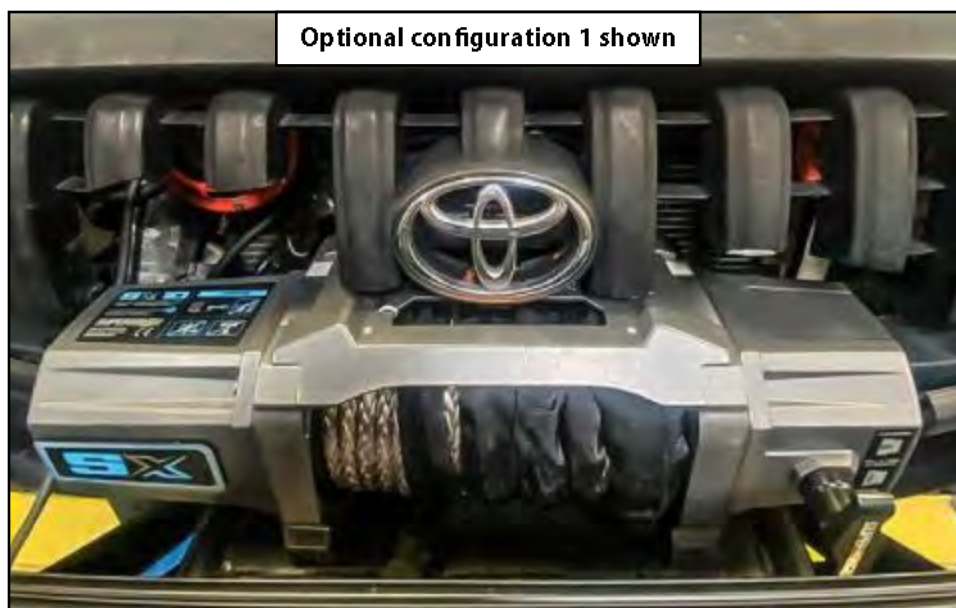


Figure 23



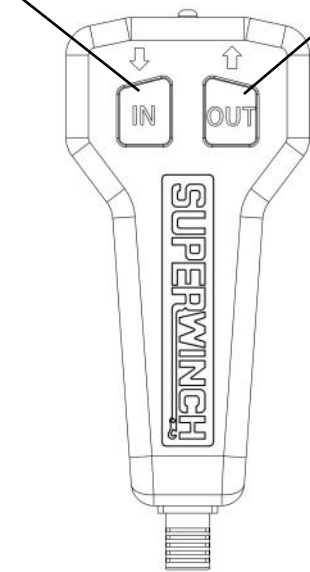
10. Place the gearbox end onto the winch. Ensure that the drive shaft and drum properly engage the gearbox. Rotate the gearbox end as necessary in order to engage the gearbox.
11. Install the tie bar. Torque the M8 tie bar bolts to 18 ft-lbs.



REMOTE FEATURES + OPERATION

Wired Remote

Winch In



Winch Out

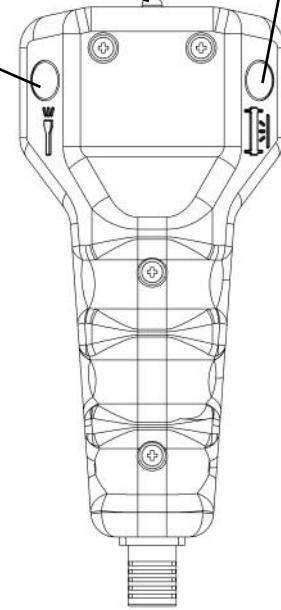
Activates Flashlight

Wired Remote Features

- To operate the remote light: Press the flashlight button to turn on/off (see above)
- To operate the winch features: Raise the hatch on the control box and plug in the remote.
- Out/In buttons will operate until you release the button. The drum light is an on/off switch like the remote light
- The flashlight battery recharges when connected to the winch

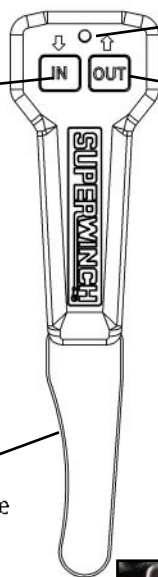
Flashlight

Activates light above drum



Wireless Remote

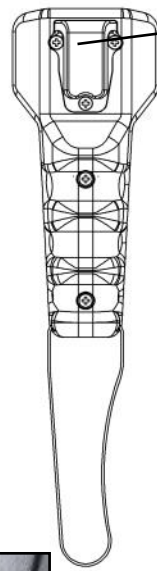
Winch in



Remote signal light (red)

Winch out

Storage hook



Wrist strap to secure remote

Can be stored on pants pocket



Can be stored on MOLLE

Wireless Remote Features

- To turn on the remote: **Simultaneously** press the Out and In button on the remote for 3 seconds until the red light turns on. Perform the same process to turn off the remote. It is also on a 2 minute shutoff timer.
- Out/In buttons will operate winch until you release the button.
- The wireless remote frequency is uniquely matched to its winch.

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



11. 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 freespool 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 freespool 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.

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 circumstances 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 23**), 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.

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 axle 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.



1. Take up slack in the rope and rigging slowly.
2. Once the rope and rigging are taut, carefully review the rigging again to check for binding or obstructions.
3. 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.
4. 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.



Figure 23

De-Rigging

1. 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 24**. 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 handsaver.
5. 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, freespool 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.

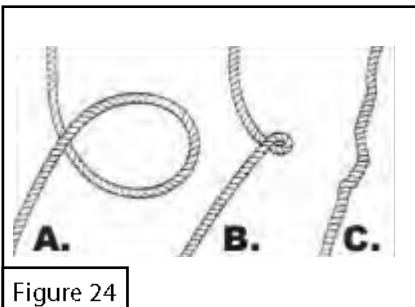


Figure 24

TROUBLESHOOTING GUIDE

Symptoms	Possible Cause(s)	Corrective Actions
Motor will not operate or runs in one direction only	<ol style="list-style-type: none"> 1. Bad connections or broken wires. Most often, winch problems can be traced to loose connections, corrosion, or broken wires. 2. Damaged or stuck solenoid. This is most likely caused by not holding the inner nut to keep the stud from turning when attaching wire to solenoid. 3. Handheld switch inoperative. 4. Damaged motor 5. Solenoid is not grounded. 6. Weak or dead battery. 	<ol style="list-style-type: none"> 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. Caution: Always use two wrenches when loosening or tightening motor and solenoid connections. Otherwise motor or solenoid damage can occur. 2. Caution: <u>Disengage freespool before performing this test to prevent powering the winch drum.</u> 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. Replace switch. 4. Replace or repair motor. Review Brushed. Brushes may be sticking or worn. 5. Check ground path between battery negative and solenoid. 6. Recharge or replace battery. Check charging system
Winch will not shut off	<ol style="list-style-type: none"> 1. Solenoid stuck "on" 	<ol style="list-style-type: none"> 1. If solenoid sticks on, reverse direction and hold trigger switch on until the power lead can be disconnected.
Motor runs extremely hot	<ol style="list-style-type: none"> 1. Long period of operation. 2. Damaged motor. 3. Damaged brake. 	<ol style="list-style-type: none"> 1. Allow to cool. 2. Replace or repair motor. 3. Replace or repair brake.
Motor runs but with insufficient power or line speed	<ol style="list-style-type: none"> 1. Weak Battery 2. Battery to winch wire too long. 3. Poor battery connection. 4. Poor ground. 5. Damaged Brake. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. Check charging system. Ensure you are using a dual battery setup 2. Use larger gauge wire. 3. Check battery terminals for corrosion. Clean as required. 4. Check and clean connections. 5. Repair or replace Brake.
Motor runs but drum does not turn	<ol style="list-style-type: none"> 1. Freespool not engaged 	<ol style="list-style-type: none"> 1. Engage Freespool.
Winch runs backwards	<ol style="list-style-type: none"> 1. Motor wires reversed. 	<ol style="list-style-type: none"> 1. Recheck wiring.
	<ol style="list-style-type: none"> 2. Solenoid wired incorrectly. 	<ol style="list-style-type: none"> 2. Recheck wiring.
	<ol style="list-style-type: none"> 3. Winch rope is overwound instead of under wound. 	<ol style="list-style-type: none"> 3. Re-wrap rope around drum so that it is under wound.
Will not hold load	<ol style="list-style-type: none"> 1. Excessive load. 2. Worn or damaged brake. 	<ol style="list-style-type: none"> 1. Reduce load or double line. 2. Repair or replace brake.

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 +1 (800) 323- 2031
or email info@superwinch.com

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