



The Basic Guide to Winching Techniques

Every winching situation has the potential for personal injury. In order to minimize that risk, it is important that you read this Basic Guide carefully, familiarize yourself with the operation of your winch before having to use it, and be constantly safety oriented. In this Guide, we will set forth many of the basic rules of safe winch operation. However, because every winching situation is different, your constant good judgment and consistent focus on safety are of great importance.

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WARN INDUSTRIES OFF-ROAD PRODUCTS

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GENERAL SAFETY PRECAUTIONS



As you read these instructions, you will see WARNINGS, CAUTIONS, NOTICES and NOTES. Each message has a specific purpose. WARNINGS are safety messages that indicate a potentially hazardous situation, which, if not avoided could result in serious injury or death. CAUTIONS are safety messages that indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. A CAUTION may also be used to alert against unsafe practice. CAUTIONS and WARNINGS identify the hazard, indicate how to avoid hazard, and advise of the probable consequence of not avoiding the hazard. NOTICES are messages to avoid property damage. NOTES are additional information to help you complete a procedure. **PLEASE WORK SAFELY!**

 WARNING		
		
<p>MOVING PARTS ENTANGLEMENT HAZARD Failure to observe these instructions could lead to severe injury or death. To avoid injury to hands or fingers.</p> <ul style="list-style-type: none"> • Always keep hands clear of rope, hook loop, hook and fairlead opening during installation, operation, and when spooling in or out. • Always use extreme caution when handling hook and rope during spooling operations. • Always use supplied hook strap whenever spooling rope in or out, during installation and during operation. • Always keep vehicle in sight during winching operation. • Always wear heavy leather gloves when handling rope. 		

 WARNING	
	
<p>CHEMICAL AND FIRE HAZARD Failure to observe these instructions could lead to severe injury or death.</p> <ul style="list-style-type: none"> • Always remove jewelry and wear eye protection. • Never lean over battery while making connections. • Always verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc. when drilling. • Never route electrical cables: <ul style="list-style-type: none"> - Across any sharp edges. - Through or near moving parts. - Near parts that become hot. • Always insulate and protect all exposed wiring and electrical terminals. • Always install terminal boots as directed in installation instructions. 	

 WARNING	
	
<p>FALLING OR CRUSHING HAZARD Failure to observe these instructions could lead to severe injury or death.</p> <ul style="list-style-type: none"> • Never use winch to lift or move persons. • Never use winch as a hoist or to suspend a load. • Never operate winch with less than 5 wraps of rope around the drum. Rope could come loose from the drum, as the rope attachment to the drum is not designed to hold a load. 	



CAUTION

MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

General Safety:

- **Always** Know Your Winch. Take time to fully read the Installation and Operations Guide, and Basic Guide to Winching Techniques, in order to understand your winch and its operation.
- **Never** operate this winch if you are under 16 years of age.
- **Never** operate this winch when under the influence of drugs, alcohol or medication.
- **Never** exceed winch or rope capacity listed on product data sheet. Double line using a snatch block to reduce winch load.
- **Never** use winch or rope for towing.

Installation Safety:

- **Always** choose a mounting location that is sufficiently strong to withstand the maximum pulling capacity of your winch.
- **Always** use factory approved mounting hardware, components, and accessories.
- **Always** use grade 5 (grade 8.8 metric) or better hardware.
- **Never** weld mounting bolts.
- **Always** use care when using longer bolts than those supplied from factory. Bolts that are too long can damage the base and/or prevent the winch from being mounted securely.
- **Always** mount the winch and attach the hook to the rope's end loop before connecting the electrical wiring.
- **Always** position fairlead with WARNING label on top.
- **Always** spool the rope onto the drum in the direction specified by the winch warning label on the winch and/or documentation. This is required for the automatic brake (if so equipped) to function properly.
- **Always** prestretch rope and respool under load before use. Tightly wound rope reduces chances of "binding", which can damage the rope.



CAUTION

MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

Winching Safety:

- **Always** inspect rope, hook, and slings before operating winch. Frayed, kinked or damaged rope must be replaced immediately. Damaged components must be replaced before operation. Protect parts from damage.
- **Never** leave wired remote control plugged into winch when free spooling, rigging, or when the winch is not being used.
- **Never** hook rope back onto itself. This damages the rope.
- **Always** use a choker chain, choker rope, or tree trunk protector on the anchor.
- **Always** remove any element or obstacle that may interfere with safe operation of the winch.
- **Always** take time to use appropriate rigging techniques for a winch pull.
- **Always** be certain the anchor you select will withstand the load and the strap or chain will not slip.
- **Never** engage or disengage clutch if winch is under load, rope is in tension or drum is moving.
- **Always** select an anchor point as far away as possible. This will provide the winch with its greatest pulling power.
- **Never** touch rope or hook while in tension or under load.
- **Never** touch rope or hook while someone else is at the control switch or during winching operation.
- **Always** stand clear of rope and load and keep others away while winching.
- **Always** be aware of stability of vehicle and load during winching, keep others away. Alert all bystanders of any unstable condition.
- **Never** use a winch to secure a load.



CAUTION

MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

Winching Safety:

- **Always** keep wired remote control lead clear of the drum, rope, and rigging. Inspect for cracks, pinches, frayed wires or loose connections. Replace remote control if damaged.
- **Always** pass wired remote control through a window to avoid pinching lead in door, when using remote inside a vehicle.
- **Never** leave remote control where it can be activated during free spooling, rigging, or when the winch is not being used.
- **Always** require operators and bystanders to be aware of vehicle and or load.



CAUTION



CUT AND BURN HAZARD

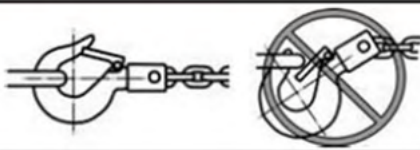
Failure to observe these instructions could lead to minor or moderate injury.

To avoid injury to hands or fingers:

- **Always** wear heavy leather gloves when handling a rope.
- **Never** let rope slip through your hands.
- **Always** be aware of possible hot surface at winch motor, drum or rope during or after winch use.



CAUTION



MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

- **Always** use a hook with a latch.
- **Always** ensure hook latch is closed and not supporting load.
- **Never** apply load to hook tip or latch. Apply load only to the center of hook.
- **Never** use a hook whose throat opening has increased, or whose tip is bent or twisted.

NOTICE

AVOID WINCH AND EQUIPMENT DAMAGE

- **Always** avoid side pulls which can pile up rope at one end of the drum. This can damage rope or winch.
- **Always** ensure the clutch is fully engaged or disengaged.
- **Never** use winch to tow other vehicles or objects. Shock loads can momentarily exceed capacity of rope and winch.
- **Always** avoid "powering out" rope for extended distances. This causes excess heat and wear on the winch motor and brake.
- **Always** use care to not damage the vehicle frame when anchoring to a vehicle during a winching operation.
- **Never** "jog" rope under load. Shock loads can momentarily exceed capacity of rope and winch.
- **Never** use winch to secure a load during transport.
- **Never** submerge winch in water.
- **Always** store the remote control in a protected, clean, dry area.
- **Always** double line or pick distant anchor point when rigging. This maximizes pulling power and avoids overloading the winch.

ELECTRIC WINCH BASICS

⚠ WARNING

Never operate or install a winch without reading or understanding the operator's manual

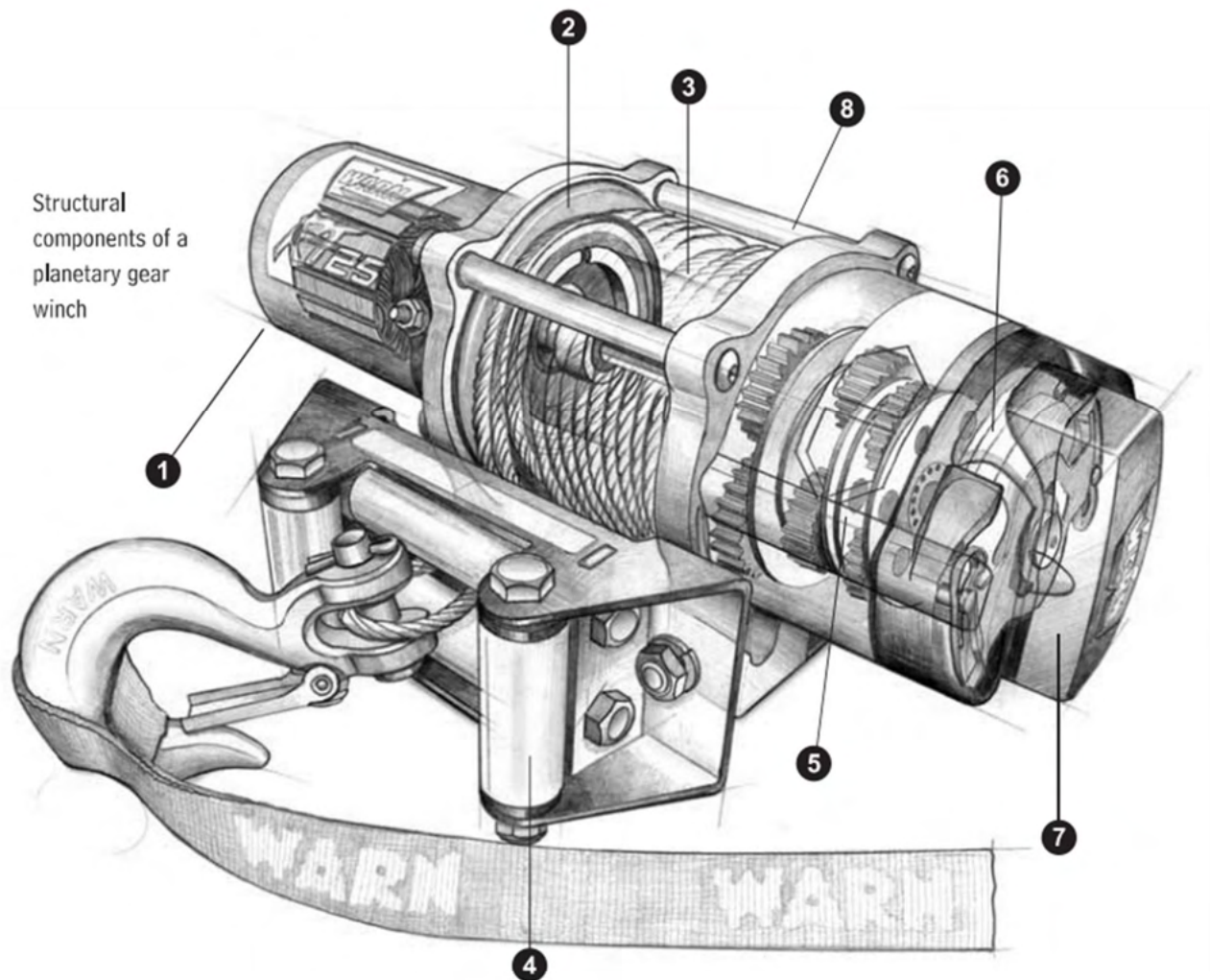
So, you have your Warn winch and you're ready to get out on the trails: climb a few boulders, splash a little mud, traverse the occasional stream. Basically, you're ready to explore the backcountry and otherwise have a great time.

Well, if you're smart enough to go prepared with the best, you're probably smart enough to know that to keep having a great time, you need to fully understand your winch and the winching operation.

That's exactly what this guide intends to do: provide you with a basic understanding of your winch and teach you the basics of proper winching techniques. But before we get started, we must

emphasize that the information in this guide is general in nature. Because no two situations are alike, it would be nearly impossible to review them all. We can, however, provide you with the general principles and techniques. Then it is up to you to take the time to analyze the situation and apply the proper technique.

Along with a little common sense, the guidelines laid out in this book can help you keep off-roading fun. Just remember to think through each situation before you act and **TREAD LIGHTLY!**





Remote Control Switch



Handheld Wireless Remote Control



Rocker Switch

To start, you should familiarize yourself with your Warn winch and each of its components: Practice using your winch before using it on the trail.

- 1 **Motor** Typically the winch motor is powered by the vehicle's battery. The motor provides power to the gear mechanism, which turns the winch drum and winds the rope.
- 2 **Winch Drum** The winch drum is the cylinder onto which the rope feeds. The drum is driven by the motor and drive train. Its direction can be changed using the winch switch.
- 3 **Wire / Synthetic Rope** The rope's diameter and length are determined by the winch's load capacity and design. Wrapped around the winch drum and fed through the fairlead, the rope is looped at the end to accept the hook's clevis pin.
- 4 **Fairlead** When using the winch at an angle, the fairlead (or wire lead) acts to guide the rope onto the spooling drum. It minimizes damage to the rope while it goes through the winch mount or bumper.

5 **Gear Train** The reduction gear converts the winch motor power into a large pulling force. The gear train design makes it possible for the winch to be lighter and more compact.

6 **Braking System** Braking action is automatically applied to the winch drum when the winch motor is stopped and there is load on the rope. The braking action is applied by the motor or a separate mechanical brake, depending on the winch construction.

7 **Clutch** The clutch allows the operator to manually disengage the spooling drum from the gear train, enabling the drum to rotate freely (known as "freespooling"). Engaging the clutch "locks" the winch drum back onto the gear train.

8 **Tie Rods** Ties the end housings together as a structural unit.

Winch controls come in many forms. All enable the operator to start, stop and change the direction of the winch drum rotation.

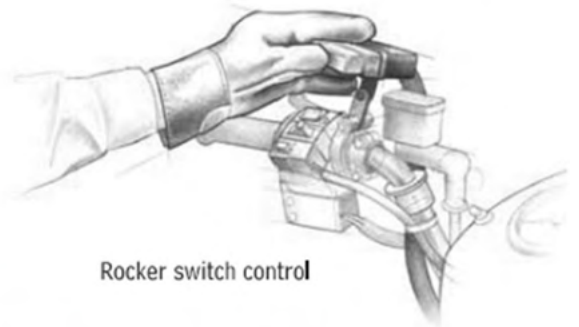
CAUTION
Never engage or disengage the clutch if winch is under load, rope is in tension, or rope drum is moving.

HOW THE WINCH WORKS

Winch Mechanics

Now that you've familiarized yourself with your Warn winch and its components, we can begin reviewing how it works. The major advantage of an electric-powered winch is that it can provide reliable service for intermittent utility and recreational use even while the vehicle's engine is stalled — assuming, of course, that sufficient battery current is available. Your winch can operate at high current loads, and, for this reason, uses a high current switch system to safely handle the current flow.

It is important to understand that the longer the pull, the more heat that is created, just like a hot plate. Powering out the rope also generates heat and drains the electrical system. Whenever possible, unwind rope by "freespooling." Prolonged winching without cooling the winch motor will damage the motor. Also, even if the engine is idling during winching, the battery may drain faster than it is charging. So pay close attention to make sure you aren't draining your battery too low to start your vehicle.



Rocker switch control

Control Of Your Winch

The winch is controlled by a switch mechanism that provides control of the forward or reverse rotation of the spooling drum.

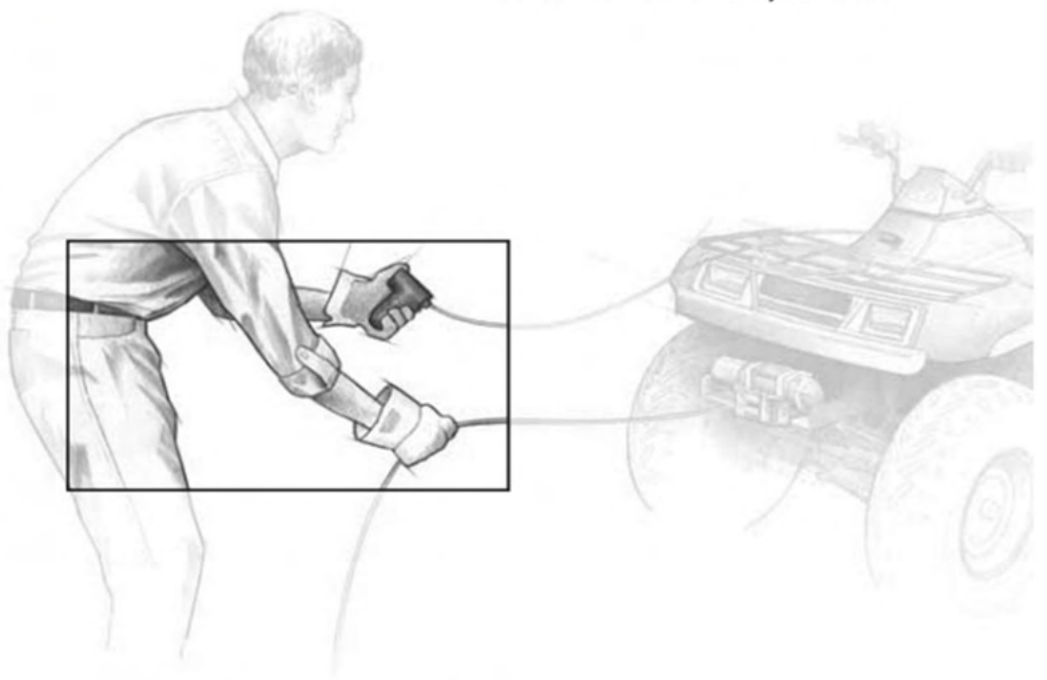
How the Winch Reacts to Load

Warn winches are rated by pulling capacity. The maximum pulling capacity occurs on the first layer of rope on the drum. As the layers increase, the pulling power decreases. It's the mathematics of winching. Exceeding the winch capacity could cause the winch to fail or the rope to break. Thinking through how you intend to use your winch now, could save you a big headache later.

In addition, you'll also want to make sure that your winch's mounting system and your vehicle's frame can accommodate the rated load of your winch.

⚠ WARNING
Always keep vehicle in sight during winching operation.

This winch is controlled by the hand held remote control to allow the operator to stand clear during the winching process.



WINCH ACCESSORIES YOU'LL WANT TO HAVE WITH YOU

Alone, the winch is not much more than a simple tool. But when used with certain accessories and enhancements, your Warn winch can become a versatile and productive tool. In this section, we'll review several of these items. Some are vital to the safe operation of your winch, while others offer added versatility and convenience.



Snatch Block Used properly, the multi-purpose snatch block allows you to: (1) increase your winch's pulling power; and (2) change your pulling direction without damaging the rope. Proper use of the snatch block is covered in "Before You Pull".

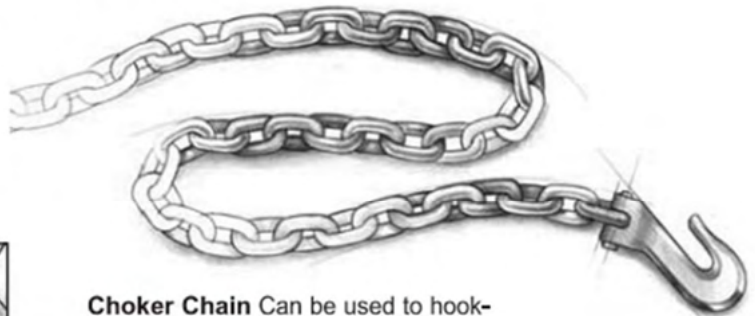


Gloves rope, through use, will develop "barbs" which can slice skin. It is extremely important to wear protective gloves while operating the winch or handling the rope. Avoid loose fitting clothes or anything that could become entangled in the rope and other moving parts.

Hook Strap Use to hold the hook and keep fingers away from the fairlead as the rope is being spooled in. Winches develop tremendous pulling forces and can easily remove fingers and limbs that are placed in pinch points. Put the hook into the loop and hold the strap between the thumb and forefingers.

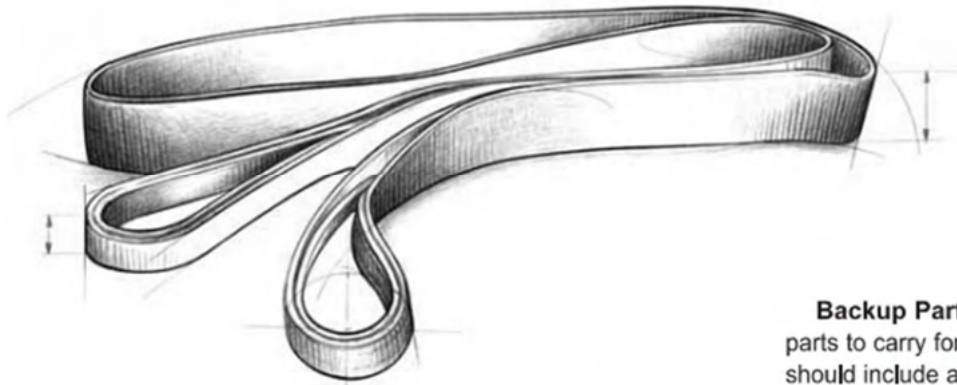


Clevis/D-Shackles The D-Shackle is a safe means for connecting the looped ends of cables, straps and snatch blocks. The shackle's pin is threaded to allow easy removal.



Choker Chain Can be used to hook-up to another vehicle or sharp objects for an anchor point. Chains, however, will damage or kill trees.





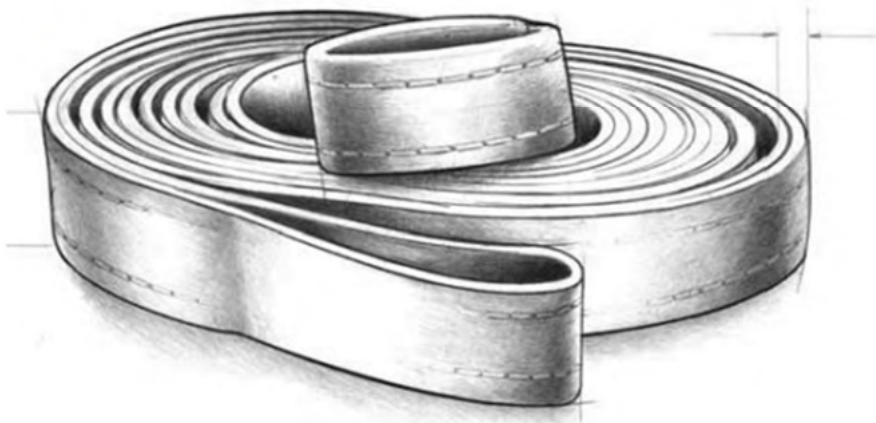
Tree Trunk Protector Typically made of tough, high-quality nylon, it provides the operator an attachment point for the winch rope to a wide variety of anchor points and objects, as well as protect living trees.

Backup Parts Important backup parts to carry for backcountry travel should include an extra screw-pin shackle, snatch block, and remote control unit. For severe and continued winch use, consider including an extra rope and winch hook.

Toolbox Items Items to bring along include hand wrenches, screwdrivers, pliers and tools to change rope.

⚠ CAUTION

Never attach a recovery strap to the winch hook to increase the length of a pull. Never attempt to tow a vehicle or object with the recovery strap attached directly to the winch hook. Never use "bungee" straps that develop tremendous and potentially dangerous amounts of force when stretched.



Recovery Strap Never use a recovery strap in a winching operation. Because it is designed to stretch, it stores energy and could react like a rubber band should your rigging fail. Use the recovery strap to "snatch" out a stuck vehicle.

Shovels & Hand Tools Quite often during winching activities, you'll find yourself in need of some additional help. You may want to carry equipment such as a shovel and an axe.

Battery Recommendations A fully charged conventional ATV battery is recommended to obtain peak performance from your winch. Make sure all electrical connections are clean and tight.

STRETCHING WIRE ROPE

The life of a wire rope is directly related to the use and care it receives. Tensioning the wire rope is critical to ensure a long product life. Tensioning the wire rope will prevent outer layers of wire rope from pinching and deforming the inner layers. During its first use, a new wire rope must be spooled onto its drum under a load of at least **500 lbs.** (227 kgs). Use the following instructions to properly stretch the wire rope onto the winch drum.


- 1) Choose a **FLAT AND LEVEL** location that is large enough to run out the entire length of wire rope.
- 2) Turn the clutch lever on the winch to the "Free Spool" position. Grab hook strap and spool out the wire rope to the last 5 wraps on the drum. Once the wire rope is spooled out, turn the clutch lever on the winch to the "Engaged" position.
- 3) Attach the hook end of the rope to a suitable anchor point and back the vehicle away from the anchor point until there is very little slack in the wire rope. Before getting out of the vehicle, set the parking brake, place the vehicle in gear or park and turn the vehicle off.
- 4) Power in the winch until all of the wire rope slack is wound onto the winch drum. Wearing gloves, hold tension on the wire rope with one hand; carefully push the wire rope to the side of the drum the wire rope is attached to so there are no gaps between each coil on the drum. Be sure to check that the wire rope is winding off of the bottom of the drum, not the top, or the automatic load holding brake will not function properly. (If the wire rope is winding off the top you have powered the winch "out" instead of "in").
- 5) The following steps should be done using two people for proper safety. If you attempt to tension your wire rope alone be sure to always engage the parking brake, place the transmission in gear and turn the vehicle off every time you exit the vehicle to inspect the winch wire

rope. Never exit the vehicle with a load on the winch wire rope.

6) Use care to evenly wrap each layer to prevent damage to the rope.

7) Instruct your assistant to stand to the side of the vehicle and away from the winch wire rope. Start the vehicle and place the transmission in neutral. Release the parking brake while applying moderate brake pedal pressure. Press power in on the switch. Your assistant should signal you if the wire rope is winding correctly by watching it move across the fairlead as the wire rope is powered in. After winching in for approximately 6 ft, stop winching. Slowly let up off of the brake pedal and then apply the parking brake. This will ensure that there is no load on the winch rope. Then place the transmission in park or gear and turn the vehicle off. Exit the vehicle and inspect the winch to make sure that the wire rope is being evenly wound onto the winch drum and not sinking into the lower layer. If the wire rope is sinking, power the wire rope out and repeat this step from the beginning with more brake pedal pressure.

8) When you are convinced the wire rope is winding onto the winch drum properly, repeat step 6 until the vehicle is within 3 ft of the winch anchor. Once within 3 ft, slowly let up off of the brake pedal and then apply the parking brake. This will ensure that there is no load on the winch wire rope. Then place the transmission in park or in gear and turn the vehicle off. Exit the vehicle. Disconnect the hook from the anchor. While holding onto the supplied hook strap, hold tension on the winch rope and slowly power in the winch by "pulsing" the power in on the remote control until the hook is at the fairlead. **DO NOT POWER THE HOOK INTO THE FAIRLEAD.** This could cause damage to the fairlead.

 WARNING
Never operate winch with less than 5 wraps of rope around the drum. Rope could come loose from the drum, as the rope attachment to the drum is not designed to hold a load.

BEFORE YOU PULL

⚠ WARNING

Never use the winch as a hoist.

⚠ WARNING

Always use supplied hook strap to hold hook when spooling rope in or out.

⚠ CAUTION

Never attempt to disengage the clutch while rope is under tension. Never engage the clutch while the drum is rotating. Always make sure the clutch is fully engaged or disengaged.

⚠ WARNING

Always keep hands and clothing clear of the rope, hook and fairlead opening during operation and when spooling.

Practice using your winch before you get stuck. A real situation is no time to be learning how to use your winch.

Whether you're recovering another vehicle or pulling a stump from the ground, knowing the proper winching techniques can help keep you and others around you safe. And perhaps the most important part of the winching process, regardless of the situation, is what you do before you pull.

In this section, we'll show you the basic fundamentals for effective winching. However, it is up to you to analyze the situation and make the decisions necessary for the proper use of your winch. Apply your knowledge of your winch and the basic fundamentals you've practiced and adjust your techniques to your unique situation. Some keys to remember when using your Warn winch:

- 1. Always take your time to assess your situation and plan your pull carefully.**
- 2. Always take your time when using a winch.**
- 3. Use the right equipment for your situation.**
- 4. Always wear leather gloves and do not allow the rope to slide through your hands.**
- 5. You and only you should handle the rope and operate the remote control switch.**
- 6. Think safety at all times.**
- 7. Practice. Practice and practice the steps.**

Single line pull



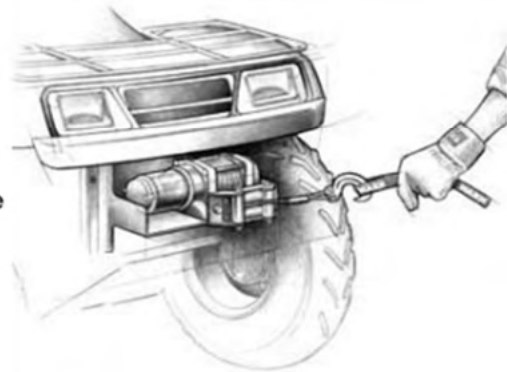
Rigging for the Pull

The following steps describe how to recover your vehicle with rigging a single line pull. Double or multiple line rigging techniques follow the same basic steps, but use a snatch block to assist the process.

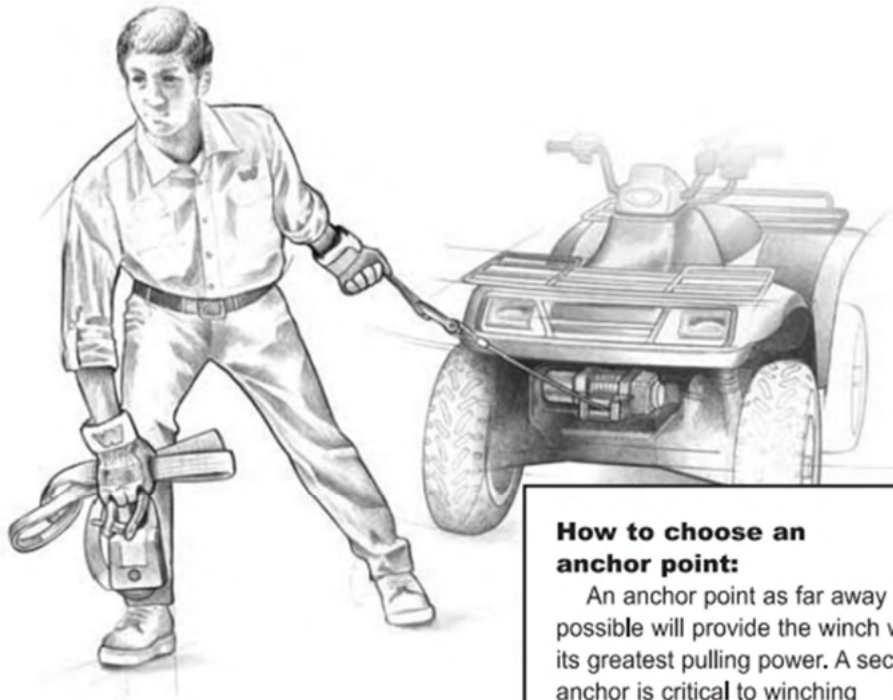
Step 1: PUT ON GLOVES.



Step 2: DISENGAGE CLUTCH. To allow free spooling of the winch drum, rotate the clutch lever on the winch to Disengage. Freespooling conserves battery power.



Step 3: FREE THE WINCH HOOK AND ATTACH HOOK STRAP. Free the winch hook from its anchor point. Attach hook strap to the hook (if not attached).



Step 4: PULL ROPE TO ANCHOR POINT. Pull out enough rope to reach your anchor point. Be sure to keep a certain amount of tension in the wire. It can become twisted and overwrap when slackened, leading to rope damage. To prevent losing the end, hold the winch hook in the hook strap while you work.



Step 5: SECURE TO THE ANCHOR POINT. Once you've established your anchor point, secure the tree trunk protector or choker chain around the object.

How to choose an anchor point:

An anchor point as far away as possible will provide the winch with its greatest pulling power. A secure anchor is critical to winching operations. An anchor must be strong enough to hold while winching. Natural anchors include trees, stumps, and rocks. Hook the cable as low as possible.

If no natural anchors are available, when recovering another vehicle, your vehicle becomes the anchor point. In this case, be sure to put the transmission in neutral, apply the hand brake and block its wheels to prevent your vehicle from moving.

Ideally, you'll want an anchor point that will enable you to pull straight in the direction the vehicle will move. This allows the rope to wind tightly and evenly onto the spooling drum.



Stakes driven in at an angle and tied together.



Buried log with chain secured around the log.

⚠ WARNING

Never operate winch with less than 5 wraps of rope around the drum. Rope could come loose from the drum, as the rope attachment to the drum is not designed to hold a load.

⚠ CAUTION

Never leave remote control plugged into winch while free spooling, rigging or sitting idle.

⚠ CAUTION

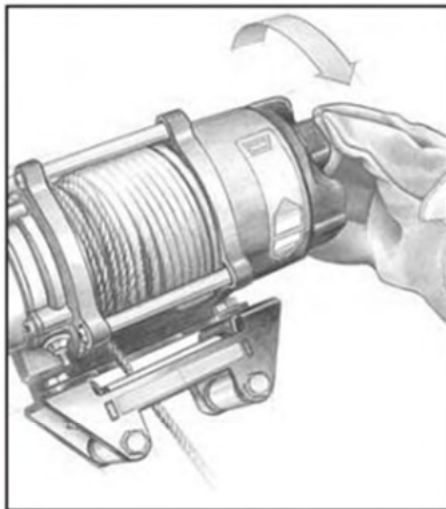
Never hook rope back onto itself. This damages the rope.



Step 6: ATTACH THE CLEVIS/D-SHACKLE AND HOOK STRAP. Attach the shackle to the two ends of the strap or chain and through the hook loop, being careful not to over tighten (tighten and back-off 1/2 turn).



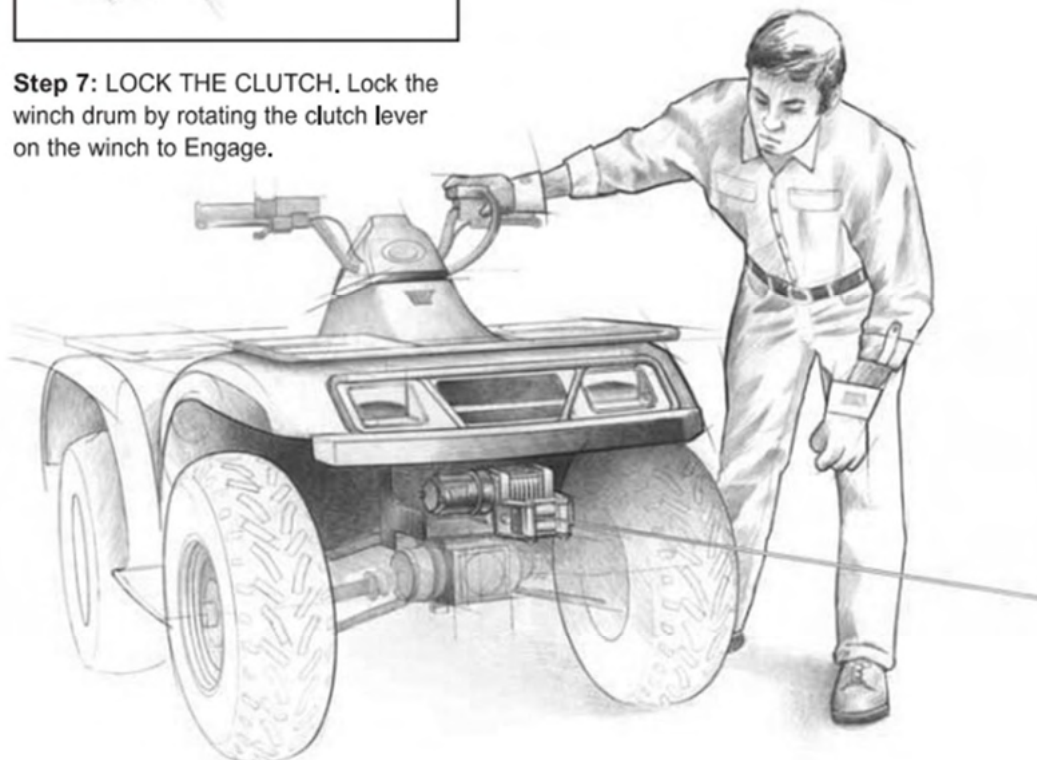
Step 8: CONNECT THE REMOTE CONTROL (if so equipped). Be careful not to let the remote control cord dangle in front of the winch. Always disconnect the remote control when not in use.



Step 7: LOCK THE CLUTCH. Lock the winch drum by rotating the clutch lever on the winch to Engage.

Step 9: PUT ROPE UNDER TENSION. Using the winch switch, slowly wind the rope until no slack remains. Once the rope is under tension, stand well clear, and never step over it.

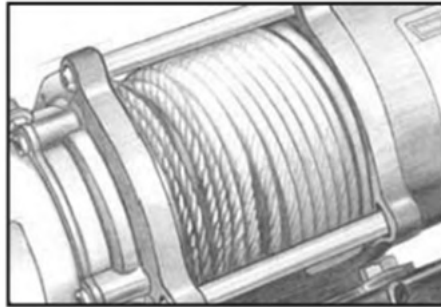
Step 10: CHECK YOUR ANCHOR. Make sure all connections are secured and free of debris before continuing with the winching procedure.



PULLING

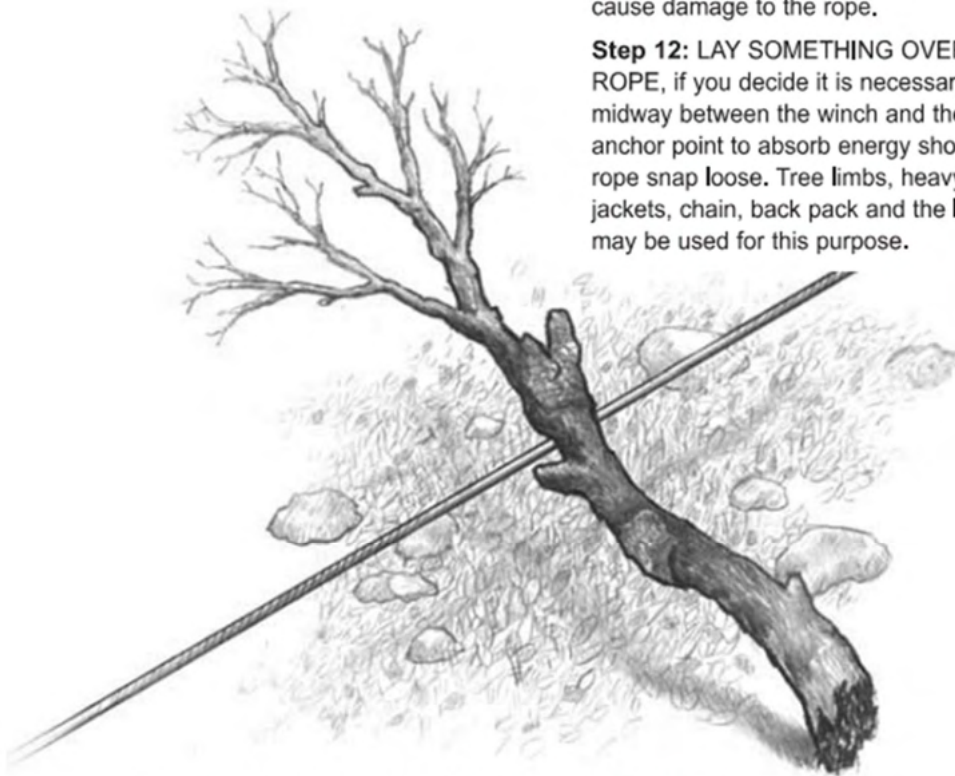
As you probably have already noticed, there are many things to do and consider before you actually begin pulling. Think through what you're doing and you can keep yourself and those around you out of harm's way.

Operating your winch properly is so important, in fact, you should practice these techniques before having to face the distractions and stresses of a real winching situation.



Step 11: CHECK ROPE. The rope should be neatly wound around the spooling drum. Improper winding can cause damage to the rope.

Step 12: LAY SOMETHING OVER THE ROPE, if you decide it is necessary, midway between the winch and the anchor point to absorb energy should the rope snap loose. Tree limbs, heavy jackets, chain, back pack and the like may be used for this purpose.



Run Time Guidelines for WARN ATV/UTV Winches

Load (lbs)	Run Time	Distance (ft)	Cool Time (min)
0	2.5 min	50	12
500	2.0 min	32	10
1000	1.0 min	14	10
1500	25 sec	5	10
2000	15 sec	2	10
2500	10 sec	1	10

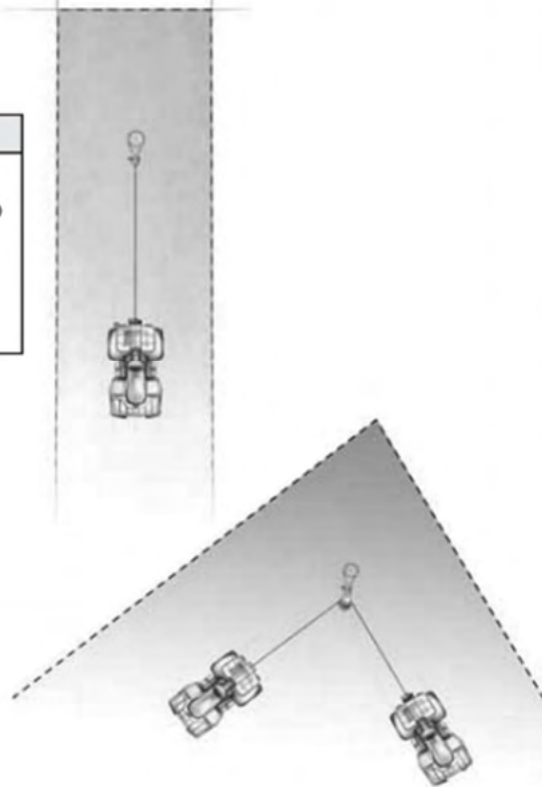
Duty cycles vary for each winch. See specification sheet supplied with your winch.

NOTICE

Avoid overheating the winch motor. For extended winching, stop at reasonable intervals to allow the winch motor to cool down.

See table for run time guidelines.

Establish "no people" zones:



NOTICE
Never use the winch's rope to tow another vehicle or object.

NOTICE
Always avoid continuous side pulls which can pile up rope at one end of the drum. This can damage rope or winch.

Step 13: MAKE YOUR INTENTIONS CLEAR. Be sure that everyone in the immediate vicinity surrounding the winching operation is completely aware of your intentions before you pull.

Declare where the spectators should not stand — never behind or in front of the vehicle and never near the rope or snatch block. Your situation may have other "no people" zones.

Step 14: BEGIN WINCHING. With the winching vehicle's engine on and light tension already on the rope, begin winching slowly and steadily. Be sure that the rope is winding evenly and tightly around the spooling drum.

The vehicle may be steered while winching but not driven. Driving vehicle causes rope to become slack and entangled.

What to look for under load

The rope must always spool onto the drum on the side nearest the mounting plate as indicated by the warning label on the end of the winch motor.

As you power in, make sure the rope winds evenly and tightly on the drum. This prevents the outer wire wraps from drawing into the inner wraps, binding and damaging the rope.

Perform the pull with the vehicle transmission in neutral and the parking brake off. Be patient and let the winch do all the work. This prevents the vehicle from rolling back and causing a shock load that can damage the winch and rope.

During side pulls the rope tends to stack up at one end of the drum. This stack can become large enough to cause serious damage to the winch. So, line up pulls as straight ahead as possible and stop winching if the rope comes close to the tie rods or mounting plate. To fix an uneven stack, spool out that section of the rope and reposition it to the opposite end of the drum which will free up space for continued winching.

Step 15: FOR VEHICLE RECOVERY, continue pulling until the vehicle is on stable ground. If you are able to drive the vehicle, the winching operation is complete.

Step 16: SECURE VEHICLE. Once recovery of the vehicle is complete, be sure to secure the vehicle's brakes and put the Transmission in "park". Release tension in the rope.



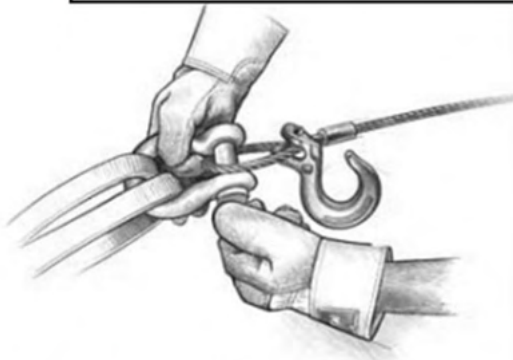
How to spool under no load

Arrange the rope so it will not kink or tangle when spooled. Be sure any rope already on the spooling drum is wound tightly and evenly layered. Tighten and straighten the layer if necessary. Keep the rope under light tension

and spool the rope back onto the winch drum in even layers one layer at a time. At the end of each layer stop spooling and arrange the rope in tight even layers.

Repeat this process until the winch hook is a minimum of 4 ft. (1.2m) from the winch. Pinch the hook between your thumb and forefinger and attach the hook strap. Hold the hook strap between the thumb and forefinger to keep tension on the rope. Walk the rope towards the fairlead, carefully spooling in the remaining rope by pulsing the control switch. Store the hook at the fairlead or tensioned to a suitable location to the side.

If you do not have the hook strap, use a length of cord or something similar. To prevent serious injury, NEVER put your fingers inside the hook area as you are powering in.



Step 17: DISCONNECT ROPE.

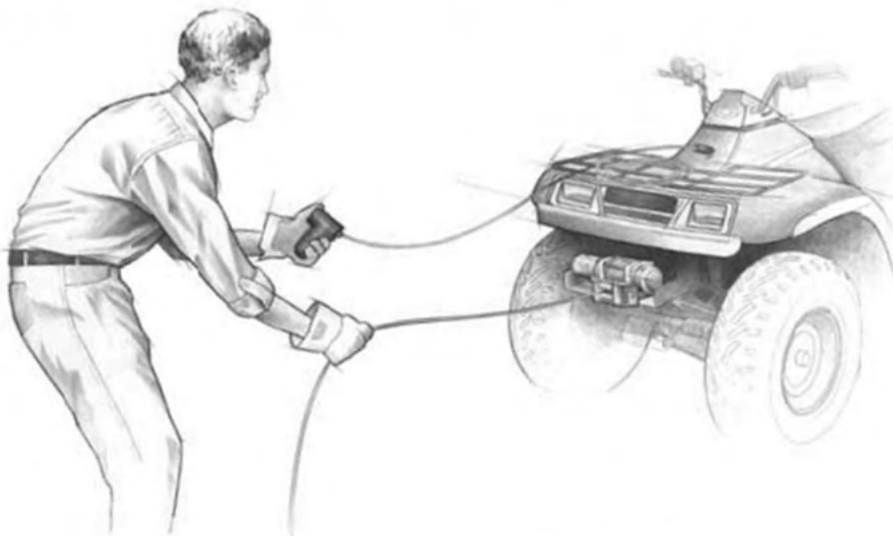
Disconnect from the anchor.

Step 18: REWIND ROPE. The person handling the rope should walk the rope in and not let it slide through the hand and control the winch at all times.



Step 19: DISCONNECT REMOTE CONTROL.

Disconnect the remote control cord and store in a clean and dry place. Winching operations are now complete. Put the cap on the socket.



⚠ WARNING

Always keep hands and clothing clear of the rope, hook and fairlead opening during operation and when spooling.