

Self-Recovery Winch Operator's Guide

Instruction and Operation Manual



The Trusted Source

Q-Series Winch

Record this data for your records as shown below:

Date of Purchase: _____

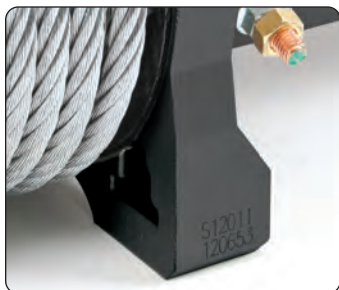
Model Number: _____

Serial Number on Gearbox Leg: _____

Serial Number on Motor Leg: _____



On the Gearbox Leg: Find the 11 digit number beginning with "QD"



On the Motor Leg: Find the 12 digit number beginning with "S"

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The Trusted Source

⚠ WARNING ⚠

AVOID RISK OF SERIOUS INJURY BY READING ALL SAFETY MESSAGES AND PROCEDURE NOTICES CONTAINED IN THIS OPERATORS GUIDE AND THE ACCOMPANYING INSTALLATION MANUAL BEFORE ATTEMPTING TO INSTALL OR USE YOUR WINCH

A Few Words About Product Safety:

Your safety and the safety of others is very important.

To help you avoid risks and make informed decisions this manual contains safety messages about your Q-Series self-recovery winch. Individual safety messages and sections of this manual may be preceded by the safety alert symbol ! [in triangle] and one of three signal words:

⚠ WARNING ⚠

a hazardous situation which, if not avoided, could result in death or serious injury. You CAN be KILLED or SERIOUSLY HURT if you do not follow instructions.

⚠ CAUTION ⚠

a hazardous situation which, if not avoided, could result in minor or moderate injury. You CAN be moderately HURT and also may suffer property damage if you do not follow instructions.

NOTICE

Careful attention is required to this instruction or operation but does not generally relate to personal injury. Damage to product or other property may result if you don't follow instructions.



Pay careful attention to all WARNINGS, CAUTIONS AND NOTICES throughout this user guide and ALWAYS WORK SAFELY.

Explanation of Symbols:

*Your safety and the safety of others is very important.
To help you avoid risks and make informed decisions.*



Read the Instruction Manual



Always Wear Leather Gloves



Always Wear Hearing and Eye Protection



Always Use Supplied Hook Strap



Keep Fingers Clear of Fairlead Pinch Point



Properly Seat Load in Throat of Hook



Never Use Winch as a Hoist



Do Not Move People



Never Apply Load to Hook Tip or Latch



Never Wind Rope Over Top of Drum



Wind Rope on Bottom of Drum



Sharp Edge Hazard



Moving Parts Hazard



Hand Piercing/Cutting Hazard



Hot Surface Hazard



Fire and Burn Hazard



Finger/Fairlead Crushing Hazard



Explosion/Bursting Hazard

Section I: SAFETY CONSIDERATIONS

In order to be useful as a vehicle self-recovery tool, your Q series winch uses a powerful electric motor to develop a line pull of roughly 9500 lbs. In order to avoid risk of injuries, all users and bystanders to winch operations should acquaint themselves with the following important safety considerations.

⚠ WARNING ⚠

MOVING PARTS ENTANGLEMENT HAZARDS LIST



Properly Seat Load in
Throat of Hook



Never Apply Load to
Hook Tip or Latch



Always Wear
Leather Gloves



Always Wear Hearing
and Eye Protection

MOVING PARTS ENTANGLEMENT HAZARDS

Failure to observe these instructions could lead to serious injury or death.

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 enlarged, or whose tip is bent or twisted.

ALWAYS use a hook with a latch.

ALWAYS ensure the operator and bystanders are aware of the stability of the vehicle and/or load.

ALWAYS keep wired remote control lead and power cord clear of the drum, rope, & rigging. Inspect for cracks, pinches, frayed wires or loose connections. Damaged components must be replaced before operation.

⚠ WARNING ⚠

**MOVING PARTS
ENTANGLEMENT HAZARDS LIST**

Installation Safety continued:

ALWAYS pass remote lead thru window (and not through pinch point of the door) when used in vehicle

ALWAYS Know Your Winch. Take time to fully read the Instructions and/or Operations Guide, and/or Basic Guide to Winching Techniques, in order to understand your winch and its operations.

NEVER exceed winch or winch rope rated capacity. Double line using a snatch block to reduce winch load.

ALWAYS wear heavy leather gloves when handling winch rope to avoid injury from burrs.

NEVER use winch or winch rope for towing. Shock loads can damage, overload and break rope.

NEVER use a winch to secure a load.

NEVER operate this winch when under the influence of drugs, alcohol or medication.

NEVER operate this winch if under 16 years of age.

Installation Safety:

ALWAYS use an approved mounting system that exceeds the capacity of your winch.

ALWAYS use grade 5 (grade 8.8 metric) or better hardware. Never weld mounting bolts.

ALWAYS use factory approved mounting hardware, components, and accessories.

NEVER use bolts that are too long.

⚠ WARNING ⚠

MOVING PARTS ENTANGLEMENT HAZARDS LIST

Installation Safety continued:

ALWAYS complete the winch installation and hook attachment before installing the wiring.

ALWAYS keep hands clear of winch rope, hook loop, hook and fairlead opening during installation, operation, and when spooling in or out.

ALWAYS position fairlead with printed warning readily visible on top.

ALWAYS prestretch rope and re-spool under load before use. Tightly wound rope reduces chances of “binding”, which can damage the rope.



Property Seat Load in Throat of Hook



Never Apply Load to Hook Tip or Latch

Winching Safety:

ALWAYS ensure the clutch is fully engaged or disengaged.

ALWAYS inspect winch rope, hook, and slings before operating winch. Frayed, cut or damaged winch rope must be replaced immediately. Damaged components must be replaced before operation.

ALWAYS Protect parts from damage.

ALWAYS remove any element or obstacle that may interfere with safe operation of the winch.

ALWAYS be certain the anchor you select will withstand the load and the strap or chain will not slip.

ALWAYS use supplied hook strap whenever spooling winch rope in or out, during installation and operation.

⚠ WARNING ⚠

MOVING PARTS ENTANGLEMENT HAZARDS LIST



Property Seat Load in
Throat of Hook



Never Apply Load to
Hook Tip or Latch

Winching Safety continued:

ALWAYS require operators and bystanders to be aware of vehicle and or load and stay clear of cable and vehicle path in case winch line fails or vehicle rolls.

ALWAYS be aware of stability of vehicle and load during winching, keep others away. Alert all bystanders of an unstable condition.

ALWAYS while assuring at least five wraps remain on drum, unspool as much winch line as possible when rigging. Double line or pick distant anchor point. Always take time to use appropriate rigging techniques for a winch pull.

NEVER touch winch rope or hook while someone else is at the control switch or during winching operation.

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

NEVER touch winch rope or hook while under tension or under load.

ALWAYS stand well clear of winch rope and load and keep others away while winching.

NEVER use vehicle use vehicle power to increase load on winch cable. Combined load or shock load can damage, overload and break winch rope.

NEVER wrap winch rope back onto itself.

ALWAYS Use a choker chain or tree trunk protector on the anchor.

⚠ WARNING ⚠

FALLING OR CRUSHING HAZARDS LIST



Never Use Winch
as a Hoist



Do Not Move
People



Wind Rope on Bottom
of Drum



Never Wind Rope
Over Top of Drum

FALLING OR CRUSHING HAZARDS:

ALWAYS stand clear, keep hands clear, keep others away.

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.

NEVER use winch as a hoist or to suspend a load.

ALWAYS be certain anchor will withstand load, use appropriate rigging and take time to rig correctly.

NEVER use winch to lift or move persons.

ALWAYS spool the rope onto the drum in the direction specified by the winch warning label on the winch and/or documentation.

⚠ WARNING ⚠

CUT AND BURN INJURY HAZARDS LIST



Hand Piercing/
Cutting Hazard



Hot Surface Hazard

CUT AND BURN INJURY HAZARDS

ALWAYS wear heavy leather gloves when handling winch rope to protect from burrs.

ALWAYS be aware of possible hot surfaces at winch motor, drum or rope during or after winch use.

⚠ WARNING ⚠

CHEMICAL AND FIRE HAZARDS LIST



Fire and Burn Hazard



Explosion/
Bursting Hazard



Sharp Edge Hazard



Moving Parts Hazard

CHEMICAL AND FIRE HAZARDS

ALWAYS remove jewelry and wear eye protection.

NEVER route electrical cables across sharp edges.

Never route electrical cables near parts that get hot.

NEVER route electrical cables through or near moving parts.

ALWAYS place the supplied terminal boots on wires and terminals as directed by the installation instructions.

NEVER lean over battery while making connections.

NEVER route electrical cables over battery terminals.

NEVER short battery terminals with metal objects.

⚠ WARNING ⚠

CHEMICAL AND FIRE HAZARDS LIST

CHEMICAL AND FIRE HAZARDS continued

ALWAYS verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc., when drilling.

ALWAYS consult installation manual for proper wiring details.

ALWAYS insulate and protect all exposed wiring and electrical terminals.

⚠ CAUTION ⚠

CUT AND BURN INJURY HAZARD LIST



Hand Piercing/
Cutting Hazard



Hot Surface Hazard

CUT AND BURN INJURY HAZARDS

NEVER let winch rope slip through your hands.

ALWAYS wear heavy leather gloves when handling winch rope.

⚠ CAUTION ⚠

MOVING PARTS ENTANGLEMENT HAZARD LIST



Finger/Fairlead
Crushing Hazard



Keep Fingers Clear of
Fairlead Pinch Point

MOVING PARTS ENTANGLEMENT HAZARDS

NEVER leave remote control where it can be activated during free spooling, rigging, or when the winch is not being used.

NEVER leave the winch remote control plugged in when installing, freespooling, rigging, servicing or when the winch is not being used.

NOTICE

AVOID WINCH AND EQUIPMENT DAMAGE

ALWAYS avoid side pulls which can pile up winch line at one end of the drum.

This can damage the winch line or winch.

ALWAYS ensure the clutch is fully engaged or disengaged.

ALWAYS use care to not damage the vehicle frame when anchoring to a vehicle during a winching operation.

NEVER submerge winch in water.

ALWAYS store the remote control in a protected, clean and dry area.

Safety Summary:

As you can see, winching must be taken seriously.

The preceding Warnings, Cautions and Notices may seem like a lot to absorb, but in summary we think you will agree that these Warnings, Cautions and Notices are fairly straight forward and sensible.

After careful consideration of the various potential hazards associated with improper use, the operator can move forward to utilize this powerful and reliable piece of equipment to enhance the off-road experience.

In the next section of this guide, we will illustrate the primary components and features of your Q Series winch, and discuss care and maintenance of the product.

Photos & Graphics in this guide:

Some graphics in this guide may not exactly match your winch. All information and instructions given in this guide applies to your model except when noted.



Section I: Winch Anatomy

This section will familiarize you with the name and purpose of the major Q Series Winch parts & components.



1. Controller:

Sends the flow of electrical power to the winch motor to tell the winch what you want it to do. The remote switch has three positions: Power In, Power Out and Off. Long cord allows operator to stand clear of the winch line.

2. Synthetic Winch Line (with Chafe Guard):

Q-Series winches with synthetic winch line are 85' in length and 3/8" in diameter. The synthetic line is wrapped around the winch drum and fed through an aluminum hawse style fairlead. The line is attached to the clevis hook.

3. Safety Latch:

The safety latch is a spring loaded mechanism to assist in keeping rigging apparatuses in place. Be sure the safety latch is free of debris and check the clevis hook periodically to ensure safety latch is functioning properly.

4. Clevis Hook:

The clevis hook connects your vehicle to a recovery point. Ensure that the hook is securely fastened to the winch line.

5. Nylon Hook Strap:

A 12" long strap that holds the clevis hook. Made to keep fingers away from the hawse fairlead while winch line is being spooled in. Winches have tremendous force and can remove fingers or limbs within a pinch point. Place the hook into the loop end of the strap and hold the strap between the thumb and the forefinger.

6. Hawse Fairlead (Machined Aluminum):

The fairlead guides the winch line onto the winch drum and minimizes wear and tear to the line as it goes through the winch mount or bumper.

7. Clutch Control:

Clutch Lever allows manual engagement/disengagement from the gear train. Clutch must be fully engaged or in free spool. Never attempt to shift lever when cable under load (see WARNINGS section).

8. Solenoid Pack:

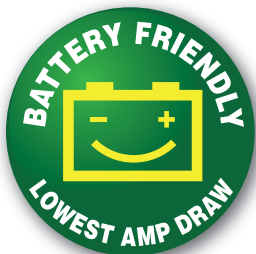
The solenoid pack is an electromechanical switch that transfers power from the car battery to the winch motor enabling the winch operator to change direction of the winch drum rotation.

9. Winch Drum: (Spool)

The hardened metal cylinder core around which the winch line is wound. Driven by the Winch Motor.

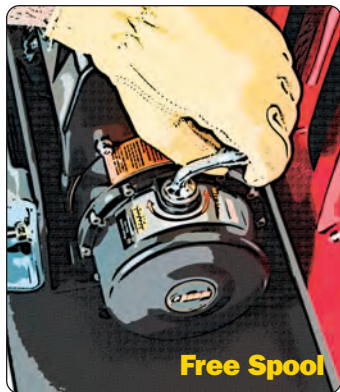
10. Winch Electric Motor:

Winch motor is powered by the vehicle battery. The winch motor provides the power and motion to the gear mechanism, which turns drum to wind the winch line.



Battery Friendly Product:

Our powerful 4.8 HP series wound motor and class leading low gear ratios give fast line speeds with a “Battery Friendly” low current draw that will get the most winching time from your battery's available charge state.



Clutch Operation:

There are two positions of the clutch handle. The Clutch is either “engaged” or “free spooling”. Clutch allows operator to manually engage or disengage the spooling drum from the gearset using the clutch lever.

⚠️ WARNING ⚠️

NEVER engage or disengage clutch if the winch is under load, the winch rope is under tension or the spool is moving in any way.



Remote Control:

The remote control plugs into the winch control box, allowing the operator to control the winch direction, as well as stand well clear of the winch line while operating the winch.



Remote Control Switch Positions:

*Switch Up = Winch Out
Switch Down = Winch In
Switch Center = Motor Off*

Always use extreme caution when remote is connected.

⚠ WARNING ⚠

NEVER leave the winch remote control plugged in when not in use.

NEVER allow remote to activate winch during free spooling or rigging.

Winch Care and Cleaning:

Do not direct very high-pressure water at your winch. Use low-pressure (normal) car wash soap and water to clean your winch. With the



the remote control disconnected and the protective boot covering the remote control socket, wash normally with your vehicle. During winter exposure to road salt, wash the winch as soon as possible to avoid corrosion. Always wash per the recommendations above.



Battery Requirements:

A fully charged battery and good connections are essential to the proper operation of your winch. The minimum requirement for a 12 volt automotive DC battery is 650 Cold Cranking Amps. Ask your Quadratic sales representative for details about heavy-duty batteries and terminals for your vehicle.

General Maintenance:

All moving parts within the winch have been lubricated at the factory using high temperature lithium grease. No internal lubrication is required. Check battery cables and electrical connections at regular 3 month intervals to be certain they are clean and tight at all connection points. Inspect winch line before & after each winching operation.

Synthetic Winch Line Care:

Regular use of your winch will result in normal wear to the winch line. Most wear occurs slowly and may be considered acceptable and safe. Excessive and abnormal wear can present a dangerous situation. Continuous pulls can overheat the winch drum and melt the winch line! If melting has occurred and the winch line becomes fused to the drum, discard the damaged line and replace with a new line.



Use a line protector / chafe guard to protect the winchline when it touches the ground or rocks. Do not tie knots in your winch line to repair it. Only hook directly to the hook or thimble but never to the rope. Use only mild soap and water to clean your winchline. Regularly inspect and replace severely abraded winch lines.



Normal wear shown at left consists of light fuzzing or the outer strands with some discoloration. Monitor condition of the winch line during all use.



Moderate to excessive wear consists of one or more of the following: Heavy fuzzing, pulled strands, broken strands & stiff or melted sections. This level of wear reduces working strength of the line and the line should be replaced.

Quick Reference Winch Troubleshooting Guide

Symptom	Possible Cause	Suggested Remedy
<i>Motor does not turn on</i>	<i>Switch assembly not connected properly</i>	<i>Insert switch assembly firmly to the connector.</i>
	<i>Loose battery cable connection</i>	<i>Tighten nuts on cable connectors.</i>
	<i>Solenoid malfunctioning</i>	<i>Tap Solenoid to free contact, applying 12V (for 12V motor) or 24V (for 24V motor) to coil terminal directly. Solenoid will make an audible clicking when activating.</i>
	<i>Defective switch assembly</i>	<i>Replace switch assembly.</i>
	<i>Defective motor</i>	<i>Check voltage at armature port with switch pressed. If voltage present, replace motor.</i>
	<i>Water has entered motor</i>	<i>Drain and dry. Run in short bursts without load until completely dry.</i>
<i>Motor runs too hot</i>	<i>long period of operation</i>	<i>Let winch cool down periodically.</i>
<i>Motor runs slow or lacking power</i>	<i>battery run down</i>	<i>Recharge battery by running vehicle engine.</i>
	<i>Insufficient current or voltage</i>	<i>Clean, tighten or replace connector.</i>
<i>Motor runs but cable does not turn</i>	<i>Clutch not engaged</i>	<i>Push clutch handle into IN position, if that does not work, seek professional assistance.</i>
<i>Motor runs in one direction only</i>	<i>Defective or stuck solenoid</i>	<i>Tap solenoid to free contacts. Repair or replace solenoid if needed.</i>
	<i>Defective switch assembly</i>	<i>Replace switch assembly.</i>

Please Note: Another copy of this troubleshooting guide appears in your separate 12 page Q Series Electric Winch Installation Manual.

Section II: Q-Series Winching Guide

*Congratulations on your recent purchase of a Q series winch from Quadratec. This high quality winch has the power and performance to give you years of safe winching capabilities if you use it properly. The following guide will help you in using your Q series winch in the safest and most effective manner. Please review the following winching guide **in its entirety** before you use your winch and please take note to the warnings and cautions as they are there to protect you and others around you.*

Part 1- Before you use your Q Series Winch

Using your winch is straight forward and is designed to be very user friendly. However, the use of a winch in a parking lot vs. on the trail where there are unforeseen obstacles and challenges are two completely different situations. To make sure you are ready for a trail recovery, we highly suggest the following steps/actions be taken ahead of your trip to ensure a safe and pleasant experience.

Prepare your winch line before you use your winch.

The winch line must then be pre-tensioned. Do NOT use the winch line without pre-tensioning it. First, place clutch in Free Spool position and slowly unspool all of the winch line from the drum.



You now need to pre-stretch your winch line to ensure that there's an even stretch to eliminate any weak points. To stretch your winch line, begin with 5 or 6 snug wraps around the drum and set up a secure anchor point and pull your vehicle (in neutral gear) with the winch up a slight flat incline. See steps 12-14 to properly set up this pull with full understanding of all safety precautions. To fully stretch the winch line, you

will need about 500 lbs. of tension on the cable during this operation. Once you have completed this pull, be sure to rewind cable in nice tight rows not allowing the upper rows to intertwine with the lower rows. Please see step 15 for the proper method for rewinding your winch line as this is an extremely important procedure.

Practice, practice, practice.

Like any new skill and new product, using your winch effectively takes some getting used to. If you do get into a recovery situation, you want the peace of mind and experience of knowing that you have used your winch before. This is especially true for using your new winch as the last thing you want to worry about is learning how to use the winch when you are already stuck. At that point, you will need to concentrate on the best method to get safely “unstuck”.



Plan your pull and “pull to the plan”.

This is extremely important. If you get into a recovery situation, you will need to methodically plan your pull to ensure safety and to eliminate the chance of vehicle and/or

*winch damage. You alone are in charge of your pull so **do not** rush to get it done. Plan your recovery and pull to the plan is the best way to safely get out of any situation. Prior practice using your winch and having the correct tools and accessories available **before** a needed recovery will help you with your plan and allow you the best options for a safe winch pull.*

Winching guidelines to always remember

Each recovery operation is different from the last. However, if you always remember the following guidelines, each pull will be a safe and successful pull:

- > **Think Safety at all times.**
- > **Plan your pull and pull to the plan.**
- > **Practice using your winch often.**
- > **Assess your situation carefully and take your time.**
- > **Always use the proper equipment for each pull.**
- > **Always use leather gloves**
- > **Never let the winch line slide through your hands.**
- > **You are in charge of the pull and should be the ONLY person to handle the winch, the winch controller and winch line.**



Part 2- Essential Winch Accessories & Equipment

Your Q series winch is the ultimate recovery tool. However, this winch is designed to be used with other helpful accessories to safely ensure you can get “un-stuck”. You never know how or where you will get stuck and having the right tools will help increase the usefulness of your winch while creating a safe winching experience.

At the minimum we suggest the following accessories be carried with you at all times. All of these items are readily available by themselves or in handy money saving kits from Quadratec.com:

- > **Leather Gloves**
- > **Winch Hook Strap** (Standard on Q Series Winch)
- > **Tree Trunk Protector**
- > **Heavy Duty D-Ring**
- > **Snatch Block**
- > **Shovel, Hand Tools and Safety Goggles**

Leather Gloves

Winch line is quite strong. It can have sharp barbs and/or slivers on the line that can cut your hands. To protect yourself you should always use leather gloves while using your winch. Please also note that before

you begin your recovery operation, you should remove or secure all loose clothing to make sure it does not interfere with the winch and can not possibly create a safety hazard.



Winch Hook Strap

Each Q series winch includes a nylon winch hook strap. If not already attached to your winch hook, you should immediately attach this strap before using your winch. This



strap allows you to keep your fingers away from the hawse fairlead when the winch line is being spooled in and prevent the possibility of finger or hand pinching. If you do not have the hook strap, purchase one or use a length of cord or something similar. **This is extremely important.**



⚠ CAUTION ⚠

Tree Trunk Protector

This is a must if you plan on winching to a live tree or other large anchor point. Using a chain or straight cable on a live tree can harm/kill the tree so always remember to “Tread Lightly”. Also, you should never hook back to your winch cable when wrapping around a log or other stationary anchor point as it can damage your winch line. Having a tree trunk protector will provide a secure anchor point without damaging your winch line.

Heavy Duty D-Ring

The D-Ring is a safe device for connecting the looped ends of cables or straps creating a secure winching point. The D-Ring “pin” is threaded for easy on/off and is perfect for attaching to snatch blocks. Make sure your D-Ring is the proper size for your application. Each has a rating embossed on the side of the ring.



Snatch Block

One of the most useful accessories you can carry with you is a “snatch block” that allows you to not only increase your pulling power, but it also can help get you out of angled recoveries where you do not have a straight pull directly from the winch. By using a snatch block doubled back from an anchor point to your vehicle, your pulling capacity increases dramatically. You can roughly double the pulling power of your winch. We estimate pulling power actually increases about 1.5 times due to the angle of the cable and bearing friction created by the snatch block. Regardless, if you are in a deep-stuck situation, by using a snatch block you can take the effective pulling power of a 9000 lb. winch to over 13,500 lbs.! Extra pulling power not only prolongs the life of your winch, it also makes those extra tough situations more manageable. It is important to note that by using a snatch block your line speed will be reduced by about 40% so be patient. You will get more power but less recovery speed.





Shovel & Other Hand tools

Depending on your situation, sometimes just having a winch is not enough. We recommend carrying compact tools such as a shovel, Hi-Lift® Jack or multi tools to help you out of those extra tough situations. New off road shovel designs actually fold up and are easily stored under a seat. In this case, it is better “to have it and not need it rather than need it and not have it!”



Tow Hooks and Choker Chain

As with all off road adventures the gear you carry other than what is suggested above is determined by the terrain you will be going through. If you do plan on using your winch due to advanced trail conditions we suggest that you have front and rear tow hooks mounted to the frame of your vehicle. These tow hooks will become critical when you need to connect back to your vehicle when using a snatch block or if you need a secure pull point for your buddy to pull you out. Another tool of the off road is a choker chain. This heavy duty chain with hooks on each end can be used as a way

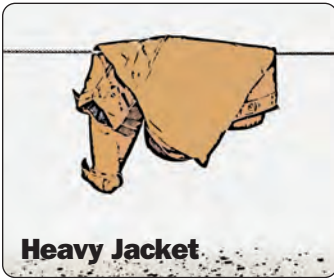
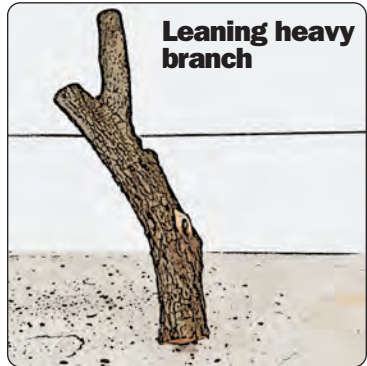


to securely attach to an alternate anchor point (not to a live tree) like a buried spare tire, buried log or a large rock.

⚠ WARNING ⚠

Safety Goggles

Each of us only gets one set of eyes. We strongly suggest you always wear safety goggles or glasses to reduce the possibility of any flying object or debris contacting your eyes.



Winch Line Dampener

Like in a playground game of “tug of war” if the other team lets go, the rope can come flying toward you. A winch line draped with a dampener such as a winch line blanket

or even a heavy jacket can catch some of the energy if a winch line “lets loose” for any reason. We carry a variety of affordable winch line blankets. In a pinch, a jacket or heavy garment can perform a similar function. Experienced off roaders have also used a heavy branch or log to capture this energy in some instances.

Recommended Winch Accessories:
Available at www.quadratec.com

> Winch Gloves



> Tree Savers



> D-Ring Shackles



> Snatch Block



> Off Road Shovel



> Hi-Lift Jack:



> Tow Hooks



> Line Dampener



A quick search in the online Quadratedec Product Search will show all current category options, or call 800-745-5337 to place an order



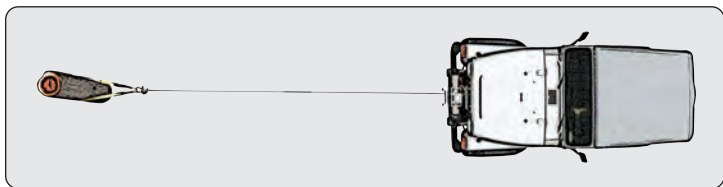
Part 3 - Setting up the pull

Now that you have become familiar with your Q Series Winch, follow the steps below to get setup for your winch pull:

⚠ WARNING ⚠

How to choose an anchor point

A secure anchor point is critical to all winching and recovery operations. An anchor must be strong enough to hold secure while under the stress of winching. When choosing an anchor point, you'll want an anchor point that will enable you to pull straight in the direction the vehicle will move that is as far away as possible. This allows the winch to pull with the greatest pulling power and the winch line to wind tightly and evenly onto the spooling drum creating a clean pull.



Hook the line as low as possible to the anchor point for the greatest leverage. If a “straight line” pull is not achievable, you will need to either choose a different anchor point or use a snatch block to create a straight line pull. See Section V - Rigging Techniques for various rigging options using a snatch block.

Natural anchors include trees, stumps, and rocks. If no natural anchors are available or when recovering another vehicle, your vehicle becomes the anchor point. In this case, be sure to put transmission in neutral, apply the hand brake

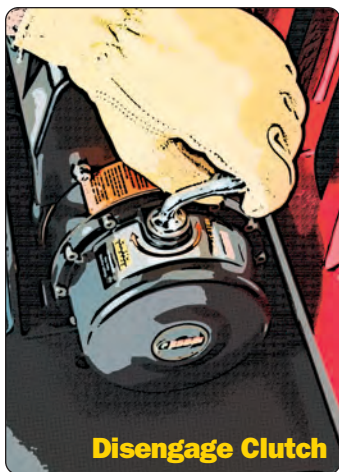
and block wheels to prevent your vehicle from moving.

Important Note for vehicles with automatic transmissions: If you leave your vehicle in park you risk wedging or damaging the parking sprag. If you are really in a bind and have no natural anchor points or other vehicle to anchor to, you can bury a log or your spare tire deep in the ground with a Choker Chain attached to create an anchor point. The same can be done with a large log. This type of anchor point should be only used if all else fails. **Warning: Shock or snap loads will over load line, hook and winch mount. Do not use vehicle power or movement to increase force during winch operation.**



Step One: Plan a safe pull

Review your current situation and plan for a safe pull. Determine the most secure anchor point and determine ahead of time how you will secure to this point.



⚠ WARNING ⚠

Step Two: Wear Gloves and Disengage Clutch

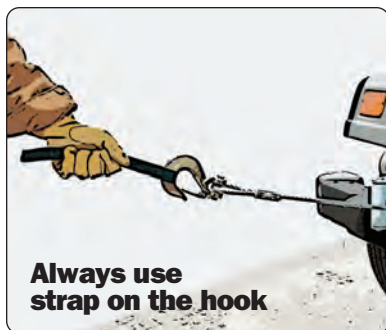
Locate and put on heavy duty leather gloves. Disengage the clutch on the winch to allow it to free spool by turning the clutch lever to "disengage". **Do Not** attach the remote control to winch at this time.

⚠ WARNING ⚠

Step Three:

Place Strap on Hook

Attach green winch strap to winch hook. Put the hook into the strap loop and hold strap between the thumb and forefinger ensuring you will be well clear of the winch hook.



Step Four: Pull out Wire

Pull out enough winch line to reach your anchor point while keeping some tension on the wire to ensure it does not get tangled in itself.



⚠ WARNING ⚠

Step Five: Secure Winch Line to Anchor Point

Secure the winch line to the anchor point using one of the options below. Never attach the winch hook back to the cable after wrapping it around the anchor point. This will cause damage to the line and can cause a serious safety issue. When attaching to a tree, rock, buried tire or stump always use a tree trunk protector or a choker chain (Choker chain is never to be used on a live tree).

Anchoring to a Live Tree

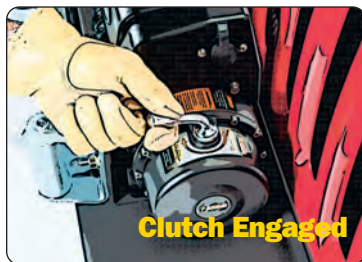
Wrap the Tree Trunk protector as low as possible around a large diameter tree. Hook the two looped ends into a heavy duty D-Ring. Connect the D ring to the loop that holds the winch hook and secure the screw in clevis pin. Do not over tighten the clevis pin.

Anchoring to a dead tree, rock or stump

Use the same method as above with the tree trunk protector or a choker chain ensuring you have a secure attachment and a strong anchor point. Pulling to a dead tree or rock can be tricky as the root system of a dead tree may not hold the pressure you are putting on it. The same may be true for a rock that is not deep seated in the ground. **Warning: keep operator and bystanders clear of cable, vehicle and fall line of rock tree or other anchor.**

Anchoring to another vehicle

This is one of the most common off road anchoring points. Attach to the anchor vehicle's frame mounted tow hook or directly to the vehicle frame. Do not wrap the hook back around the winch line. Make sure the vehicle you are anchoring to is in neutral (not in park), has the wheels blocked and the parking brake on. **Warning: shock or snap loads will over load cable, hook and winch mount. Do not use vehicle power or movement to increase force during winch operation.**



Step Six: Fully Engage Winch Clutch

To lock the winch clutch, proceed to turn the Clutch handle to the handle position marked "Engaged".



Step Seven: Attach Winch Remote Control

Attach the remote to the winch keeping the remote winch cable behind the winch.



Step Eight: Make sure winch line has a damper

This is a very important safety step. Place a blanket, large jacket, tree branch or designed line weight on the middle portion of the winch line (in between anchor

point and the winch). This “cable wrap/object” will help absorb the energy if the winch line breaks. During the winching operation make sure this line wrap does not enter the hawse fairlead. If this wrap does fall off during the winching operation do not attempt to replace it until the tension is taken off the winch line. Take the tension off the cable then adjust the object/cable wrap.

Step Nine: Tension the Cable before the Real Pull

Stepping to the side of the winch, put tension on the winch line by slowly pulsing the winch. As the tensioning

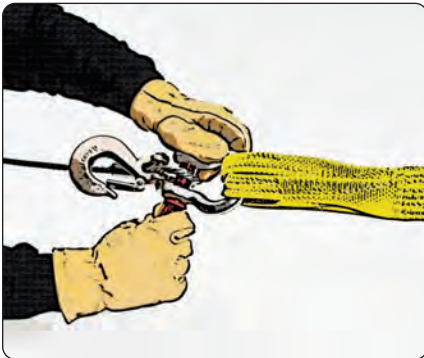


operation proceeds, make sure the winch cable is winding evenly on the winch drum.

⚠ CAUTION ⚠

Step Ten: Place remote over driver side door mirror

Move the winch remote back to towards the vehicle cab and place over the driver's side view mirror. If you plan on winching from inside the cab of your vehicle, run the remote cable through an open window and not through the door as the door will pinch the remote cable.



Step Eleven:

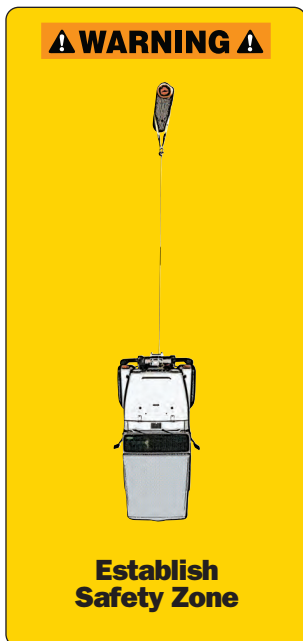
Check Hook Rigging

Walk to the anchor point and check the anchor to make sure it and the winch line attachment is secure and stable.

Part 4 - Engaging your Winch for the Pull

Now that you have set up the winching operation correctly, you are ready to initiate the pull. To make sure this operation goes as safely as possible, you will need to create a large **safety zone** around the winching area. In this zone you want to make sure there are no people or animals that could be harmed incase the operation does not go as planned.

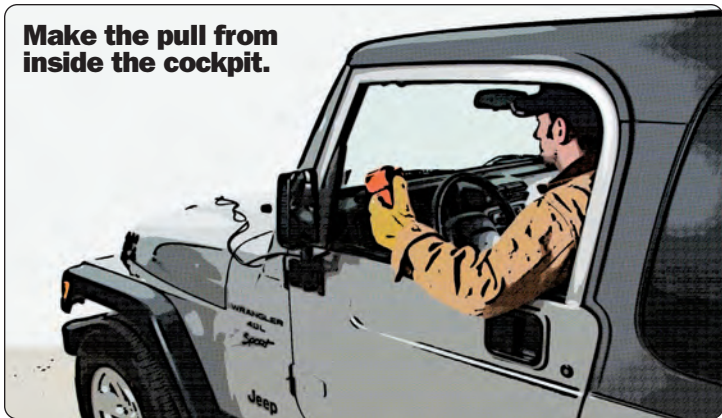
Under no circumstances should there be people in front, behind or in zone of the line, anchor or vehicle in case line or anchor fails or vehicle rolls. It is up to you to make sure that the winch area is clear and you should make sure everyone around you knows that you are executing the winching operation.



Step Twelve: Start the Pull

With an established safety zone in place, a line wrap secure on the middle of the line and with the winch line in a slight tension state, you can now begin the winching operation. Start your vehicle's engine and from inside the vehicle (or from safe distance to the side of the vehicle with the vehicle in neutral) begin the winching operation slowly taking up the remainder of the slack in the line by intermittently pulsing the winch. Avoid taking up the slack in the line quickly causing a jerking of the line. This can put undue stress on the winch and line. Once under tension, continue the pull until the vehicle begins to move out from

Make the pull from inside the cockpit.



the obstacle. Winch slowly and steadily for a period not to exceed 1-1.5 minutes per pull. Exceeding 90 second pulls will place a strain on your electrical system and the winch. Taking a short break in-between 60 second pulls allows the battery to recharge itself and therefore provide the maximum pulling power.

⚠ WARNING ⚠

Step Thirteen: Things to check During the Pull

Make sure the all of the following is happening during the pulling process:

- ✓ *The winch line is pulling in tightly across the winch drum and not to one side. This is extremely important as a “side pull” can damage your winch or the cable can become bound up and possibly break.*
- ✓ *Avoid “Shock” or “Jerk” pulls during the winching process. These hard hitting pulls can create undue stress on the winch line and potentially cause it to break. “Slow and steady” should be the mantra on all winching operations.*

Step Fourteen: Verify Pull Results

Is it unstuck? Once the vehicle is on secure ground and is able to be safely driven, the pull is over. Stop the winching process, put the vehicle in park/gear and set the parking brake. Carefully reduce the tension on the line and remove the winch line from the anchor point making sure the line remains untangled.



Step Fifteen: Neatly Rewind the Winch Line

Now that your winching operation is complete, you will need to properly rewind the winch line back onto the winch drum. This is an extremely important step as a tangled winch line can cause future problems if and when you use your winch again. This step can be very dangerous as when you are rewinding your winch line there is a greater chance of getting your fingers pinched in the fairlead. Follow these steps carefully: Arrange the remote control cable to the side so it cannot be caught in the winch. Check the line already wound on the winch to make sure it is wound tight and even. If it is not, take the time to straighten out the layers. Keeping the line under light

tension by holding it with a gloved hand, slowly spool the rope back onto the drum guiding it into even tight rows. Do not let the line slide through your hands! Walk the rope to the winch and stop when necessary to retrieve more line



and straighten and tighten the rows. Repeat this process until the winch hook is the same distance as the full length of the remote control from the winch (Approximately 12 feet). Attach the loop of the hook strap to the winch hook. Hold the attached hook strap between the thumb and forefinger to keep tension on the winch line and walk the line towards the fairlead. To prevent serious injury, when the hook gets close to the fairlead, make sure you are holding onto the winch strap keeping all fingers and limbs away from the fairlead/hook area. If you do not have the hook strap, use a length of cord or something similar.

Step Sixteen:

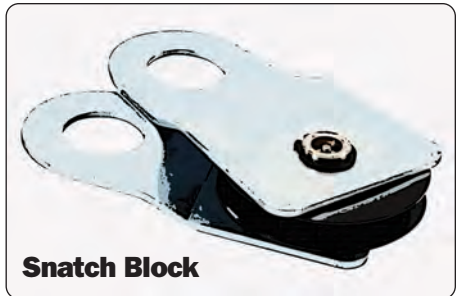
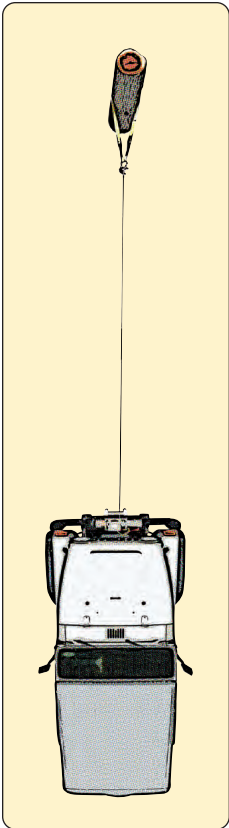
Disconnect Remote and Replace Solenoid Cap

Once the winch line is secure back on the winch, unhook the remote control and carefully store in a safe, dry place. Replace the rubber cap back on the solenoid box.

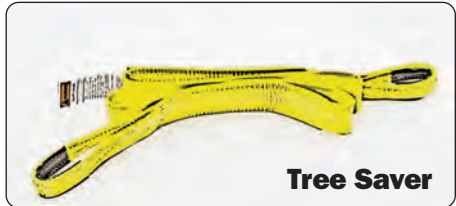


Part 5 - Recovery Winch Rigging Options

Every recovery situation is different and in some cases you may be in a situation where you need to use a snatch block to create a straight line pull, increase your winching power due to a deep stuck situation or you have limited space to create an effective pull. These types of situations can occur at any time so we highly recommend carrying a Snatch Block at all times as part of your usual trail recovery tools.



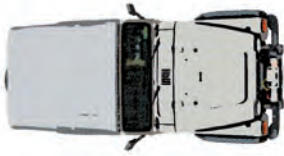
Snatch Block



Tree Saver

Creating a Straight Pull:

During a winching operation it is extremely important that you have a straight pull therefore eliminating the chance of the winch line bunching up on one side of the winch or the other. Sometimes due to obstacles or the location of a proper anchor point, this



Changing the direction of the pull requires use of a tree saver and a snatch block, secured to a point directly in front of vehicle being recovered. This allows rope to wind properly onto winch drum.

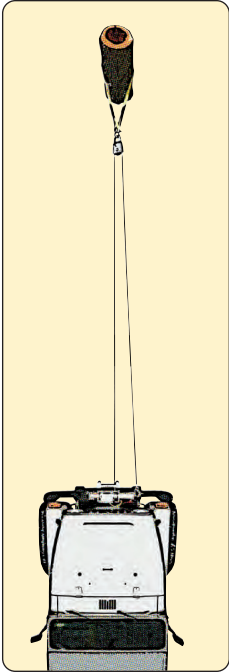
straight pull is not possible. The use of a snatch block to create a 90 degree angle as shown below will create this straight line pull and provide the pulling power necessary.

Increasing winching power with a Snatch Block

The power of your winch is increased when you have more layers of winch line removed from your winch due to the ratio reduction by the lack of diameter of the line on the drum of the winch. By using a snatch block to effectively double or triple the length of line used in the pull, you can gain significant power (1.5 times from a double line pull) from the use of a snatch block.



Running wire rope through snatch block

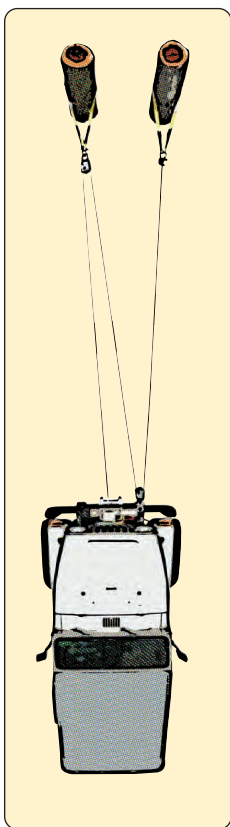


Double Line Pull:

A Double Line Pull is used when a vehicle is thought to be “deep stuck” in mud or on a very steep slope where extra pulling force is required. Start by feeding out enough winch line rope to free the winch hook. Attach the hook to your vehicle’s frame/tow hook and run the line through a snatch block. Disengage the clutch and, using the snatch block, pull out enough line to reach your anchor point. Secure to the anchor point with a tree trunk protector or choker chain with the use of a D-Ring. After rigging, review steps 12 through 16 for proper winching technique.

Triple Line Pull:

You will need two Snatch Blocks, two



anchor points and three D-Rings to perform a triple line pull. Using the same techniques as the double line pull, find a heavy duty mounting location on your vehicle (Frame mounted attachment point) for the first snatch block and the D-Ring attachment. Keep a 90 degree angle between the winch and run the winch line to the first anchor-point and through the second snatch block mounted to the anchor point secured with a tree trunk protector or choker chain with the use of a D-Ring. Secure the cable back to the vehicle and put the winch line through the first snatch block. Run the winch line to the second anchor point and secure to the anchor point with a tree trunk protector or choker chain with the use of a D-Ring.

After rigging, review steps 12 through 16 for proper winching technique.



Pull of Last Resort: A Deep Buried Anchor Point

It is possible to be stuck in a spot where, although you would want to winch there is no anchor point such as a tree or large boulder. This is typical of getting stuck at a beach or in the desert.

In this rare event, using a shovel, you must dig a substantial hole to bury a large object secured with a choker chain as an anchor point. Large objects to consider may include an oversize spare tire, a large boulder or a sizeable log. Simply put, the deeper you bury the object the better the technique will work.

Thank You!

We appreciate your purchase of this Q9500i Winch with Synthetic Line. You just got “More Winch for Less Money” than other winches sold in this price category.

Keep this guide in the glovebox of the vehicle with winch installed. Record your serial numbers for reference and the installation instructions and warranty card with your other automotive records.

Always think of safety first while winching!

By observing the techniques and cautions of this manual, you will gain the know-how to make a safe and successful off-road vehicle recovery. The satisfaction of getting un-stuck from a sticky situation in the field is one of the true pleasures of the off-road lifestyle.

*At Quadratec, we are here to serve you with both online and expert human resources. If you require assistance or have questions about your winch or winch-related accessories, please call **800-745-6037** during normal business hours.*

*Our 24 hour website at **www.quadratec.com** has facts, photos, and valuable information such as extra copies of downloadable instructions.*

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