



US PATENT PENDING

Q-Performance Stealth Series Winch

with Integrated Solenoid & Synthetic Winch Line

Assembly and Installation Manual

#92122.4011 & #92122.4021



⚠ WARNING ⚠

READ ALL SAFETY MESSAGES AND UNDERSTAND ALL INSTRUCTIONS AND PROCEDURE NOTICES BEFORE ATTEMPTING TO INSTALL OR USE THIS PRODUCT.

REQUIRED TOOLS:

Safety Glasses
Safety Gloves
Torque Wrench
13 MM Wrench
15 MM Socket

16 MM Wrench
2.5 MM Hex (Allen®) Key
4 MM Hex (Allen®) Key
#1 Phillips Head Screwdriver



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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-Performance 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 your Quadratic® product or other property may result if you do not follow instructions.

Unpacking:

When unpacking, check to make sure all parts are included. If any part is missing or broken, please call Quadratic Customer Service at 800-745-6037 as soon as possible.



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Assembly and Installation



CAUTION



Fire/Electrical Spark/Chemical Burn Hazards:

Connecting winch to battery and winch operation may cause electrical arcs. Never install or use winch where gasoline leaks, vapors or other flammables are present.

Always wear eye protection & remove jewelry when working with battery or installing winch electrical cables. Plan connections to avoid fuel lines, hot or rotating parts. Never route electrical cable or winch controller across sharp edges, doors or other pinch points.

Always use supplied terminal boots, insulate any other exposed connections neatly support all wiring. Depending on your level of knowledge regarding electrical wiring, you may wish to have this procedure performed by a qualified technician.



Electric Cable Connection

Attach the black (negative) ground cable to motor terminal and black solenoid ground wire with brass bolt. Tighten the brass bolt onto terminal using a 13mm wrench. Then attach positive and negative cables to their corresponding battery terminals.

DO NOT OVER TIGHTEN.



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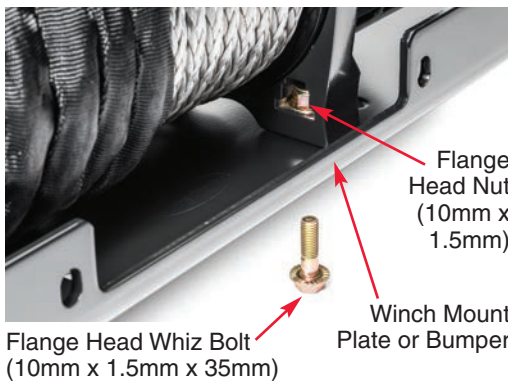
Assembly and Installation (Continued)

⚠ CAUTION ⚠

Battery cables **SHOULD NOT** be drawn taut. Leave slack for some cable movement. The battery cables **SHOULD BE** secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of vehicle. For example, the battery cables may be routed under the vehicle, attaching them to the frame using suitable fasteners such as cable ties (not included).

⚠ CAUTION ⚠

DO NOT attach Battery Cables to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may cause damage to the battery cables through heat or motion, or create a fire hazard. If a hole is drilled through the bumper or any other part of the vehicle, make sure to install a rubber grommet (not included) in the hole to prevent fraying of the battery cables at that point. The use of at least a 650 Cold Cranking Amps (CCA) battery is highly recommended.



Winch Mounting

Mount the supplied Hawse Fairlead to the Mounting Frame (not included) using supplied Bolts and Nuts.

The winch **MUST** be properly secured to a winch mount bumper or an approved winch mount plate with the included 10mm nuts and bolts (qty 4/each).

There are machined pockets at each of the four inside base corners that fit a flange head whiz nut. Place a nut into each pocket and center the winch over the mounting base holes. Tip: a touch of bearing grease can hold the 4 nuts in

place prior to fastening the flange head whiz bolts. In some rare mounting situations drilling for bolt holes may be required. Using a 15mm socket, thread the four 10mm x 1.5 x 35mm bolts through the bottom of the winch mount plate or bumper and into the whiz nuts.

Use a torque wrench and 10mm socket and torque each mounting bolt to 50 Ft-lbs.

Synthetic Winch Line Pre-Tensioning

The winch line must be pre-tensioned prior to use. Do **NOT** use winch line without pre-tensioning it.

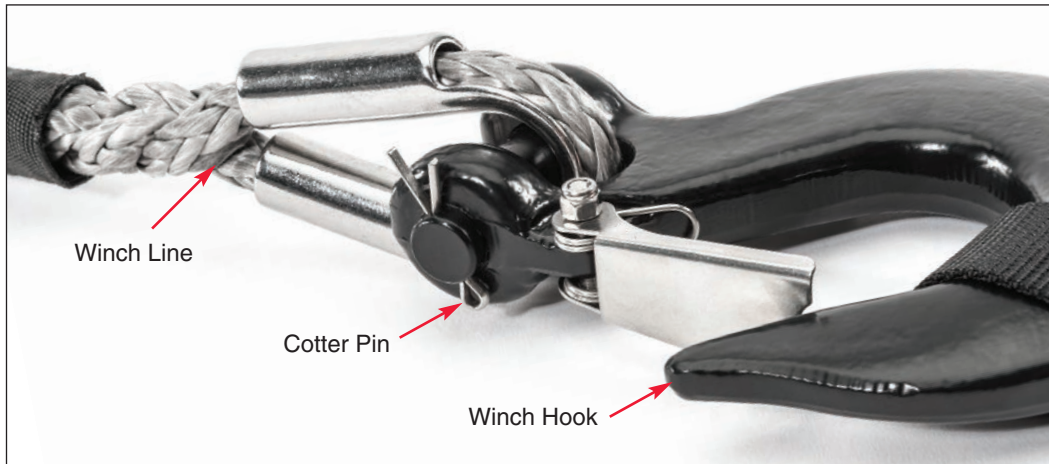
First, place clutch in Free Spool position and slowly pull all of the winch line from the drum. Remove the line fastener at the drum using a 4mm allen key at the drum and remove the line.

Thread the winch line through the fairlead and re-attach the line to the winch drum. You now need to pre-stretch winch line to ensure even stretching. To stretch winch line, begin with 5 or 6 snug wraps around the drum and set up a secure



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Assembly and Installation (Continued)



anchor point. Pull vehicle (in neutral gear) with the winch up a slight flat incline. See your glovebox sized “Self-Recovery Winch Operator’s Guide” 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 the operation. Once you have completed the pull, be sure to rewind cable in

tight rows not allowing upper rows to intertwine with lower rows. Review Operator’s Guide for this extremely important procedure.

Attach the Winch Hook to Synthetic Winch Line: Attach as shown using the included cotter pin through the clevis pin. Spread the cotter pin ends to secure the hook. Be sure to keep the safety latch clean and lubricated at all times.

CAUTION

CAREFULLY STUDY WINCH USER GUIDE SUPPLIED WITH YOUR WINCH.

Learn to Winch Properly

Your winch should add greater utility and enjoyment to your off-road adventures. Keep in mind, however, the weight of your vehicle and the forces required to move it create certain hazards. Self recovery that is safe for you, bystanders and the environment requires product knowledge, planning and practice.

Be aware there are specific techniques and hazards associated with recovery winching. Begin by understanding ALL Safety Information found in this winch

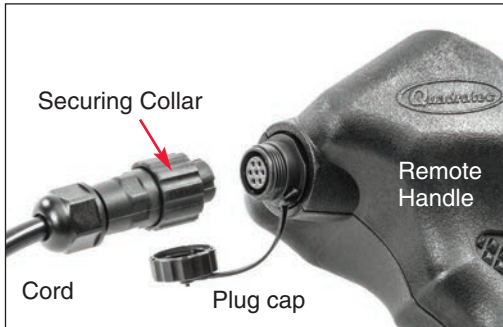
installation manual and then supplement your knowledge by studying the supplied glovebox-sized Q Series **Winch Operator’s Guide Manual** and also by learning from more experienced off-road enthusiasts. The broad conditions where winch-based self-recovery are required are discussed in the supplied glovebox sized guidebook. Keep the supplied booklet in the winch installed vehicle glovebox after winch installation as a handy reference.

Develop and rely on your own good judgment at all times.

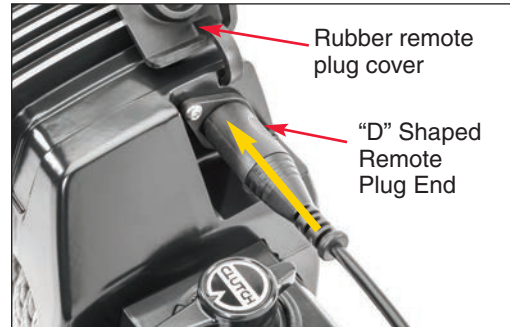


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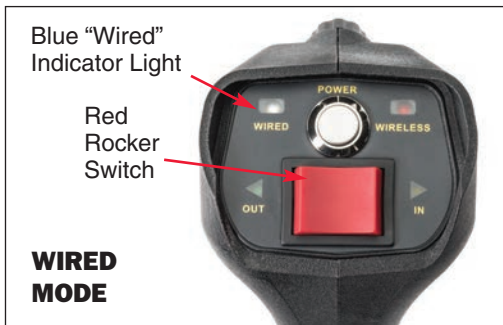
Remote Controller Setup



For Wired Operation: Unscrew the remote plug cap. Plug the 12' long remote cord into the handheld remote controller. Make sure that you align the cord with the three indexing notches in the remote handle. Thread the securing collar onto the remote handle to ensure a proper connection.



Next, loosen the Rubber Plug Cover on the right hand side of the winch. Plug the "D" shaped end of the Remote Cord into the corresponding receptacle on the right hand side of the winch. Be sure that the plug is fully engaged onto the winch as shown.



Your winch will automatically power up and be fully functional once the controller is connected to the winch. The amber LED Winch Drum light will illuminate along with the blue "wired" indicator light on the remote. There is NO need to activate the power button on either the winch or the controller when using "wired" mode. Test both the OUT and IN functions of the winch using the red rocker switch on the remote with a short press of the switch. The winch will stay on as long as the remote is plugged in.



The winch will automatically shut off as soon as the cord is unplugged.

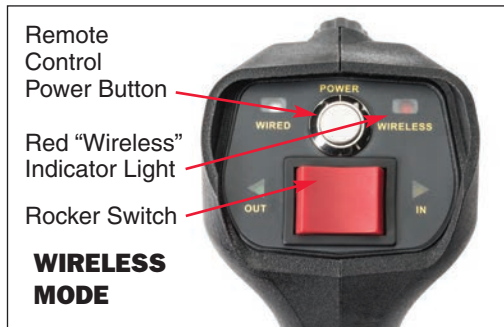
For Wireless Operation: First, loosen the rubber Power Button Cover on the left hand side of the winch to expose the power button. Press the power button once. The power button will illuminate along with the amber winch drum lights.

Now press the Remote Control power button once. The red "WIRELESS" light will illuminate on the controller. This red



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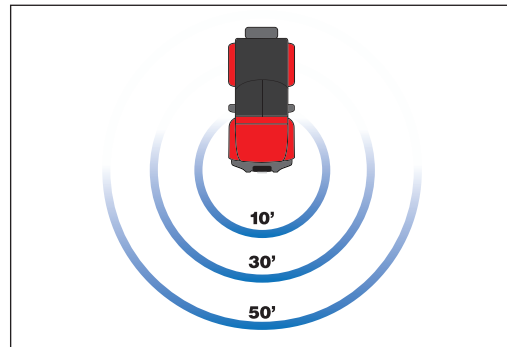
Remote Controller Setup



light will remain lit while it is connected to the winch. If the red light on the controller begins blinking while operating the winch, the controller is out of range. Move the controller closer to the winch until the light stops blinking. Test both the "OUT" and "IN" functions of the winch using the rocker switch. The winch is now ready for use.

NOTE: Wireless handheld remote controller will automatically shut off after 2 minutes of inactivity and the red indicator light will no longer be lit. The power button must be pressed once again to reactivate the wireless controller. Also, the

wireless receiver on the winch is designed to automatically shut off after 10 minutes of inactivity and the power button will no longer be lit. The power button on the winch will need to be pressed once again to reactivate the winch.



NOTE: The wireless remote will work within a range of 10 feet from the winch but may work farther distances depending on physical obstructions and other conditions. We do not recommend using the wireless feature from the cab of your Jeep. If you choose to winch from the cab, please use the wired option for safety and consistency.

Clearing and Pairing a Wireless Remote to your Winch: The wireless controller that comes with your winch is paired from the factory and ready to use. This pairing procedure is **ONLY** necessary when replacing the original remote due to loss or damage.

To clear a previously paired remote, make sure your new replacement wireless remote control is off. Press and hold the winch power button and continue to hold the button in until the button begins to blink. Continue holding the power button in until the light shuts off and comes back on. At this point the old remote is erased from the system. If the light begins

to blink again the clearing has failed. Repeat the previous step.

To pair a new remote, press and continue to hold both the power button on the winch and the power button on the remote controller. The winch power button and the red "WIRELESS" Indicator Light on the controller will both blink and then stay lit for approximately 10 seconds. At this point the controller is paired. Test the winch "OUT" and "IN" functions on the remote to ensure that the remote is functioning properly. If the controller is not working repeat the pairing procedure from the beginning.



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Remote Controller Battery Replacement



NOTE: The presence of a battery is NOT required whenever using a "WIRED" remote controller. But, a charged battery is necessary when using a "WIRELESS" remote controller. If the wireless mode is not functioning properly, the battery may need replacement.

Battery Replacement Procedure:
Remove the three (#1 size) Phillips head screws that attach the winch controller halves.

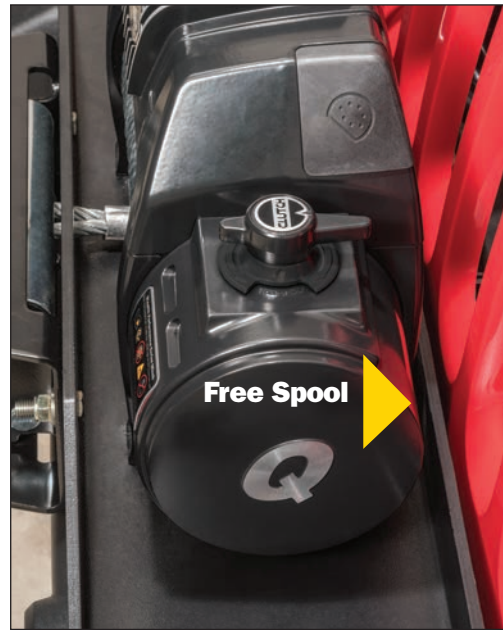


Carefully remove the old CR123A or CR123 Lithium battery and replace with new. Gently align and position the winch controller halves together and fasten the three Phillips head screws. Do not over tighten! Test the winch "OUT" and "IN" functions on the remote to ensure that the remote is functioning properly.



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Winch Clutch Operation Details



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.



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Clutch Handle Removal (Optional)

NOTE: Our Patent Pending removable Clutch Handle doubles as a “key” that can be temporarily removed to deter winch line theft, vandalism and pranksters.

Once the Clutch Handle is removed, it can be stored in the vehicles glove box or console and used only when winching.

Clutch handle removal is optional.



Rotate Clutch Handle to the “FREE SPOOL” position to reveal the set screw that holds the handle in place. Using a 2.5 MM Allen wrench, back out the set screw until the Clutch Handle lifts off but do not remove the handle at this time.



Rotate the clutch selector to the “EN-GAGED” position. You may remove the Clutch Handle now and keep it in a safe place. We suggest keeping the Clutch Handle somewhere in the vehicle,



Note: If the handle is not present when winching is needed, a standard 3/8” drive socket wrench extension can be used to rotate the clutch selector mechanism.

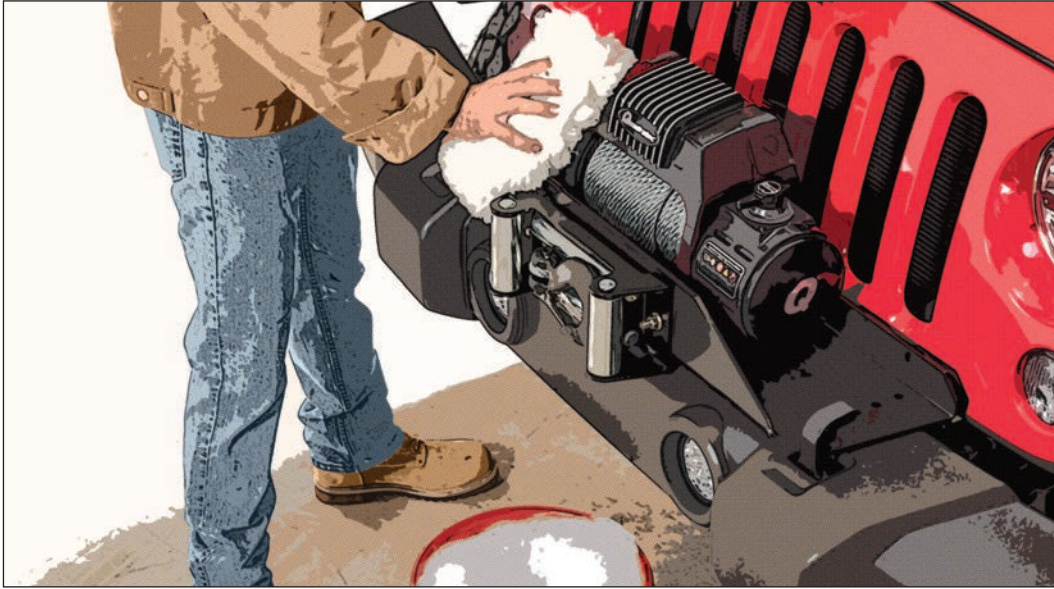
Do not keep the clutch handle on the winch unless the set screw is fully engaged to secure the handle in place.

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Winch Care and Maintenance:



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 remote control disconnected and the protective boots covering

the remote control socket and power button sockets, 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: Our powerful series wound motors 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. 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 Quadratec 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.



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SPECIFICATIONS



Q10 Performance Stealth Winch with Synthetic Line

Rated Line Pull (Single Line)	10,000 lbs (4536 kgs)
Gear Reduction Ratio	210:1
Motor (Series Wound)	12 Volt / 4.9 Hp (3.65 Kw)
Drum Size	2.64" x 8.35" (67mm x 212mm)
Synthetic Winch Line	3/8" x 82'
Overall Dimension	21" x 6.375" x 10" (533.4 mm x 162 mm x 254 mm)
Net Weight	61.0 lbs. (27.67 kgs)
Mounting Bolt Pattern	10" x 4.5" (254mm x 114.3mm)

Q12 Performance Stealth Winch with Synthetic Line

Rated Line Pull (Single Line)	12,000 lbs (5443 kgs)
Gear Reduction Ratio	294:1
Motor (Series Wound)	12 Volt / 4.9 Hp (3.65 Kw)
Drum Size	2.64" x 8.35" (67mm x 212mm)
Synthetic Winch Line	3/8" x 82'
Overall Dimension	21" x 6.375" x 10" (533.4 mm x 162 mm x 254 mm)
Net Weight	61.0 lbs. (27.67 kgs)
Mounting Bolt Pattern	10" x 4.5" (254mm x 114.3mm)



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TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
<i>When remote control switch is activated, a clicking sound occurs and winch does not operate in either the power in or power out mode.</i>	<i>Battery is inadequate or defective.</i>	<i>Replace battery with 650 cold cranking amp rating or greater.</i>
	<i>Battery is not fully charged</i>	<i>Charge the battery.</i>
	<i>Faulty battery cable or connections</i>	<i>Clean and tighten all battery connections.</i>
	<i>Poor electrical grounding of thermo relay wire</i>	<i>Be sure connections are clean and tight.</i>
	<i>Worn or damaged motor brushes</i>	<i>Replace winch motor.</i>
	<i>Vehicle not running</i>	<i>Start vehicle & keep running during winching</i>
<i>Winch Lacks Power, pulls slower than normal, stalls or does not run at all.</i>	<i>Ground and power cables are loosely connected to battery or winch terminals</i>	<i>Be sure connections are clean and tight.</i>
	<i>Battery is not fully charged</i>	<i>Charge the battery.</i>
	<i>Battery is inadequate or defective.</i>	<i>Replace battery with 650 cold cranking amp rating or greater.</i>
	<i>Battery terminals are corroded.</i>	<i>Clean battery terminals.</i>
	<i>Vehicle not running</i>	<i>Start vehicle & keep running during winching</i>



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TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
When winch control is activated, the winch operates only in one direction.	<i>Remote control switch is damaged.</i>	<i>Check remote control switch and its cable. Check all connections and replace if necessary.</i>
	<i>Ground and power cables are loosely connected to battery or winch terminals</i>	<i>Be sure connections are clean and tight.</i>
	<i>Battery is not fully charged</i>	<i>Charge the battery.</i>
	<i>Battery is inadequate or defective.</i>	<i>Replace battery with 650 cold cranking amp rating or greater.</i>
	<i>Battery terminals are corroded.</i>	<i>Clean battery terminals.</i>
	<i>Solenoids inside the control pack is stuck or damaged</i>	<i>Replace Solenoid Module</i>
	<i>Vehicle not running</i>	<i>Start vehicle & keep running during winching</i>
Winch does not hold a load	<i>Winch line is spooled onto winch drum in the wrong direction.</i>	<i>Winch line must exit from the bottom of the drum. Re-Spool in the proper direction.</i>
	<i>Load exceeds winch rating.</i>	<i>Do Not exceed the line pull rating shown in the ID label on the winch motor. Refer to the winch operators manual for correct rating.</i>
	<i>Brake inside the winch drum is badly worn or broken.</i>	<i>Replace entire drum and brake assembly.</i>



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TROUBLESHOOTING

Problem	Possible Cause	Possible Solution
<i>Winch line has difficulty spooling off the winch drum by hand.</i>	<i>Bent drum side flange.</i>	<i>Replace Drum.</i>
	<i>Worn drum bearing surfaces.</i>	<i>Replace motor sub-assembly and/or clutch sub-assembly.</i>
	<i>Free spool clutch is damaged.</i>	<i>Remove and inspect gear carrier assembly. Inspect output gear, intermediate gear, input gear, sun gear ring and gear ring output. Remove burrs with file.</i>
	<i>Winch is not mounted correctly or square on the winch plate.</i>	<i>Check mounting hole measurements for consistency and squareness. Be sure that mounting surface is flat and mounting bolts are tight.</i>
	<i>Internal damage to ring gear.</i>	<i>Disassemble gear assembly, inspect for damage, clean and grease or replace worn or damaged parts.</i>



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Quadratec® Limited Warranty

for Q-Performance Series Self-Recovery Winches

Your Q-Performance Series self-recovery winch is covered by the following **Limited Warranty** provided exclusively by Quadratec, Inc., 1028 Saunders Lane West Chester PA 19380.

This **Limited Warranty** is the only warranty made in connection with purchase. Quadratec® neither assumes nor authorizes any vendor, retailer or other person or entity to assume for it any other obligation or liability in connection with this product or **Limited Warranty**.

What is Covered:

LIFETIME MECHANICAL & 1 Year Electrical

Subject to the terms, exclusions and limitations herein and with respect only to winches first sold in the United States, Quadratec® warrants to the initial retail purchaser only that your winch shall be free of defects in material and workmanship: **(a.) for so long as your winch is owned by the initial retail purchaser with respect to mechanical and other non-electrical components and (b.) for a period of 1 year from date of purchase with respect to all electrical components (ex: motor, solenoid & control).** All other warranties are hereby disclaimed, except to the extent prohibited by applicable law in which case any implied warranty of merchantability or fitness for a particular purpose on this product is limited to 1 year from date of initial retail sale. Quadratec® reserves the rights to: (a.) require invoice or other proof your winch is within the terms of this **Limited Warranty** as a condition of warranty service and, (b.) make future revisions to this product and **Limited Warranty** without prior notice or obligation to upgrade your winch.

What is Not Covered:

Your Quadratec® **Limited Warranty** does not cover products or parts Quadratec® determines to have been damaged by or subjected to: (a.) installation damage, alteration, modification, failure to maintain or attempted repair or service by anyone not authorized by Quadratec®, (b.) normal wear & tear, cosmetic damage or damage from moisture or water immersion, (c.) Acts of God, accidents, misuse (including overload & continuous pulls), negligence, inadequate mounting or impact with vehicle(s), obstacles or other aspects of the environment, (d.) theft, vandalism or other intentional damage.

Remedy Limited to Repair/Replacement:

The exclusive remedy provided hereunder shall, upon Quadratec® inspection and at Quadratec's option, be either repair or replacement of product or parts (new or refurbished) covered under this **Limited Warranty**. Customers requesting warranty consideration on Q-Performance Series winches should first contact Quadratec® to obtain a RGA number (610-701-3336). All labor, removal, shipping and installation costs are customer's responsibility.

Other Limitations - Exclusion of Damages - Your Rights Under State Law:

In consideration of the purchase price paid, neither Quadratec® nor any independent Quadratec® distributor/licensee are responsible for any time loss, rental costs, or for any incidental, consequential, punitive or other damages you may have or incur in connection with any part or product purchased. Your exclusive remedy hereunder for covered parts is repair/replacement as described above.

This **Limited Warranty** gives you specific rights. You may also have other rights that vary from state to state. For example, some states do not allow limitations of how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you.

Instructions Part# 12999.1051 A4

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