

# Q-Series Winch with Synthetic Winch Line

Assembly and Installation Manual  
#92122.205X



**⚠ WARNING ⚠**

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

**REQUIRED TOOLS:**  
SAFETY GLASSES  
GLOVES  
TORQUE WRENCH  
10 MM SOCKET  
10 MM WRENCH

13 MM WRENCH  
14 MM WRENCH  
4 MM HEX (ALLEN®) KEY  
5 MM HEX (ALLEN®) KEY  
P2 PHILLIPS HEAD SCREW DRIVER



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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-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:

<b>⚠ WARNING ⚠</b>	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.
<b>⚠ CAUTION ⚠</b>	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.
<b>NOTICE</b>	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.



**Note About Photos in this Installation Guide:**

Some of the graphics in this manual may not exactly match your winch model. All information and instructions given applies to all models except where noted.



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## Assembly and Installation:

Attach the solenoid pack to the side mount solenoid bracket using a flat washer, split lock washer and nut for each of the four studs. Tighten using a 10mm wrench.

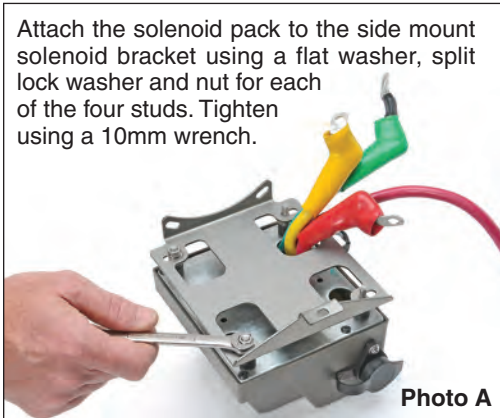


Photo A

### *Solenoid Installation (as Side Mount)*

**Photo A.** Carefully study the relationship between the solenoid pack and the side mount bracket. Run the four cables and black thermal relay ground wire through the bracket along with the four mounting studs as shown. Place a flat washer, lock washer and nut onto each stud and tighten with a 10mm wrench.

**Photo C.** Fasten a machine screw with a split lock washer followed by a flat washer. Tighten all three solenoid mount fasteners now.

### NOTICE

**Q-Series Winches feature two mounting positions to suit your individual application. The Above Side Mount Installation features a Heavy Duty Solenoid Bracket (Shown Right).**

**Some bumpers with Grille Guards or Tubular Hoops require the Q-Series Winch to Be installed using the Top Mount Solenoid Brackets. To install Winch with Top Mount Bracket, please refer to page 4 for Installation.**

Photo B



Tighten both 6mm x 1mm x 12 mm screws using a 5mm hex key.

**Photo B.** Fasten two socket cap screws with split lock washer and flat washer to attach the bracket to the winch base. There are tapped holes on each side of the motor mount. Do not tighten until the third fastener is in place.



Photo C

Tighten the 6mm x 1mm x 12 mm screw using a 5mm hex key.



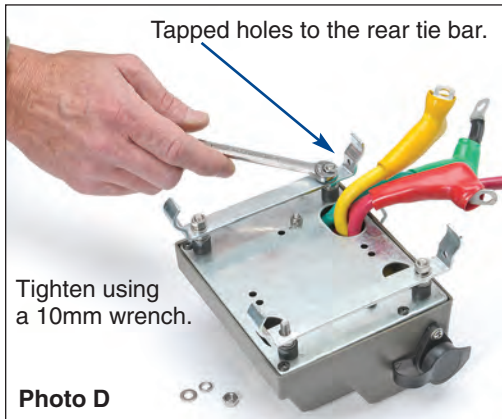
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## Assembly and Installation (Continued)

### **CAUTION**

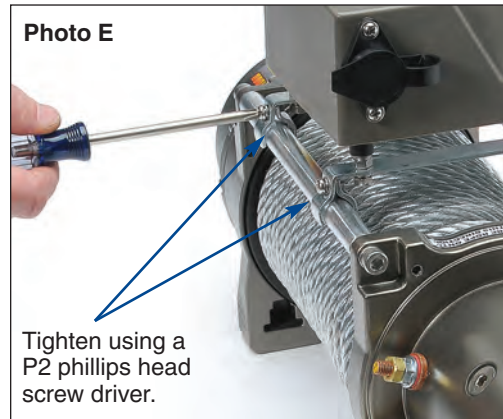
When the solenoid is mounted to the top of the tie bars, the winch power cables **MUST** be **PROPERLY** placed to the **OUTSIDE** of the rear tie bar as shown. Power cables **MUST NOT** come in contact with a rotating winch cable assembly or power cable insulation **MAY** be compromised and short circuit. Improper placement of power cables **MAY** result in damage to the winch or the vehicle.

### Solenoid Installation (as Top Mount)



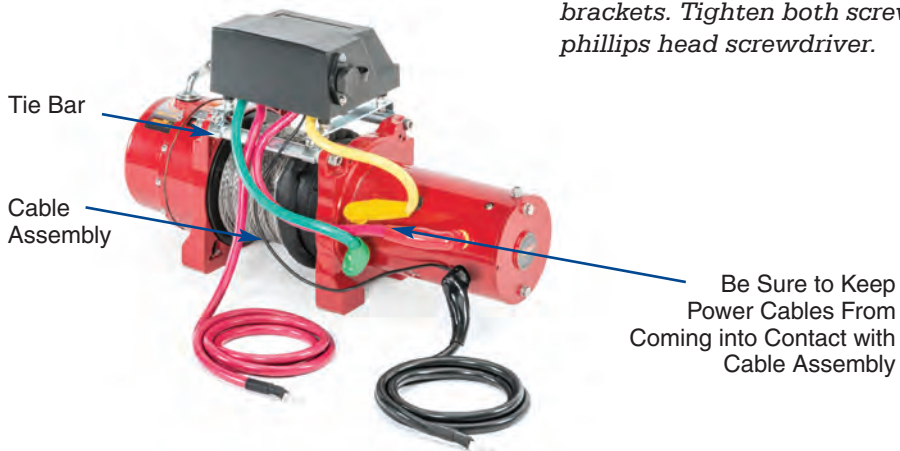
Attach solenoid pack to the top mount brackets using a flat washer, split lock washer and nut for each of the four studs.

**Photo D.** Note the relationship between the solenoid pack and the top mount brackets. Place a flat washer, lock washer and nut onto each stud and tighten with a 10mm wrench.



Attach the solenoid pack with mount brackets to tie bars using a phillips head screw with split lock washer.

**Photo E.** Center the solenoid pack onto the winch tie bars and fasten with two phillips head machine screws with split lock washers to attach the brackets. There is a tapped hole on each of the brackets. Tighten both screws using a P2 phillips head screwdriver.



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## Assembly and Installation (Continued)



**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.

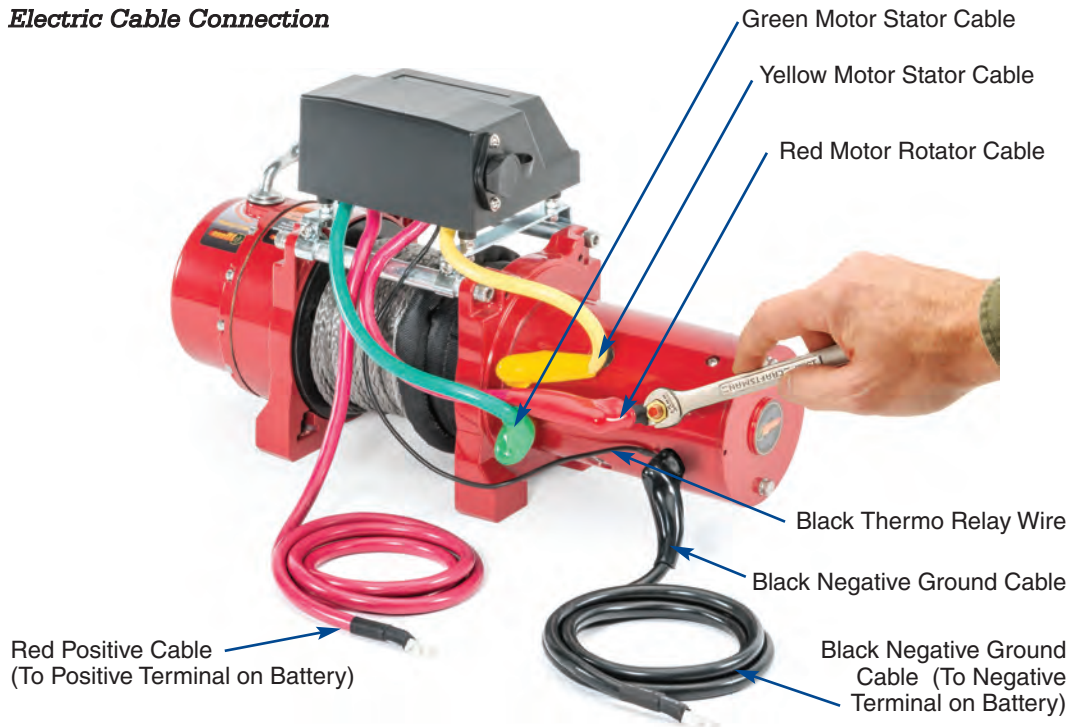
### **CAUTION**



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 red, yellow and green short cables to motor terminals as shown. Note: The three copper terminal stud ends are color coded. Tighten all three brass nuts onto terminals using a 13mm wrench. **DO NOT OVER TIGHTEN.**

Attach black ground cable to motor terminal and black thermo relay wire with brass bolt. Tighten brass bolt onto terminal using a 14mm wrench.

**DO NOT OVER TIGHTEN.**



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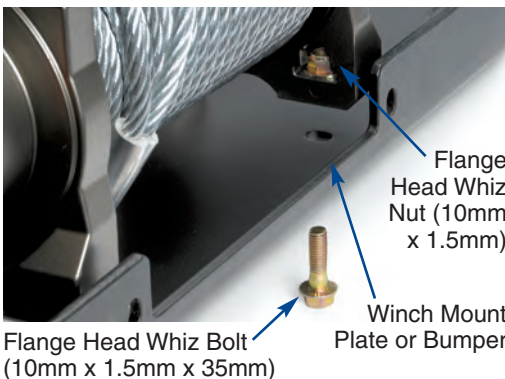
## Assembly and Installation (Continued)

### ⚠ 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 winch 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. 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 Installation

Your winch has been shipped to you with the synthetic winch line wound on its drum for shipping purposes only. Prior to winch installation, it is necessary to completely remove and detach the winch line and re-install it.

The winch hook is not removable and will not fit through the hawse fairlead. Therefore, the winch line needs to be threaded through the fairlead and attached to the drum once the winch and fairlead are mounted to the vehicle. The winch line must then be pre-tensioned.

Do **NOT** use winch line without pre-tensioning it. First, place clutch in Free



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### **Synthetic Line Installation (continued)**

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 to the line to the winch drum. You now need to pre-stretch winch line to ensure even stretching and to eliminate any weak points. To stretch winch line, begin with 5 or 6 snug wraps around the drum and set up a secure 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.

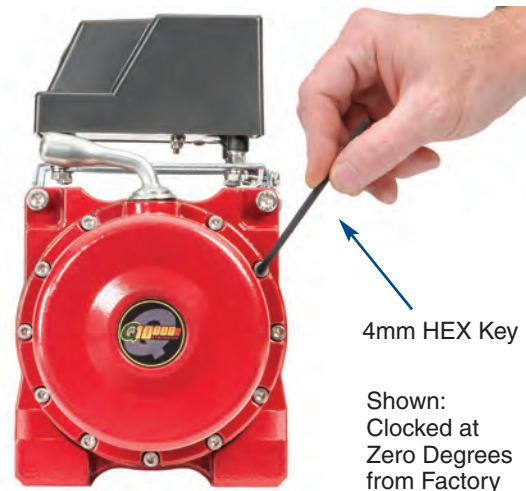
### **Learn to Winch Properly**

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.** If you have a question specific to your purchase, our customer service staff is standing by. Call or toll free: (800) 745-6037 or visit our #1 rated website at [quadratec.com](http://quadratec.com)



### **Clocking Instructions**

For some winch installations, it may be necessary to rotate the gear housing to make room for clutch handle operation. To rotate the gear housing, remove all the 11 socket cap screws using a 4mm allen key. Rotate the gear housing to the desired location and reinstall the 11 fasteners. Note: There are 12 different positions at 30° increments allowing a full 360° rotation.



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# SPECIFICATIONS



## **Q1000c Winch** with Synthetic Winch Line

<b>Rated Line Pull (Single Line)</b>	10000 lbs (4536 kgs)
<b>Gear Reduction Ratio</b>	212:1
<b>Motor (Series Wound)</b>	12 Volt / 4.8 Hp (3.6 Kw)
<b>Drum Size</b>	2.5" x 5.5" (63mm x 140mm)
<b>Dyneema® Synthetic Winch Line</b>	3/8" x 50'
<b>Winch Line Capacity</b>	Minimum Break Force 17,000 lbs.
<b>Overall Dimension</b>	18.7" x 6.6" 11.22" (475mm x 168mm x 285mm)
<b>Net Weight</b>	55 lbs. (24.9 kgs)
<b>Mounting Bolt Pattern</b>	6.54" x 4.5" (166mm x 114.3mm)



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# TROUBLESHOOTING

<b>Symptom</b>	<b>Possible Cause</b>	<b>Suggested Remedy</b>
<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>



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# Quadratec® Limited Warranty

## for Q-Series Self-Recovery Winches

Your Q-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 Q-series winch shall be free of defects in material and workmanship: (a.) for so long as your Q-Series 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-series self-recovery 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.

Note: An extra glovebox copy of the above warranty information is supplied on a separate 5" x 7" printed card. Please retain for your records.

Instructions Part# 12999.2021

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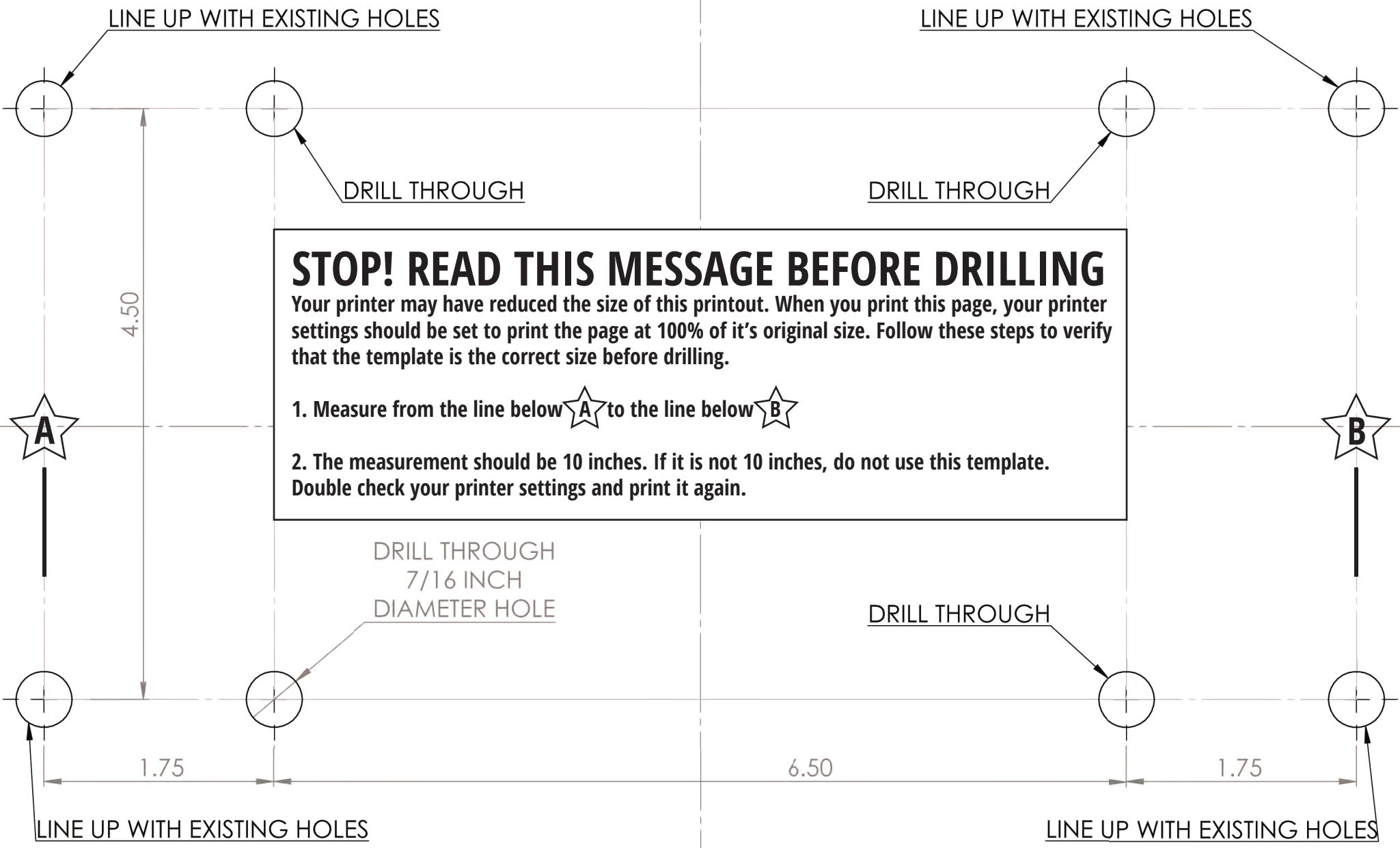
Version 09.17.13



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**COMPACT WINCH DRILL TEMPLATE**

