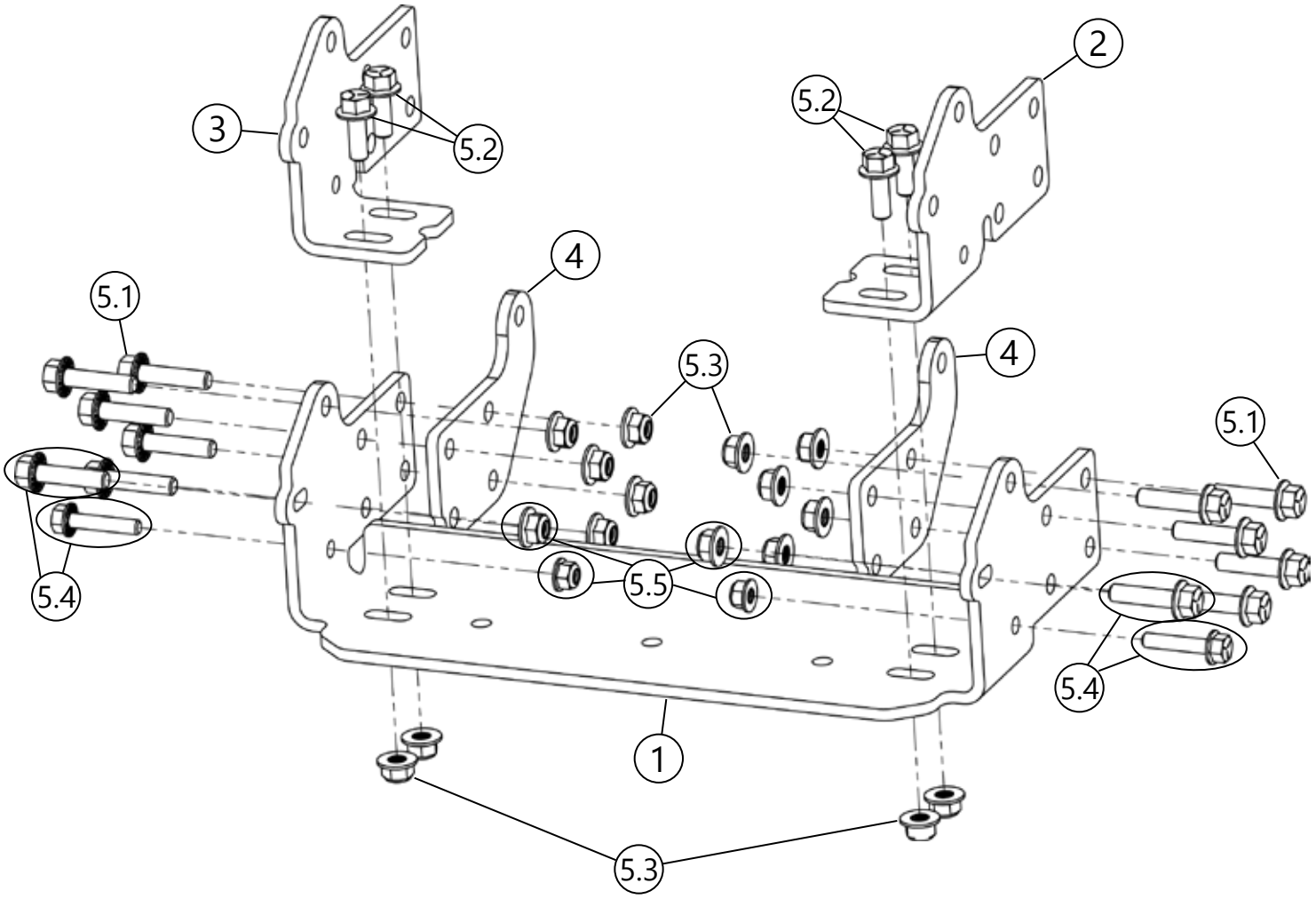
ATV PUSH TUBE EXTENSION

Plow Accessory PART #105720



Item #	Qty.	Description
1	1	Plow Extension Bracket
2	1	Driver Side Inner Tab
3	1	Passenger Side Inner Tab
4	2	Tab Plate
5	1	Hardware Kit (HK-378)

Item #	Qty.	Description
5.1	10	3/8”-16 x 1.50 Hex Flange Bolt
5.2	4	3/8”-16 x 1.00 Hex Flange Bolt
5.3	14	3/8”-16 Hex Flange Nylock Nut
5.4	4	5/16”-18 x 1.50 Hex Flange Bolt
5.5	4	5/16”-18 Hex Flange Nylock Nut

INSTALLATION INSTRUCTIONS

Note: Make sure all hardware needed to complete this mount is in the package. Thoroughly read through and understand the instructions before installing.

Note: All steps below are for passenger side of push tubes. Repeate steps 1-4 for driver side.

1. Hold Plow Extension Bracket (1) around the outside of the ATV push tube mounting tabs as shown in **Figure 1**.

2. Insert bolts (5.1) from the outside in as shown in **Figure 2**. Place Tab Plate (4) over the four rear most bolts (5.1) as shown in **Figure 2**.

3. Set Passenger Side Inner Tab (3) up tight to ATV push tube mounting tab and Tab Plate (4) as shown in **Figure 2** and secure using bolts (5.1, 5.4) and nuts (5.3, 5.5) as shown in **Figure 3**.

4. Tighten all hardware evenly.

Figure 1

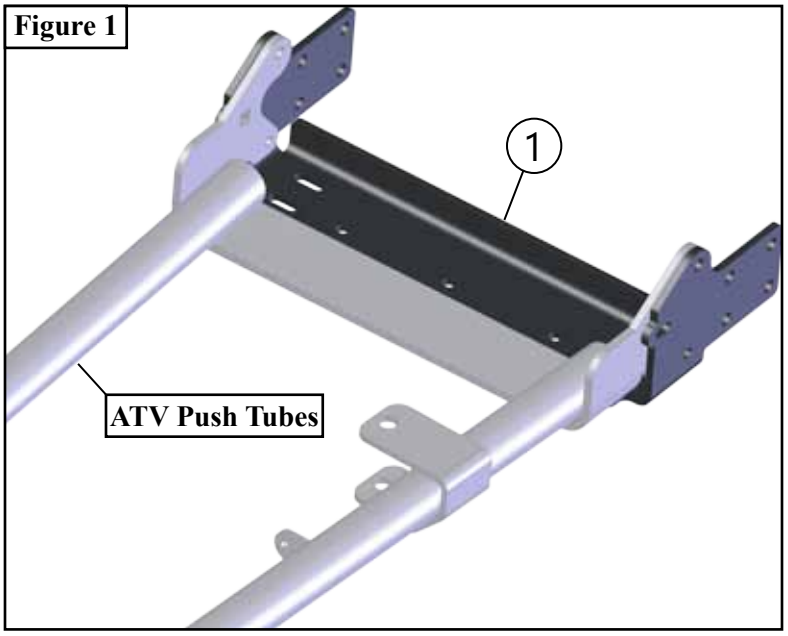


Figure 2

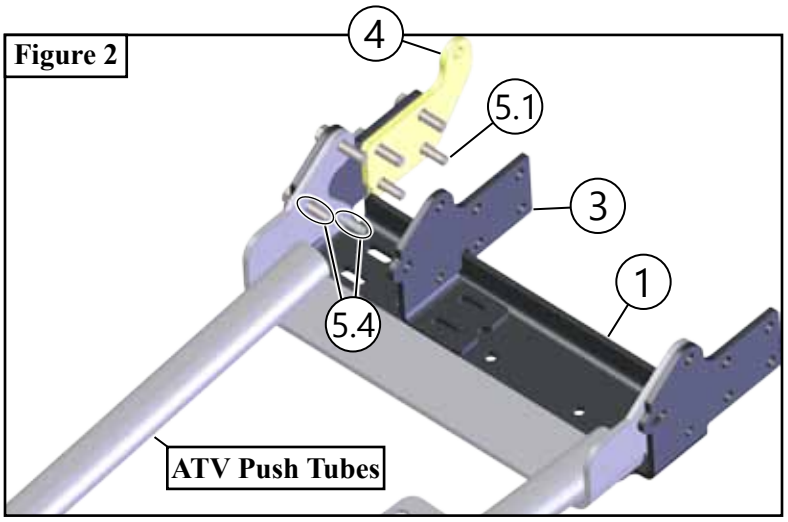
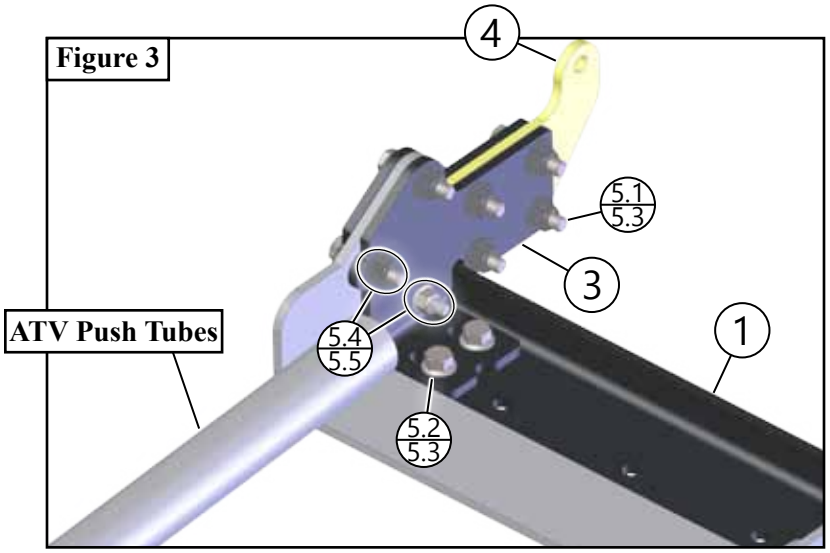


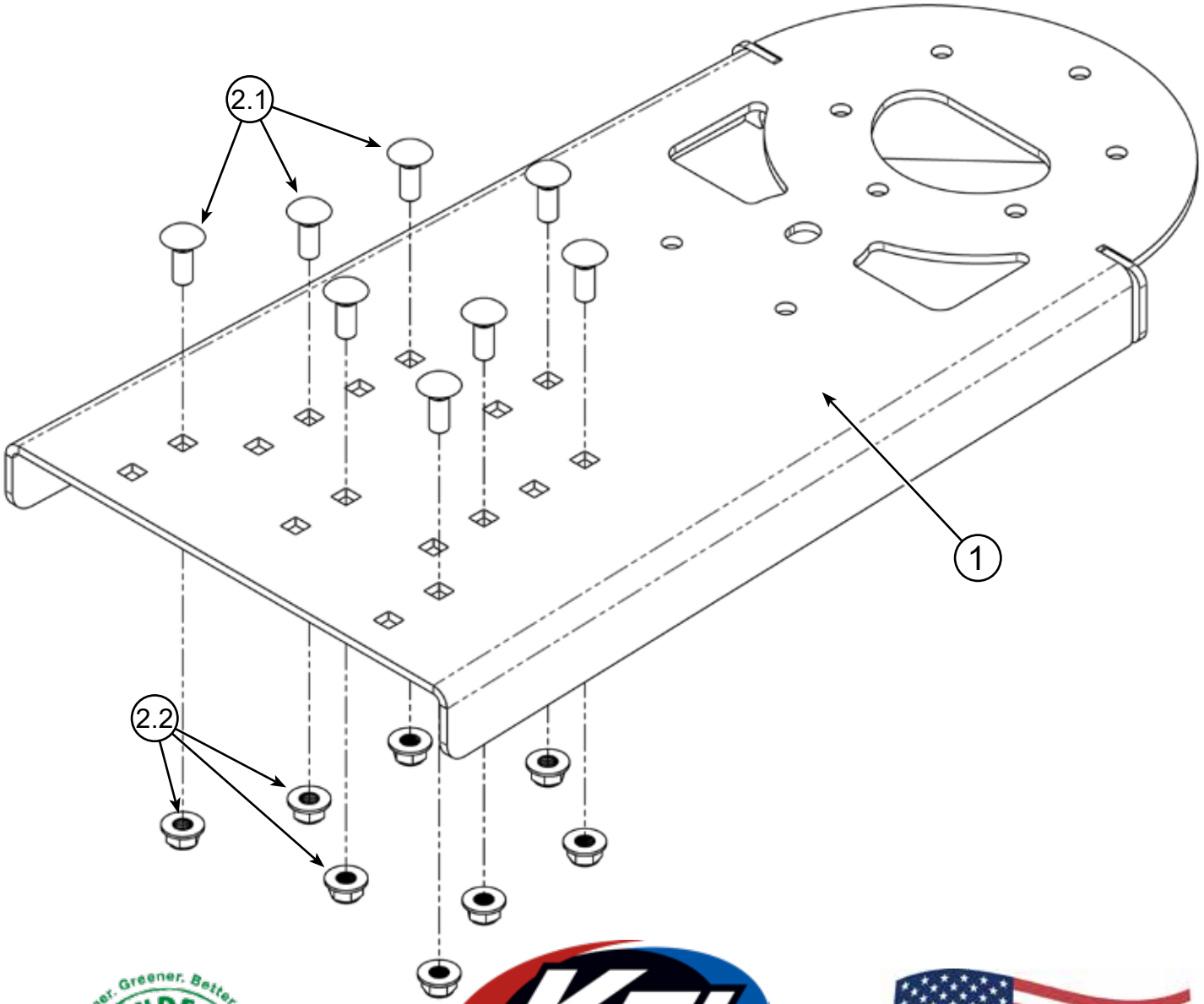
Figure 3



ATV Plow Track Extension

Plow Accessory **PART #105430 Rev D**

Kit Components:		
Item #	Qty.	Description
1	1	ATV Track Extension
2	1	HK-393
2.1	8	3/8” - 16 x 1.00 Carriage Bolt GR5
2.2	10	3/8” - 16 Hex Flange Nylock Nut GR5 (NOT All USED)
2.3	2	3/8” - 16 x 1.50 Carriage Bolt (NOT USED)



INSTALLATION INSTRUCTIONS

Note: Make sure all hardware needed to complete this mount is in the package. Thoroughly read through and understand the instructions before installing.

1. Unbolt hardware (A) as shown in **Figure 1** and remove cradle (B), lift latch assembly (C), and pivot bushing (D) shown in **Figure 2**.

2. Reinstall pivot bushing (D), lift latch assembly (C), and cradle (B) using hardware (A) removed in step 1 onto ATV Track Extension (1) as shown in **Figure 2**.

3. Install ATV Track Extension (1) onto push tubes using bolts (2.1) and nuts (2.2) as shown in **Figure 2**.

   Note: Location (E) is the default mounting location as shown in **Figure 3**. Location (F) shown in **Figure 3** is needed for longer tracks or if a 72" blade is used with the ATV tube system. If the push tube does not have rear holes, drilling is required. See **DRILLING NOTE**.

4. Tighten all hardware evenly.

5. The lift hook can be relocated if it gives a better lift angle from your machine as shown in **Figure 4**.

Figure 1

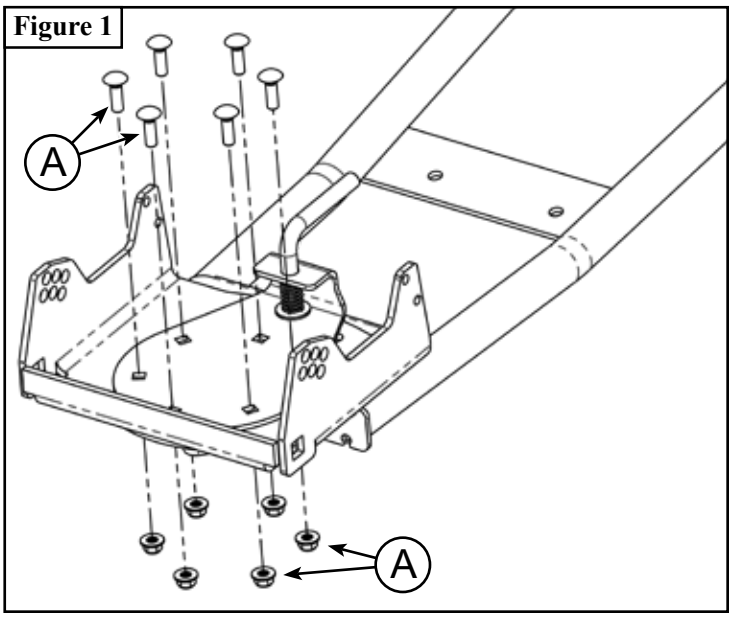
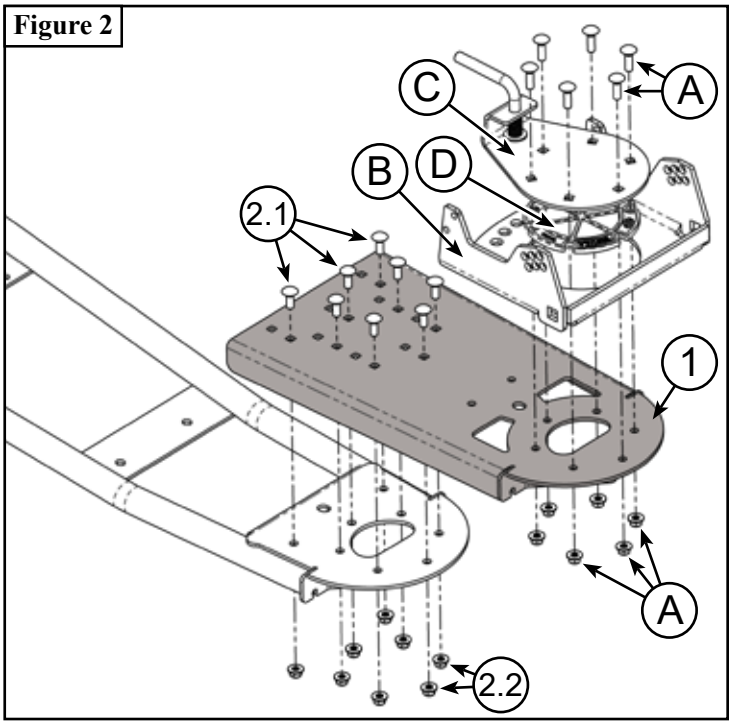
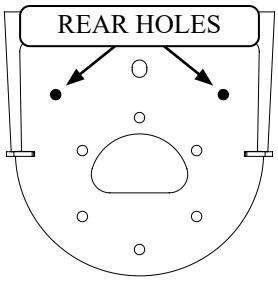


Figure 2



DRILLING NOTE



If push tube does not have rear holes, drilling is required. Bolt ITEM 1 to the push tube using the 6 holes from bolt pattern **E** or **F** as shown in **Figure 3.** Using ITEM 1 as a template, drill 2 holes through the push tube using a 13/32" drill bit. The location of these holes will depend on which pattern was used (E or F). Once holes are drilled, finish installing the remaining bolts and nuts (2.1 and 2.2).

Note: Previous push tubes have large cutouts where rear bolts are to be placed. If cutouts are present, disregard installing rear bolts and nuts.

Figure 3

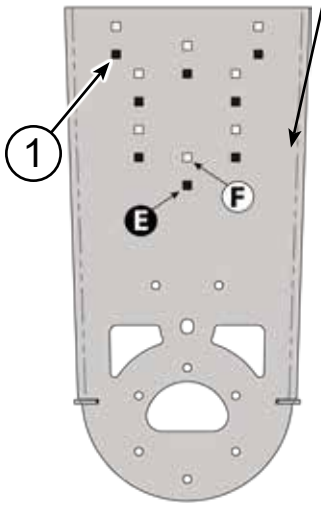
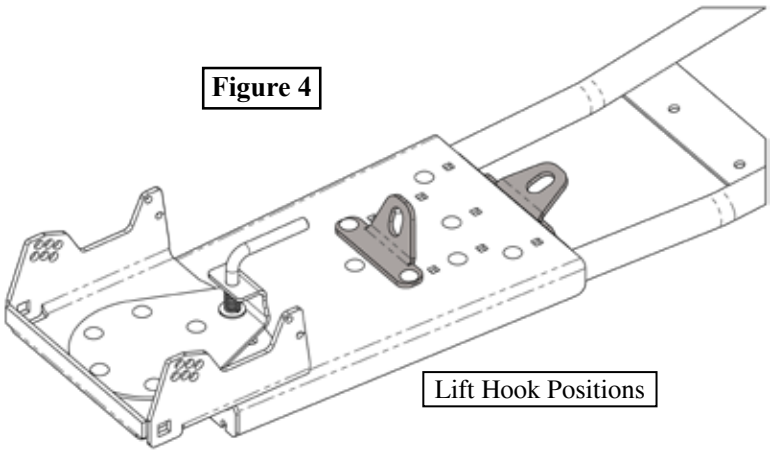
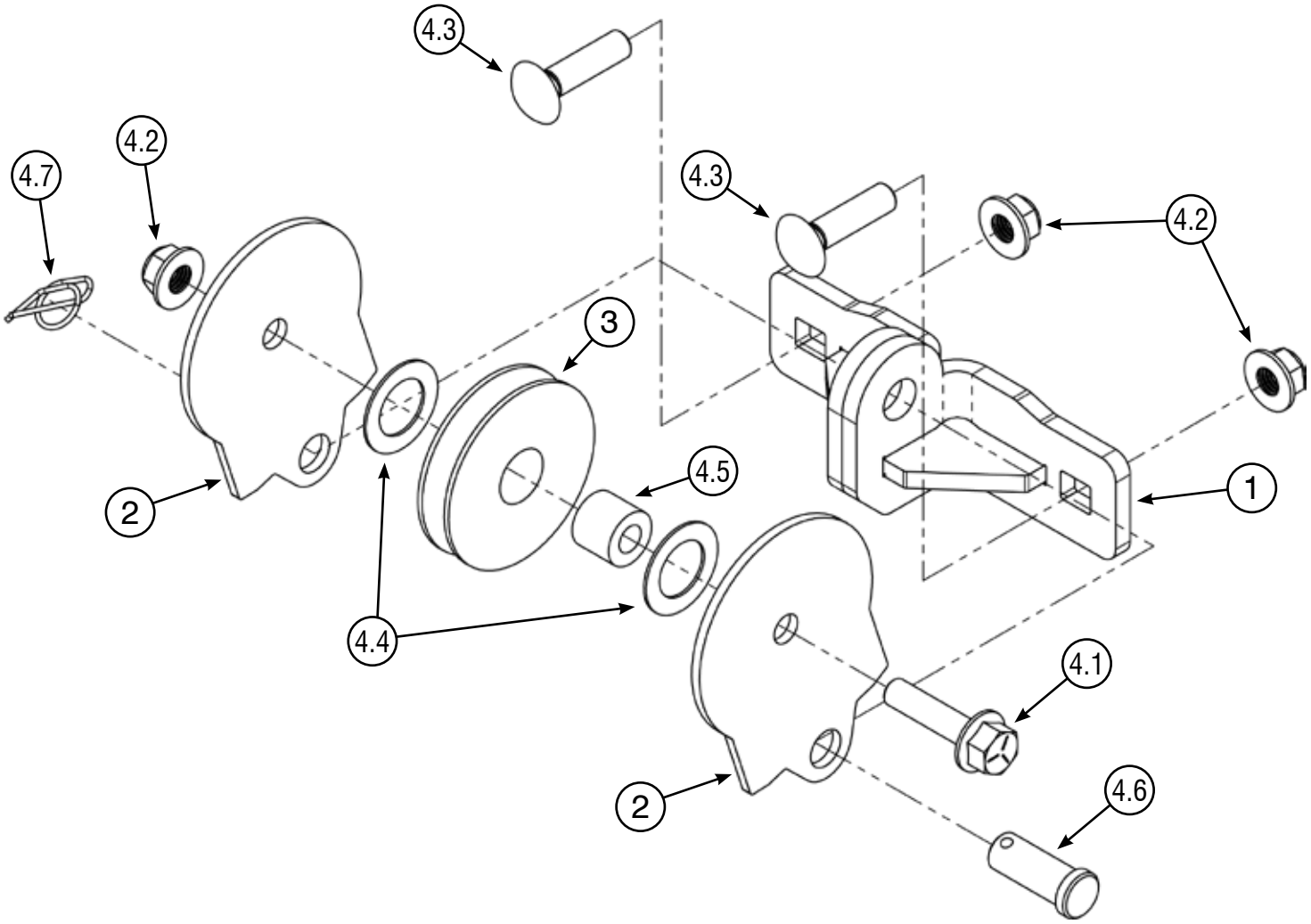


Figure 4



QUICK PLOW PULLEY - STEEL CABLE

Plow Pulley PART #106680 Rev A



Kit Components:					
Item #	**Qty.**	**Description**	**Item #**	**Qty.**	**Description**
1	1	Pulley Mount (106682)	4.3	2	3/8”-16 X 1.50 Carriage Bolt
2	2	Side Plate (106681)	4.4	2	1.25 X .78 X .04 Spacer (P800311)
3	1	Steel Plow Roller Pulley (P800280)	4.5	1	Plow Pulley Bushing (P800327)
4	1	Hardware Kit (HK-456)	4.6	1	Clevis Pin 1/2 x 1” Zinc (P800637)
4.1	1	3/8”-16 X 1.50 Hex Flange Bolt	4.7	1	Cotter Pin 1/2” (P800609)
4.2	3	3/8”-16 Hex Flange Nut Nylock			

12/24/25

INSTALLATION INSTRUCTIONS

Notice

Torque bolts to ANSI Specs (or OEM specs if applicable), unless otherwise stated. After the first use and at the start of each season, check torque.

Note: Make sure all hardware needed to complete this mount is in the package. Thoroughly read through and understand the instructions before installing.

Installation Instructions

1. Begin assembling the Snatch Block as shown in **Figure 1**. Insert the Flange Bolt **(4.1)** through Side Plate **(2)**, then Spacer **(4.4)**, then the Plow Pulley Bushing **(4.5)** inside the Steel Plow Roller Pulley **(3)**, theh the second Spacer **(4.4)**, and finally the opposite Side Plate **(2)**. Secure the assembly with the Nut **(4.2)**. ***Do not overtighten; the pulley should spin freely with the cable.***

2. Install the Pulley Mount **(1)** using the Carriage Bolts **(4.3)** and Nuts **(4.2)** in one of the three available ***Push Tube Positions***, as shown on the ***Page 3***. Refer to **Figure 2** for an example of the installation in **Position 2**.

3. Next, insert the Clevis Pin **(4.6)** through Side Plate **(2)** of the Snatch Block, then through the Pulley Mount **(1)**, and out through the opposite Side Plate **(2)**, as shown in **Figure 3**. Secure the Clevis pin **(4.6)** with the Cotter Pin **(4.7)**.

4. To install the cable, remove the Cotter Pin **(4.6)** and Clevis Pin **(4.7)**. Place the Snatch Block around the cable as shown in **Figure 4**, then reinstall the Clevis and Cotter pins.

Figure 1

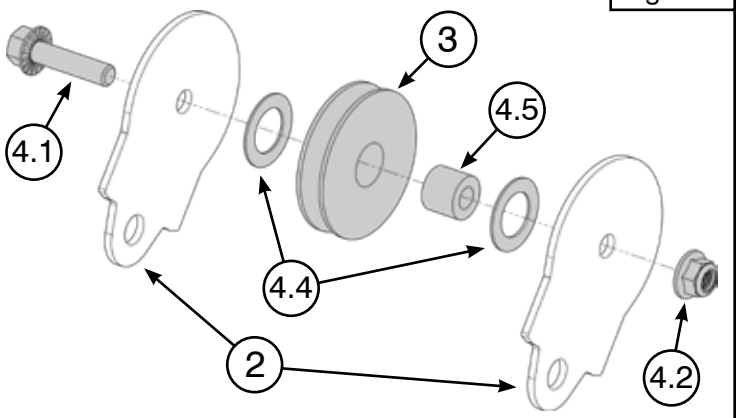
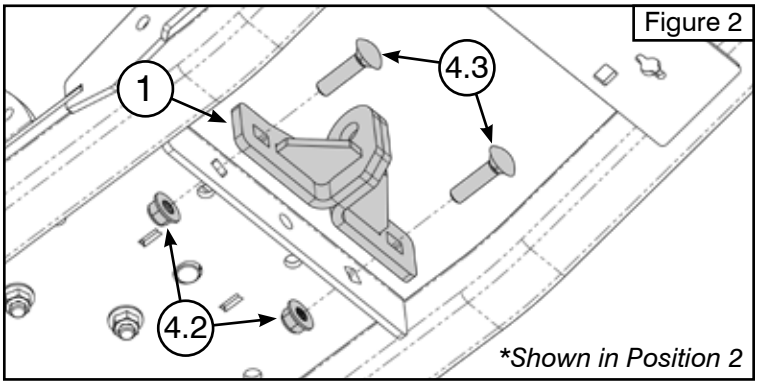


Figure 2



*Shown in Position 2

Figure 3

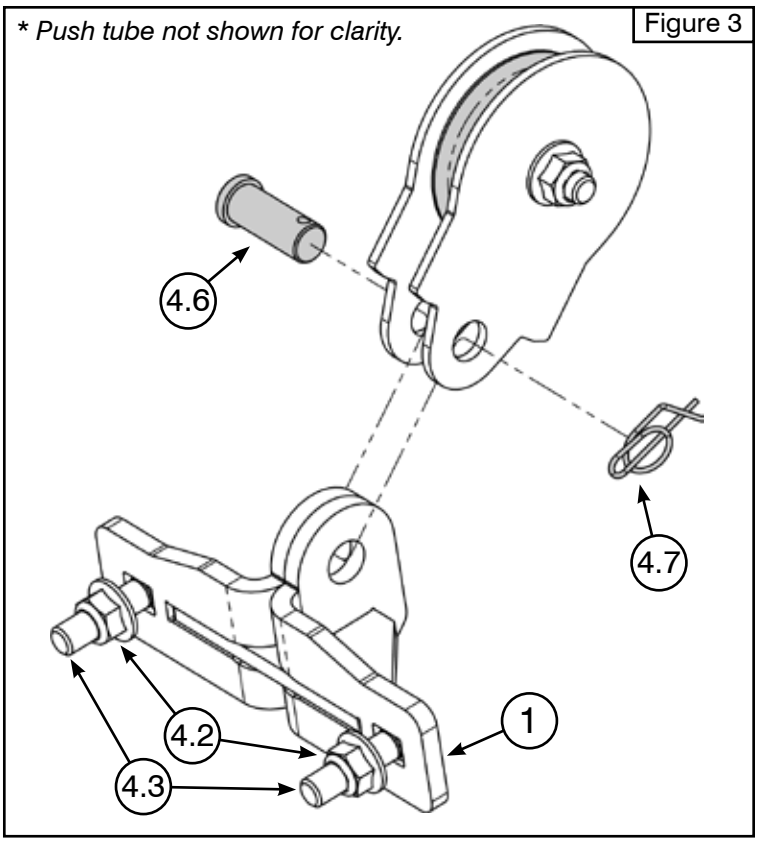
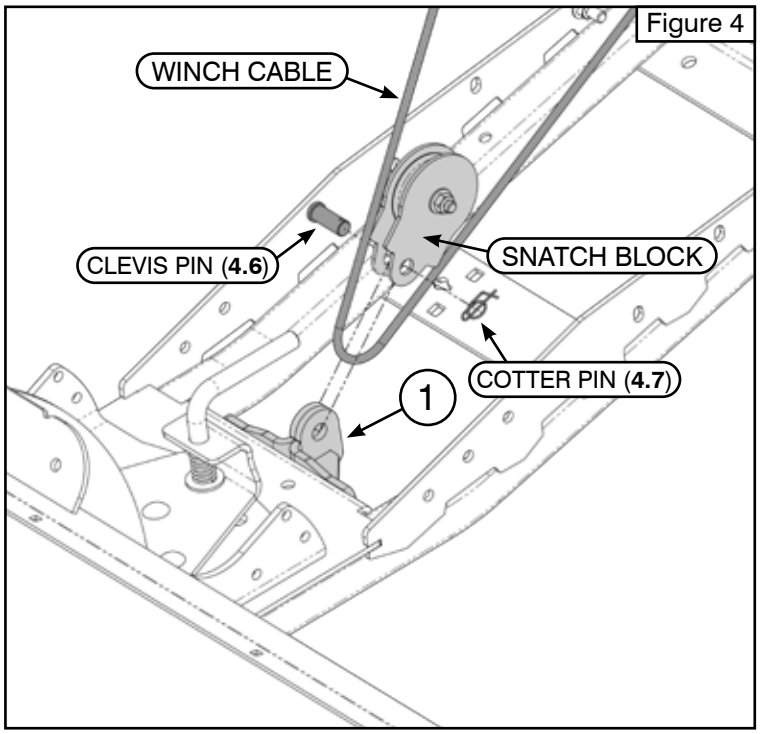


Figure 4



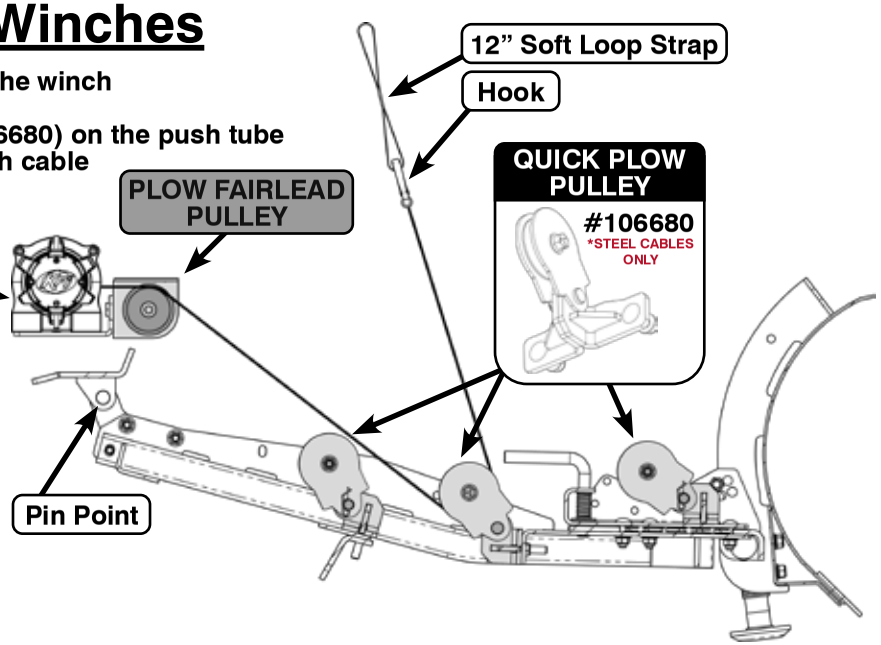
THIS MOUNT RECOMMENDS A PLOW PULLEY

WHY USE A PULLEY WHEN PLOWING?

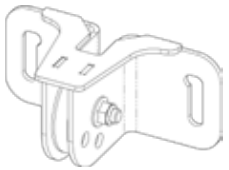
When the fairlead and plow pin point are too close, the winch line pulls at a shallow angle. This puts extra strain on the winch and makes lifting less effective. Adding a pulley gives the line a smoother, more vertical pull, improving lift and reducing stress on the winch and plow system. For more information, visit KFIproducts.com.

Steel Cable Winches

- *Plow Fairlead Pulley* at the winch
  - Standard or Wide
- *Quick Plow Pulley* (#106680) on the push tube
- Pulley rotates with winch cable
- Durable Steel Rollers

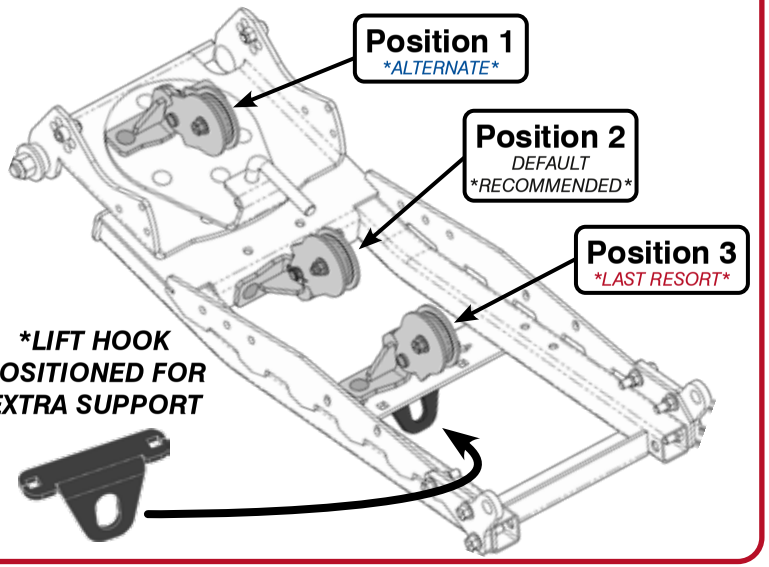


PLOW FAIRLEAD PULLEY



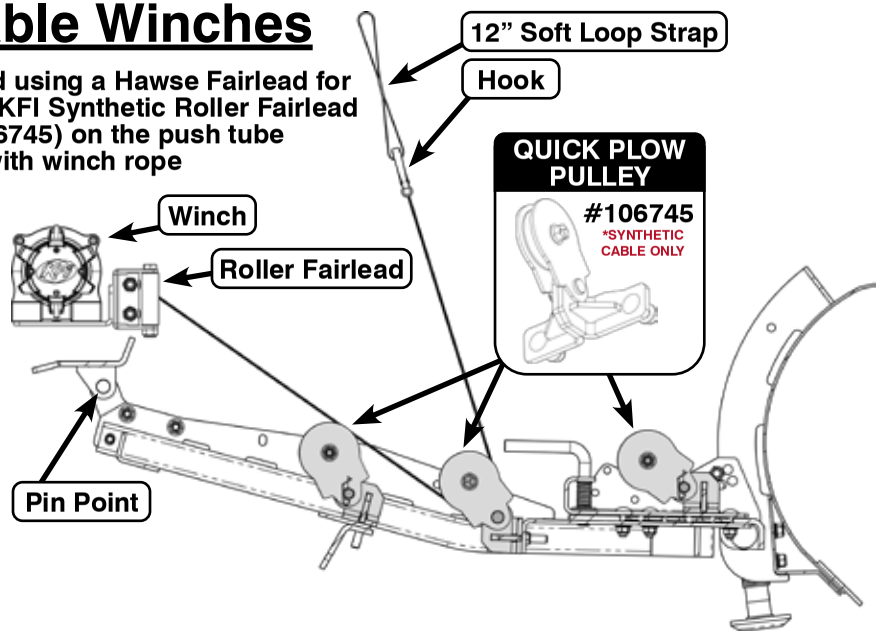
STANDARD: **#105270**
WIDE: **#105465**

PUSH TUBE POSITIONS

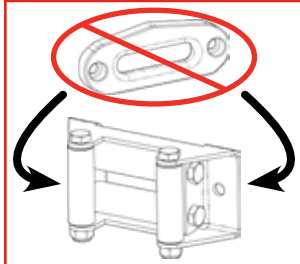


Synthetic Cable Winches

- We ***DO NOT*** recommend using a Hawse Fairlead for plowing - Replace with a KFI Synthetic Roller Fairlead
- *Quick Plow Pulley* (#106745) on the push tube
- Pulley *does not* rotate with winch rope
- Aluminum Roller



REPLACE HAWSE WITH ROLLER FAIRLEAD



STANDARD: **#SE-RF**
WIDE: **#SE-WRF**

12" Soft Loop Strap #106470

The 12" Soft Loop Strap can be used in two configurations:

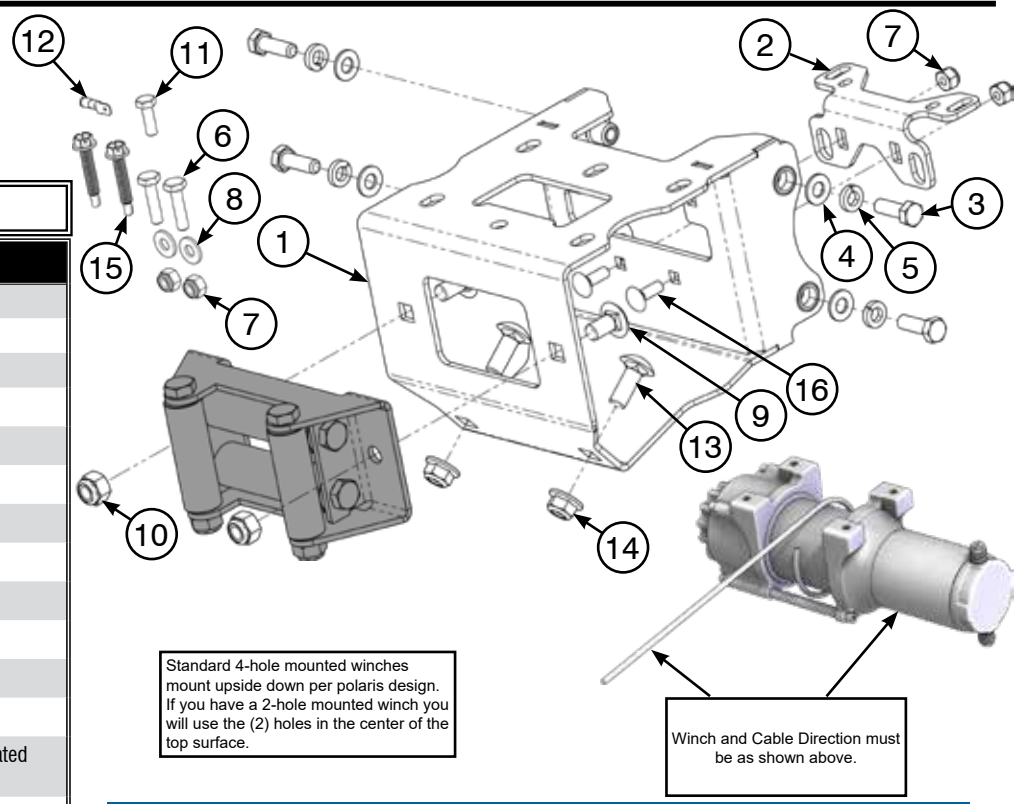
1. Wrapped once around a solid anchor point as shown above. Follow **Steps 1-4**.
2. Wrapped around the bumper in a "U" shape, allowing the hook to pass through both strap loops. See **Step 1 Only**.

POLARIS SPORTSMAN XP WINCH MOUNT

PART # 101840 Rev C.1
Hardware Kit: HK-338

Kit Components:

Item #	Qty.	Description
1	1	Winch Mount (101841)
2	2	Contactor Bracket (101141)
#HK-338	**(BAG)**	**Hardware Kit (All Items Below)**
3	4	M8-1.25 x 25MM Hex Head Bolt 8.8 Zinc
4	4	5/16" SAE Flat Washer Zinc
5	4	5/16" Lock Washer Zinc
6	2	1/4"-20 X 1" Hex Bolt GR5 Zinc
7	4	1/4"-20 Nylock Nut
8	2	1/4" SAE Flat Washer Zinc
9	2	3/8"-16 X 3/4" Shortneck Carriage Zinc
10	2	3/8"-16 Nylock Nut
11	1	M6X1.0 X 18MM Hex Head GR5 Zinc
12	1	Male Disconnect .250 X .032 22-18GA Insulated Red Vinyl
13	2	3/8"-16 X 1" Short Neck Carriage Bolt GR5 Zinc
14	2	3/8"-16 Nylock Flanged Nut GR5 Zinc
15	2	1/4"-20 X 1-1/2" Hex Flg Self-Tap Screw Zinc
16	2	1/4"-20 X .75" Carriage Bolt GR5 ZP



Contactor Location Notice

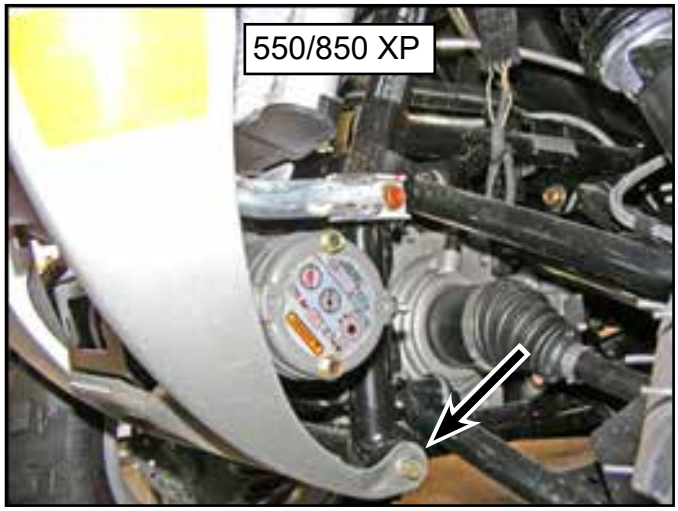
For the Contactor or Contactor Bracket mounting location, please refer to the product details for mount #101840 on our website to determine the correct position for your specific Sportsman or Scrambler model.

INSTALLATION INSTRUCTIONS:

1. Assemble the Hawse or Roller Fairlead (not included) to the mount as shown using the supplied 3/8" x 3/4" carriage bolts (9) and nuts (10) "shown in figure 1".
2. If you are planning on installing a Polaris Glacier Plow please install the included 3/8" x 1" carriage bolts (13) and nuts (14) at this time to the lower square holes. "Shown in figure 1"
3. Remove any accessory front brush guards if equipped.
4. Remove the front plastic:
   550/850 XP: Remove the bolts "shown in Figure 2" and remove the plastic. Loosen the 2 bolts as "shown in Figure 3" and rotate the metal cover downwards to allow for room to install the winch assembly. If preferred, you can remove the metal/plastic cover in Figure 3 by removing the upper hardware.
   400/450/500/570/800: Remove the bolts "shown in figure 2" and remove the front plastic. Cut out section (A) "shown in Figure 2".
5. Remove the seat, disconnect battery, and remove the front rack.
6. Disassemble the light pod.
7. Remove access panel under light pod.

"Figure 1" Exploded View

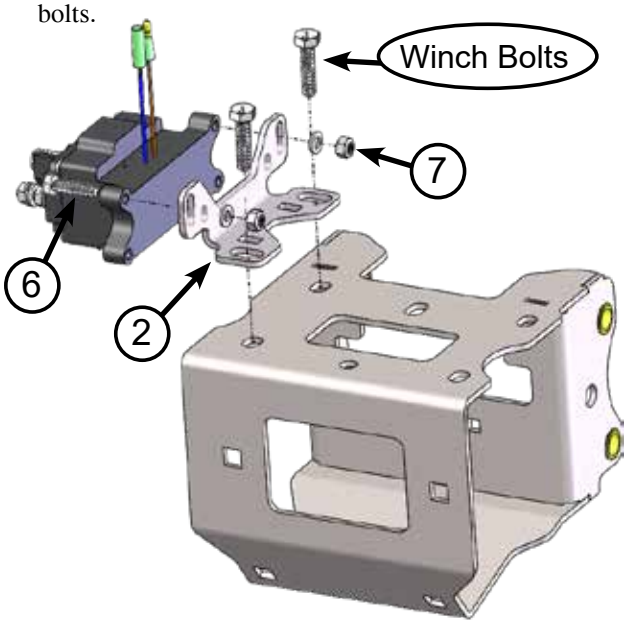
"Figure 2" Removal of Front Plastic



"Figure 3" Loosen Bolts

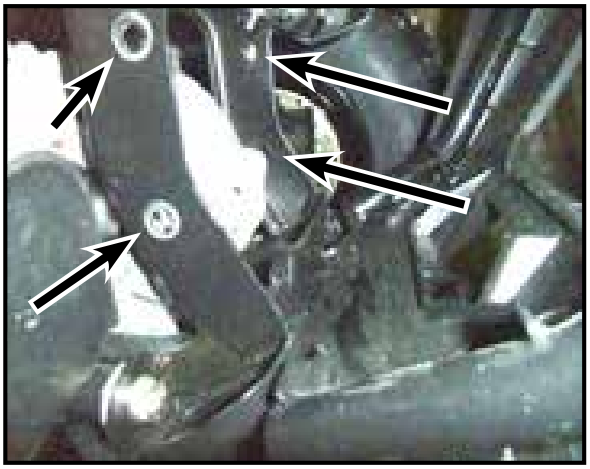
POSITION 1

1. Top mounted contactors will use the supplied contactor mount bracket (2), the 1/4" hex bolts (6), washers and 1/4" nylock nut (7). You will need to mount the winch to be able to attach the bracket (2). The bracket is held to the mount using two of the four winch mounting bolts.



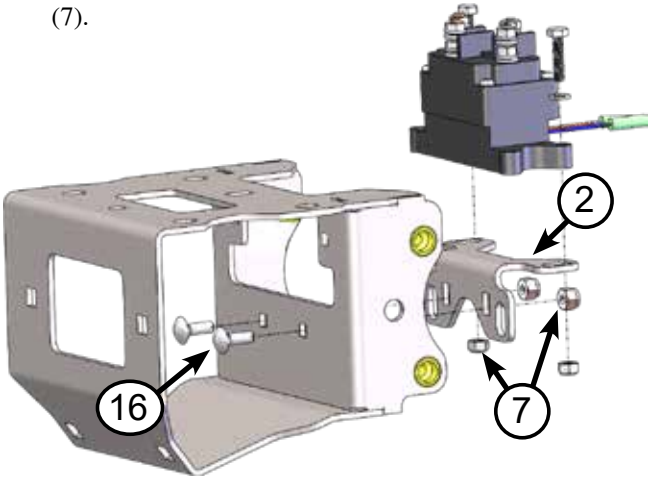
2. Slide the winch into the mount per orientation shown in Figure 1. Mount your winch to the Mount using the proper hardware supplied with your winch. Don't forget to route your winch cable through your fairlead and attach your hook. If your winch leads come close to hitting something, a lot of winches can also have the leads rotated if needed (check with your winch provider).
3. Mount the entire winch assembly (winch, mount, contactor, and fairlead) into location and assemble using the included 8MM hardware. Shown in image below.
4. Wire the winch up per the instructions that came with your winch.

Note: Under the front rack there is a orange and white accessory wire that you can tap your switch into.



POSITION 2

1. Rear mounted contactors will use the contactor mount bracket (2). Attach the contactor to the bracket using the 1/4" hex bolts (6), washers and 1/4" nylock nut (7). Fasten the contactor assembly to the mount with the supplied 1/4" Carriage Bolt (16) and 1/4" Nylock Nut (7).

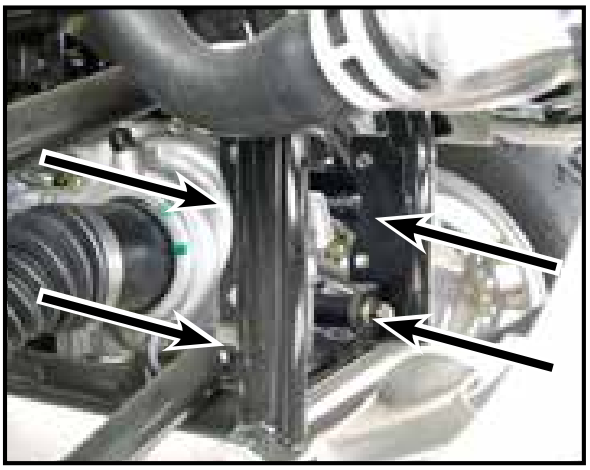


2. Slide the winch into the mount per orientation shown in Figure 1. Mount your winch to the Mount using the proper hardware supplied with your winch. Don't forget to route your winch cable through your fairlead and attach your hook. If your winch leads come close to hitting something, a lot of winches can also have the leads rotated if needed (check with your winch provider).

Note: With a (Rear) mounted contactor you will need to pre-wire everything to the contactor before attaching the assembly to the machine. Run the battery, and switch wires down to the front of the machine where the winch is placed per the wiring instructions provided with the winch.

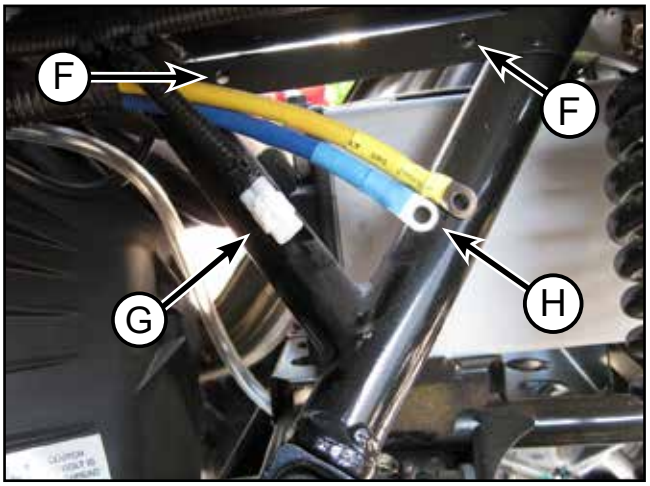
3. Attach all the wires to the contactor per the wiring instructions included with your winch.
4. Mount the entire winch assembly (winch, mount, contactor, and fairlead) into location and assemble using the included 8MM hardware. Shown in image below.

Note: Under the front rack there is a orange and white accessory wire that you can tap your switch into.

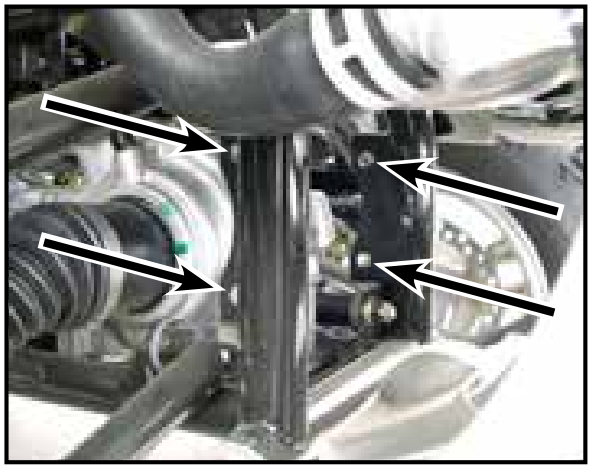


POSITION 3

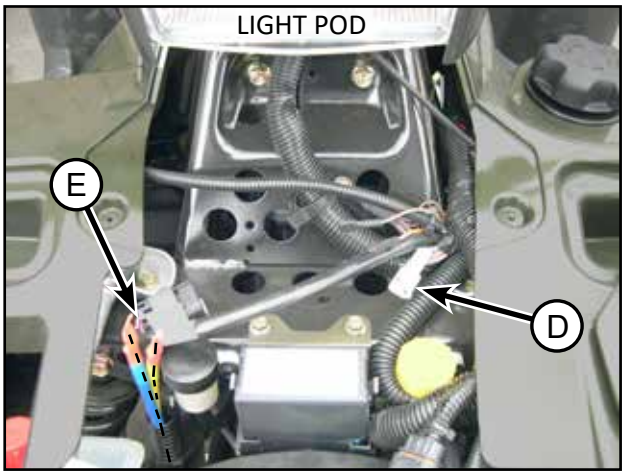
1. Locate the two holes (F) "shown below" above the rear driver's side A-arm. Mount your winch contactor to this location using the supplied ¼" x 1" bolts (6), two washers (8), and two ¼ nuts (7) or using the supplied ¼" x 1.5" self-tapping bolts (15) included. (NOTE: it is recommended to mount the contactor so that the switch wires are towards the middle of the ATV)



2. Slide the winch into the mount per orientation shown in Figure 1. Mount your winch to the Mount using the proper hardware supplied with your winch. Don't forget to route your winch cable through your fairlead and attach your hook. If your winch leads come close to hitting something, a lot of winches can also have the leads rotated if needed (check with your winch provider).
3. Mount the entire winch assembly (winch, mount, contactor, and fairlead) into location and assemble using the included 8MM hardware. Shown in image below.



4. Connect Rocker Switch wires to the contactor. For REAR battery ATV's you have two options:
   Route the BLACK and GREEN wires all the way back to the rear mounted contactor and connect the wires.
   Locate the BLACK and GREEN wire ends with a white plastic connector (D) and (G) located back by the contactor. Cut these connectors off and wire in using correct electrical connections.

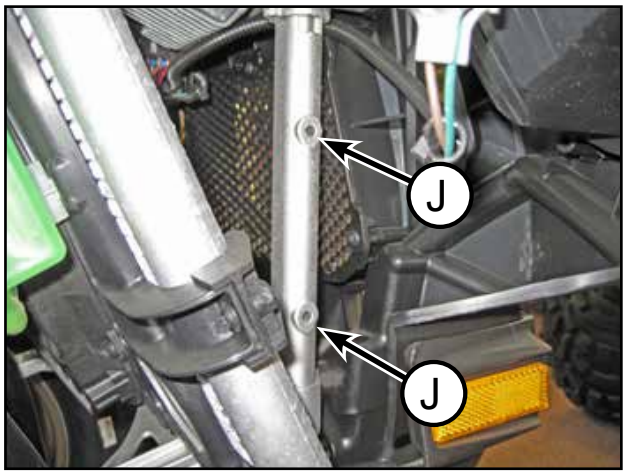


Note: Under the front rack there is a orange and white accessory wire that you can tap your switch into.

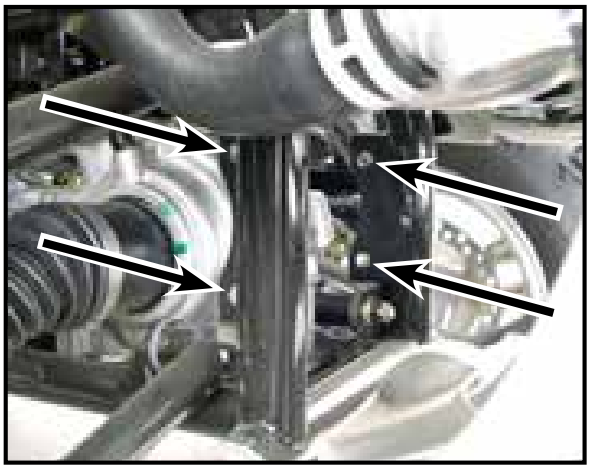
5. For REAR battery ATV's, under the seat, locate the BLUE and YELLOW wires (H) in or near the battery Compartment. Connect the Blue and Yellow wires to the contactor. (Please refer to your winch's wiring diagram) Next locate the YELLOW and BLUE wires (E) in the front of the ATV. Cut the zip ties that hold the wires in place, route the wires to the location of the winch leads. Remove the Red protective coverings from the wire ends and connect the cable to the appropriate lead on the winch (please refer to your winch's wiring diagram). Finally use the shorter wires (usually Red and Black) from your winch package and connect the contactor to your battery. (Please refer to your winch's wiring diagram)

POSITION 4

1. Locate the two holes (J) "shown below" by your radiator on the passenger side. Mount your winch contactor to this location, using the two supplied ¼" x 1.5" self- tapping bolts (15).



2. Slide the winch into the mount per orientation shown in Figure 1. Mount your winch to the Mount using the proper hardware supplied with your winch. Don't forget to route your winch cable through your fairlead and attach your hook. If your winch leads come close to hitting something, a lot of winches can also have the leads rotated if needed (check with your winch provider).
3. Mount the entire winch assembly (winch, mount, contactor, and fairlead) into location and assemble using the included 8MM hardware. Shown in image below.

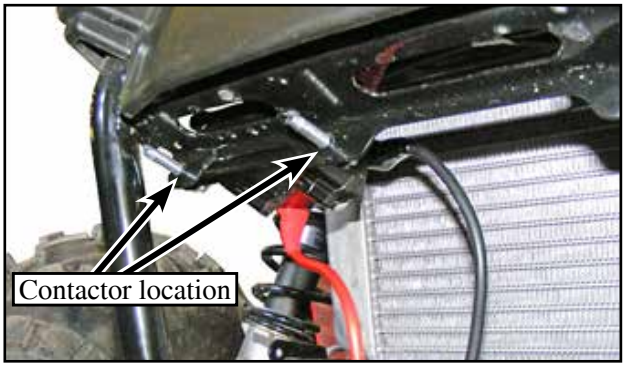


4. Wire the winch up per the instructions that came with your winch.

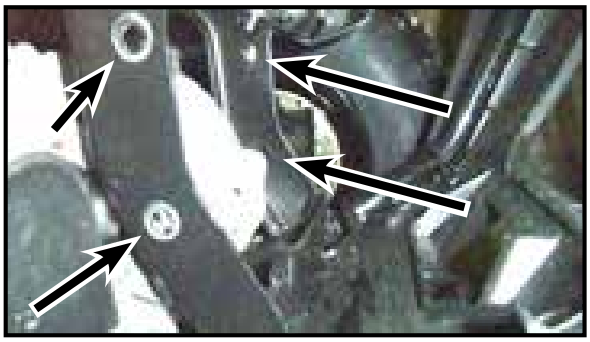
Note: Under the front rack there is a orange and white accessory wire that you can tap your switch into.

POSITION 5

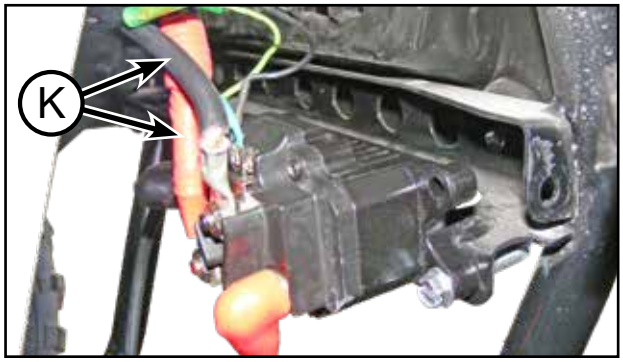
1. Mount your Contactor to the ATV frame just above winch mount location. "Shown below" using the supplied two ¼" x 1.5" self- tapping bolts (15) or the hardware included with your winch.



2. Slide the winch into the mount per orientation shown in Figure 1. Mount your winch to the Mount using the proper hardware supplied with your winch. Don't forget to route your winch cable through your fairlead and attach your hook. Your may need to rotate your winch leads if they come close to hitting something
3. Mount the entire winch assembly (winch, mount, contactor, and fairlead) into location and assemble using the included 8MM hardware. Seen below.



4. Wire the winch up per the instructions that came with your winch.
5. Note: If your machine comes with pre ran battery wires (K) you can use these wires instead if the wires that came with your winch. Wire your contactor to your winch using the shortest wires included with your winch. (Do not forget to connect pre ran battery wire to the battery.) Under the front rack there is a orange and white accessory wire that you can tap your switch into.



ATV WINCH

STEEL CABLE

MODEL #A3000

3,000 LB. (1361 KG)

OPERATOR'S MANUAL

READ AND SAVE THIS MANUAL. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product. Specifications, descriptions, and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

Place serial label here for reference.

SERIAL NO. LABEL

Support:

1-877-346-2050

or visit **www.kfiproducts.com**

Made in China - REV 20250224

KFI Products - Kappers Fabricating, Inc., Spring Valley, MN USA

TABLE OF CONTENTS

INTRODUCTION

Congratulations on your purchase of a KFI winch. KFI researches and develops winches to strict specifications. With proper use and maintenance, this winch will bring years of satisfying service.

Accessories

Kappers Fabricating, Inc. manufactures, purchases, and sells accessories designed to help you get the most from your purchase. To find out more about our products, visit our web site at:

www.kfiproducts.com

This Manual

Every effort has been made to ensure the accuracy and completeness of information in this manual. We reserve the right to change, alter, and or improve the product and this document at any time without prior notice.

Record the model as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

KFI TECHNICAL SUPPORT TEAM
1-877-346-2050
MODEL NUMBER
A3000
SERIAL NUMBER
DATE OF PURCHASE
PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attentions and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE NOTICE indicates information considered important, but not hazard-related (e.g. messages relating to property damage or physical injury).

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

⚠ WARNING Read this manual thoroughly before operating the winch. Failure to follow instructions could result in serious injury or death.

⚠ WARNING Do not exceed the rated capacity.

⚠ DANGER Do not use this winch for lifting or moving people or animals.

⚠ DANGER Keep yourself and others a safe distance to the side of the cable when under tension.

⚠ DANGER Never step over a cable or near a cable under load.

⚠ WARNING The cable may break before the motor stalls. For heavy loads at or near rated capacity, use a pulley block/snatch block to reduce the load on the cable.

⚠ WARNING Do not move the vehicle to pull a load (towing) on the winch cable. This could result in cable breakage.

⚠ WARNING Pull only on area of the vehicle as specified by the vehicle manufacturer.

⚠ WARNING Do not use the winch to secure or hold a vehicle for a long period of time. Do not use the winch to secure a vehicle for transport.

⚠ WARNING Disconnect the remote control and battery leads when not in use for extended periods.

⚠ WARNING Avoid “shock loads” by using the control switch intermittently to take up slack in the cable. “Shock loads” can far exceed the rated capacity for the winch cable and drum.

Do not accelerate your vehicle while winching. Loss of traction can cause a shock load on the cable. Do not use cable as a pull strap.

⚠ WARNING Batteries contain acid and produce explosive gases. Keep sparks, flames and cigarettes away from batteries at all times. Wear safety glasses and protect the eyes at all times. Do not lean over the batteries during operation.

⚠ WARNING Do not use as a hoist. Do not use for overhead lifting.

⚠ WARNING When re-spooling the cable, ensure that the cable spools in the under-wind position with the cable entering the drum from the bottom, not the top.

To re-spool correctly, and while wearing gloves, keep a slight load on the cable while pushing the remote button to draw in the cable. Walk toward the winch not allowing the cable to slide through your hands. Do not let your hands get within 12 in. of the winch while re-spooling. Turn off the winch and repeat the procedure until a few feet of cable are left. Disconnect the remote control and finish spooling by rotating the drum by hand with the clutch disengaged. Keep hands clear of the fairlead and drum while the winch is under power.

⚠ CAUTION Use gloves to protect hands when handling the cable. Never let the cable slide through your hands.

⚠ CAUTION Do not wrap the cable around any object and hook it back onto itself.

⚠ CAUTION Apply blocks to the wheels of the vehicle when on an incline.

⚠ CAUTION Duration of winching pulls should be kept as short as possible.

If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for a few minutes. Do not pull for more than one minute at or near the rated load.

⚠ CAUTION If the motor stalls, do not maintain power to the winch.

Electric winches are designed and made for intermittent use and should not be used in constant duty applications.

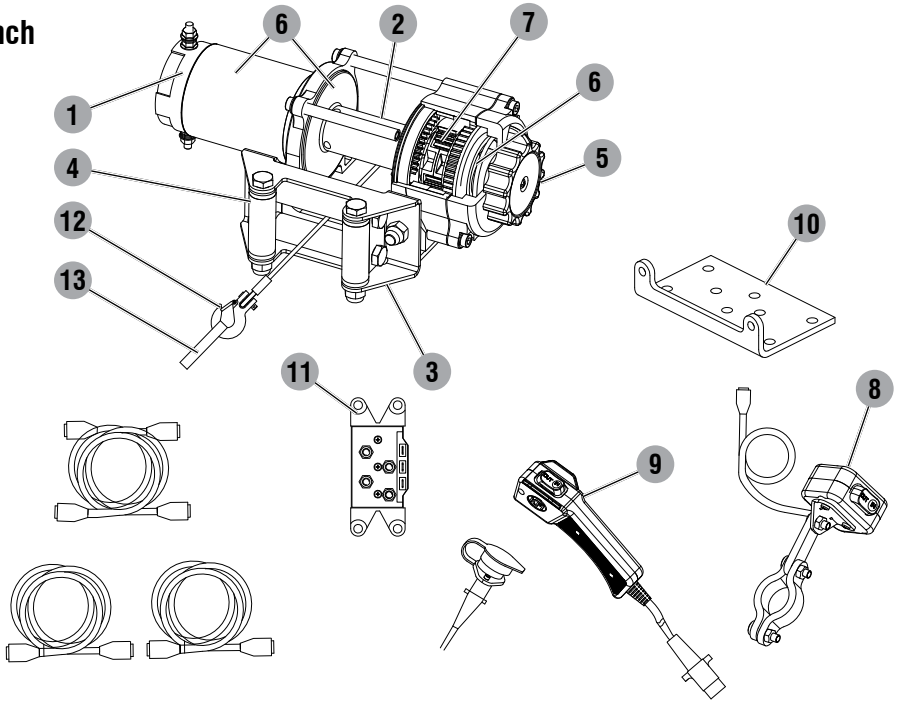
⚠ CAUTION Never release the free spool clutch when there is a load on the winch.

⚠ CAUTION Use the Hand-Saver strap when handling the winch hook for spooling or unspooling the cable.

CONTROLS AND FEATURES

Read this operator's manual before operating your winch. Familiarize yourself with the location and function of the control features. Save this manual for future reference.

Winch



1. **Motor** – 1.30 HP 12V DC motor provides power to the planetary gear mechanism.
2. **Winch Drum** – The winch drum is the cylinder on which the cable is stored. It can feed or wind the cable depending on the switch assembly.
3. **Steel Cable** – 3/16 in. x 45.9 ft. Galvanized aircraft cable designed specifically for load capacity of 3,000 lbs. (44 usable feet with five wraps on the drum). The cable feeds onto the drum in the "under wind" position through the roller fairlead (4) and is looped at the end to accept the clevis hook pin (12).
4. **Roller Fairlead** – When using the winch at an angle the roller fairlead acts to guide the steel cable onto the drum and minimize damage to the cable from abrasion on the winch mount or bumper.
5. **Free Spooling Clutch** – The clutch allows the operator to manually disengage ("Release") the spooling drum from the gear train. Engaging the clutch ("Engage") locks the winch into the gear system.
6. **Braking System** – Braking action is automatically applied to the winch drum when the winch motor is stopped or there is a load on the cable.
7. **Planetary Gear System** – The reduction gears convert the winch motor power into extreme pulling forces. This system allows high torque while maintaining compact size and light weight.
8. **Mini Rocker Switch** – Handle bar mounted switch for powering cable in/out of the winch drum.
9. **Hand Held Remote** – Hand held switch with a remote socket for powering the cable in or out of your winch drum.

10. **Fairlead Mount** – Adapter to mount the winch and fairlead for utility applications.
11. **Contactor** – Power from the vehicle battery flows through the weather sealed solenoid switch before being directed to the winch motor.
12. **Clevis Hook** – Provides a means for connecting the looped ends of cables to an anchor.
13. **Hand Saver Strap** – Used to assist cable feed.

INSTALLATION

This KFI 3,000 lb winch is designed with a bolt pattern that is standard for this class of winch. Many winch mounting kits are available that utilize this bolt pattern for the most popular ATVs and UTVs. You can find most of the ATV/UTV winch mounts on our website (www.kfiproducts.com).

Mount the Winch

⚠ WARNING Before starting to install this winch, disconnect the vehicle ground and positive leads from the battery.

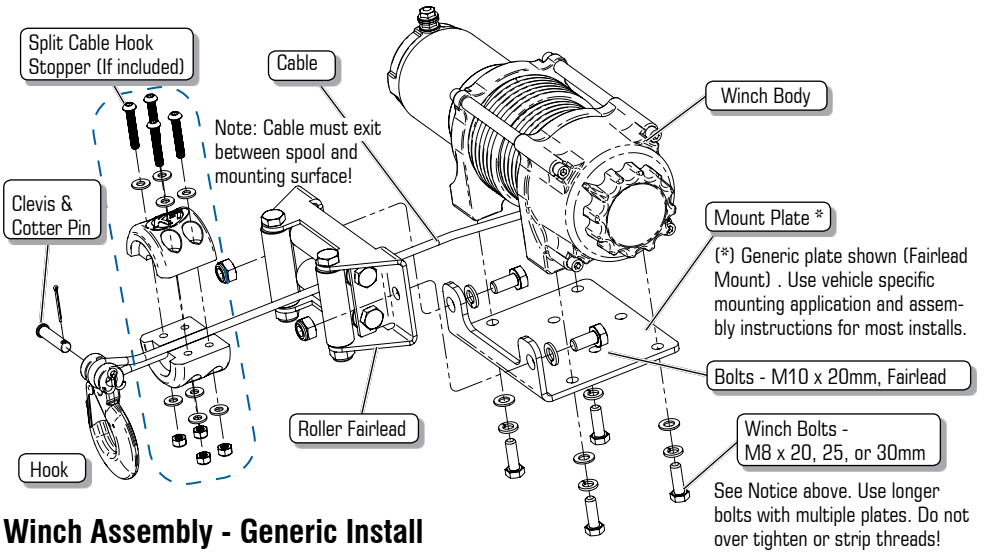
1. Install the winch and fairlead with the supplied hardware per the instructions provided with the model specific winch mounting kit or prepare a flat, secure mounting location for the winch.

⚠ CAUTION Mounting bolts must be SAE Grade 5 or better and torqued to 17 ft. lbs.

NOTICE This kit includes mounting bolts with different lengths for fastening the winch (M8 x 20, 25, and 30mm long). Use the length that best fits your mounting application. Refer to vehicle specific mount instructions for more information.

⚠ CAUTION If you choose not to use a model specific mounting kit, you will need to drill holes in the structural support of the vehicle. Be certain that your structural support is sufficient for the pulling forces of this winch.

2. Attach the winch using supplied M8 x 25mm or 30mm bolts and washers thru the fairlead bracket or model specific winch mount and into the winch.
3. Disengage the clutch by rotating the clutch cap to the RELEASE position. Release the synthetic cable and pull through the roller fairlead.
4. Attach the clevis hook to the cable and the hand saver strap to the clevis hook.



Winch Assembly - Generic Install

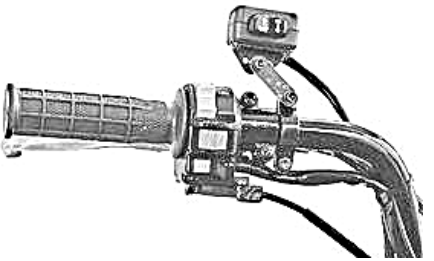
Mount the Contactor

5. Find a location for the contactor. If the model specific mounting kit does not indicate a recommended contactor location, then it is recommended that the contactor be mounted close to the battery in a clean dry location. Be certain the location you choose allows for sufficient clearance form all metal components. Drill mounting holes if required. Once a location is found, do not install until all wiring is completed.

Install Handlebar Mounted Mini Rocker Switch

6. The Handlebar Mounted Mini Rocker Switch is normally installed on the left handlebar.

7. Use electrical tape wrapped around the handlebar to prevent rotation of the switch mounting brackets.



Do NOT tighten over any hoses or cables.

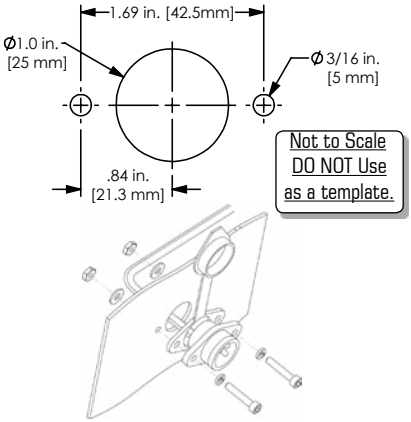
8. Once your switch is mounted you can route wires back to the contactor location.

9. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

Mount the Hand Remote Socket (optional)

10. Determine a mounting location for the Hand Remote socket. Be certain the area behind the selection location is clear.

11. Drill three holes as shown in the following figure and install using supplied hardware. You can also use the rubber cap attached to the remote socket as a template.



12. Once your remote socket is mounted, you may route wires back to the contactor location.

13. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

14. Secure the wires with supplied cable ties.

Wiring the Winch

CAUTION Never route electrical wires across any sharp edges, through or near moving parts, or near parts that become hot.

15. Connect the yellow and blue wires to the motor terminals on the winch. Torque the nuts on the motor to 5.7 N-m (50 in lbs) Route the opposite ends to the contactor location. (See diagram on page 8).
16. Connect the yellow and blue wires to the contactor block (yellow to yellow, blue to blue). DO NOT tighten nuts. (See diagram page 8).
17. Connect the red and black wires to your contactor block (red to red, black to black). DO NOT tighten nuts. Route the opposite ends to the battery location (See diagram page 8).
18. Connect the mini rocker switch to the contactor block (black to black, green to green). (See diagram on page 9).
19. Once all wiring is connected to the contactor, finish mounting it to the contactor location using supplied M6 hardware (See diagram page 8).

WARNING Failure to follow specific wiring instructions may result in damage to your wiring system or equipment.

NOTICE Depending on the location of the contactor, you may need to use an alternate winch wiring configuration. Please see the "Alternate Winch Wiring Diagram" available on: www.kfiproducts.com

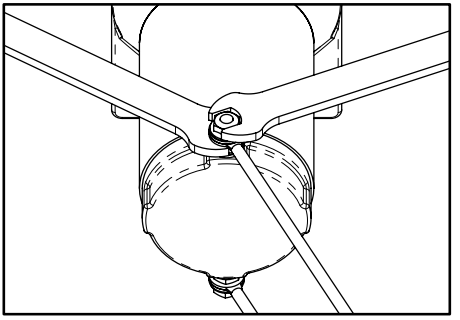
20. Torque the contactor terminal nuts to 4.5 N-m (40 in lbs) Do NOT over tighten.
21. Place all terminal boots over terminals and secure all cables with zip ties or electrical tape.

NOTICE If you are installing the hand remote along with the mini rocker switch, you will need to connect the remote socket to the contactor and then the mini rocker switch to the remote socket (see diagram on page 9).

22. Connect the battery leads from the contactor to the vehicle's battery (black to black, and red to red, see diagram on page 8).
23. Check for proper drum rotation. Turn the clutch cap to the RELEASE position. Pull out some cable from the drum and then turn the clutch cap to the ENGAGE position to engage the gears. Make sure your vehicle is running and press the cable out button on the switch. If the spool is turning and releasing more cable, then your connections are accurate. If the spool is turning and collecting more cable, then reverse the leads on the motor. Repeat and check rotation.

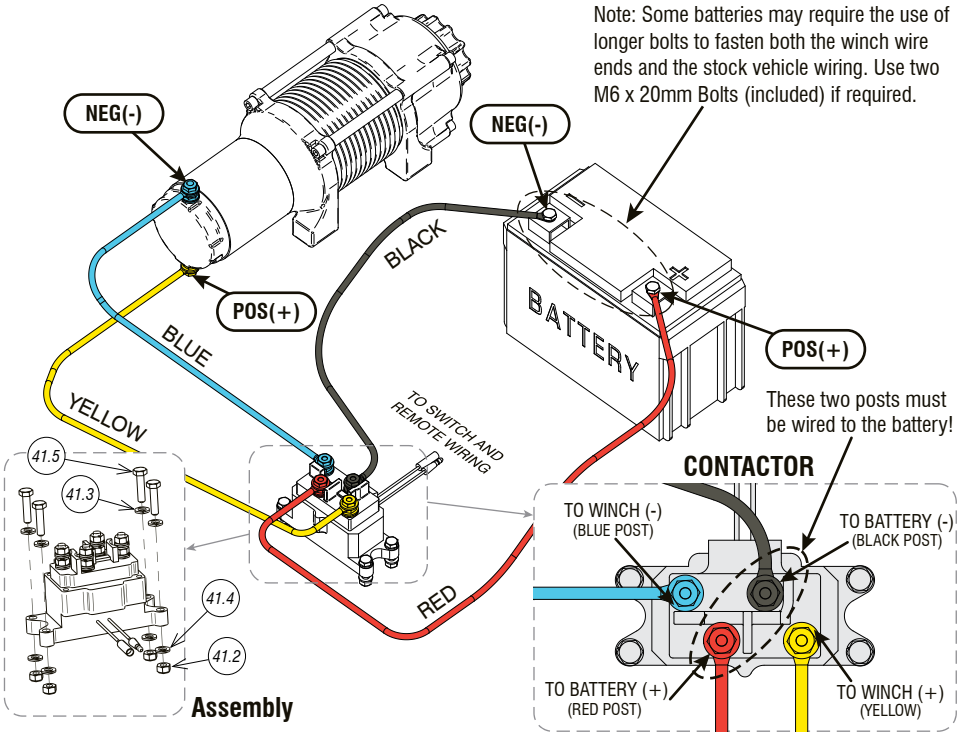
CAUTION Battery cables should not be drawn taut. Leave some slack for cable movement.

NOTICE Always hold the bottom nut with a wrench while tightening motor wire terminals. Do not allow the bottom nut to spin, else you may damage the end cap.



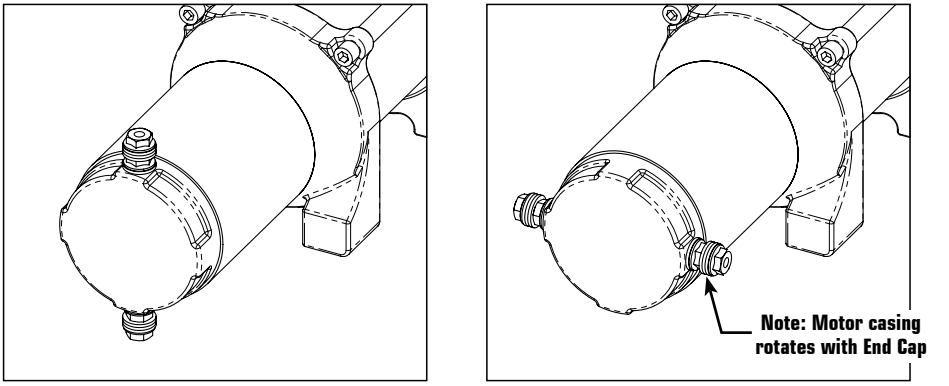
Proper Terminal Tightening

Winch Wiring Diagram



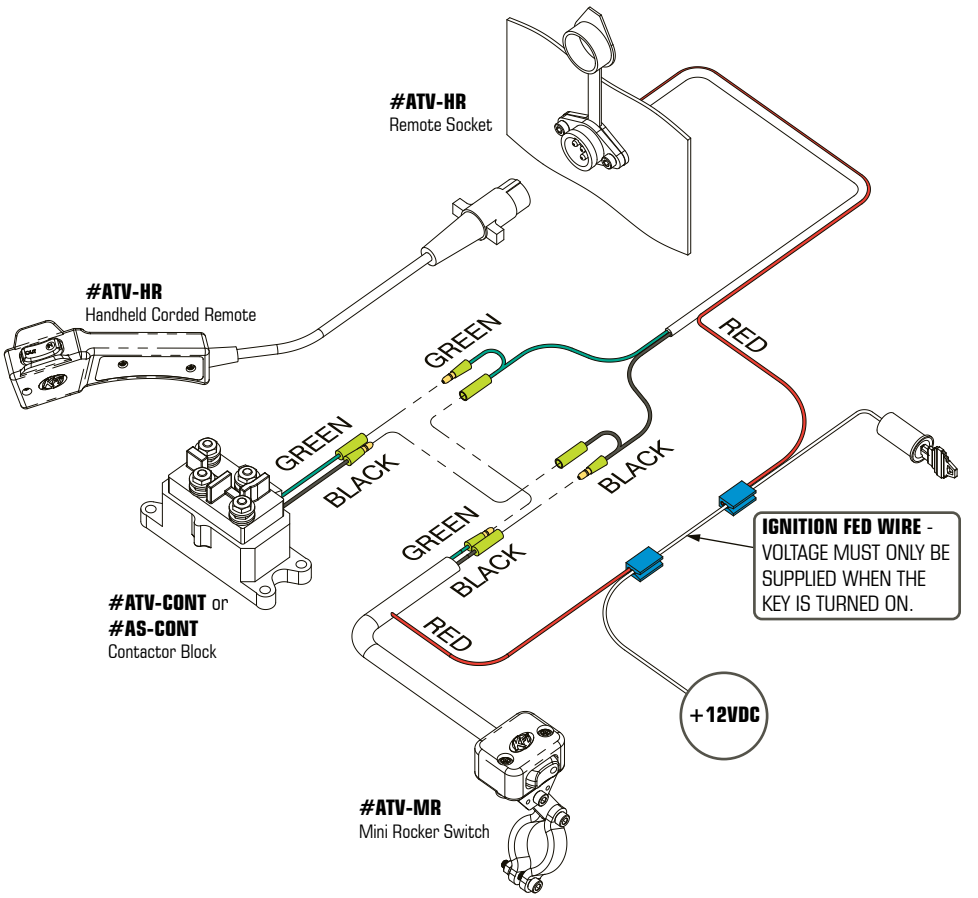
Motor End Terminal Rotation

With some applications, the motor terminals may need to be rotated to avoid interference with other components. If rotation is required please give us a call at 1-877-346-2050 for instructions or visit our website at www.kfiproducts.com and look in the support section.



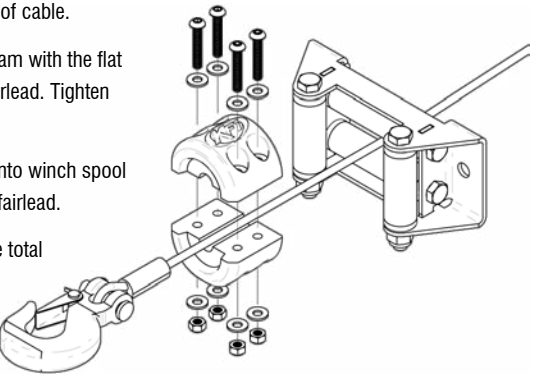
LEADS AT DEFAULT POSITION → LEADS ROTATED 90°

Controller Wiring Diagram



Cable Hook Stopper Installation and Use **(Optional Accessory, Not Included)**

1. Release winch and pull out approximately 2 feet of cable.
2. Assemble cable hook stopper as shown in diagram with the flat portion of the two halves resting against your fairlead. Tighten fasteners.
3. To stow hook, engage clutch and retract cable onto winch spool until hook is snug against the hook stopper and fairlead.
4. Position cable hook stopper at approx. 3/4 of the total line distance towards the hook while using your winch to help reduce whip back in the event of cable breakage.



General Tips for Safe Operation

Your A3000 winch is rated at 3,000 lbs. capacity in first layer (max) when spooling the first cable layer on the drum. Overloads can damage the winch, motor and/or cable.

The vehicle engine should be kept running during operation of the winch to minimize battery drain and maximize power and speed of the winch. If the winch is used for a considerable time with the engine off the battery may be drained and too weak to restart the engine.

Get to know your winch before you actually need to use it. We recommend that you set up a few test runs to familiarize yourself with rigging techniques, the sounds your winch makes under various loads, the way the cable spools on the drum, etc.

Inspect the cable and equipment before each use. A frayed or damaged cable should be replaced immediately. Use only manufacturer's identical replacement cable with the exact specifications.

Inspect the winch installation and bolts to ensure that all bolts are tight before each operation.

Store the remote control inside your vehicle in a place that it will not be damaged.

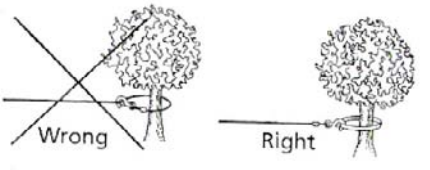
Any winch that appears to be damaged in any way, is found to be worn, or operates abnormally MUST BE REMOVED FROM SERVICE UNTIL REPAIRED. It is recommended that the necessary repairs be made by a manufacturer's authorized repair facility.

Pull only on areas of the vehicle as specified by the vehicle manufacturer.

Only attachments and/or adapters supplied by the manufacturer are to be used.

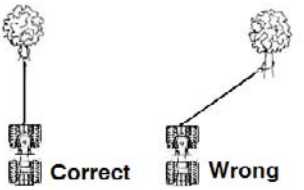
Self Recovery

Locate a suitable anchor such as a strong tree trunk or boulder. Always use a sling as an anchor point.

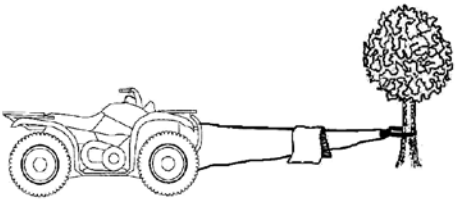


Your winch is equipped with a roller fairlead to help guide the cable and to reduce binding on short side pulls.

Do not winch from an acute angle as the cable will pile up on one side of the drum causing damage to cable and the winch.



Short pulls from an angle can be used to straighten the vehicle. Long pulls should be done with the cable straight out from the winch/vehicle.



When pulling a heavy load, place a cable hook stopper, blanket or jacket over the cable five or six feet from the hook.

In the event of a cable snap it will dampen the snap back. For additional protection open the hood of the vehicle.

Winching Techniques

1. Take time to assess your situation and plan your pull.
2. Put on gloves to protect your hands.
3. Release the clutch and free-spool the winch; it's faster than using the switch and saves battery power.
4. Attach the hook strap to the clevis hook.
5. Pull out the cable to your desired anchor point using the hook strap.
6. Secure the clevis hook to the anchor point: Sling, chain or snatch block. Do not attach the hook back onto the cable.
7. Engage the clutch.
8. Start your engine to ensure power is being replenished to the battery.
9. Power in the cable guiding the cable under tension to draw up the slack in the cable. Once the cable is under tension, stand clear. Never step over the cable.
10. Double check your anchors and make sure all connections are secure.
11. Inspect the cable. Make sure there are at least 5 wraps of cable around the winch drum.
12. Place a Cable Hook Stopper over the cable approximately 5 to 6 feet from the hook.
13. Clear the area. Make sure all spectators stand clear and that no one is directly in front or behind the vehicle or anchor point.
14. Begin winching. Be sure that the cable is winding evenly and tightly around the drum. The vehicle that is being winched can be slowly driven to add assistance to the winching process. Avoid shock loads; keep the cable under tension.
15. The vehicle to be winched should be placed in neutral and the parking brake released. Only release the loads to the winch. This can damage the winch, cable and vehicle.
16. The winch is meant for intermittent use. Under full load with a single line rig do not power in for more than a minute without letting the motor cool down for a few minutes and then resume the winching operation.
17. The winching operation is complete once the vehicle is on stable ground and is able to drive under its own power.
18. Secure the vehicle. Be sure to set the brakes and place the vehicle in park.
19. Release the tension on the cable. The winch is not meant to hold the vehicle for long periods of time.
20. Disconnect the cable from the anchor.
21. Rewind the cable. Make sure that any cable already on the drum has spooled tightly and neatly. If not, draw out the cable and re-spool from the point where the cable is tight.
22. Keep your hands clear of the winch drum and fairlead as the cable is being drawn in.
23. Secure the hook and hook strap.
24. Disconnect the remote control and store in a clean, dry place.
25. Clean and inspect connections and mounting hardware for next winching operation.
26. Never use the winch as a tie down.
27. Use brake pedal when under full tension.

Snow Plow Usage

Winches are commonly used to lift a Snow Plow System, but precautions and correct usage are required to prevent costly damage.

NOTICE Follow these precautions before using your Winch to lift a Plow. Failure to do so may result in damage to your winch or vehicle frame.

1. Stop the plow before full lift height - failure to do so will cause the winch to pull against itself (i.e. “bottom out”) and will cause damage to the winch components, your plow frame and your vehicle frame.

NOTICE Winch damage such as stripped gears, broken housings and bent or damaged parts caused by exceeding your plow’s lift height are not covered under warranty.

2. Do not continue to hold the Spool In button to power the winch while reversing your vehicle or other instances where the operator may become distracted while plowing.

MAINTENANCE

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the winch.

WARNING Never operate a damaged or defective winch.

WARNING Improper maintenance will void your warranty.

NOTICE For service or parts assistance, contact our help line at 1-877-346-2050.

Motor

Periodically when not used very often, or after wet / damp conditions. Be sure to run the motor in free spool until the motor is warm. This helps dry out any moisture and condensation trapped inside the housing.

Lubrication

All moving parts within the Electric Winch have been Lubricated using high temperature lithium grease at the factory. No internal lubrication is required under normal conditions.

If the winch is subjected to extreme conditions lubrication may be required using a high temperature lithium grease. Retract Cable Assembly onto drum being careful not to allow kinking or over heating of the winch.

Cable Assembly Replacement

It is recommended that any modifications be performed by a manufacturer’s authorized repair facility, and that only manufacturer-supplied parts be used

1. Rotate the clutch cap to the “Release” position.
2. Extend Cable Assembly to its full length. Note how the existing cable is connected to the inside of the drum.
3. Remove old Cable Assembly and attach new one.
4. Rotate the clutch cap to the “Engage” position.

NOTICE Inspect cable before and after each use. If cable becomes frayed it must be replaced.

SPECIFICATIONS

Performance:

Rated Pull ..... 3,000 lb (1361 kg)

Gear Reduction Ratio 171:1

Motor..... Permanent Magnet, 1.30 HP (DC 12V)

Drum Size..... 1.50 x 3.15 in. (38 x 80 mm)

Cable Dimensions ..... 3/16 in. x 45.9 ft. (4.8mm x 14m)

Gross Weight ..... 24.8 lb. (11.25 kg)

Mounting Bolt Pattern..... 4.88 in. x 3.00 in. (12.4 cm x 7.6 cm)

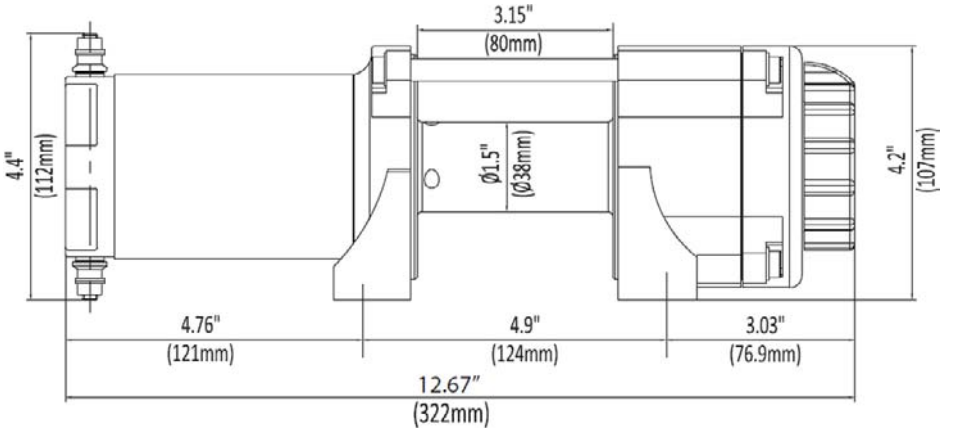
Overall Dimensions ..... 12.67 in. (L) x 4.06 in. (W) x 4.20 in. (H) (32.2 cm x 11.6 cm x 10.7 cm)

Line Speed and Motor Current (First Layer)								
Line Pull	**LB**	**0**	**500**	**1000**	**1500**	**2000**	**2500**	**3000**
	KG	**0**	**227**	**454**	**680**	**907**	**1134**	**1361**
Line Speed (12 VDC)	**FPM**	**10.2**	**9.51**	**8.86**	**7.87**	**6.56**	**5.58**	**4.27**
	MPM	**3.1**	**2.9**	**2.7**	**2.4**	**2.0**	**1.7**	**1.3**
Max Current	**A**	**8**	**30.8**	**51.3**	**80.2**	**103.5**	**129**	**160.8**
Run Time *	**Minutes**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Cooling Time **	**Minutes**	**5**	**5**	**5**	**5**	**5**	**5**	**5**

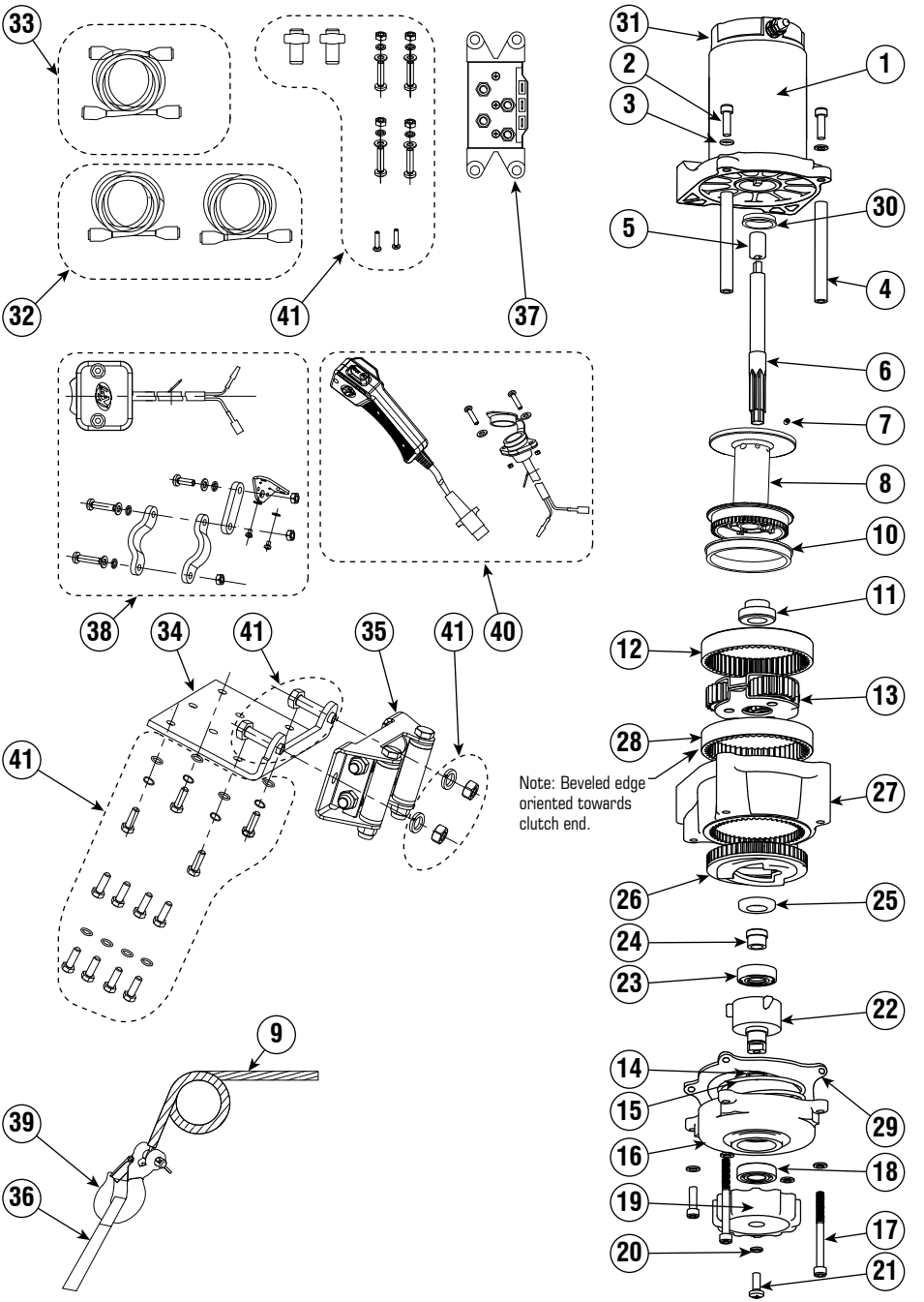
** If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for 5 minutes. Do not pull for more than one minute at or near the rated load.*

*** Electric winches are designed and made for intermittent use and should not be used in constant duty applications.*

Line Pull and Cable Capacity Per Layer						
Layers of Cable on Drum		**1**	**2**	**3**	**4**	**5**
Rated Line Pull	**LB**	**3000**	**2450**	**2070**	**1793**	**1581**
	KG	**1361**	**1112**	**940**	**814**	**717**
Cable Capacity	**FT**	**7.15**	**15.45**	**24.7**	**34.5**	**45.9**
	M	**2.18**	**4.71**	**7.52**	**10.52**	**14**



Parts Diagram



Parts List

#	Part Number	Description	Qty
1	MOTOR-30-BL	Motor Assembly	1
2	HW-0002	Screw M6 x 20 Socket	4
3	HW-0003	Washer Ø6	6
4	WP-0005	Tie Bar Ø10 x 85	2
5	WP-0006	Bushing, Shaft	1
6	WP-0007	Shaft, Splined	1
7	WP-0008	Set Screw M5 x 8	1
8	WP-0003	Drum, Aluminum, Standard	1
9	ATV-CBL-3K	Cable, Steel, 3/16" x 46'	1
10	WP-0009	Bushing, Drum, Rear	1
11	WP-0010	Washer, Thrust, Front	1
12	WP-0093	Gear Ring, Output	1
13	WP-0094	Gear Carrier Asm	1
14	HW-0004	Circlip Ø15	1
15	WP-0013	Spring, Clutch	1
16	WP-0014	Clutch Housing Cover	1
17	HW-0005	Screw M6 x 70 Socket	2
18	WP-0015	Bearing 16002 Sealed	1
19	WP-0001	Clutch Cap	1
20	HW-0006	Washer Ø6 Lock	1
21	HW-0007	Screw M6 x 16 Phillips	1
22	WP-0016	Bushing, Axis Support	1
23	WP-0017	Bearing 6002 Sealed	1
24	WP-0018	Bushing, Clutch	1
25	WP-0019	Washer, Above Clutch	1
26	WP-0020	Cam, Clutch Gear	1
27	WP-0021	Gear Housing	1
28	WP-0095	Gear Ring	1
29	WP-0024	Gasket	1
30	WP-0023	Bushing, Motor	1
31	SE-A-CAPKIT	Motor End Cap Assembly	1
32	SE-WIRES-ATV-WIN	Wiring, Winch, ATV	1
32.1	WP-0092	Terminal Protector	4
33	SE-WIRES-ATV-BAT	Wiring, Battery, ATV	1
33.1	WP-0092	Terminal Protector	4
34	100495	Bracket, Fairlead, Standard	1
35	ATV-RF	Roller Fairlead	1
36	WP-0030-BLU	Hand Saver Strap, Blue	1
37	ATV-CONT	Contactor	1
38	ATV-MR	Switch, Mini-Rocker	1

#	Part Number	Description	Qty
39	SE-HOOK	Clevis Hook, 1/4"	1
40	ATV-HR	Hand Remote Asm	1
41	HK-500	Hardware Kit, Black	1
41.01	HW-0001	Wire Tap	2
41.02	HW-0014-B	Nut M6 Nylock	4
41.03	HW-0006-B	Washer Ø6 Lock	4
41.04	HW-0003-B	Washer Ø6	4
41.05	HW-0013-B	Bolt M6 x 25	4
41.06	HW-0015-B	Bolt M6 x 20	2
41.07	HW-0010-B	Bolt M10 x 20	2
41.08	HW-0011-B	Washer Ø10 Lock	2
41.09	HW-0012-B	Nut M10 Nylock	2
41.10	HW-0016-B	Washer Ø8	8
41.11	HW-0009-B	Washer Ø8 Lock	4
41.12	HW-0008-B	Bolt M8 x 25	4
41.13	HW-0018-B	Bolt M8 x 20	4
41.14	HW-0017-B	Bolt M8 x 30	4

TROUBLESHOOTING

Problem	Cause	Solution
Motor does not run, Contactor makes a click sound.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Incorrect Wiring	Hand Remote / Mini Rocker Switch wires must be connected green to green and black to black.
	Loose battery cable connections	Hand tighten nuts on all cable connections.
	Motor Issue	Contact KFI Technical Support
	Water has entered motor	Allow to drain and dry. Run in short burst with load until completely dry.
	Brake Spring installed backwards	Contact KFI Technical Support.
Motor does not run, NO click sound from Contactor.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Switch Ignition Wire	Check connection to an ignition fed source. Must supply 12V with the key on and vehicle running.
	Contactor malfunctioning	Contact KFI Technical Support.
	Switch malfunctioning	Contact KFI Technical Support.
Motor runs, Spool turns in one direction only.	Incorrect Wiring	Check wiring diagram, verify switch wires (black/green) are properly connected and making good contact.
	Defective or stuck Contactor	Tap contactor to loosen plungers.
	Defective Switch assembly	Replace Switch assembly.
	Contactor malfunctioning	Contact KFI Technical Support.
Motor runs, Spool does NOT turn.	Clutch not engaged	Rotate Clutch Cap to Engage.
	Broken Coupler / stripped Shaft	Replace Coupler or Shaft
Spool turns, but no movement from Cable	Cable not attached to Spool	Contact KFI Technical Support.
Motor runs slowly or without normal power.	Insufficient current or voltage.	The battery is weak, recharge. Run winch with vehicle motor running (battery should have a strong charge).
	Loose or corroded battery cable connections	Clean, tighten, or replace.
	Worn Brushes	Replace with End-Cap Kit (#SE-A-CAPKIT) Contact KFI Technical Support.
Motor overheating	Winch running time too long	Allow winch to cool down periodically.

For further support, contact:

KFI Tech Support

Mon-Thr 8:00 AM - 5:00 PM (CST/CDT)
Fri 7:00 AM - 1:00PM (CST/CDT)
Toll Free: 1-877-346-2050
tech@kfiproducts.com

KFI Products Website Support:

Common installation, maintenance, and troubleshooting guides are available on our website.

https://www.kfiproducts.com/support.html

WARRANTY

KAPPERS FABRICATING, INC.
1 YEAR LIMITED LIFETIME WARRANTY

Warranty Qualifications

Kappers Fabricating Inc. (KFI) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of KFI's resale locations as proof of purchase. Please submit your warranty registration and your proof of purchase within Fifteen (15) days of the date of purchase.

Repair/Replacement Warranty

KFI warrants to the original purchaser that mechanical components will be free of defects in material and workmanship for the usable lifetime of the product (90 days for commercial use); and electrical components will be free of defects in material and workmanship for (1) years (90 days for commercial use); from the original date of purchase. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact KFI's Technical Service and KFI will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, KFI will, at its option, authorize evaluation, repair or replacement of the defective part or component at a KFI Service Center. KFI will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Winches need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this winch is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the winch's limits, modified, installed improperly or wired incorrectly to any electrical component. Normal maintenance is not covered by this warranty.

Other Exclusions

- The winch cable or synthetic cable.
- Cosmetic defects such as paint, decals, etc.
- Accessory parts such as storage covers.
- Misuse, abuse, neglect, acts of God, terrorism and causes beyond the control of KFI.
- Problems caused by parts that are not original Kappers Fabricating Inc. parts.
- Cable Stacking and Water Submersion or Damage Caused by Water.

Warranty Procedure

1. Contact KFI Technical support to acquire a Return Authorization (RA) number.
2. KFI may request additional materials (such as original sales receipt, date of purchase, technical details, or photos of Product condition) prior to issuing an RA number.
3. At the discretion of KFI, Buyer shall mail, ship, or otherwise deliver to KFI the Warrantied Product, at the address noted below.

Limits of Implied Warranty and Consequential Damage

Kappers Fabricating Inc. disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this winch. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

KFI Products
Winch Customer Service
P.O. BOX 32
721 SATA DRIVE
SPRING VALLEY, MN 55975

Corporate

KAPPERS FABRICATING, INC.
P.O. BOX 32
1015 INDUSTRIAL DR.
SPRING VALLEY, MN 55975

Customer Service

Mon - Thr 8:00 AM - 5:00 PM (CST/CDT)
Fri - 7:00 AM - 1:00 PM (CST/CDT)
Toll Free: 1-877-346-2050 Opt 1
Fax No: 1-507-346-2010
E-mail: sales@kfiproducts.com

Technical Service

Mon - Thr 8:00 AM - 5:00 PM (CST/CDT)
Thr - 7:00 AM - 1:00 PM (CST/CDT)
Toll Free: 1-877-346-2050 Opt 2
E-mail: tech@kfiproducts.com

Website

https://www.kfiproducts.com

1-877-346-2050

KFI PRODUCTS
P.O. BOX 32
721 SATA DRIVE
SPRING VALLEY, MN 55975

WWW.KFIPRODUCTS.COM

CORPORATE OFFICE:

KAPPERS FABRICATING, INC.
P.O. BOX 32
1015 INDUSTRIAL DR.
SPRING VALLEY, MN 55975
USA

CE

MADE IN CHINA

ATV WINCH

STEEL CABLE

MODEL #A2500-R2

2,500 LB. (1134 KG)

OPERATOR'S MANUAL

ONE YEAR LIMITED WARRANTY 1 KFI

READ AND SAVE THIS MANUAL. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product. Specifications, descriptions, and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

Place serial label here for reference.

SERIAL NO. LABEL

Support:

1-877-346-2050

or visit **www.kfiproducts.com**

Made in China - REV 20250224

KFI Products - Kappers Fabricating, Inc., Spring Valley, MN USA

TABLE OF CONTENTS

INTRODUCTION

Congratulations on your purchase of a KFI winch. KFI researches and develops winches to strict specifications. With proper use and maintenance, this winch will bring years of satisfying service.

Accessories

Kappers Fabricating, Inc. manufactures, purchases, and sells accessories designed to help you get the most from your purchase. To find out more about our products, visit our web site at:

www.kfiproducts.com

This Manual

Every effort has been made to ensure the accuracy and completeness of information in this manual. We reserve the right to change, alter, and or improve the product and this document at any time without prior notice.

Record the model as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

KFI TECHNICAL SUPPORT TEAM
1-877-346-2050
MODEL NUMBER
A2500-R2
SERIAL NUMBER
DATE OF PURCHASE
PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attentions and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE NOTICE indicates information considered important, but not hazard-related (e.g. messages relating to property damage or physical injury).

IMPORTANT SAFETY INSTRUCTIONS

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

WARNING Read this manual thoroughly before operating the winch. Failure to follow instructions could result in serious injury or death.

WARNING Do not exceed the rated capacity.

DANGER Do not use this winch for lifting or moving people or animals.

DANGER Keep yourself and others a safe distance to the side of the cable when under tension.

DANGER Never step over a cable or near a cable under load.

WARNING The cable may break before the motor stalls. For heavy loads at or near rated capacity, use a pulley block/snatch block to reduce the load on the cable.

WARNING Do not move the vehicle to pull a load (towing) on the winch cable. This could result in cable breakage.

WARNING Pull only on area of the vehicle as specified by the vehicle manufacturer.

WARNING Do not use the winch to secure or hold a vehicle for a long period of time. Do not use the winch to secure a vehicle for transport.

WARNING Disconnect the remote control and battery leads when not in use for extended periods.

WARNING Avoid “shock loads” by using the control switch intermittently to take up slack in the cable. “Shock loads” can far exceed the rated capacity for the winch cable and drum.

Do not accelerate your vehicle while winching. Loss of traction can cause a shock load on the cable. Do not use cable as a pull strap.

WARNING Batteries contain acid and produce explosive gases. Keep sparks, flames and cigarettes away from batteries at all times. Wear safety glasses and protect the eyes at all times. Do not lean over the batteries during operation.

WARNING Do not use as a hoist. Do not use for overhead lifting.

⚠ WARNING When re-spooling the cable, ensure that the cable spools in the under-wind position with the cable entering the drum from the bottom, not the top.

To re-spool correctly, and while wearing gloves, keep a slight load on the cable while pushing the remote button to draw in the cable. Walk toward the winch not allowing the cable to slide through your hands. Do not let your hands get within 12 in. of the winch while re-spooling. Turn off the winch and repeat the procedure until a few feet of cable are left. Disconnect the remote control and finish spooling by rotating the drum by hand with the clutch disengaged. Keep hands clear of the fairlead and drum while the winch is under power.

⚠ CAUTION Use gloves to protect hands when handling the cable. Never let the cable slide through your hands.

⚠ CAUTION Do not wrap the cable around any object and hook it back onto itself.

⚠ CAUTION Apply blocks to the wheels of the vehicle when on an incline.

⚠ CAUTION Duration of winching pulls should be kept as short as possible.

If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for a few minutes. Do not pull for more than one minute at or near the rated load.

⚠ CAUTION If the motor stalls, do not maintain power to the winch.

Electric winches are designed and made for intermittent use and should not be used in constant duty applications.

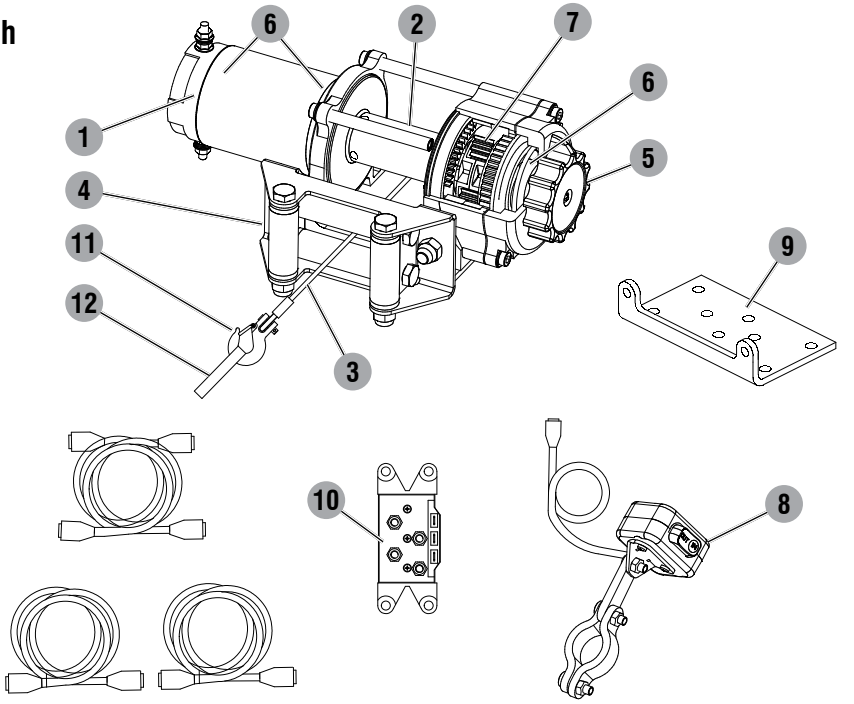
⚠ CAUTION Never release the free spool clutch when there is a load on the winch.

⚠ CAUTION Use the Hand-Saver strap when handling the winch hook for spooling or unspooling the cable.

CONTROLS AND FEATURES

Read this operator's manual before operating your winch. Familiarize yourself with the location and function of the control features. Save this manual for future reference.

Winch



1. **Motor** – 1.20 HP 12V DC motor provides power to the planetary gear mechanism.
2. **Winch Drum** – The winch drum is the cylinder on which the cable is stored. It can feed or wind the cable depending on the switch assembly.
3. **Steel Cable** – 3/16 in. x 45.9 ft. Galvanized aircraft cable designed specifically for load capacity of 2,500 lbs. (44 usable feet with five wraps on the drum). The cable feeds onto the drum in the "under wind" position through the roller fairlead (4) and is looped at the end to accept the clevis hook pin (11).
4. **Roller Fairlead** – When using the winch at an angle the roller fairlead acts to guide the steel cable onto the drum and minimize damage to the cable from abrasion on the winch mount or bumper.
5. **Free Spooling Clutch** – The clutch allows the operator to manually disengage ("Release") the spooling drum from the gear train. Engaging the clutch ("Engage") locks the winch into the gear system.
6. **Braking System** – Braking action is automatically applied to the winch drum when the winch motor is stopped or there is a load on the cable.
7. **Planetary Gear System** – The reduction gears convert the winch motor power into extreme pulling forces. This system allows high torque while maintaining compact size and light weight.
8. **Mini Rocker Switch** – Handle bar mounted switch for powering cable in/out of the winch drum.
9. **Fairlead Mount** – Adapter to mount the winch and fairlead for utility applications.

10. **Contactor** – Power from the vehicle battery flows through the weather sealed solenoid switch before being directed to the winch motor.
11. **Clevis Hook** – Provides a means for connecting the looped ends of cables to an anchor.
12. **Hand Saver Strap** – Used to assist cable feed.

INSTALLATION

This KFI 2,500 lb winch is designed with a bolt pattern that is standard for this class of winch. Many winch mounting kits are available that utilize this bolt pattern for the most popular ATVs and UTVs. You can find most of the ATV/UTV winch mounts on our website (www.kfiproducts.com).

Mount the Winch

⚠ WARNING Before starting to install this winch, disconnect the vehicle ground and positive leads from the battery.

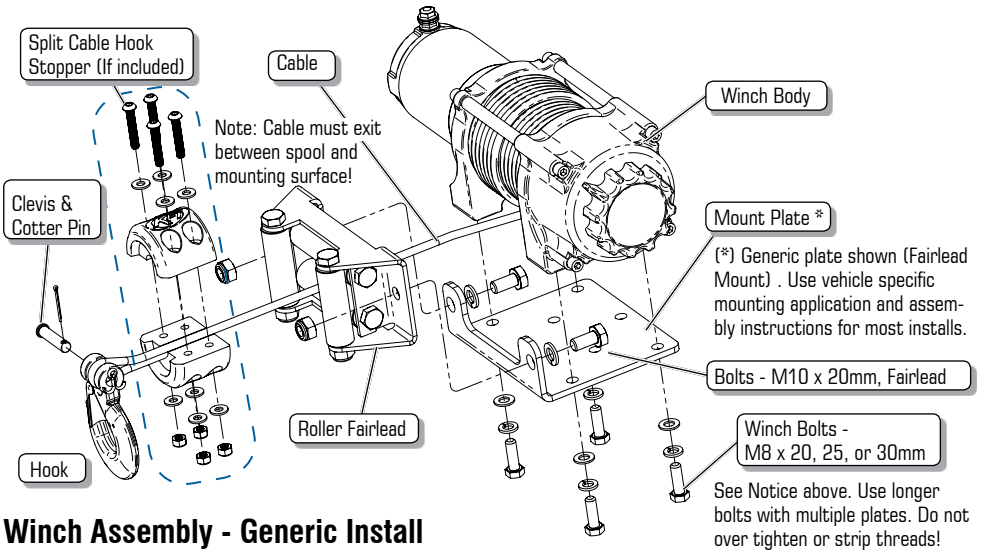
1. Install the winch and fairlead with the supplied hardware per the instructions provided with the model specific winch mounting kit or prepare a flat, secure mounting location for the winch.

⚠ CAUTION Mounting bolts must be SAE Grade 5 or better and torqued to 17 ft. lbs.

NOTICE This kit includes mounting bolts with different lengths for fastening the winch (M8 x 20, 25, and 30mm long). Use the length that best fits your mounting application. Refer to vehicle specific mount instructions for more information.

⚠ CAUTION If you choose not to use a model specific mounting kit, you will need to drill holes in the structural support of the vehicle. Be certain that your structural support is sufficient for the pulling forces of this winch.

2. Attach the winch using supplied M8 x 25mm or 30mm bolts and washers thru the fairlead bracket or model specific winch mount and into the winch.
3. Disengage the clutch by rotating the clutch cap to the RELEASE position. Release the synthetic cable and pull through the roller fairlead.
4. Attach the clevis hook to the cable and the hand saver strap to the clevis hook.



Winch Assembly - Generic Install

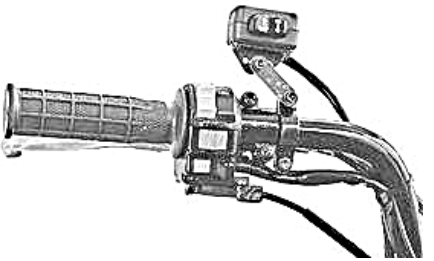
Mount the Contactor

5. Find a location for the contactor. If the model specific mounting kit does not indicate a recommended contactor location, then it is recommended that the contactor be mounted close to the battery in a clean dry location. Be certain the location you choose allows for sufficient clearance form all metal components. Drill mounting holes if required. Once a location is found, do not install until all wiring is completed.

Install Handlebar Mounted Mini Rocker Switch

6. The Handlebar Mounted Mini Rocker Switch is normally installed on the left handlebar.

7. Use electrical tape wrapped around the handlebar to prevent rotation of the switch mounting brackets.



Do NOT tighten over any hoses or cables.

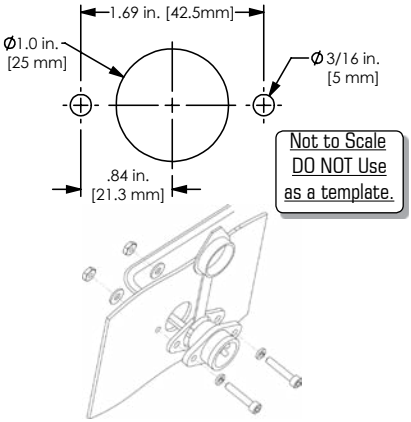
8. Once your switch is mounted you can route wires back to the contactor location.

9. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

Mount the Hand Remote Socket (optional, not included)

10. Determine a mounting location for the Hand Remote socket. Be certain the area behind the selection location is clear.

11. Drill three holes as shown in the following figure and install using supplied hardware. You can also use the rubber cap attached to the remote socket as a template.



12. Once your remote socket is mounted, you may route wires back to the contactor location.

13. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

14. Secure the wires with supplied cable ties.

Wiring the Winch

⚠ CAUTION Never route electrical wires across any sharp edges, through or near moving parts, or near parts that become hot.

15. Connect the yellow and blue wires to the motor terminals on the winch. Torque the nuts on the motor to 5.7 N-m (50 in lbs) Route the opposite ends to the contactor location. (See diagram on page 8).
16. Connect the yellow and blue wires to the contactor block (yellow to yellow, blue to blue). DO NOT tighten nuts. (See diagram page 8).
17. Connect the red and black wires to your contactor block (red to red, black to black). DO NOT tighten nuts. Route the opposite ends to the battery location (See diagram page 8).
18. Connect the mini rocker switch to the contactor block (black to black, green to green). (See diagram on page 9).
19. Once all wiring is connected to the contactor, finish mounting it to the contactor location using supplied M6 hardware (See diagram page 8).

⚠ WARNING Failure to follow specific wiring instructions may result in damage to your wiring system or equipment.

NOTICE Depending on the location of the contactor, you may need to use an alternate winch wiring configuration. Please see the "Alternate Winch Wiring Diagram" available on: www.kfiproducts.com

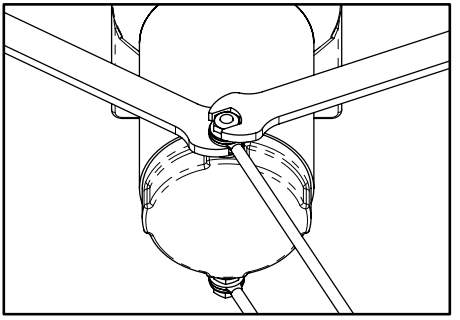
20. Torque the contactor terminal nuts to 4.5 N-m (40 in lbs) Do NOT over tighten.
21. Place all terminal boots over terminals and secure all cables with zip ties or electrical tape.

NOTICE If you are installing the hand remote along with the mini rocker switch, you will need to connect the remote socket to the contactor and then the mini rocker switch to the remote socket (see diagram on page 9).

22. Connect the battery leads from the contactor to the vehicle's battery (black to black, and red to red, see diagram on page 8).
23. Check for proper drum rotation. Turn the clutch cap to the RELEASE position. Pull out some cable from the drum and then turn the clutch cap to the ENGAGE position to engage the gears. Make sure your vehicle is running and press the cable out button on the switch. If the spool is turning and releasing more cable, then your connections are accurate. If the spool is turning and collecting more cable, then reverse the leads on the motor. Repeat and check rotation.

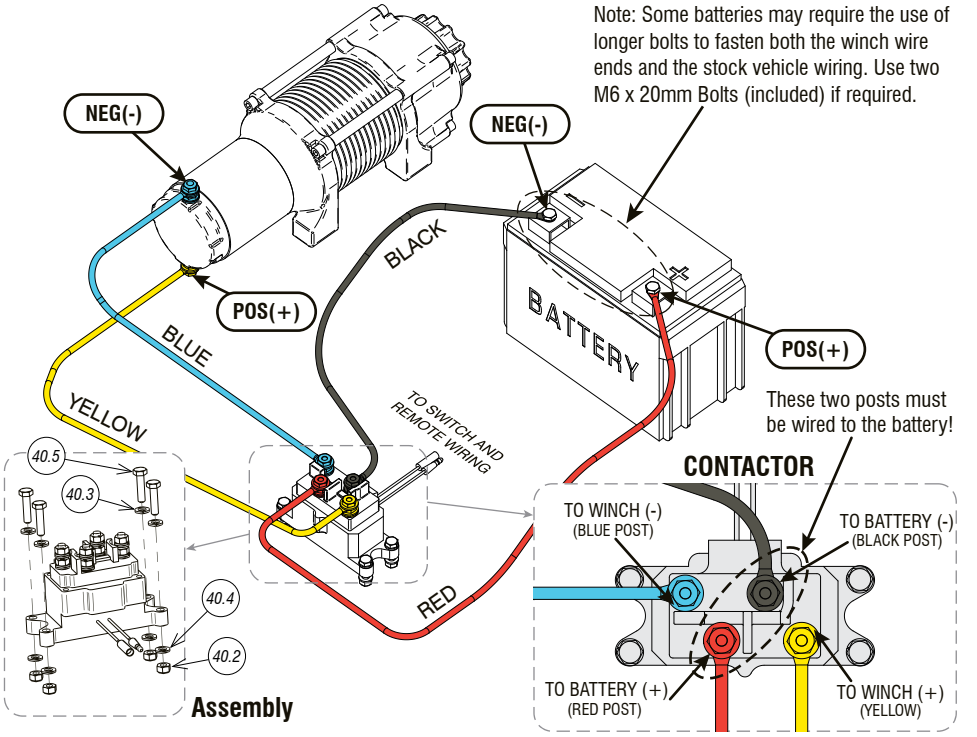
⚠ CAUTION Battery cables should not be drawn taut. Leave some slack for cable movement.

NOTICE Always hold the bottom nut with a wrench while tightening motor wire terminals. Do not allow the bottom nut to spin, else you may damage the end cap.



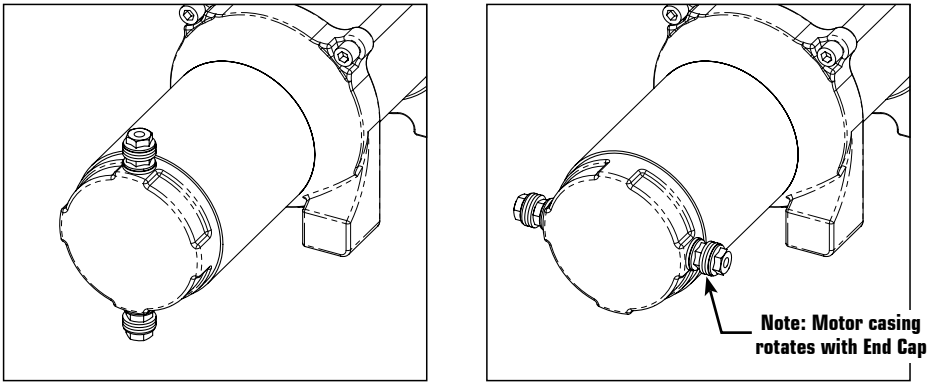
Proper Terminal Tightening

Winch Wiring Diagram



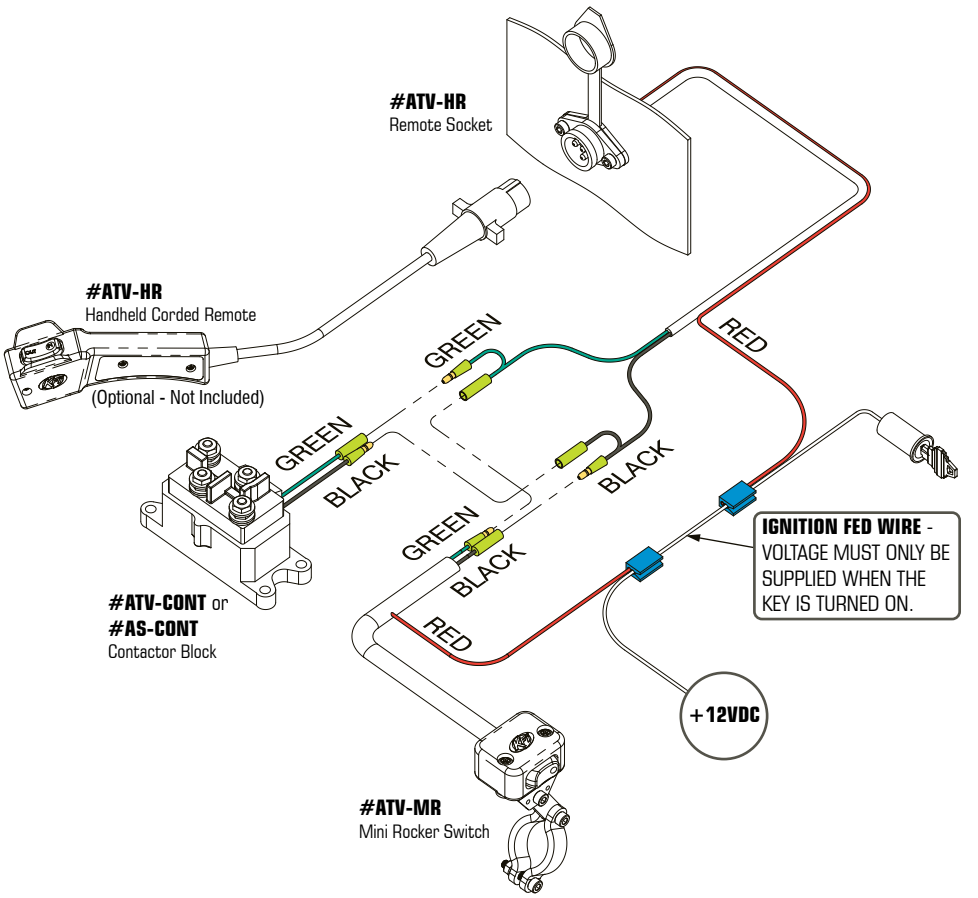
Motor End Terminal Rotation

With some applications, the motor terminals may need to be rotated to avoid interference with other components. If rotation is required please give us a call at 1-877-346-2050 for instructions or visit our website at www.kfiproducts.com and look in the support section.



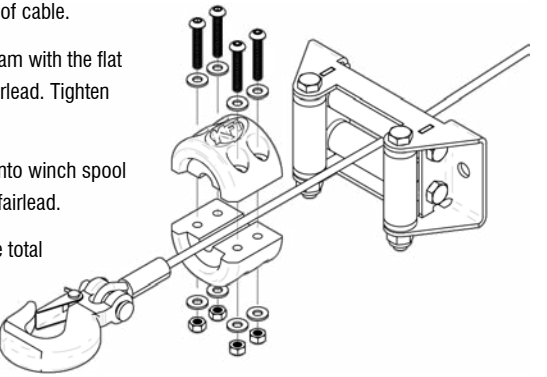
LEADS AT DEFAULT POSITION → LEADS ROTATED 90°

Controller Wiring Diagram



Cable Hook Stopper Installation and Use **(Optional Accessory, Not Included)**

1. Release winch and pull out approximately 2 feet of cable.
2. Assemble cable hook stopper as shown in diagram with the flat portion of the two halves resting against your fairlead. Tighten fasteners.
3. To stow hook, engage clutch and retract cable onto winch spool until hook is snug against the hook stopper and fairlead.
4. Position cable hook stopper at approx. 3/4 of the total line distance towards the hook while using your winch to help reduce whip back in the event of cable breakage.



General Tips for Safe Operation

Your A2500-R2 winch is rated at 2,500 lbs. capacity in first layer (max) when spooling the first cable layer on the drum. Overloads can damage the winch, motor and/or cable.

The vehicle engine should be kept running during operation of the winch to minimize battery drain and maximize power and speed of the winch. If the winch is used for a considerable time with the engine off the battery may be drained and too weak to restart the engine.

Get to know your winch before you actually need to use it. We recommend that you set up a few test runs to familiarize yourself with rigging techniques, the sounds your winch makes under various loads, the way the cable spools on the drum, etc.

Inspect the cable and equipment before each use. A frayed or damaged cable should be replaced immediately. Use only manufacturer's identical replacement cable with the exact specifications.

Inspect the winch installation and bolts to ensure that all bolts are tight before each operation.

Store the remote control inside your vehicle in a place that it will not be damaged.

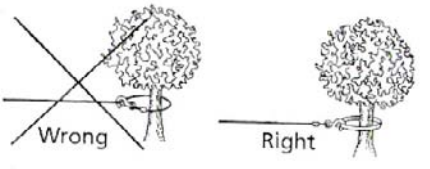
Any winch that appears to be damaged in any way, is found to be worn, or operates abnormally MUST BE REMOVED FROM SERVICE UNTIL REPAIRED. It is recommended that the necessary repairs be made by a manufacturer's authorized repair facility.

Pull only on areas of the vehicle as specified by the vehicle manufacturer.

Only attachments and/or adapters supplied by the manufacturer are to be used.

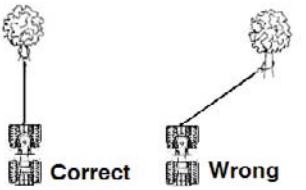
Self Recovery

Locate a suitable anchor such as a strong tree trunk or boulder. Always use a sling as an anchor point.

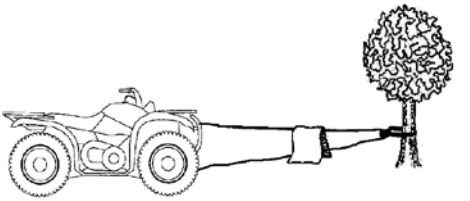


Your winch is equipped with a roller fairlead to help guide the cable and to reduce binding on short side pulls.

Do not winch from an acute angle as the cable will pile up on one side of the drum causing damage to cable and the winch.



Short pulls from an angle can be used to straighten the vehicle. Long pulls should be done with the cable straight out from the winch/vehicle.



When pulling a heavy load, place a cable hook stopper, blanket or jacket over the cable five or six feet from the hook.

In the event of a cable snap it will dampen the snap back. For additional protection open the hood of the vehicle.

Winching Techniques

1. Take time to assess your situation and plan your pull.
2. Put on gloves to protect your hands.
3. Release the clutch and free-spool the winch; it's faster than using the switch and saves battery power.
4. Attach the hook strap to the clevis hook.
5. Pull out the cable to your desired anchor point using the hook strap.
6. Secure the clevis hook to the anchor point: Sling, chain or snatch block. Do not attach the hook back onto the cable.
7. Engage the clutch.
8. Start your engine to ensure power is being replenished to the battery.
9. Power in the cable guiding the cable under tension to draw up the slack in the cable. Once the cable is under tension, stand clear. Never step over the cable.
10. Double check your anchors and make sure all connections are secure.
11. Inspect the cable. Make sure there are at least 5 wraps of cable around the winch drum.
12. Place a Cable Hook Stopper over the cable approximately 5 to 6 feet from the hook.
13. Clear the area. Make sure all spectators stand clear and that no one is directly in front or behind the vehicle or anchor point.
14. Begin winching. Be sure that the cable is winding evenly and tightly around the drum. The vehicle that is being winched can be slowly driven to add assistance to the winching process. Avoid shock loads; keep the cable under tension.
15. The vehicle to be winched should be placed in neutral and the parking brake released. Only release the loads to the winch. This can damage the winch, cable and vehicle.
16. The winch is meant for intermittent use. Under full load with a single line rig do not power in for more than a minute without letting the motor cool down for a few minutes and then resume the winching operation.
17. The winching operation is complete once the vehicle is on stable ground and is able to drive under its own power.
18. Secure the vehicle. Be sure to set the brakes and place the vehicle in park.
19. Release the tension on the cable. The winch is not meant to hold the vehicle for long periods of time.
20. Disconnect the cable from the anchor.
21. Rewind the cable. Make sure that any cable already on the drum has spooled tightly and neatly. If not, draw out the cable and re-spool from the point where the cable is tight.
22. Keep your hands clear of the winch drum and fairlead as the cable is being drawn in.
23. Secure the hook and hook strap.
24. Disconnect the remote control and store in a clean, dry place.
25. Clean and inspect connections and mounting hardware for next winching operation.
26. Never use the winch as a tie down.
27. Use brake pedal when under full tension.

Snow Plow Usage

Winches are commonly used to lift a Snow Plow System, but precautions and correct usage are required to prevent costly damage.

NOTICE Follow these precautions before using your Winch to lift a Plow. Failure to do so may result in damage to your winch or vehicle frame.

1. Stop the plow before full lift height - failure to do so will cause the winch to pull against itself (i.e. “bottom out”) and will cause damage to the winch components, your plow frame and your vehicle frame.

NOTICE Winch damage such as stripped gears, broken housings and bent or damaged parts caused by exceeding your plow’s lift height are not covered under warranty.

2. Do not continue to hold the Spool In button to power the winch while reversing your vehicle or other instances where the operator may become distracted while plowing.

MAINTENANCE

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the winch.

WARNING Never operate a damaged or defective winch.

WARNING Improper maintenance will void your warranty.

NOTICE For service or parts assistance, contact our help line at 1-877-346-2050.

Motor

Periodically when not used very often, or after wet / damp conditions. Be sure to run the motor in free spool until the motor is warm. This helps dry out any moisture and condensation trapped inside the housing.

Lubrication

All moving parts within the Electric Winch have been Lubricated using high temperature lithium grease at the factory. No internal lubrication is required under normal conditions.

If the winch is subjected to extreme conditions lubrication may be required using a high temperature lithium grease. Retract Cable Assembly onto drum being careful not to allow kinking or over heating of the winch.

Cable Assembly Replacement

It is recommended that any modifications be performed by a manufacturer’s authorized repair facility, and that only manufacturer-supplied parts be used

1. Rotate the clutch cap to the “Release” position.
2. Extend Cable Assembly to its full length. Note how the existing cable is connected to the inside of the drum.
3. Remove old Cable Assembly and attach new one.
4. Rotate the clutch cap to the “Engage” position.

NOTICE Inspect cable before and after each use. If cable becomes frayed it must be replaced.

SPECIFICATIONS

Performance:

Rated Pull ..... 2,500 lb (1134 kg)

Gear Reduction Ratio 171:1

Motor..... Permanent Magnet, 1.20 HP (DC 12V)

Drum Size..... 1.50 x 3.15 in. (38 x 80 mm)

Cable Dimensions ..... 3/16 in. x 45.9 ft. (4.8mm x 14m)

Gross Weight ..... 24.8 lb. (11.25 kg)

Mounting Bolt Pattern..... 4.88 in. x 3.00 in. (12.4 cm x 7.6 cm)

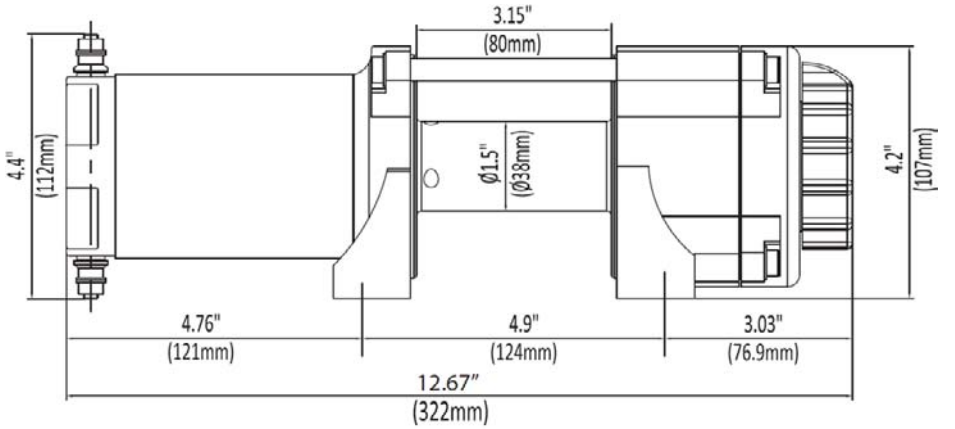
Overall Dimensions ..... 12.67 in. (L) x 4.06 in. (W) x 4.20 in. (H) (32.2 cm x 11.6 cm x 10.7 cm)

Line Speed and Motor Current (First Layer)							
Line Pull	**LB**	**0**	**500**	**1000**	**1500**	**2000**	**2500**
	KG	**0**	**227**	**454**	**680**	**907**	**1134**
Line Speed (12 VDC)	**FPM**	**8.86**	**10.17**	**9.19**	**7.55**	**6.56**	**4.92**
	MPM	**2.7**	**3.1**	**2.8**	**2.3**	**2.0**	**1.5**
Max Current	**A**	**15**	**40.2**	**60**	**89.6**	**119.8**	**150.4**
Run Time *	**Minutes**	**1**	**1**	**1**	**1**	**1**	**1**
Cooling Time **	**Minutes**	**5**	**5**	**5**	**5**	**5**	**5**

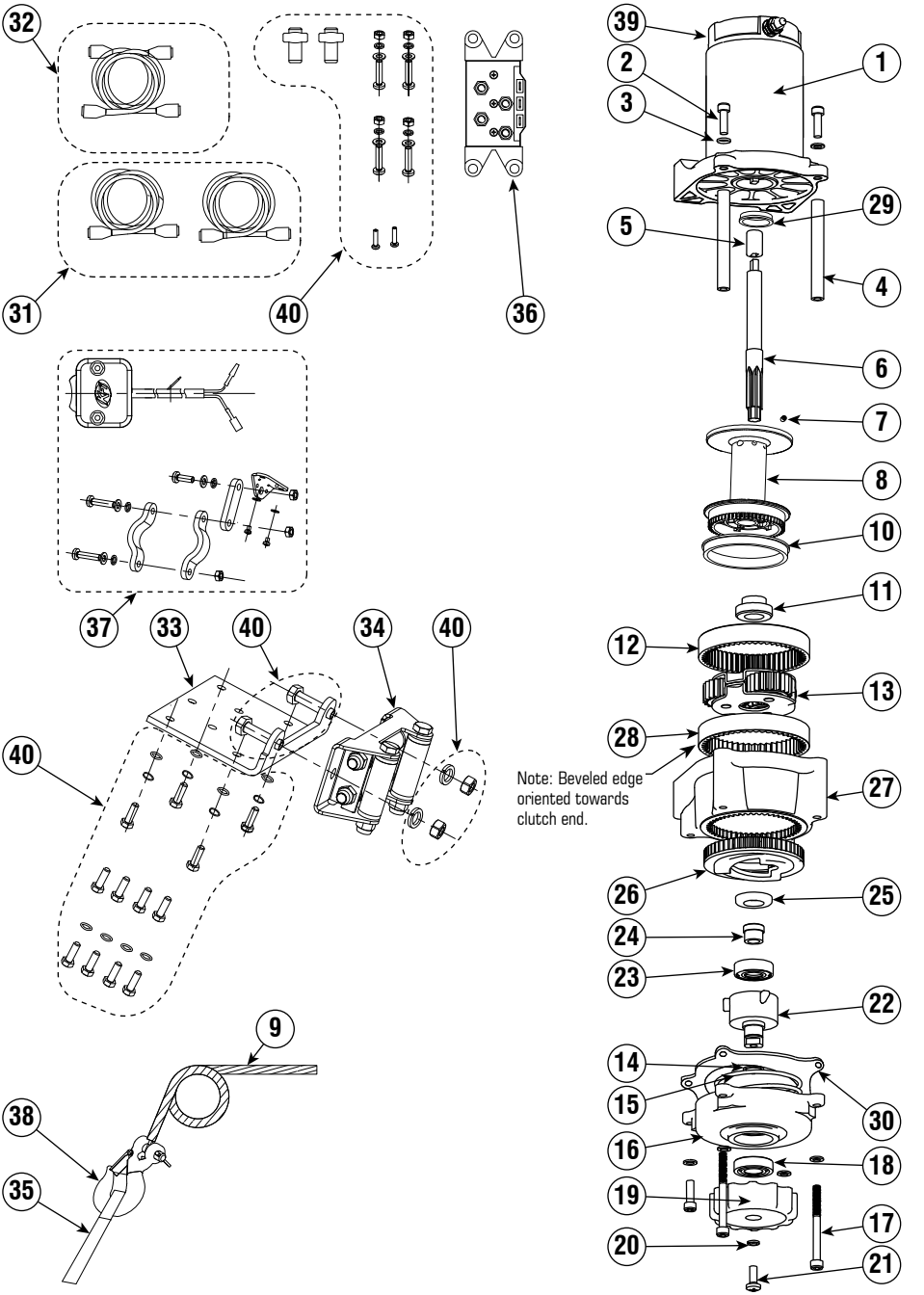
** If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for 5 minutes. Do not pull for more than one minute at or near the rated load.*

*** Electric winches are designed and made for intermittent use and should not be used in constant duty applications.*

Line Pull and Cable Capacity Per Layer						
Layers of Cable on Drum		**1**	**2**	**3**	**4**	**5**
Rated Line Pull	**LB**	**2500**	**2033**	**1713**	**1480**	**1303**
	KG	**1134**	**922**	**777**	**671**	**591**
Cable Capacity	**FT**	**7.15**	**15.45**	**24.7**	**34.5**	**45.9**
	M	**2.18**	**4.71**	**7.52**	**10.52**	**14**



Parts Diagram



Parts List

#	Part Number	Description	Qty
1	MOTOR-25-BL	Motor Assembly	1
2	HW-0002	Screw M6 x 20 Socket	4
3	HW-0003	Washer Ø6	6
4	WP-0005	Tie Bar Ø10 x 85	2
5	WP-0006	Bushing, Shaft	1
6	WP-0007	Shaft, Splined	1
7	WP-0008	Set Screw M5 x 8	1
8	WP-0003	Drum, Aluminum, Standard	1
9	ATV-CBL-3K	Cable, Steel, 3/16" x 46'	1
10	WP-0009	Bushing, Drum, Rear	1
11	WP-0010	Washer, Thrust, Front	1
12	WP-0011	Gear Ring, Output	1
13	WP-0012	Gear Carrier Asm	1
14	HW-0004	Circlip Ø15	1
15	WP-0013	Spring, Clutch	1
16	WP-0014	Clutch Housing Cover	1
17	HW-0005	Screw M6 x 70 Socket	2
18	WP-0015	Bearing 16002 Sealed	1
19	WP-0001	Clutch Cap	1
20	HW-0006	Washer Ø6 Lock	1
21	HW-0007	Screw M6 x 16 Phillips	1
22	WP-0016	Bushing, Axis Support	1
23	WP-0017	Bearing 6002 Sealed	1
24	WP-0018	Bushing, Clutch	1
25	WP-0019	Washer, Above Clutch	1
26	WP-0020	Cam, Clutch Gear	1
27	WP-0021	Gear Housing	1
28	WP-0022	Gear Ring	1
29	WP-0023	Bushing, Motor	1
30	WP-0024	Gasket	1
31	SE-WIRES-ATV-WIN	Wiring, Winch, ATV	1
31.1	WP-0092	Terminal Protector	4
32	SE-WIRES-ATV-BAT	Wiring, Battery, ATV	1
32.1	WP-0092	Terminal Protector	4
33	100495	Bracket, Fairlead, Standard	1
34	ATV-RF	Roller Fairlead	1
35	WP-0030-BLU	Hand Saver Strap, Blue	1
36	ATV-CONT	Contactor	1
37	ATV-MR	Switch, Mini-Rocker	1
38	SE-HOOK	Clevis Hook, 1/4"	1

#	Part Number	Description	Qty
39	SE-A-CAPKIT	Motor End Cap Assembly	1
40	HK-500	Hardware Kit, Black	1
40.01	HW-0001	Wire Tap	2
40.02	HW-0014-B	Nut M6 Nylock	4
40.03	HW-0006-B	Washer Ø6 Lock	4
40.04	HW-0003-B	Washer Ø6	4
40.05	HW-0013-B	Bolt M6 x 25	4
40.06	HW-0015-B	Bolt M6 x 20	2
40.07	HW-0010-B	Bolt M10 x 20	2
40.08	HW-0011-B	Washer Ø10 Lock	2
40.09	HW-0012-B	Nut M10 Nylock	2
40.10	HW-0016-B	Washer Ø8	8
40.11	HW-0009-B	Washer Ø8 Lock	4
40.12	HW-0008-B	Bolt M8 x 25	4
40.13	HW-0018-B	Bolt M8 x 20	4
40.14	HW-0017-B	Bolt M8 x 30	4

TROUBLESHOOTING

Problem	Cause	Solution
Motor does not run, Contactor makes a click sound.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Incorrect Wiring	Hand Remote / Mini Rocker Switch wires must be connected green to green and black to black.
	Loose battery cable connections	Hand tighten nuts on all cable connections.
	Motor Issue	Contact KFI Technical Support
	Water has entered motor	Allow to drain and dry. Run in short burst with load until completely dry.
	Brake Spring installed backwards	Contact KFI Technical Support.
Motor does not run, NO click sound from Contactor.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Switch Ignition Wire	Check connection to an ignition fed source. Must supply 12V with the key on and vehicle running.
	Contactor malfunctioning	Contact KFI Technical Support.
	Switch malfunctioning	Contact KFI Technical Support.
Motor runs, Spool turns in one direction only.	Incorrect Wiring	Check wiring diagram, verify switch wires (black/green) are properly connected and making good contact.
	Defective or stuck Contactor	Tap contactor to loosen plungers.
	Defective Switch assembly	Replace Switch assembly.
	Contactor malfunctioning	Contact KFI Technical Support.
Motor runs, Spool does NOT turn.	Clutch not engaged	Rotate Clutch Cap to Engage.
	Broken Coupler / stripped Shaft	Replace Coupler or Shaft
Spool turns, but no movement from Cable	Cable not attached to Spool	Contact KFI Technical Support.
Motor runs slowly or without normal power.	Insufficient current or voltage.	The battery is weak, recharge. Run winch with vehicle motor running (battery should have a strong charge).
	Loose or corroded battery cable connections	Clean, tighten, or replace.
	Worn Brushes	Replace with End-Cap Kit (#SE-A-CAPKIT) Contact KFI Technical Support.
Motor overheating	Winch running time too long	Allow winch to cool down periodically.

For further support, contact:

KFI Tech Support

Mon-Thr 8:00 AM - 5:00 PM (CST/CDT)
Fri 7:00 AM - 1:00PM (CST/CDT)
Toll Free: 1-877-346-2050
tech@kfiproducts.com

KFI Products Website Support:

Common installation, maintenance, and troubleshooting guides are available on our website.

https://www.kfiproducts.com/support.html

WARRANTY

KAPPERS FABRICATING, INC.
1 YEAR LIMITED LIFETIME WARRANTY

Warranty Qualifications

Kappers Fabricating Inc. (KFI) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of KFI's resale locations as proof of purchase. Please submit your warranty registration and your proof of purchase within Fifteen (15) days of the date of purchase.

Repair/Replacement Warranty

KFI warrants to the original purchaser that mechanical components will be free of defects in material and workmanship for the usable lifetime of the product (90 days for commercial use); and electrical components will be free of defects in material and workmanship for (1) years (90 days for commercial use); from the original date of purchase. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact KFI's Technical Service and KFI will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, KFI will, at its option, authorize evaluation, repair or replacement of the defective part or component at a KFI Service Center. KFI will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Winches need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this winch is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the winch's limits, modified, installed improperly or wired incorrectly to any electrical component. Normal maintenance is not covered by this warranty.

Other Exclusions

- The winch cable or synthetic cable.
- Cosmetic defects such as paint, decals, etc.
- Accessory parts such as storage covers.
- Misuse, abuse, neglect, acts of God, terrorism and causes beyond the control of KFI.
- Problems caused by parts that are not original Kappers Fabricating Inc. parts.
- Cable Stacking and Water Submersion or Damage Caused by Water.

Warranty Procedure

1. Contact KFI Technical support to acquire a Return Authorization (RA) number.
2. KFI may request additional materials (such as original sales receipt, date of purchase, technical details, or photos of Product condition) prior to issuing an RA number.
3. At the discretion of KFI, Buyer shall mail, ship, or otherwise deliver to KFI the Warrantied Product, at the address noted below.

Limits of Implied Warranty and Consequential Damage

Kappers Fabricating Inc. disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this winch. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

KFI Products
Winch Customer Service
P.O. BOX 32
721 SATA DRIVE
SPRING VALLEY, MN 55975

Corporate

KAPPERS FABRICATING, INC.
P.O. BOX 32
1015 INDUSTRIAL DR.
SPRING VALLEY, MN 55975

Customer Service

Mon - Thr 8:00 AM - 5:00 PM (CST/CDT)
Fri - 7:00 AM - 1:00 PM (CST/CDT)
Toll Free: 1-877-346-2050 Opt 1
Fax No: 1-507-346-2010
E-mail: sales@kfiproducts.com

Technical Service

Mon - Thr 8:00 AM - 5:00 PM (CST/CDT)
Thr - 7:00 AM - 1:00 PM (CST/CDT)
Toll Free: 1-877-346-2050 Opt 2
E-mail: tech@kfiproducts.com

Website

https://www.kfiproducts.com

1-877-346-2050

KFI PRODUCTS
P.O. BOX 32
721 SATA DRIVE
SPRING VALLEY, MN 55975

WWW.KFIPRODUCTS.COM

CORPORATE OFFICE:

KAPPERS FABRICATING, INC.
P.O. BOX 32
1015 INDUSTRIAL DR.
SPRING VALLEY, MN 55975
USA

CE

MADE IN CHINA

ATV WINCH

STEEL CABLE

MODEL #A2000

2,000 LB. (907 KG)

OPERATOR'S MANUAL

READ AND SAVE THIS MANUAL. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product. Specifications, descriptions, and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

Place serial label here for reference.

SERIAL NO. LABEL

Support:

1-877-346-2050

or visit **www.kfiproducts.com**

Made in China - REV 20250224

KFI Products - Kappers Fabricating, Inc., Spring Valley, MN USA

TABLE OF CONTENTS

INTRODUCTION

Congratulations on your purchase of a KFI winch. KFI researches and develops winches to strict specifications. With proper use and maintenance, this winch will bring years of satisfying service.

Accessories

Kappers Fabricating, Inc. manufactures, purchases, and sells accessories designed to help you get the most from your purchase. To find out more about our products, visit our web site at:

www.kfiproducts.com

This Manual

Every effort has been made to ensure the accuracy and completeness of information in this manual. We reserve the right to change, alter, and or improve the product and this document at any time without prior notice.

Record the model as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

KFI TECHNICAL SUPPORT TEAM
1-877-346-2050
MODEL NUMBER
A2000
SERIAL NUMBER
DATE OF PURCHASE
PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attentions and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE NOTICE indicates information considered important, but not hazard-related (e.g. messages relating to property damage or physical injury).

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

⚠ WARNING Read this manual thoroughly before operating the winch. Failure to follow instructions could result in serious injury or death.

⚠ WARNING Do not exceed the rated capacity.

⚠ DANGER Do not use this winch for lifting or moving people or animals.

⚠ DANGER Keep yourself and others a safe distance to the side of the cable when under tension.

⚠ DANGER Never step over a cable or near a cable under load.

⚠ WARNING The cable may break before the motor stalls. For heavy loads at or near rated capacity, use a pulley block/snatch block to reduce the load on the cable.

⚠ WARNING Do not move the vehicle to pull a load (towing) on the winch cable. This could result in cable breakage.

⚠ WARNING Pull only on area of the vehicle as specified by the vehicle manufacturer.

⚠ WARNING Do not use the winch to secure or hold a vehicle for a long period of time. Do not use the winch to secure a vehicle for transport.

⚠ WARNING Disconnect the remote control and battery leads when not in use for extended periods.

⚠ WARNING Avoid “shock loads” by using the control switch intermittently to take up slack in the cable. “Shock loads” can far exceed the rated capacity for the winch cable and drum.

Do not accelerate your vehicle while winching. Loss of traction can cause a shock load on the cable. Do not use cable as a pull strap.

⚠ WARNING Batteries contain acid and produce explosive gases. Keep sparks, flames and cigarettes away from batteries at all times. Wear safety glasses and protect the eyes at all times. Do not lean over the batteries during operation.

⚠ WARNING Do not use as a hoist. Do not use for overhead lifting.

⚠ WARNING When re-spooling the cable, ensure that the cable spools in the under-wind position with the cable entering the drum from the bottom, not the top.

To re-spool correctly, and while wearing gloves, keep a slight load on the cable while pushing the remote button to draw in the cable. Walk toward the winch not allowing the cable to slide through your hands. Do not let your hands get within 12 in. of the winch while re-spooling. Turn off the winch and repeat the procedure until a few feet of cable are left. Disconnect the remote control and finish spooling by rotating the drum by hand with the clutch disengaged. Keep hands clear of the fairlead and drum while the winch is under power.

⚠ CAUTION Use gloves to protect hands when handling the cable. Never let the cable slide through your hands.

⚠ CAUTION Do not wrap the cable around any object and hook it back onto itself.

⚠ CAUTION Apply blocks to the wheels of the vehicle when on an incline.

⚠ CAUTION Duration of winching pulls should be kept as short as possible.

If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for a few minutes. Do not pull for more than one minute at or near the rated load.

⚠ CAUTION If the motor stalls, do not maintain power to the winch.

Electric winches are designed and made for intermittent use and should not be used in constant duty applications.

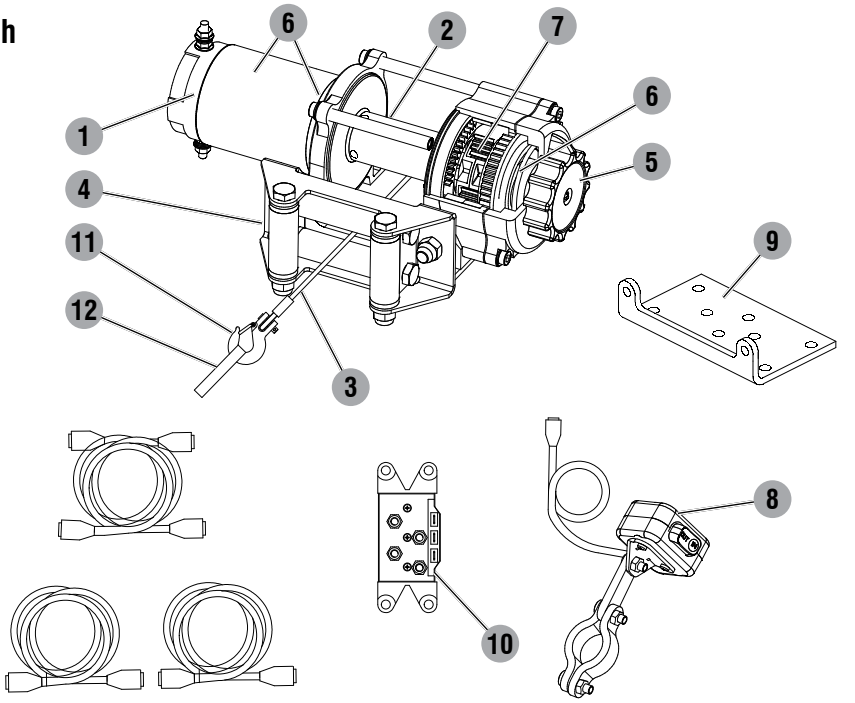
⚠ CAUTION Never release the free spool clutch when there is a load on the winch.

⚠ CAUTION Use the Hand-Saver strap when handling the winch hook for spooling or unspooling the cable.

CONTROLS AND FEATURES

Read this operator's manual before operating your winch. Familiarize yourself with the location and function of the control features. Save this manual for future reference.

Winch



1. **Motor** – 1.00 HP 12V DC motor provides power to the planetary gear mechanism.
2. **Winch Drum** – The winch drum is the cylinder on which the cable is stored. It can feed or wind the cable depending on the switch assembly.
3. **Steel Cable** – 5/32 in. x 49 ft. Galvanized aircraft cable designed specifically for load capacity of 2,000 lbs. (47 usable feet with five wraps on the drum). The cable feeds onto the drum in the "under wind" position through the roller fairlead (4) and is looped at the end to accept the clevis hook pin (11).
4. **Roller Fairlead** – When using the winch at an angle the roller fairlead acts to guide the steel cable onto the drum and minimize damage to the cable from abrasion on the winch mount or bumper.
5. **Free Spooling Clutch** – The clutch allows the operator to manually disengage ("Release") the spooling drum from the gear train. Engaging the clutch ("Engage") locks the winch into the gear system.
6. **Braking System** – Braking action is automatically applied to the winch drum when the winch motor is stopped or there is a load on the cable.
7. **Planetary Gear System** – The reduction gears convert the winch motor power into extreme pulling forces. This system allows high torque while maintaining compact size and light weight.
8. **Mini Rocker Switch** – Handle bar mounted switch for powering cable in/out of the winch drum.
9. **Fairlead Mount** – Adapter to mount the winch and fairlead for utility applications.

10. **Contactor** – Power from the vehicle battery flows through the weather sealed solenoid switch before being directed to the winch motor.
11. **Clevis Hook** – Provides a means for connecting the looped ends of cables to an anchor.
12. **Hand Saver Strap** – Used to assist cable feed.

INSTALLATION

This KFI 2,000 lb winch is designed with a bolt pattern that is standard for this class of winch. Many winch mounting kits are available that utilize this bolt pattern for the most popular ATVs and UTVs. You can find most of the ATV/UTV winch mounts on our website (www.kfiproducts.com).

Mount the Winch

⚠ WARNING Before starting to install this winch, disconnect the vehicle ground and positive leads from the battery.

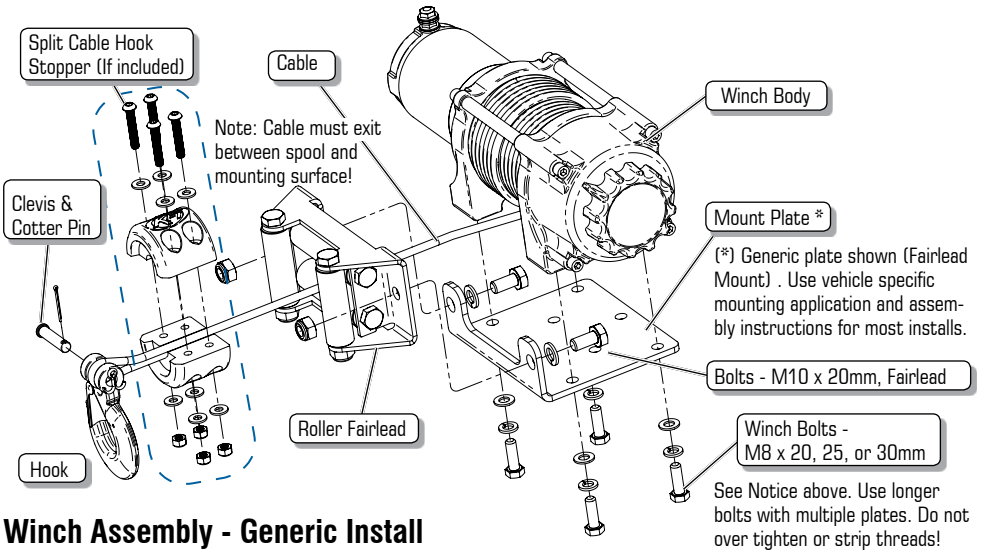
1. Install the winch and fairlead with the supplied hardware per the instructions provided with the model specific winch mounting kit or prepare a flat, secure mounting location for the winch.

⚠ CAUTION Mounting bolts must be SAE Grade 5 or better and torqued to 17 ft. lbs.

NOTICE This kit includes mounting bolts with different lengths for fastening the winch (M8 x 20, 25, and 30mm long). Use the length that best fits your mounting application. Refer to vehicle specific mount instructions for more information.

⚠ CAUTION If you choose not to use a model specific mounting kit, you will need to drill holes in the structural support of the vehicle. Be certain that your structural support is sufficient for the pulling forces of this winch.

2. Attach the winch using supplied M8 x 25mm or 30mm bolts and washers thru the fairlead bracket or model specific winch mount and into the winch.
3. Disengage the clutch by rotating the clutch cap to the RELEASE position. Release the synthetic cable and pull through the roller fairlead.
4. Attach the clevis hook to the cable and the hand saver strap to the clevis hook.



Winch Assembly - Generic Install

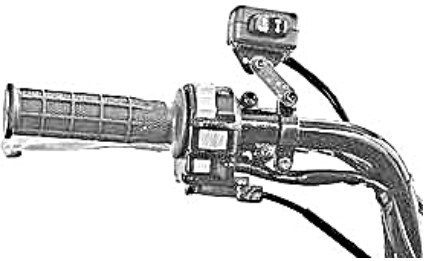
Mount the Contactor

5. Find a location for the contactor. If the model specific mounting kit does not indicate a recommended contactor location, then it is recommended that the contactor be mounted close to the battery in a clean dry location. Be certain the location you choose allows for sufficient clearance form all metal components. Drill mounting holes if required. Once a location is found, do not install until all wiring is completed.

Install Handlebar Mounted Mini Rocker Switch

6. The Handlebar Mounted Mini Rocker Switch is normally installed on the left handlebar.

7. Use electrical tape wrapped around the handlebar to prevent rotation of the switch mounting brackets.



Do NOT tighten over any hoses or cables.

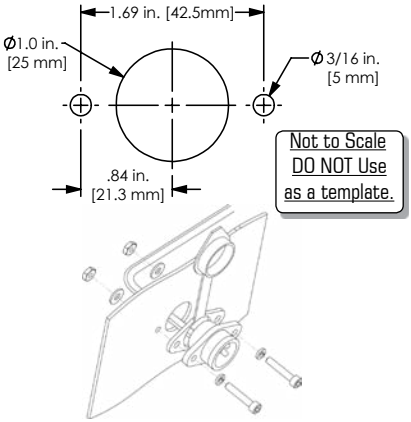
8. Once your switch is mounted you can route wires back to the contactor location.

9. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

Mount the Hand Remote Socket (optional, not included)

10. Determine a mounting location for the Hand Remote socket. Be certain the area behind the selection location is clear.

11. Drill three holes as shown in the following figure and install using supplied hardware. You can also use the rubber cap attached to the remote socket as a template.



12. Once your remote socket is mounted, you may route wires back to the contactor location.

13. Splice the end of the red wire to an ignition controlled (keyed) power source using the supplied wire splice. You may need to use a test light or multimeter to locate a suitable wire. The wire should only have power when the key is in the ON position.

14. Secure the wires with supplied cable ties.

Wiring the Winch

⚠ CAUTION Never route electrical wires across any sharp edges, through or near moving parts, or near parts that become hot.

15. Connect the yellow and blue wires to the motor terminals on the winch. Torque the nuts on the motor to 5.7 N-m (50 in lbs) Route the opposite ends to the contactor location. (See diagram on page 8).
16. Connect the yellow and blue wires to the contactor block (yellow to yellow, blue to blue). DO NOT tighten nuts. (See diagram page 8).
17. Connect the red and black wires to your contactor block (red to red, black to black). DO NOT tighten nuts. Route the opposite ends to the battery location (See diagram page 8).
18. Connect the mini rocker switch to the contactor block (black to black, green to green). (See diagram on page 9).
19. Once all wiring is connected to the contactor, finish mounting it to the contactor location using supplied M6 hardware (See diagram page 8).

⚠ WARNING Failure to follow specific wiring instructions may result in damage to your wiring system or equipment.

NOTICE Depending on the location of the contactor, you may need to use an alternate winch wiring configuration. Please see the "Alternate Winch Wiring Diagram" available on: www.kfiproducts.com

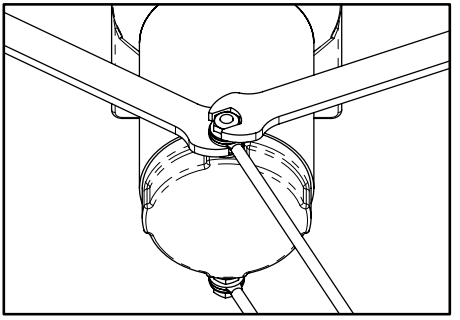
20. Torque the contactor terminal nuts to 4.5 N-m (40 in lbs) Do NOT over tighten.
21. Place all terminal boots over terminals and secure all cables with zip ties or electrical tape.

NOTICE If you are installing the hand remote along with the mini rocker switch, you will need to connect the remote socket to the contactor and then the mini rocker switch to the remote socket (see diagram on page 9).

22. Connect the battery leads from the contactor to the vehicle's battery (black to black, and red to red, see diagram on page 8).
23. Check for proper drum rotation. Turn the clutch cap to the RELEASE position. Pull out some cable from the drum and then turn the clutch cap to the ENGAGE position to engage the gears. Make sure your vehicle is running and press the cable out button on the switch. If the spool is turning and releasing more cable, then your connections are accurate. If the spool is turning and collecting more cable, then reverse the leads on the motor. Repeat and check rotation.

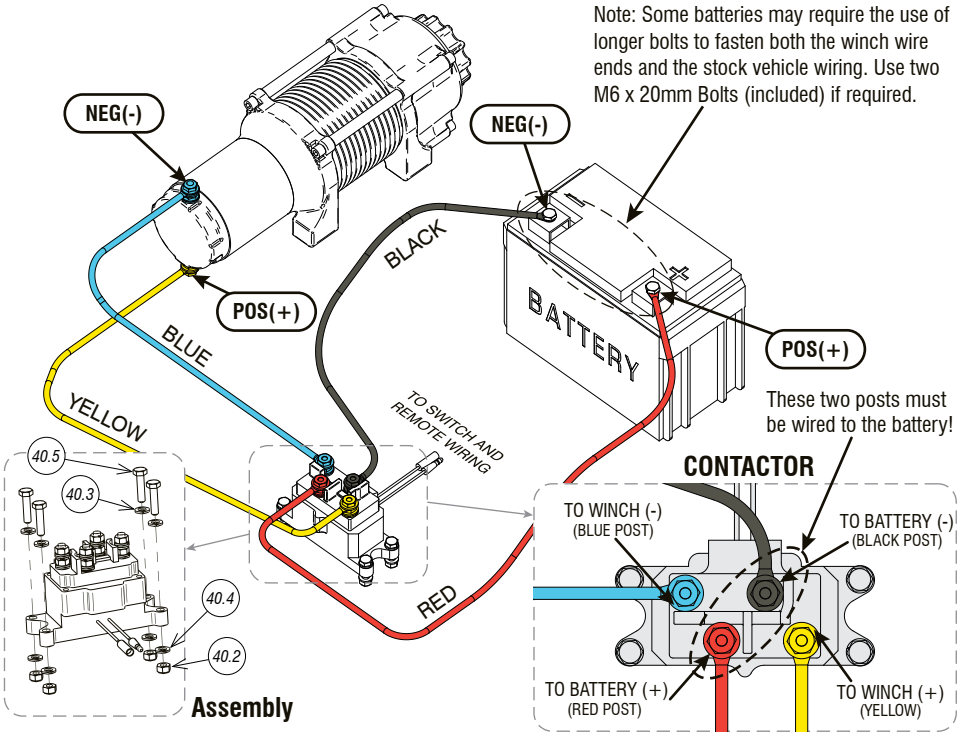
⚠ CAUTION Battery cables should not be drawn taut. Leave some slack for cable movement.

NOTICE Always hold the bottom nut with a wrench while tightening motor wire terminals. Do not allow the bottom nut to spin, else you may damage the end cap.



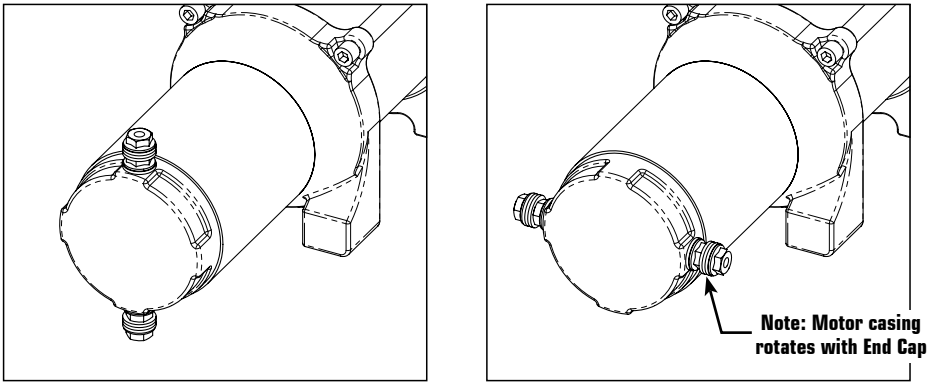
Proper Terminal Tightening

Winch Wiring Diagram

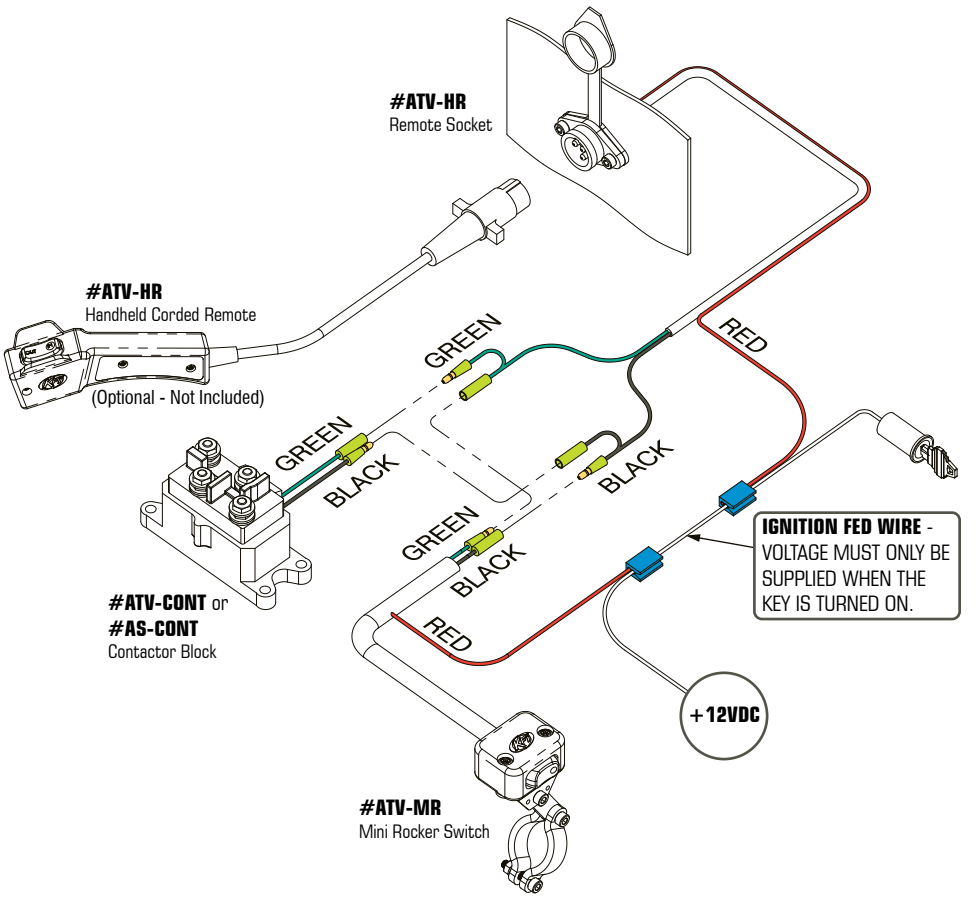


Motor End Terminal Rotation

With some applications, the motor terminals may need to be rotated to avoid interference with other components. If rotation is required please give us a call at 1-877-346-2050 for instructions or visit our website at www.kfiproducts.com and look in the support section.

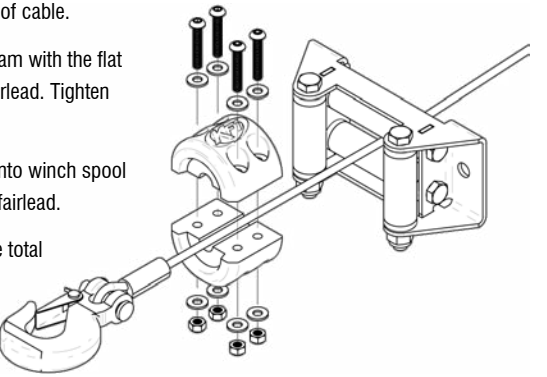


Controller Wiring Diagram



Cable Hook Stopper Installation and Use **(Optional Accessory, Not Included)**

1. Release winch and pull out approximately 2 feet of cable.
2. Assemble cable hook stopper as shown in diagram with the flat portion of the two halves resting against your fairlead. Tighten fasteners.
3. To stow hook, engage clutch and retract cable onto winch spool until hook is snug against the hook stopper and fairlead.
4. Position cable hook stopper at approx. 3/4 of the total line distance towards the hook while using your winch to help reduce whip back in the event of cable breakage.



General Tips for Safe Operation

Your A2000 winch is rated at 2,000 lbs. capacity in first layer (max) when spooling the first cable layer on the drum. Overloads can damage the winch, motor and/or cable.

The vehicle engine should be kept running during operation of the winch to minimize battery drain and maximize power and speed of the winch. If the winch is used for a considerable time with the engine off the battery may be drained and too weak to restart the engine.

Get to know your winch before you actually need to use it. We recommend that you set up a few test runs to familiarize yourself with rigging techniques, the sounds your winch makes under various loads, the way the cable spools on the drum, etc.

Inspect the cable and equipment before each use. A frayed or damaged cable should be replaced immediately. Use only manufacturer's identical replacement cable with the exact specifications.

Inspect the winch installation and bolts to ensure that all bolts are tight before each operation.

Store the remote control inside your vehicle in a place that it will not be damaged.

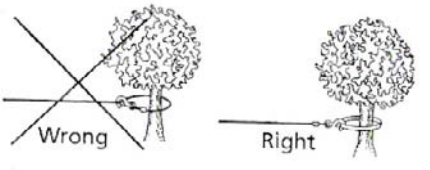
Any winch that appears to be damaged in any way, is found to be worn, or operates abnormally MUST BE REMOVED FROM SERVICE UNTIL REPAIRED. It is recommended that the necessary repairs be made by a manufacturer's authorized repair facility.

Pull only on areas of the vehicle as specified by the vehicle manufacturer.

Only attachments and/or adapters supplied by the manufacturer are to be used.

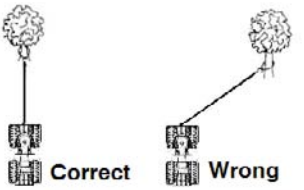
Self Recovery

Locate a suitable anchor such as a strong tree trunk or boulder. Always use a sling as an anchor point.

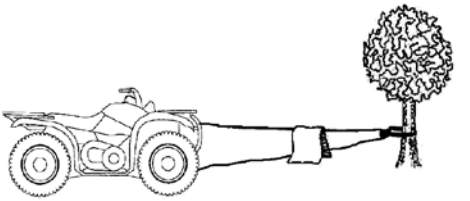


Your winch is equipped with a roller fairlead to help guide the cable and to reduce binding on short side pulls.

Do not winch from an acute angle as the cable will pile up on one side of the drum causing damage to cable and the winch.



Short pulls from an angle can be used to straighten the vehicle. Long pulls should be done with the cable straight out from the winch/vehicle.



When pulling a heavy load, place a cable hook stopper, blanket or jacket over the cable five or six feet from the hook.

In the event of a cable snap it will dampen the snap back. For additional protection open the hood of the vehicle.

Winching Techniques

1. Take time to assess your situation and plan your pull.
2. Put on gloves to protect your hands.
3. Release the clutch and free-spool the winch; it's faster than using the switch and saves battery power.
4. Attach the hook strap to the clevis hook.
5. Pull out the cable to your desired anchor point using the hook strap.
6. Secure the clevis hook to the anchor point: Sling, chain or snatch block. Do not attach the hook back onto the cable.
7. Engage the clutch.
8. Start your engine to ensure power is being replenished to the battery.
9. Power in the cable guiding the cable under tension to draw up the slack in the cable. Once the cable is under tension, stand clear. Never step over the cable.
10. Double check your anchors and make sure all connections are secure.
11. Inspect the cable. Make sure there are at least 5 wraps of cable around the winch drum.
12. Place a Cable Hook Stopper over the cable approximately 5 to 6 feet from the hook.
13. Clear the area. Make sure all spectators stand clear and that no one is directly in front or behind the vehicle or anchor point.
14. Begin winching. Be sure that the cable is winding evenly and tightly around the drum. The vehicle that is being winched can be slowly driven to add assistance to the winching process. Avoid shock loads; keep the cable under tension.
15. The vehicle to be winched should be placed in neutral and the parking brake released. Only release the loads to the winch. This can damage the winch, cable and vehicle.
16. The winch is meant for intermittent use. Under full load with a single line rig do not power in for more than a minute without letting the motor cool down for a few minutes and then resume the winching operation.
17. The winching operation is complete once the vehicle is on stable ground and is able to drive under its own power.
18. Secure the vehicle. Be sure to set the brakes and place the vehicle in park.
19. Release the tension on the cable. The winch is not meant to hold the vehicle for long periods of time.
20. Disconnect the cable from the anchor.
21. Rewind the cable. Make sure that any cable already on the drum has spooled tightly and neatly. If not, draw out the cable and re-spool from the point where the cable is tight.
22. Keep your hands clear of the winch drum and fairlead as the cable is being drawn in.
23. Secure the hook and hook strap.
24. Disconnect the remote control and store in a clean, dry place.
25. Clean and inspect connections and mounting hardware for next winching operation.
26. Never use the winch as a tie down.
27. Use brake pedal when under full tension.

Snow Plow Usage

Winches are commonly used to lift a Snow Plow System, but precautions and correct usage are required to prevent costly damage.

NOTICE Follow these precautions before using your Winch to lift a Plow. Failure to do so may result in damage to your winch or vehicle frame.

1. Stop the plow before full lift height - failure to do so will cause the winch to pull against itself (i.e. “bottom out”) and will cause damage to the winch components, your plow frame and your vehicle frame.

NOTICE Winch damage such as stripped gears, broken housings and bent or damaged parts caused by exceeding your plow’s lift height are not covered under warranty.

2. Do not continue to hold the Spool In button to power the winch while reversing your vehicle or other instances where the operator may become distracted while plowing.

MAINTENANCE

The owner/operator is responsible for all periodic maintenance.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the winch.

WARNING Never operate a damaged or defective winch.

WARNING Improper maintenance will void your warranty.

NOTICE For service or parts assistance, contact our help line at 1-877-346-2050.

Motor

Periodically when not used very often, or after wet / damp conditions. Be sure to run the motor in free spool until the motor is warm. This helps dry out any moisture and condensation trapped inside the housing.

Lubrication

All moving parts within the Electric Winch have been Lubricated using high temperature lithium grease at the factory. No internal lubrication is required under normal conditions.

If the winch is subjected to extreme conditions lubrication may be required using a high temperature lithium grease. Retract Cable Assembly onto drum being careful not to allow kinking or over heating of the winch.

Cable Assembly Replacement

It is recommended that any modifications be performed by a manufacturer’s authorized repair facility, and that only manufacturer-supplied parts be used

1. Rotate the clutch cap to the “Release” position.
2. Extend Cable Assembly to its full length. Note how the existing cable is connected to the inside of the drum.
3. Remove old Cable Assembly and attach new one.
4. Rotate the clutch cap to the “Engage” position.

NOTICE Inspect cable before and after each use. If cable becomes frayed it must be replaced.

SPECIFICATIONS

Performance:

Rated Pull ..... 2,000 lb (907 kg)

Gear Reduction Ratio 171:1

Motor..... Permanent Magnet, 1.00 HP (DC 12V)

Drum Size..... 1.50 x 3.15 in. (38 x 80 mm)

Cable Dimensions ..... 5/32 in. x 49 ft. (4mm x 14.9m)

Gross Weight ..... 24.3 lb. (11 kg)

Mounting Bolt Pattern.....
4.88 in. x 3.00 in. (12.4 cm x 7.6 cm)

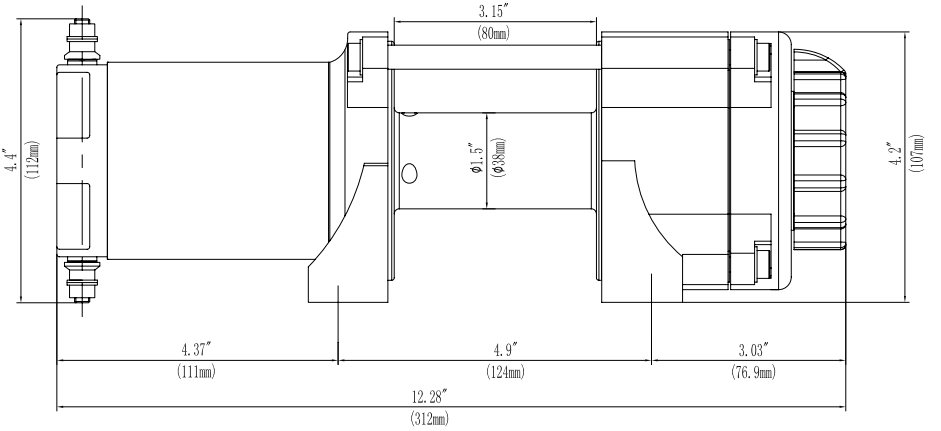
Overall Dimensions .....
12.28 in. (L) x 4.06 in. (W) x 4.21 in. (H)
(31.2 cm x 10.3 cm x 10.7 cm)

Line Speed and Motor Current (First Layer)						
Line Pull	LB	0	500	1000	1500	2000
	KG	0	227	454	680	907
Line Speed (12 VDC)	FPM	9.84	8.20	6.65	5.58	4.27
	MPM	3.0	2.5	2.0	1.7	1.3
Max Current	A	15	40	65	100	140
Run Time *	Minutes	1	1	1	1	1
Cooling Time **	Minutes	5	5	5	5	5

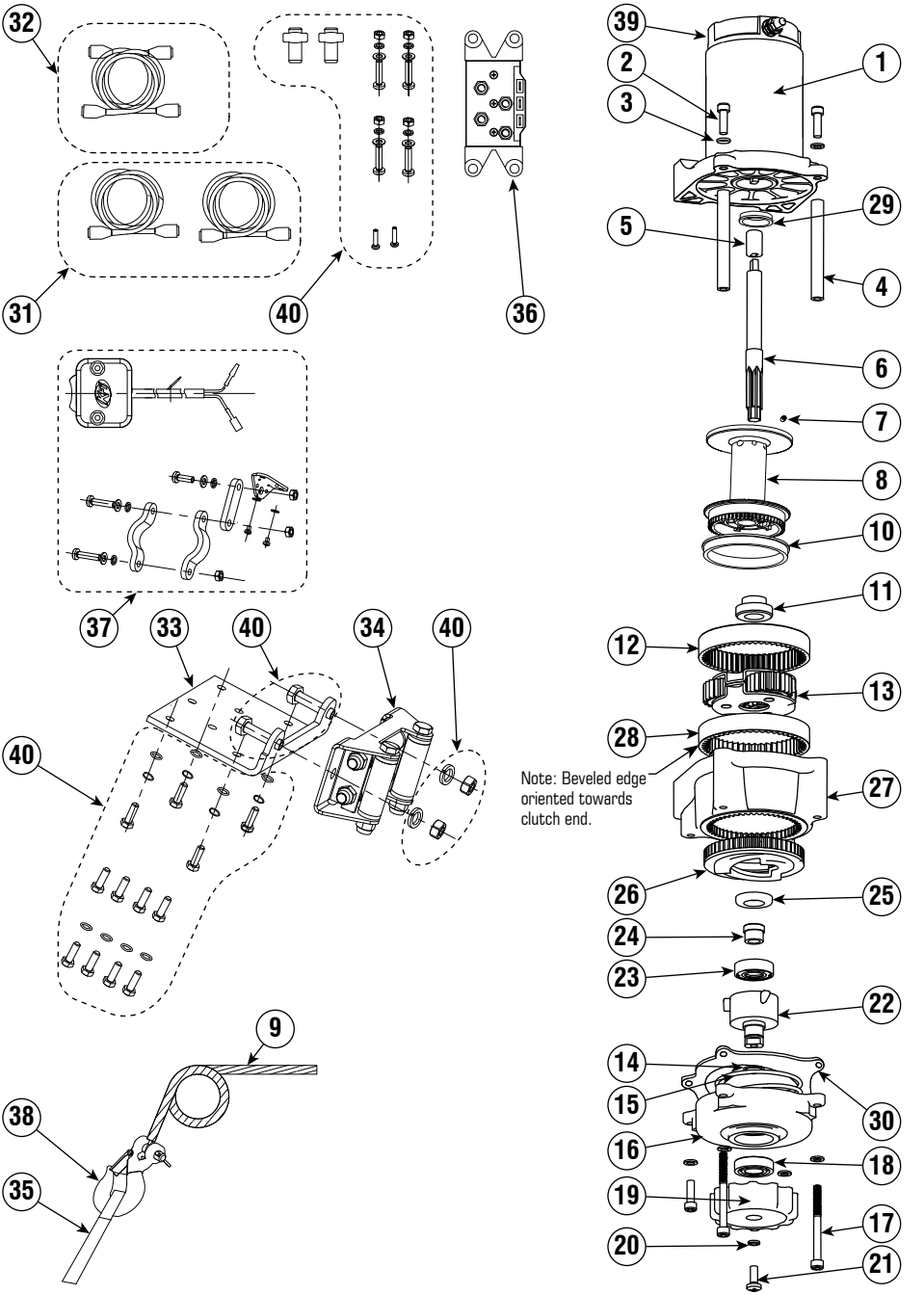
** If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for 5 minutes. Do not pull for more than one minute at or near the rated load.*

*** Electric winches are designed and made for intermittent use and should not be used in constant duty applications.*

Line Pull and Cable Capacity Per Layer						
Layers of Cable on Drum		1	2	3	4	5
Rated Line Pull	LB	2000	1630	1380	1190	1050
	KG	907	739	626	540	476
Cable Capacity	FT	8	17	27.6	39.4	49
	M	2.4	5.2	8.4	12	15



Parts Diagram



Parts List

#	Part Number	Description	Qty
1	MOTOR-20-BL	Motor Assembly	1
2	HW-0002	Screw M6 x 20 Socket	4
3	HW-0003	Washer Ø6	6
4	WP-0005	Tie Bar Ø10 x 85	2
5	WP-0006	Bushing, Shaft	1
6	WP-0007	Shaft, Splined	1
7	WP-0008	Set Screw M5 x 8	1
8	WP-0003	Drum, Aluminum, Standard	1
9	ATV-CBL-2K	Cable, Steel, 5/32" x 49'	1
10	WP-0009	Bushing, Drum, Rear	1
11	WP-0010	Washer, Thrust, Front	1
12	WP-0011	Gear Ring, Output	1
13	WP-0012	Gear Carrier Asm	1
14	HW-0004	Circlip Ø15	1
15	WP-0013	Spring, Clutch	1
16	WP-0014	Clutch Housing Cover	1
17	HW-0005	Screw M6 x 70 Socket	2
18	WP-0015	Bearing 16002 Sealed	1
19	WP-0001	Clutch Cap	1
20	HW-0006	Washer Ø6 Lock	1
21	HW-0007	Screw M6 x 16 Phillips	1
22	WP-0016	Bushing, Axis Support	1
23	WP-0017	Bearing 6002 Sealed	1
24	WP-0018	Bushing, Clutch	1
25	WP-0019	Washer, Above Clutch	1
26	WP-0020	Cam, Clutch Gear	1
27	WP-0021	Gear Housing	1
28	WP-0022	Gear Ring	1
29	WP-0023	Bushing, Motor	1
30	WP-0024	Gasket	1
31	SE-WIRES-ATV-WIN	Wiring, Winch, ATV	1
31.1	WP-0092	Terminal Protector	4
32	SE-WIRES-ATV-BAT	Wiring, Battery, ATV	1
32.1	WP-0092	Terminal Protector	4
33	100495	Bracket, Fairlead, Standard	1
34	ATV-RF	Roller Fairlead	1
35	WP-0030-BLU	Hand Saver Strap, Blue	1
36	ATV-CONT	Contactor	1
37	ATV-MR	Switch, Mini-Rocker	1
38	SE-HOOK	Clevis Hook, 1/4"	1

#	Part Number	Description	Qty
39	SE-A-CAPKIT	Motor End Cap Assembly	1
40	HK-500	Hardware Kit, Black	1
40.01	HW-0001	Wire Tap	2
40.02	HW-0014-B	Nut M6 Nylock	4
40.03	HW-0006-B	Washer Ø6 Lock	4
40.04	HW-0003-B	Washer Ø6	4
40.05	HW-0013-B	Bolt M6 x 25	4
40.06	HW-0015-B	Bolt M6 x 20	2
40.07	HW-0010-B	Bolt M10 x 20	2
40.08	HW-0011-B	Washer Ø10 Lock	2
40.09	HW-0012-B	Nut M10 Nylock	2
40.10	HW-0016-B	Washer Ø8	8
40.11	HW-0009-B	Washer Ø8 Lock	4
40.12	HW-0008-B	Bolt M8 x 25	4
40.13	HW-0018-B	Bolt M8 x 20	4
40.14	HW-0017-B	Bolt M8 x 30	4

TROUBLESHOOTING

Problem	Cause	Solution
Motor does not run, Contactor makes a click sound.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Incorrect Wiring	Hand Remote / Mini Rocker Switch wires must be connected green to green and black to black.
	Loose battery cable connections	Hand tighten nuts on all cable connections.
	Motor Issue	Contact KFI Technical Support
	Water has entered motor	Allow to drain and dry. Run in short burst with load until completely dry.
	Brake Spring installed backwards	Contact KFI Technical Support.
Motor does not run, NO click sound from Contactor.	Incorrect Wiring	Check Winch Wiring Diagram, make sure all wires are correctly connected.
	Switch Ignition Wire	Check connection to an ignition fed source. Must supply 12V with the key on and vehicle running.
	Contactor malfunctioning	Contact KFI Technical Support.
	Switch malfunctioning	Contact KFI Technical Support.
Motor runs, Spool turns in one direction only.	Incorrect Wiring	Check wiring diagram, verify switch wires (black/green) are properly connected and making good contact.
	Defective or stuck Contactor	Tap contactor to loosen plungers.
	Defective Switch assembly	Replace Switch assembly.
	Contactor malfunctioning	Contact KFI Technical Support.
Motor runs, Spool does NOT turn.	Clutch not engaged	Rotate Clutch Cap to Engage.
	Broken Coupler / stripped Shaft	Replace Coupler or Shaft
Spool turns, but no movement from Cable	Cable not attached to Spool	Contact KFI Technical Support.
Motor runs slowly or without normal power.	Insufficient current or voltage.	The battery is weak, recharge. Run winch with vehicle motor running (battery should have a strong charge).
	Loose or corroded battery cable connections	Clean, tighten, or replace.
	Worn Brushes	Replace with End-Cap Kit (#SE-A-CAPKIT) Contact KFI Technical Support.
Motor overheating	Winch running time too long	Allow winch to cool down periodically.

For further support, contact:

KFI Tech Support

Mon-Thr 8:00 AM - 5:00 PM (CST/CDT)
Fri 7:00 AM - 1:00PM (CST/CDT)
Toll Free: 1-877-346-2050
tech@kfiproducts.com

KFI Products Website Support:

Common installation, maintenance, and troubleshooting guides are available on our website.

https://www.kfiproducts.com/support.html

WARRANTY

KAPPERS FABRICATING, INC.
1 YEAR LIMITED LIFETIME WARRANTY

Warranty Qualifications

Kappers Fabricating Inc. (KFI) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of KFI's resale locations as proof of purchase. Please submit your warranty registration and your proof of purchase within Fifteen (15) days of the date of purchase.

Repair/Replacement Warranty

KFI warrants to the original purchaser that mechanical components will be free of defects in material and workmanship for the usable lifetime of the product (90 days for commercial use); and electrical components will be free of defects in material and workmanship for (1) year (90 days for commercial use); from the original date of purchase. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact KFI's Technical Service and KFI will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, KFI will, at its option, authorize evaluation, repair or replacement of the defective part or component at a KFI Service Center. KFI will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Winches need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this winch is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the winch's limits, modified, installed improperly or wired incorrectly to any electrical component. Normal maintenance is not covered by this warranty.

Other Exclusions

- The winch cable or synthetic cable.
- Cosmetic defects such as paint, decals, etc.
- Accessory parts such as storage covers.
- Misuse, abuse, neglect, acts of God, terrorism and causes beyond the control of KFI.
- Problems caused by parts that are not original Kappers Fabricating Inc. parts.
- Cable Stacking and Water Submersion or Damage Caused by Water.

Warranty Procedure

1. Contact KFI Technical support to acquire a Return Authorization (RA) number.
2. KFI may request additional materials (such as original sales receipt, date of purchase, technical details, or photos of Product condition) prior to issuing an RA number.
3. At the discretion of KFI, Buyer shall mail, ship, or otherwise deliver to KFI the Warrantied Product, at the address noted below.

Limits of Implied Warranty and Consequential Damage

Kappers Fabricating Inc. disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this winch. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

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KFI PRODUCTS
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CORPORATE OFFICE:

KAPPERS FABRICATING, INC.
P.O. BOX 32
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SPRING VALLEY, MN 55975
USA

CE

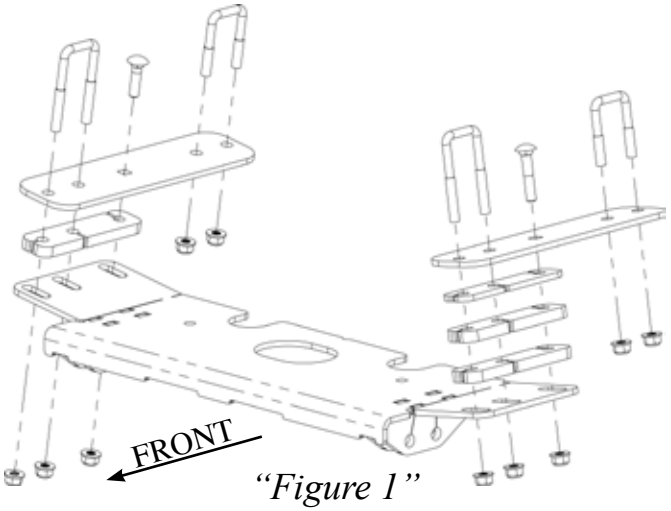
MADE IN CHINA

Polaris Sportsman, ATP & Magnum

Plow Mount PART # 106020 - REV A.1
Hardware Kit: HK-114

Kit Components:
Qty. Part Description

1..... Plow Mount Plate
2..... Mount Plate Support Bracket
3..... 3/8” Mount Plate Spacer
1..... 3/16” Mount Plate Spacer
2..... 5/16”-18 X 1 1/8” X 1 11/16” SQ U-Bolt
2..... 5/16”-18 X 1 1/8” X 2” SQ U-Bolt
2..... 5/16”-18 X 1 1/8” X 2 3/4” SQ U-Bolt
1..... 5/16-18 x 1 3/4 Carriage Bolt
1..... 5/16-18 x 1 1/4 Carriage Bolt
10..... 5/16-18 Hex Flanged Lock Nut



“Figure 1”

INSTALLATION INSTRUCTIONS:

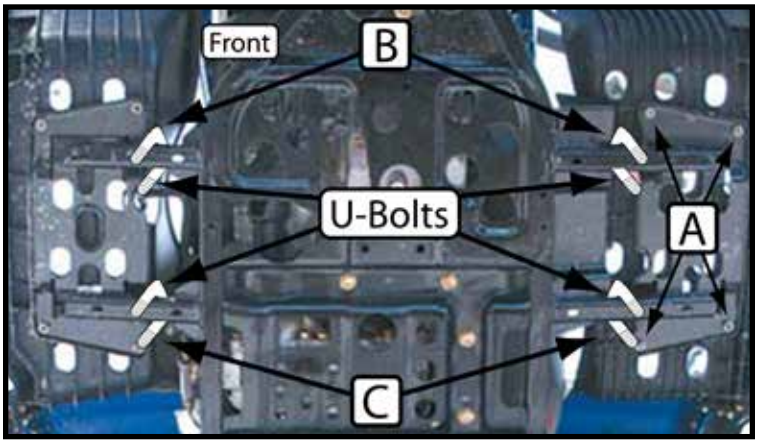
1. Remove 4 bolts (A) on drivers side foot rest only. See Figure 2.
2. Place u-bolts on machine frame as shown in Figure 2. Place long u-bolts (B) towards the front of the machine and short u-bolts (C) towards the back as shown in Figure 2.
3. Install mount plate support brackets (D,E) Figure 3&4, with carriage bolts installed, to rear u-bolts using 5/16” flanged lock nuts. Tighten down nuts so plates are still adjustable. **1 3/4” Carriage Bolt goes on drivers side (Figure 4,F) and 1 1/4” Carriage Bolt goes on passenger side (Figure 4,G).**
4. See page 2 for mount plate spacer installation per machine.

Note: These are only suggestions if a different combination works better on your machine feel free to use it.

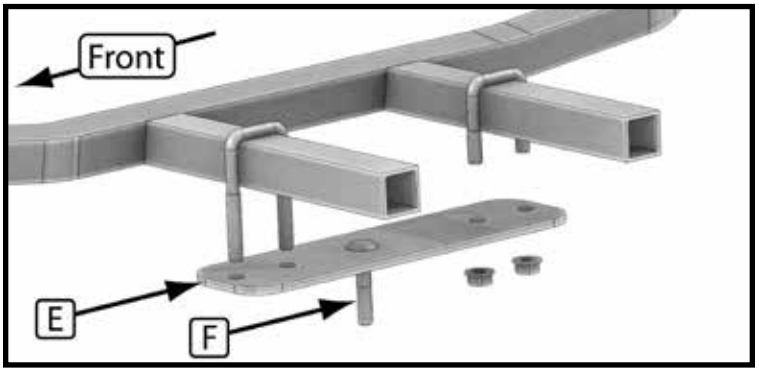
5. Install mount plate loosely to frame using the u-bolts, carriage bolts and 5/16” flanged lock nuts.
6. Adjust plate to be centered on machine.

Note: The oil plug of the machine will align with the hole in the plate on some models, but not all.

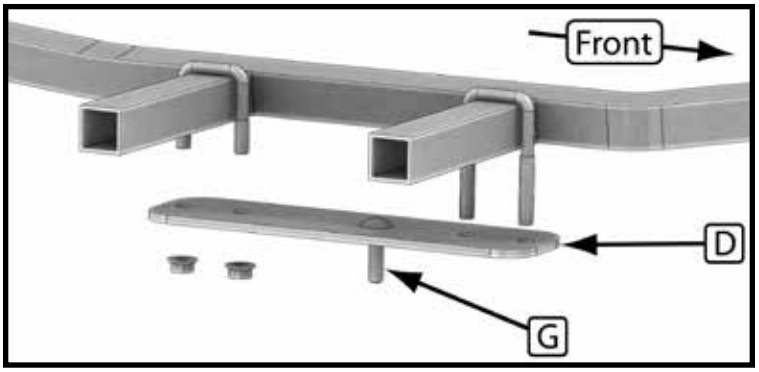
7. Tighten down all nuts. Replace 4 driver side foot rest bolts. (Make sure u-bolt ends are even.)
8. See ATV Plow Tube System instruction manual for tube attachment.



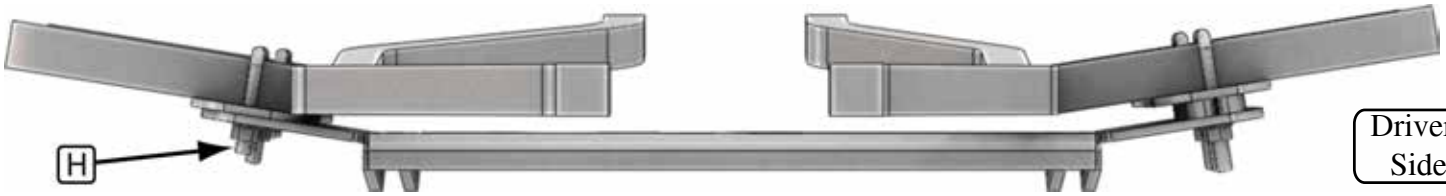
“Figure 2” Front of UTV



“Figure 3” Drivers Side

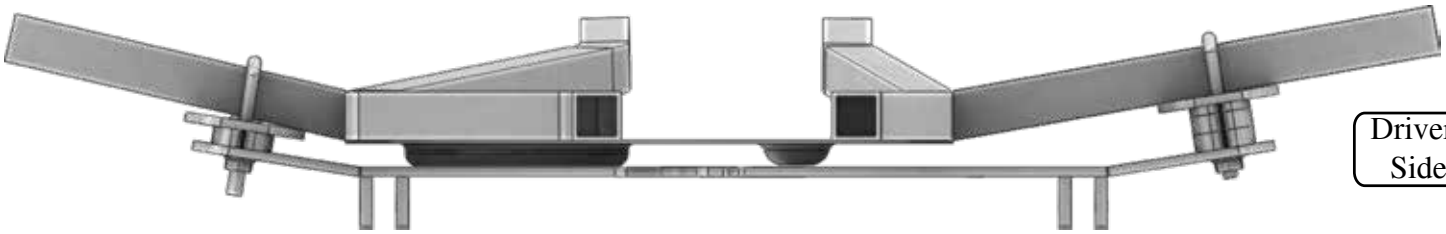


“Figure 4” Passengers Side



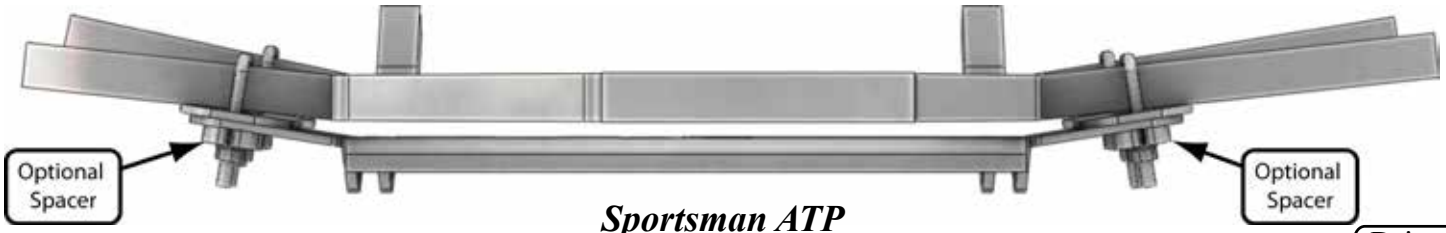
Sportsman 600-800

All Sportsman 600 to 800 ATV's will use one thick spacer on the drivers side of the vehicle. The 2" U-Bolt (H) will be used on the passenger side. After selection of spacers continue with steps 5-7 on page 1.



Sportsman 450-500, Magnum 330 (Generation 4)

The Sportsman 400-500 will use all of the spacers included. On the passengers side it will use one thick spacer and on the drivers side it will use two thick spacers and one thin spacer. After selection of spacers continue with steps 5-7 on page 1.



Sportsman ATP

The Sportsman ATP will not use any spacers on either side of the vehicle. Two optional thick spacers can be used between the mount and nuts to shorten up the ends of the u-bolts. After selection of spacers continue with steps 5-7 on page 1.

Sportsman 500 H.O.

The Sportsman 500 H.O. will use all of the spacers included. On the passengers side it will use one thick spacer, one thin spacer and on the drivers side it will use two thick spacers. After selection of spacers continue with steps 5-7 on page 1.

Sportsman ETX/570

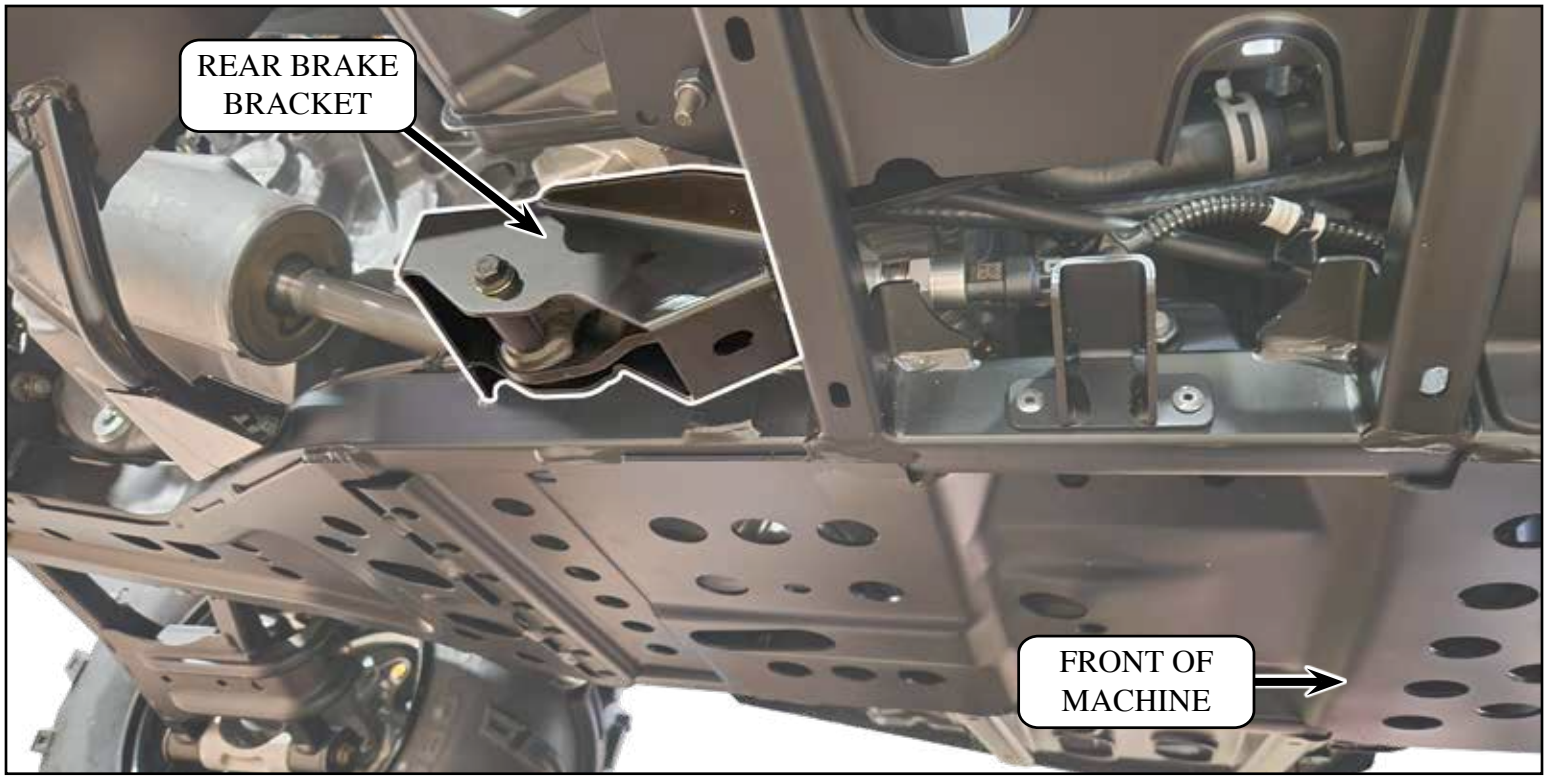
The Sportsman ETX and 570 will use one thick spacers on both sides of the vehicle. After selection of spacers continue with steps 5-7 on page 1.

Note:

If preferred, after full installation of mount plate and tightening of nuts, u-bolt ends may be cut down.

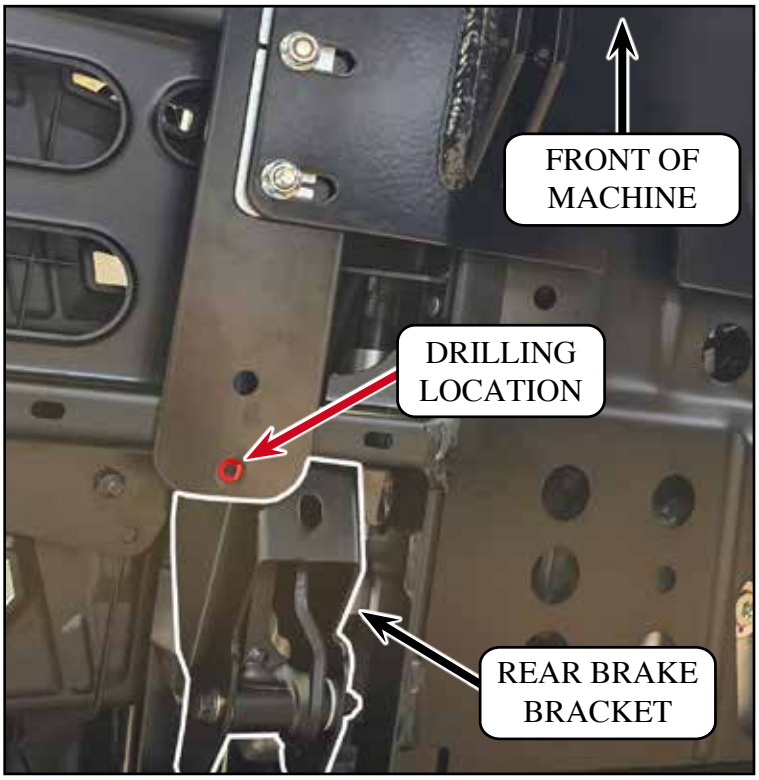
SPORTMANS WITH NEWER STYLE REAR BRAKE BRACKET

1. For machines where the rear brake bracket interferes with installation of the passenger side rear U bolt, a hole must be drilled through the corner of the brake bracket at the U bolt location. See Figure 5.

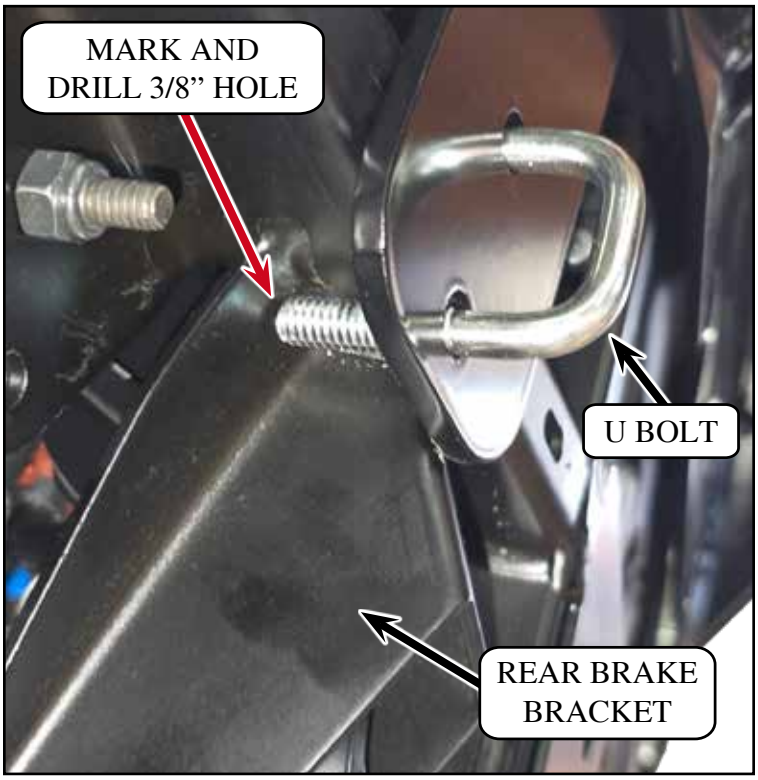


"Figure 5" Rear Brake Bracket

2. Install the plow mount using all hardware except the passenger side rear U bolt. See Figure 6. Insert the U bolt through the plow mount to locate where it contacts the brake bracket. Mark this location and drill a 3/8" hole through the corner of the bracket, using the plow mount as a guide. See Figure 7. Once the hole is drilled, install the passenger side rear U bolt as normal and secure all hardware



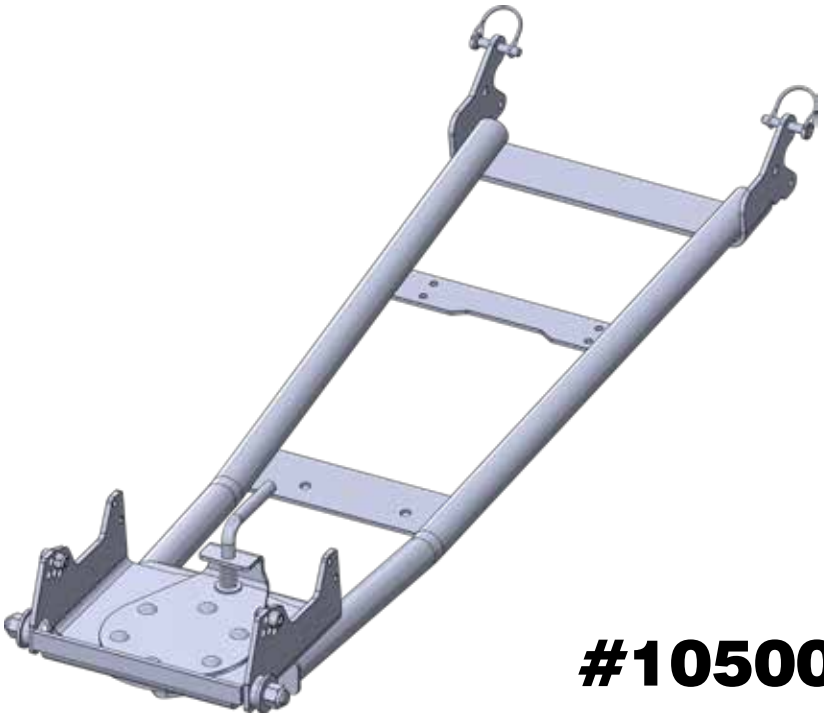
"Figure 6" Drilling Location



"Figure 7" Rear Brake Bracket - Drilling

KFI PLOW

Instruction Manual



#105000 ATV Plow Tube System

Rev-G 10/15/2021

TWO YEAR LIMITED WARRANTY

Manual Conventions

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning a plow.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

If you have questions regarding your plow, we can help. Please call our help line at 1-877-346-2050.

To help you make informed decisions regarding safety, we have included instructions and information on labels. This information is provided with the intent to help avoid potential hazards that may harm you or others. It is, in no way, possible for us to inform you of every hazard you may come across with this product.

Safety Rules

⚠ WARNING

- Read this manual thoroughly before operating your plow. Failure to follow instructions could result in serious injury or death.
- Do not exceed 5 mph, even with blade raised.
- Make sure that all nuts and bolts are tightened per installation instructions.
- Never operate this Open Trail product with missing or damaged parts.
- Drive slowly over bumpy and rough terrain, driving fast could cause damage to winch (if applicable) or plow.
- Never raise the plow above point of contact as it could cause damage to machine or winch (if applicable).
- Always perform regular inspections and maintenance on plow tubes and hardware before use.
- Operate with extreme caution on slopes, steep grades, and rough terrain.
- Be aware of any possible hidden objects under the snow.
- Do not ram the blade into the pile.

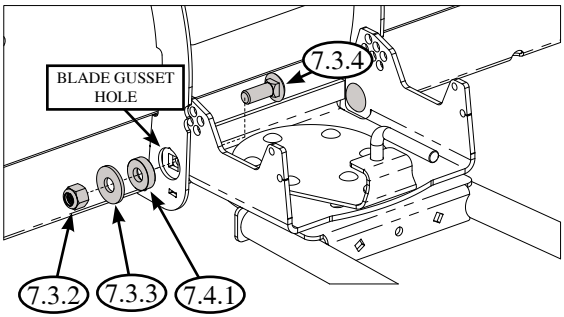
⚠ CAUTION

- Take care when installing PLOW SPRINGS as they will be under tension.
- Use care when lifting components into place.

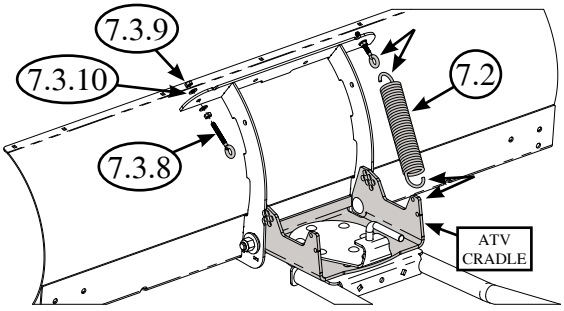
⚠ DANGER

Never stand or ride on the plow.

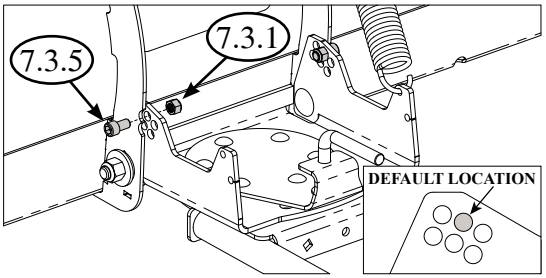
Installation Instructions



"Figure 1" Pivot Bolt Assembly



"Figure 2" Spring Assembly



"Figure 3" Pitch Adjustment Bolt
(Spring not shown for clarity.)

1. To secure the blade to the tube system, place the pitch bushing (Item 7.4.1) into the blade gusset hole. Secure the tube system and the blade together with carriage bolt (7.3.4), washer (7.3.3) and lock nut (7.3.2), as shown in Figure 1. Repeat on other side.

2. Insert the plow springs (Item 7.2) into the top smaller rear holes in the ATV cradle, as shown in Figure 2. Place the eyebolts (Item 7.3.8) onto the end of the plow springs and secure the eyebolts onto the plow blade gusset, as shown in Figure 2 using Items 7.3.9 and 7.3.10. Leave spring tension loose as you will decide tension in Step 5.

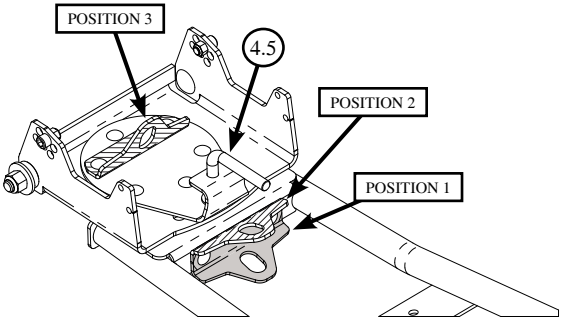
3. Assemble on machine and decide desired pitch of blade. (Blade pitch controls the angle of which the blade contacts the ground.) Each hole is 5 degrees of blade pitch adjustment.

   Note: Figure 3 shows the default position. Recommened for proper blade level.

4. With springs installed pitch blade under tension and install socket head cap screw (7.3.5) and lock nut (7.3.1) into desired pitch position hole.

5. Tighten nuts down on eye bolt until desired spring tension is reached.

   Note: For each 1/4" that the nut is tightened it will add 12 lbs of spring tension.



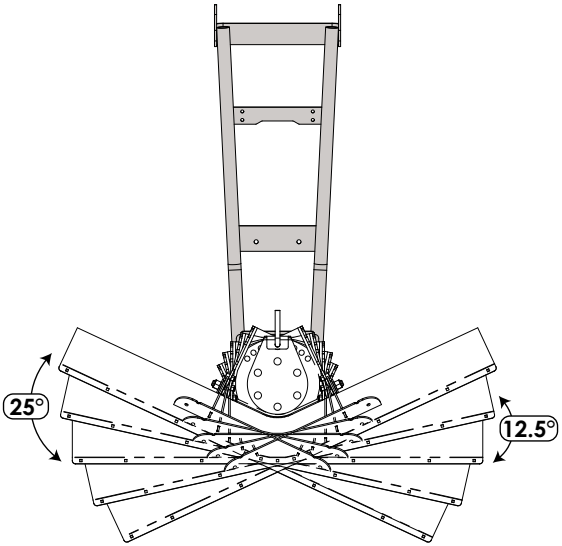
"Figure 4" Lift Hook Attachment Positions

6. Intsall lift hook bracket. The tube system has 3 positions for the lift hook bracket. Choose best postion for desired lift height and cable/rope angle.

   Position 1 is the default position allowing more clearance between winch and bracket

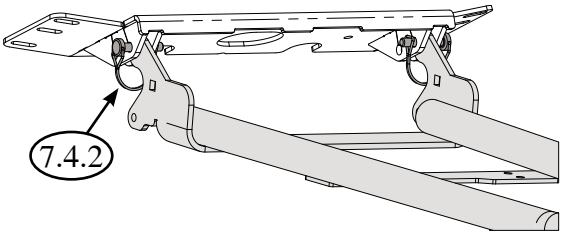
   Position 2 uses the same bolt holes, but in this case the bracket is flipped over.

   Position 3 is used for machines where the cable is at a severe angle, such as upper mounted winches. This position will require longer bolts to be installed.



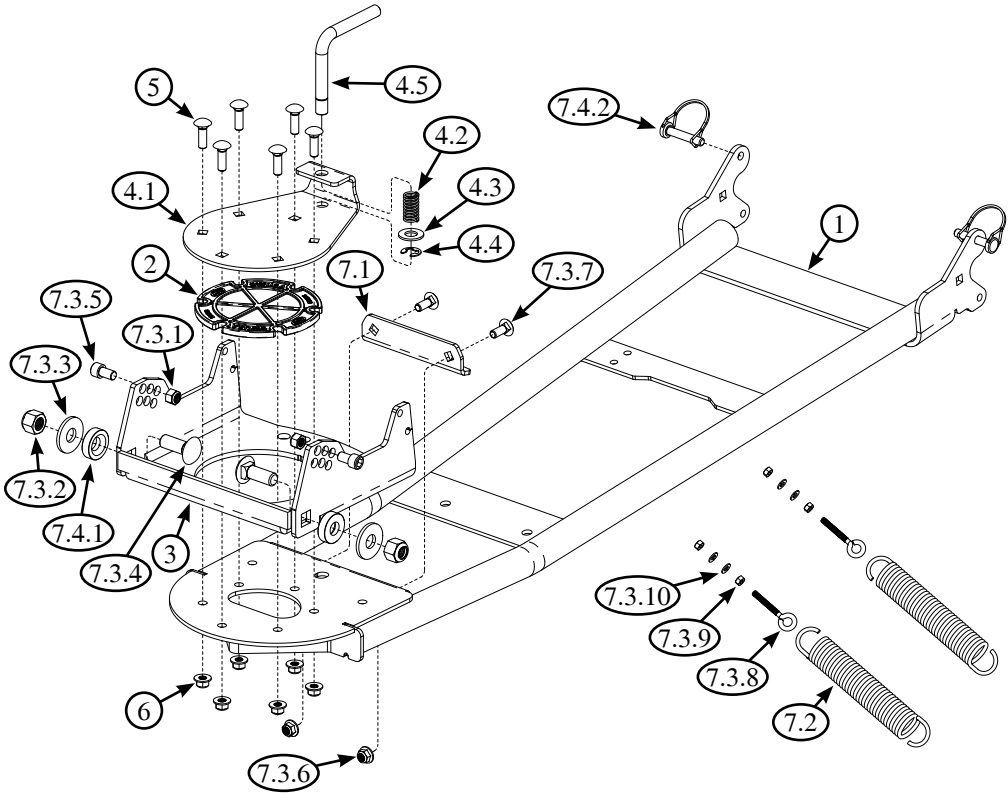
"Figure 5" Blade Rotation Angle

7. The tube system has five positions of rotation for your blade (Figure 5). Each adjustment is at 12.5 degree increments. In order to make each adjustment you will need to pull on the Pull Pin (Figure 4, Item 4.5) and rotate your blade left or right until you reach the desired angle.



"Figure 6" Tube System Attachment

8. To attach the tube system to any KFI mounts, position the tube system with blade installed under your ATV. Raise tube attach points to the mount and line up the holes on mount plate with the holes in the tube system. Insert Safety Pin (Item 7.4.2) through holes and secure on other side with clips as shown in Figure 6.



Part # - 105000
Parts List

ITEM	PART#	DESCRIPTION	QTY.
1	105019	LIFT ARM WELDMENT	1
2	106218	PIVOT BUSHING RING	1
3	105016	ATV CRADLE	1
4	105139	LIFT LOCK LATCH ASSY	1
4.1	105025	LIFT LOCK PLATE	1
4.2	P800267	COMPRESSION SPRING	1
4.3	P890007	1/2" FLAT WASHER SAE	1
4.4	P800268	EXTERNAL RETAINING RING	1
4.5	105026	PULL PIN	1
5	P890000	3/8"-16 X 1-1/4" CARRIAGE BOLT GR5 ZINC	6
6	P890015	3/8"-16 HEX FLANGE LOCK NUT	6
7	105150	KIT - ATV PUSH TUBE PARTS	1
7.1	105138	LIFT HOOK BRACKET	1
7.2	P800304	PLOW SPRINGS	2

ITEM	PART#	DESCRIPTION	QTY.
7.3/7.4	HK-399	INCLUDES ITEMS 7.3 AND 7.4	1
7.3	HK-365	PUSH TUBE HARDWARE	1
7.3.1	HNN-5Z-044-14	7/16"-14 NYLOCK NUT	2
7.3.2	HNN-5Z-063-11	5/8"-11 NYLOCK NUT	2
7.3.3	FW-USS-Z-063	5/8" USS FLAT WASHER	2
7.3.4	CB-5Z-063-11-175	5/8"-11 X 1 3/4" CARRIAGE BOLT	2
7.3.5	SHS-Z-044-14-075	7/16"-14 X 3/4" HEX S.H.C. SCREW	2
7.3.6	HNFN-5Z-038-16	3/8"-16 HEX FLANGE LOCK NUT	2
7.3.7	CB-5Z-038-16-150	3/8"-16 X 1 1/2" CARRIAGE BOLT GR5 ZINC	2
7.3.8	P800249	5/16"-18 X 9/16" X 3 3/8" EYEBOLT	2
7.3.9	HN-5Z-031-18	5/16"-18 HEX NUT	4
7.3.10	FW-SAE-Z-031	5/16" FLAT WASHER, SAE	4
7.4	105209	KIT - UTV BUSHINGS/PINS	1
7.4.1	105214	PITCH BUSHING	2
7.4.2	P800250	SAFETY PIN	2

2 Year Limited Warranty

Kappers Fabricating, Inc. (KFI) warrants to the original purchaser that the product is free from defects in materials and workmanship for a period of two (2) years from the original date of purchase. We will repair or replace, at our discretion, parts found to be defective due to materials or workmanship. This warranty is subject to the following limitations and exclusions:

Commercial Use: The warranty period for any product used for commercial or rental is limited to ninety (90) days from the date of original purchase.

Limitations: This warranty applies only to products which have been properly assembled, adjusted, and operated in accordance with the instructions contained within this manual. This warranty does not apply to any product of Kappers Fabricating, Inc. that has been subject to alteration, misuse, abuse, improper assembly or installation, or shipping damage.

Exclusions: Excluded from this warranty are normal wear, normal adjustments, and normal maintenance.

THIS WARRANTY DOES NOT APPLY TO ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR ALL EXPRESSED WARRANTIES.

THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

In the event you have a claim under this warranty, contact KFI's Technical Service and KFI will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, KFI will, at its option, authorize evaluation, repair or replacement of the defective part or component at a KFI Service Center. KFI will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

All transportation charges, damage, or loss incurred during transportation of parts submitted for replacement or repair under this warranty shall be borne by the purchaser. Should you have any questions concerning this warranty, please contact us toll-free at 1-877-346-2050. The model number, serial number (If applicable), date of purchase, and the name of the authorized KFI dealer from whom you purchased the product will be needed before any warranty claim can be processed.

For warranty inquiries outside the U.S.A. and Canada, contact your local dealer/distributor.

For countries not covered by a local dealer/distributor, please contact us at www.kfiproducts.com.

Product Registration

Please register your product with Kappers Fabricating, Inc. (KFI) within fifteen (15) days of purchase to assist us in handling any warranty issues that may arise by filling out this Registration card and submitting it with a copy of your sales receipt from one of KFI's official resellers. Failure to complete and return this Registration card does not diminish your warranty rights.
Please refer to the above section for complete terms of this warranty.

WARRANTY IS NON-TRANSFERABLE

Please Print Clearly

Fill out and send this section to:
Kappers Fabricating, Inc.
Warranty Registration Department
1015 Industrial Drive, PO Box 32
Spring Valley, MN 55975, U.S.A.

Model #_____

Name_____

Street Address_____

City_____ State_____ Zip Code_____

Phone_____ Fax_____ Email_____

Date of Purchase_____ Authorized KFI Dealer Name_____

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