

# BRUTUS 6000 WINCH KIT

## KIT P/N 2879688



# POLARIS®

Application

### POLARIS BRUTUS

Before you begin, read these instructions twice and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

#### This Kit Includes:

<u>Qty</u>	<u>Part Description</u>	<u>Part Number</u>
1	Winch-POLARIS, 6.0	2204856
1	Hook-Latch, Winch	2411836
1	Auto Stop Fairlead	2879148
1	Contactora	4013465
1	Remote-Switch, Winch	4013466
1	Rope, Synthetic	2879188
1	Cable-Winch, Yellow 6 GA, 800 mm	4013468-800
1	Cable-Winch, Blue 6 GA, 800 mm	4013469-800
1	Cable-Power, Winch, Black 6 GA, 2200 mm	4013470-2200
1	Cable-Power, Winch, Red 6 GA, 2200 mm	4013471-2200
1	Socket-Winch Ring Terminal	4014228
1	Cable-Power, Black	4013470-250
1	Cable-Power, Red	4013471-250
1	Bracket-Winch Mount BRUTUS	1019831
<b>1</b>	<b>KIT-Winch Hardware, BRUTUS</b>	<b>2879172</b>
	<b>Qty Part Description</b>	
2	M5 x 20 mm Machine Screw	
2	M5 Flat Washer	
2	M5 Lock Nut	
4	M10 x 1.5 x 25 mm Flange Head Bolt	
4	M8 x 25 mm Bolt	
4	M8 Flat Washer	
2	M10 x 1.5 Lock Nut	
4	M8 Split Washer	
2	M10 x 30 mm Socket Head Cap Screw (silver)	
2	M10 Lock Nut	
10	10" Long Plastic Cable Ties (black)	
4	#10 x 25 mm Self Tapping Screw	
2	M5 x 0.8 Nut, Nylock or Standard	
2	M5 Washer (5.2 mm ID, 10 mm OD)	
1	Winching Guide	9923644
1	Instructions	9924751
	Internal Cam Service Kit (includes internal cam for freespool handle to connect winch to a replaceable handle, purchase handle separately)	2205497
	Service Handle (includes freespool handle and screw)	2205265

#### Tools Required:

Standard and Metric Socket Set  
Phillips Screwdriver

Standard and Metric Wrench Set  
1/16" Hole Saw or Drill

Drill and Drill Bit Set

**APPROXIMATE INSTALLATION TIME:** 60 minutes

**IMPORTANT:** Your Polaris Brutus winch is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris.

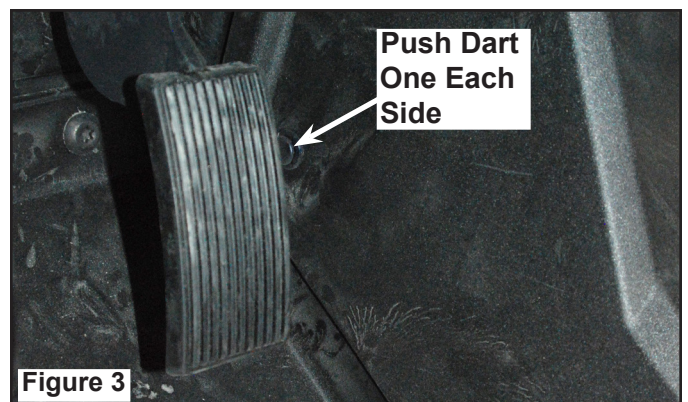
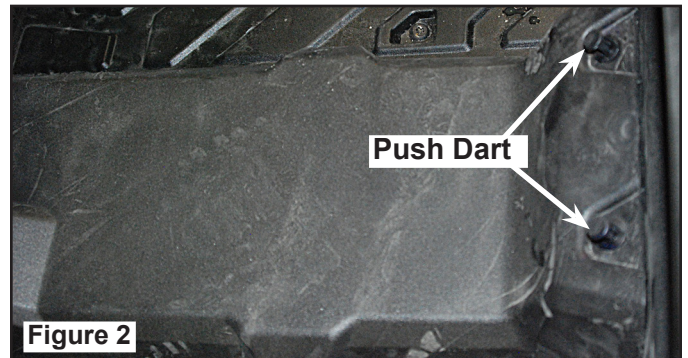
**IMPORTANT:** For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence as shown on the attached instructions.

**INSTALLATION INSTRUCTIONS:**

1. Turn key to "OFF" position and remove key from vehicle. Remove driver seat. Disconnect black negative cable from battery. Disconnect red positive cable from battery.
2. Remove hood from vehicle. Figure 1.



3. Remove four push darts fasteners from center floor section. One on each side by foot pedal. Figure 2 and Figure 3. Save fasteners for reinstallation. Remove center floor section.



4. Lift out seat and pullout tray on passenger side.  
Figure 4.

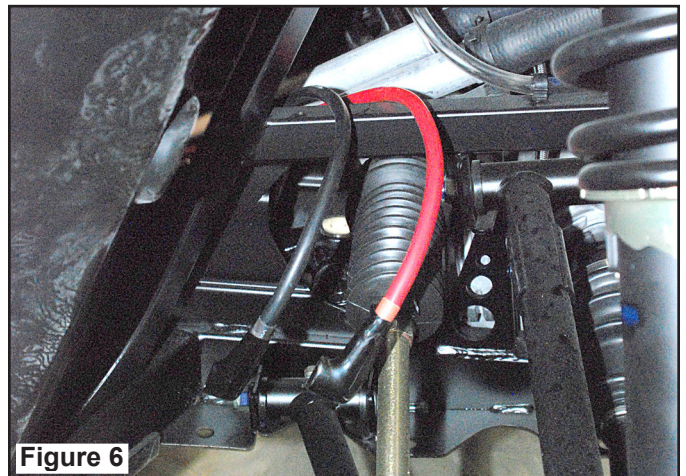


### CONTACTOR AND WIRING INSTALLATION:

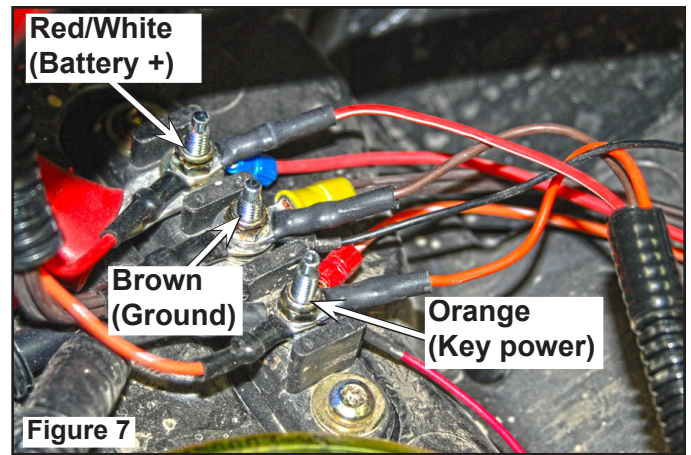
1. Install red and black power and ground cable by sliding under seat where center floor section was removed and route up to battery by following the main wire harness. DO NOT connect at this time.  
Figure 5.



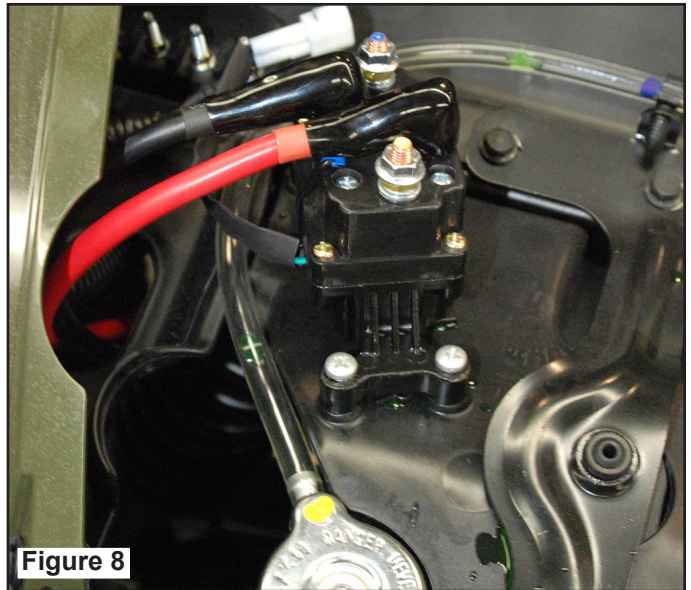
2. Slide the other end of cable through bulkhead. Follow main wire harness up and onto the splash tray.  
Figure 6.



3. Connect short (250 mm) red and black cables to the bus bar on the same posts as the wires previously connected. Reinstall nuts on bus bar. Connect wires to red and black terminals on contactor and lightly tighten. DO NOT OVER TIGHTEN. Slide the cable covers on. Figure 7.

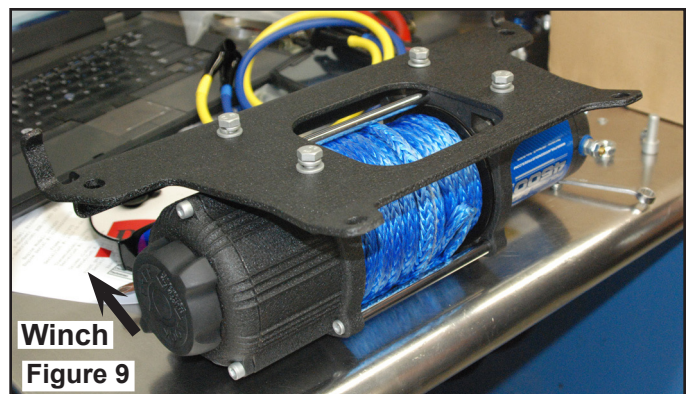


4. Install contactor with Phillips screws/screwdriver in the hood splash tray. Figure 8.
5. Connect red cable to red colored post on contactor and tighten with a 10 mm wrench. Connect the black cable to the black coded post and lightly tighten. Do Not Over Tighten. Slide the cable covers on. Figure 8.

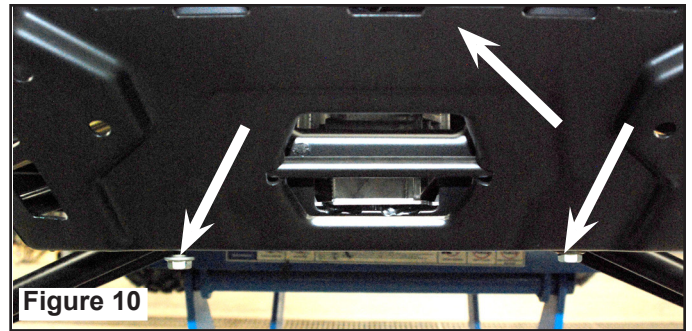


## WINCH INSTALLATION:

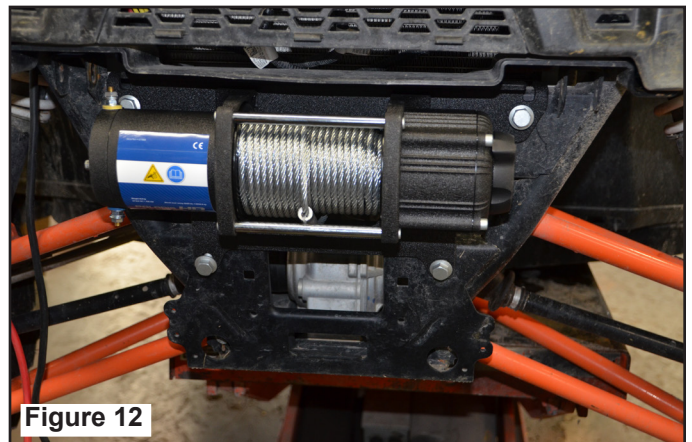
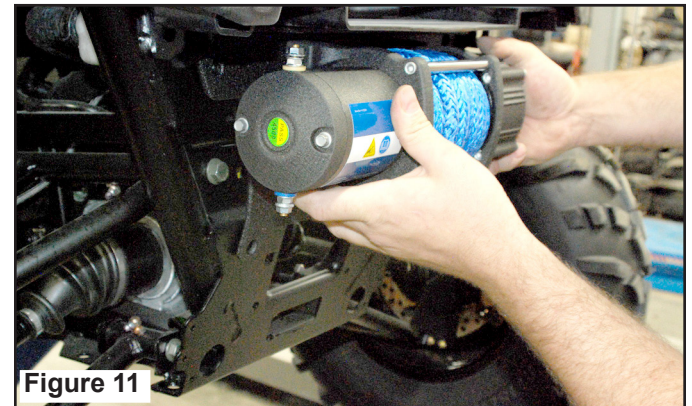
1. Install mount plate to winch with 1"bolts and lock washers. Finger tighten then tighten with a 13 mm socket. Figure 9.



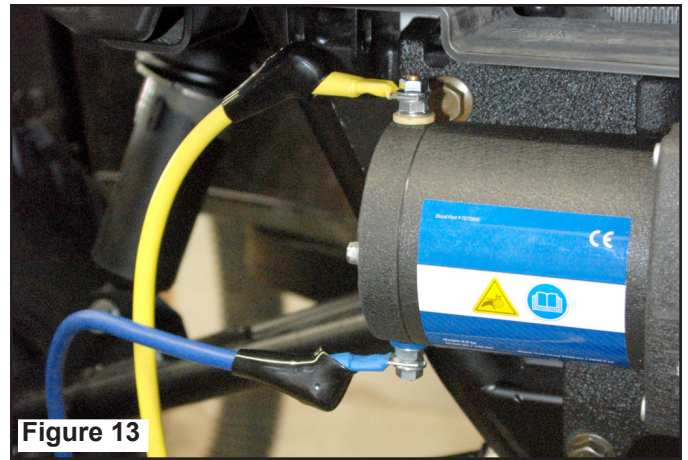
2. With a 15 mm wrench and socket remove the four bolts (two on top; two on bottom) that hold on the front bumper. Lift off front bumper. Retain hardware for reinstallation. Figure 10.



3. Line up holes in front of machine to mount winch.  
**IMPORTANT:** Nuts not required for top two bolts. Install four fasteners (1.5" nylock flange head bolts and nuts) with a 17 mm socket and 15 mm wrench. Torque to 25 ft. lbs. (33.8 Nm). Figure 11 and Figure 12.



4. Connect yellow and blue cables to the corresponding post on winch with a 10 mm wrench. Push cables up through the splash tray and to contactor. Figure 13.

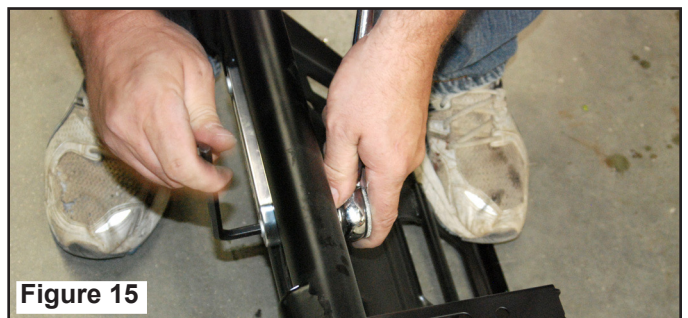


5. Install roller fairlead or auto stop fairlead if your vehicle is equipped (See Figure 14) to front bumper with two bolts. Tighten with 8 mm Allen wrench and 17 mm socket.

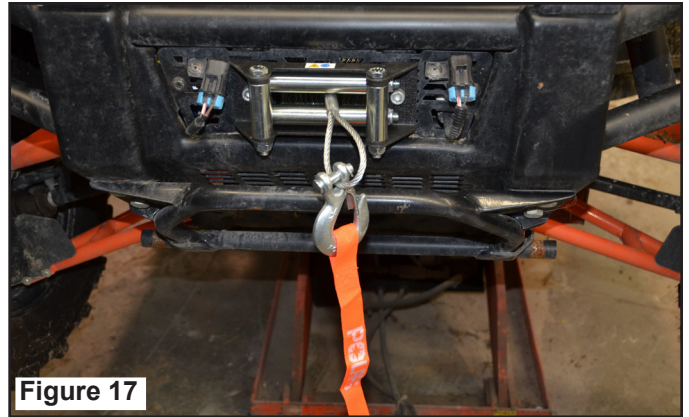
**IMPORTANT:** If your vehicle is equipped with the auto stop fairlead, see Page 11 for additional information on function of this feature.



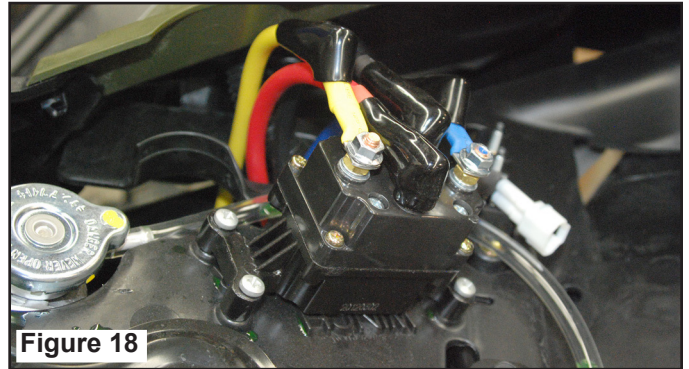
6. Tighten Auto Stop fairlead with 8 mm Allen wrench and 17 mm socket. Figure 15 and Figure 16.




7. Reinstall front bumper with fastener removed earlier. Make sure the winch cable or rope is through the fairlead slot. Figure 17.



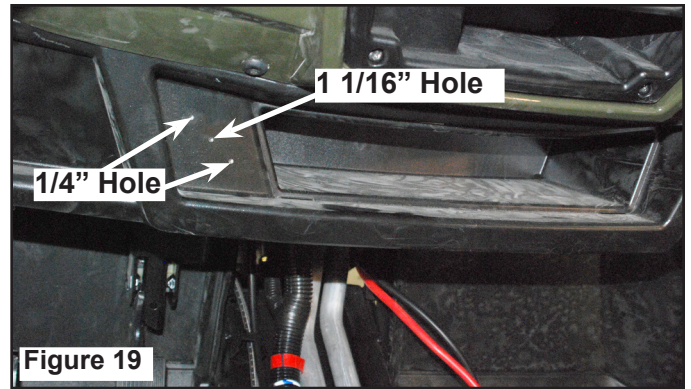
8. Connect the yellow and blue winch wires to contactor and push cable covers on. Figure 18.



#### REMOTE SOCKET INSTALLATION:

<b>⚠ WARNING</b>	
	<b>TO PREVENT SERIOUS INJURY OR DEATH FROM EXPLOSION:</b> <ul style="list-style-type: none"><li>• Do not drill into gas tank.</li><li>• Verify the area is clear behind the mounting location before drilling.</li></ul>

1. Install remote switch on vehicle dash. Use a 1 1/16" drill bit to cut a hole centered between dots embossed on dash. Drill two holes for screws with 1/4" drill bit over embossed dots. Figure 19 and Figure 20.

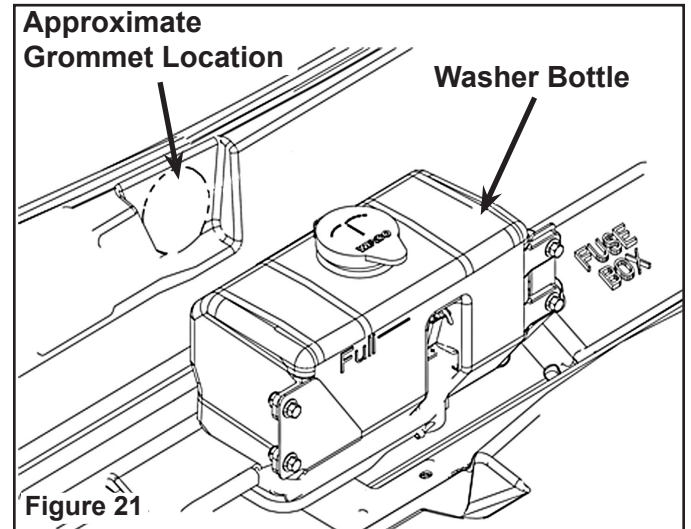


2. Locate the area where the wire harness and hose will pass through the front dash wall. On MY13 vehicles a grommet is already installed. For MY14 it is a round area of 1 11/16" diameter that must be removed by cutting along the perimeter scribe line with a sharp tool. Remove the round plastic cut out. Figure 21.

3. Install the grommet (PN 5414440).

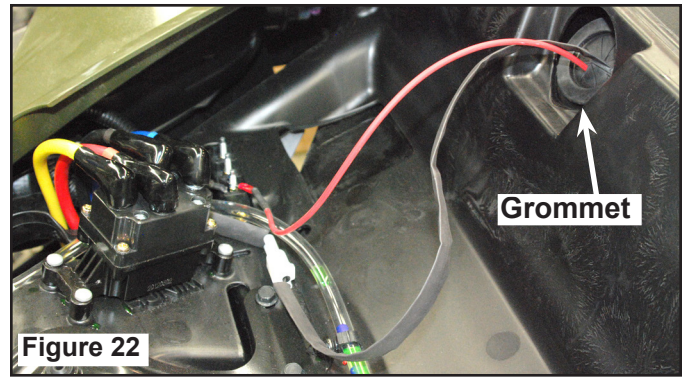
**IMPORTANT:** Vehicle hardware kit contains the grommet.

4. Cut the grommet (PN 5414440) to allow wire harness through.





5. Push the wires back through the grommet and replace grommet in upper splash tray hole. Connect black wire to connector and red wire to the keyed power terminal. After wires are connected, panduit power and ground cables to the main wire harness to keep clear of moving parts and panduit to frame. Figure 22.

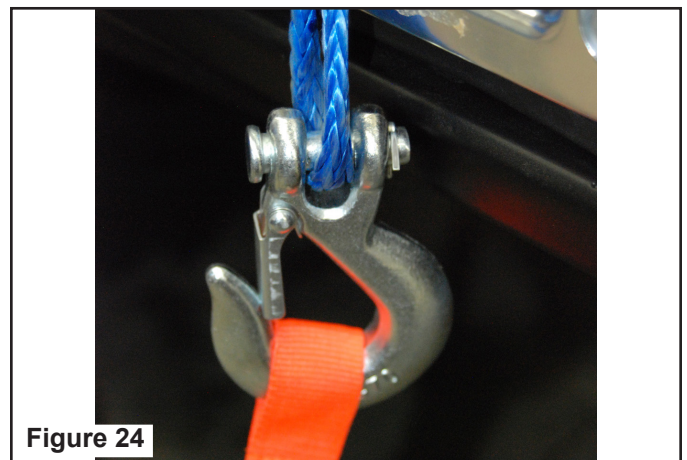


6. Attach switch with the two Phillips screws, washers and nuts provided in kit. Install in this order, screws, switch housing, dash, washer, nut. Tighten with a Phillips screwdriver and a 8 mm wrench. Figure 23.



## FINAL INSTALLATION:

1. **Roller Fairlead:** Attach winch hook with cotter pin to rope.  
**Auto Stop Fairlead:** Slide on rubber stop, Polaris logo showing. Attach winch hook with cotter pin to rope.



2. Attach red cables to battery to the battery side of starter solenoid. Attach black ground wire to ground post. After wires are connected, panduit power and ground cables to the main wire harness to keep clear of moving parts and panduit to frame.



3. Panduit cables to frame and main wire harness.
4. Replace the center floor section and reuse the four push guard pins removed at a earlier step.

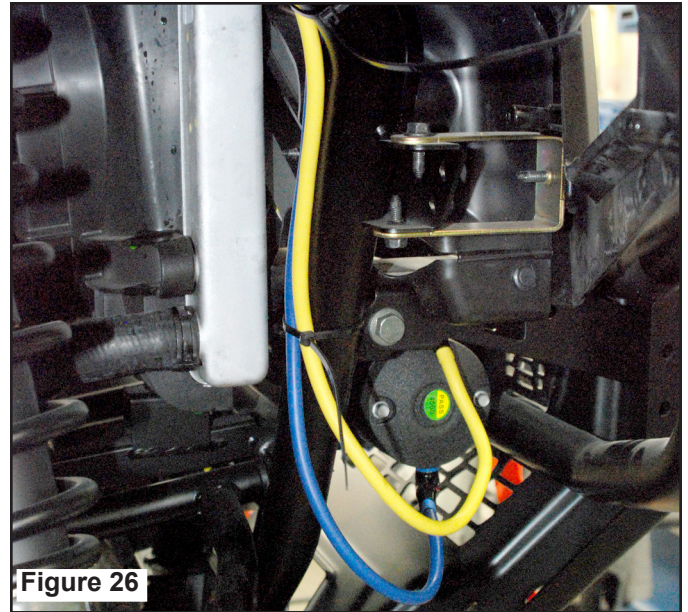


Figure 26

5. Re-connect the main vehicle power cables and winch power cables to the battery using the original hardware.
6. With the vehicle key in the ON position, check winch for proper operation.
7. Confirm that all wiring is correct.
8. Connect winch remote control to electrical socket. Figure 27.

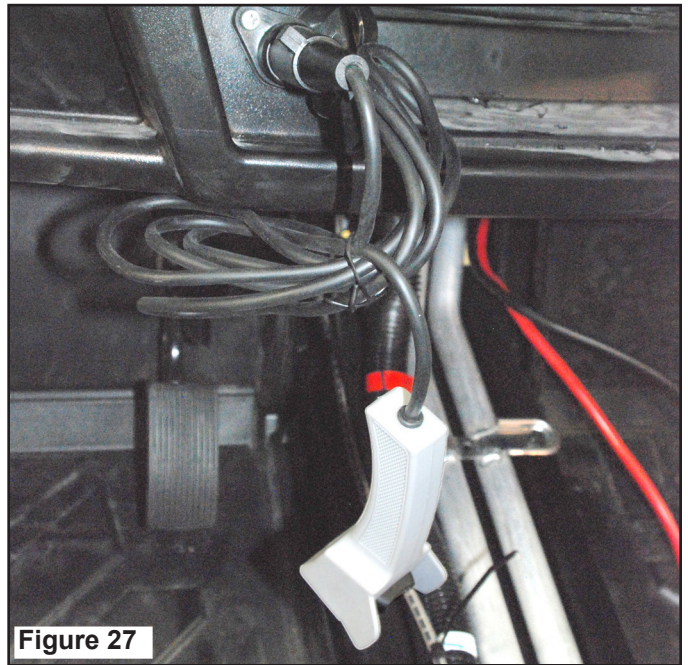


Figure 27

9. Verify function of winch. Figure 28.
10. Confirm that there are no exposed wires or terminals. All loose wires need to be wrapped tight, and secured away from moving parts and heat sources.
11. Reinstall pullout tray under seat.
12. Reinstall seat.
13. Retighten all hardware after 30 minutes of riding.

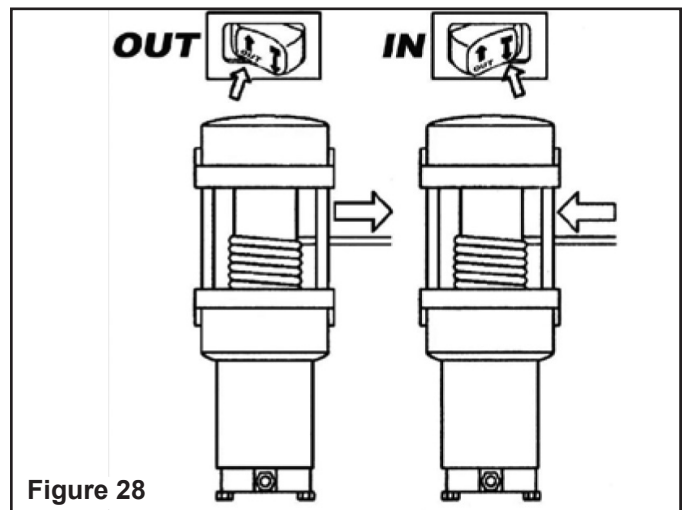


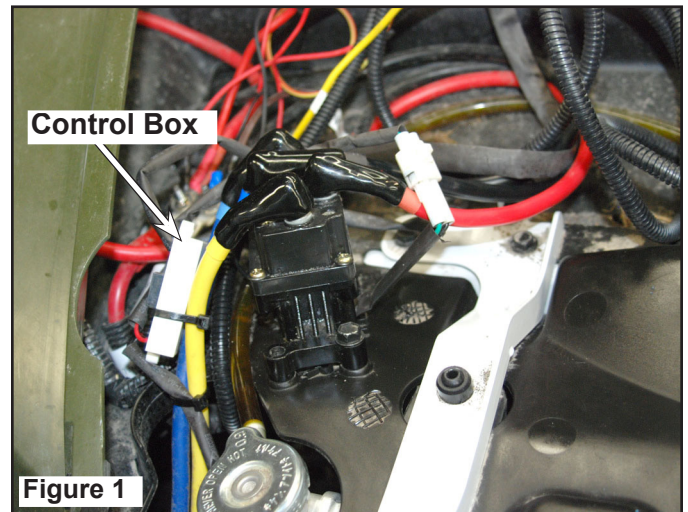
Figure 28

## Function of the Auto Stop Feature:

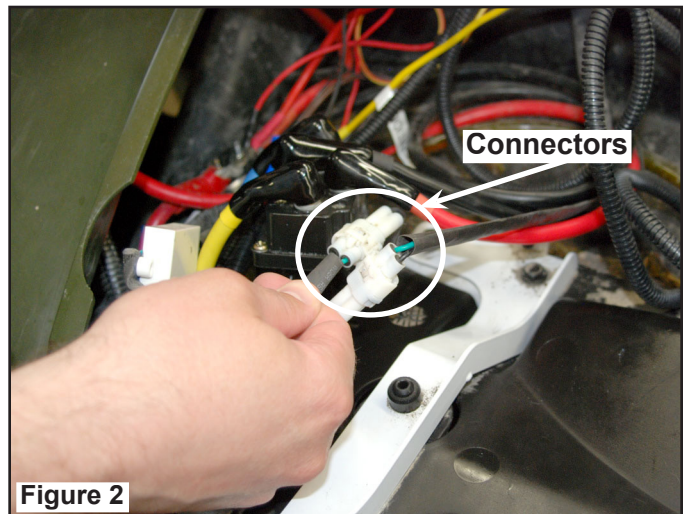
The Auto Stop fairlead is an innovative solution making your winch easier to use, especially when plowing. The hardest work your winch does is when it isn't doing much work at all; when your winch pulls the rope tight to get the last bit of lift out of the plow or to tighten up the hook to prevent it from rattling against the bumper. As the winch pulls the hook against the fairlead it stresses the winch, rope, fairlead, and vehicle frame. To help prevent damage to these components, Polaris created a solution that stops the winch before the hook is pulled too far into the fairlead.

If your vehicle is equipped with this feature it contains an aluminum Hawse-type fairlead, a rubber bump stop that contains magnets, and a wire harness with a control box. This winch is only for use with synthetic rope, as a steel cable would quickly wear and damage the aluminum fairlead. When the rubber bump stop is brought close to the fairlead, sensors inside the fairlead tell the control box to turn the winch off. The winch will continue to let rope out, but the rope will not pull in any further.

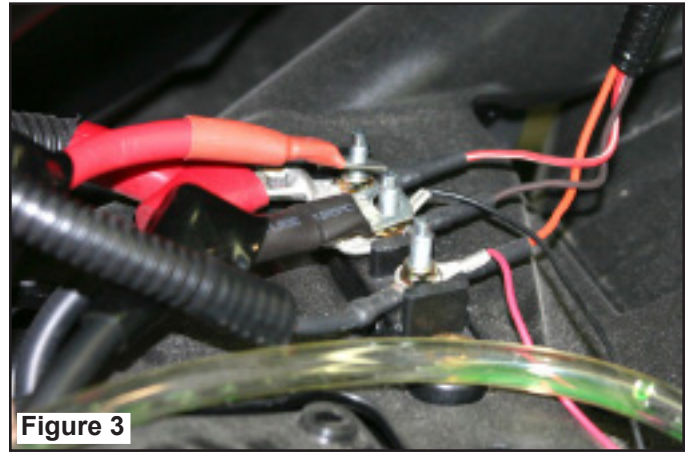
1. To assemble, install the aluminum Hawse fairlead in the same location as the standard roller fairlead would be, using the same hardware. Wire routing will be simplest if the wires are located on the passenger side of the vehicle. Place the control box close to the winch contactor and extend the longer wire toward the fairlead. Disconnect the remote control from the winch contactor, and plug those two connectors into the corresponding connectors on the control harness. Once the connections have been made, route the red and black wires to the terminal block. The black wire must be connected to a solid ground, and the red wire should be connected to keyed power so that the winch will only operate when the vehicle key is turned to the ON position. Figure 1.



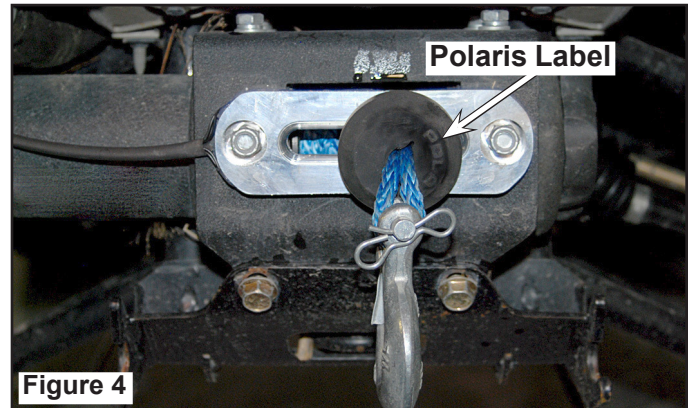
2. Disconnect the remote control from the winch contactor, and plug those two connectors into the corresponding connectors on the control harness. Figure 2.



3. Once the connections have been made, route the red and black wires to the wire harness. The black wire must be connected to a solid ground, and the red wire should be connected to keyed power so that the winch will only operate when the vehicle key is turned to the ON position. Figure 3.



4. Thread the winch rope through the fairlead, then thread the rope through the rubber bump stop with the "POLARIS" label facing outward toward the front of the vehicle. The rubber bump stop is supposed to be tight on the rope, so use a string or plastic cable tie tied around the end of the rope to pull the rope through the bump stop. It is helpful to apply a small amount of rubbing alcohol or other non-corrosive lubricant to the rubber stop to ease the rope through the hole. Once the rope is through the hole, attach the hook to the rope with the cotter pin as instructed in the winch kit. Figure 4.



5. Before use, confirm the proper function of the Auto Stop by turning on the winch and spooling it in. The rubber stop should get close to the fairlead and the winch should turn off automatically. If it does not, check that all connections are made properly and that the rubber stop is facing with the "POLARIS" side facing outward and re-test.

The Auto Stop system is meant to help prevent damage to the winch system from over-tightening of the rope, but is not meant to prevent all foreseeable winch damage. Keep in mind that the winch system is very powerful and care should be exercised whenever it is in operation. The winch operator is always responsible for using the winch properly and the Auto Stop system should only be used as a secondary preventive measure to help prevent damage to the winch from over-tightening of the rope.