



## **INSTALLATION GUIDE**

### **TERRA<sup>®</sup> SERIES** **WINCH**

**READ AND UNDERSTAND THIS MANUAL BEFORE  
INSTALLATION AND OPERATION OF YOUR  
SUPERWINCH.**

# SAFETY PRECAUTIONS

NOTES  
NOTAS

The responsibility for safe operation with this winch ultimately rests with you, the operator. Read and understand all safety precautions and operating instructions before installing and operating the winch. Careless winch operation can result in serious injury and/or property damage.

Throughout this manual, you will find notations with the following headings:

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

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

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. This notation is also used to alert against unsafe practices.

**Note:** Indicates additional information in the installation and operation procedures of your winch.

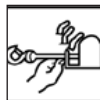
The following symbols on the product or in the Owners manual are used:



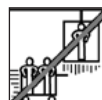
Read Owner's Manual



Always Use Handsaver



Keep clear of winch, rope and hook while operating



Never use winch to lift or move people



Never use winch to hold loads in place



Never use for overhead lifting

Correct installation of your winch is a requirement for proper operation.

**Please Note:** Winch is designed primarily for intermittent applications. This winch is not designed to be used in industrial or hoisting applications and Superwinch does not warrant it to be suitable for such use. Superwinch manufactures a separate line of winches for industrial/ commercial use. Please contact Customer Service Department for further information.

Congratulations on your choice!

## MOUNTING YOUR WINCH

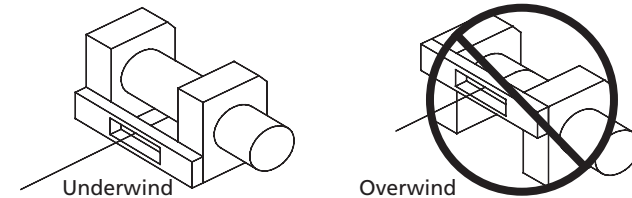
### MOUNTING KITS

SUPERWINCH RECOMMENDS THE USE OF A MOUNT KIT FOR SECURE MOUNTING TO YOUR VEHICLE. ATV Winch mounting kits are available from your Superwinch dealer for nearly all ATV applications.

If you choose not to purchase a mounting kit, your Superwinch needs to be attached operated safely without some equipment included in the kit. If you choose not to purchase a mounting kit, contact Superwinch for recommended accessories and the name of a dealer near you.

**CAUTION** This winch must be mounted with the rope in the under wound direction ( Fig. 1 ) Improper mounting could damage your winch and void your warranty.

Fig. 1



**Note:** It is possible and not uncommon or discouraged to mount your Superwinch in attitudes other than those shown in this installation manual. While mounting attitude is at your discretion, always remember that your winch is to operated with the rope in an under wound orientation on the rope drum ( Fig. 1 ) Your winch is designed to ROPE IN and ROPE OUT in one direction. Do not attempt to reverse the operation of your winch.

**CAUTION** Do not mount winch inverted, (base upward) or put the winch mounting hardware in direct tension condition. In all installations, the unit must be mounted so that the rope feeds through the hawse or roller fairlead on the front of the winch and does not rub across housings.

For winch capacities, a complete parts list and an exploded diagram of your specific Superwinch, refer to the Technical Data Sheet included in this package.

For instructions on safe winch operation and tips for prolonging the life of your winch, refer to the User's Guide included in this package.

**Note:** When installing a winch, your installation may vary slightly from the instructions and diagrams that follow, depending upon your vehicle, winch, mounting kit or structural support.

**WARNING** Before you start your Superwinch installation, disconnect the vehicle ground and positive leads from the battery.

### MINIMUM ELECTRICAL REQUIREMENTS

Refer to specifications for your winch model in the Technical Data Manual in this package. Be sure to select the appropriate battery or power supply to handle this winch. If the winch is in heavy use, an auxiliary battery and heavy duty alternator are recommended.

### INSTALLATION PROCEDURE

#### Step ( 1 )

Install mounting kit or prepare a flat, secure mounting location for winch to make sure the motor, drum, and gearbox are aligned correctly. Carefully follow the instructions included with the mounting kit.

**WARNING** Be sure structural support is strong enough to support rated capacity of the winch.

**Note:** If you choose not to use a mounting kit, you will need to drill holes in the structural support. Be sure that your structural support is at least 3/16" ( 5mm ) thick.

**WARNING** If different length bolts, nuts, washers and other hardware are required for your installation, always use hardware that equals or exceeds the strength grade of the supplied hardware. In no circumstances should the end of the mounting bolts touch the inside surface of the casting mount pockets.

#### Step ( 2 )

Position the winch over the holes in the mounting kit or structural support.

**WARNING** As you position the winch, make sure that the rope winds in the proper rotation on the drum. Your winch is intended to operate in one direction only. Failure to operate the winch in the proper direction can cause the winch brake ( if equipped ) to operate improperly, and/or cause the winch to fail.

**CAUTION** Do not weld or machine any part of the winch. Machining or welding may weaken the structural integrity of the winch and will void your warranty.

**ADVERTENCIA** Antes de probar el guinche, verifique que quede desenroscado aproximadamente dos pies de cable.

### PRUEBA DE FUNCIONAMIENTO

1. Verifique que todos los cables estén bien conectados y que no queden terminales que puedan hacer contacto con el chasis del vehículo.
2. Lleve la llave de ignición a la posición de encendido (ON) y pruebe el funcionamiento del guinche.

### MONTAJE DEL RECEPTÁCULO DE CONTROL REMOTO - Opcional

1. Determine la ubicación del receptáculo del control remoto.
2. Haga tres agujeros con las dimensiones sugeridas.
3. Una vez que esté instalado el receptáculo, lleve los cables aislados verde y negro hasta la solenoide. Empalme el cable rojo a un cable que reciba electricidad de la llave de ignición del vehículo.

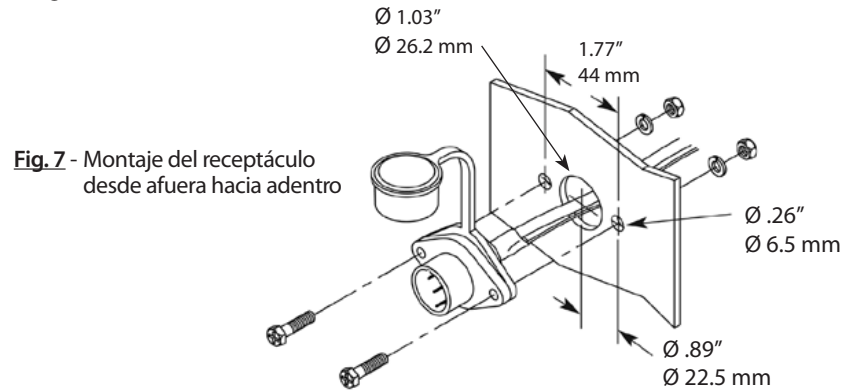


Fig. 7 - Montaje del receptáculo desde afuera hacia adentro

## EL JUEGO COMPLETO

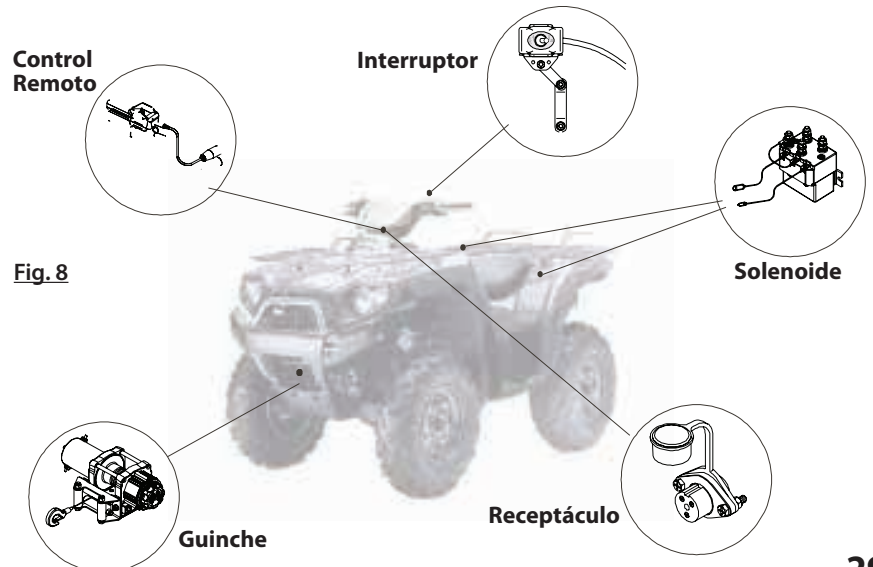
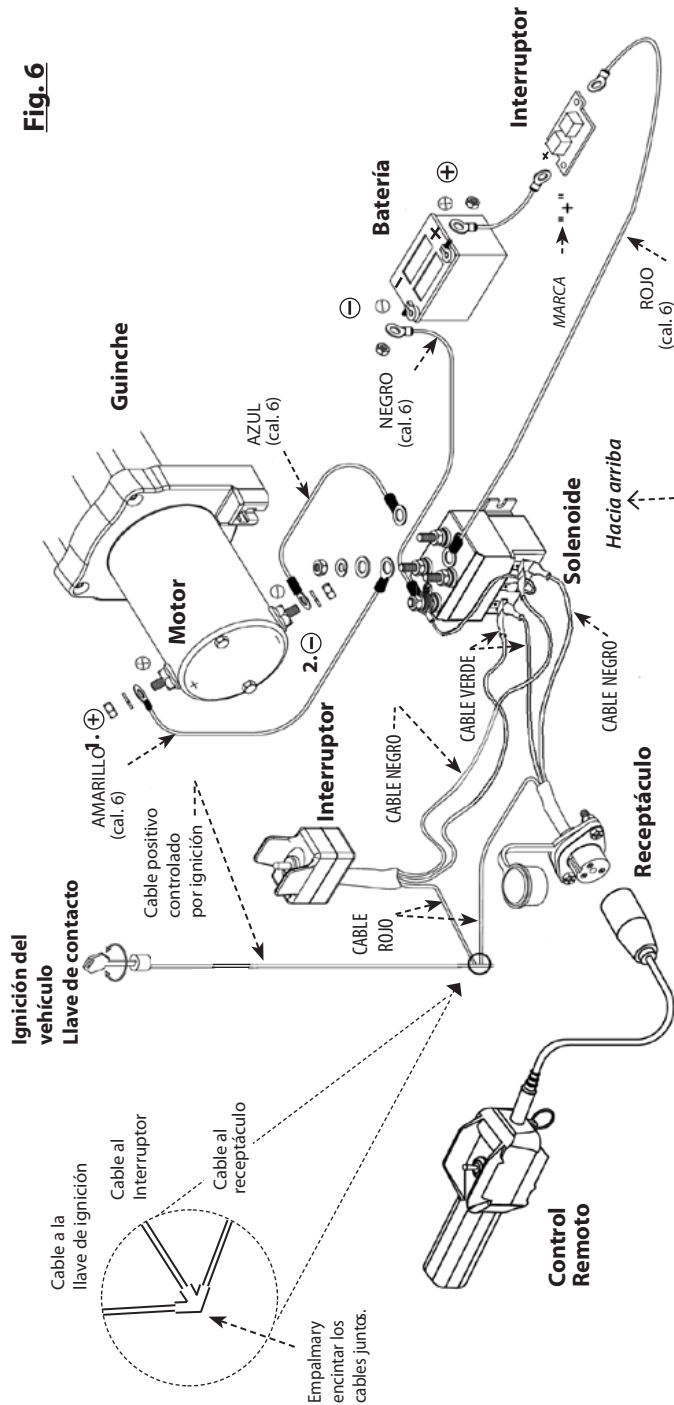


Fig. 8

Fig. 6

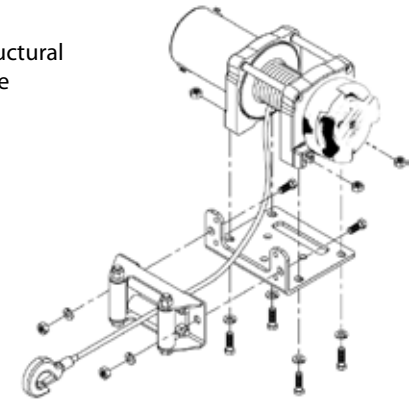


## WINCH INSTALLATION

### Step (3)

Secure winch ( Fig. 2 ) to mounting kit or structural support using bolts, lock washers and square nuts supplied with winch.

Fig. 2 - Winch mounting



### Step (4)

Secure roller fairlead or hawse ( Fig. 2 ) to mounting plate or structural support using hardware supplied.

**WARNING** Be sure that both the mounting plate and winch hardware have been properly tightened.

**CAUTION** No part of the vehicle ( skid plates, wiring, auxiliary lights, tires, etc. ) should impede the operation of your Superwinch. When mounting, check all vehicle and winch parts for free operation. Be sure that the winch mounting location does not significantly reduce ground clearance.

## SOLENOID MOUNTING

1. The solenoid disconnects your winch from the battery when the vehicle is turned off.
  2. The solenoid should be mounted close to the battery and in a location that is clean and dry as possible.
- Note:** The solenoid should not be mounted in an orientation in which the contact posts are in a downward position.
3. Ensure the solenoid location selected provides sufficient clearance from all metal structures, such as frame tubes.

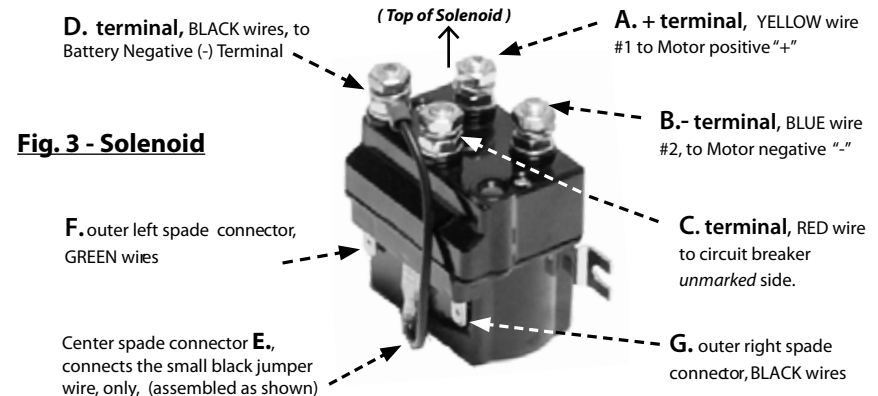


Fig. 3 - Solenoid

# TOGGLE SWITCH INSTALLATION

**⚠ CAUTION** When attaching wires to the motor or solenoid terminals, hold the inner nut with a wrench while tightening the outer nut with a second wrench. Do not allow the terminals to rotate in their housings. Rotation may cause internal wire breakage or part misalignment ( Fig 4).

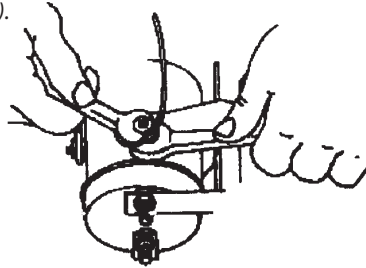


Fig. 4 - Proper Terminal Tightening

## Step ( 1 )

Check to ensure that the vehicle ground and positive leads from the battery are disconnected before performing any electrical work.

**⚠ DANGER** DO NOT ATTEMPT TO INSTALL WIRING WHEN THE BATTERY IS CONNECTED. Automotive batteries contain flammable and explosive gases. Wear eye protection during installation and remove all metal jewelry. Do not lean over battery while making connections.

## Step ( 2 )

Route the wiring harness, attaching the harness to hard points on the vehicle with cable ties.

**Note:** When routing the wires, the appropriate terminals should be located near the battery, switch mounting point, and winch. Your installation requirements will vary depending upon your vehicle and winch. Make sure wires are long enough to reach the battery, switch mounting point and winch.

**⚠ WARNING** Ensure that the wiring harness does not interfere or come in contact with any hot or moving engine, suspension, steering, braking or exhaust parts.

## Step ( 3 )

Using the supplied clamps, bracket and hardware, mount switch in a convenient location. See Fig. 5.

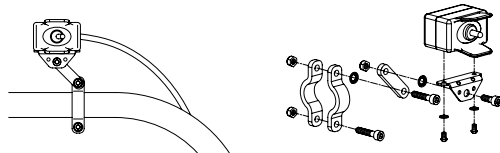


Fig. 5

**⚠ CAUTION** ALWAYS USE THE SWITCH MOUNTING BRACKET, SCREWS, AND LOCK NUTS PROVIDED. Screw lengths are sized for correct penetration into switch box. Excess penetration may result in short circuits that could lead to wire over heating.

## Step ( 4 )

It is recommended that the switch be installed on the left handlebar.

## Step ( 5 )

Once the switch is mounted, route the jacketed **green and black** leads back to where the solenoid is mounted. Splice the red lead into wire that energizes with ignition switch on and de-energizes with ignition off.

## WIRING INSTALLATION

### Step ( 1 )

Connect the YELLOW 6 ga. wire to the #1 "+" positive terminal on the **motor** and connect the BLUE 6 ga. wire to #2 "-" negative terminal to the **motor**. (see Fig. 6)  
*Route the opposite ends of the YELLOW 6 ga. and the BLUE 6 ga. wires back to the solenoid.* On the top of the **solenoid**, connect the YELLOW 6 ga. wire to terminal **A** "+" positive. Also, on top of the **solenoid** connect the BLUE 6 ga. wire to terminal **B** "-" negative. (see Fig. 3)

### Step ( 2 )

On the top of the **solenoid**, connect the RED 6 ga. wire to the terminal **C**.  
*Route the opposite end of the RED 6 ga. wire to the circuit breaker* and connect the RED 6 ga. wire to the unmarked side of the **circuit breaker**. (see Fig. 6)

### Step ( 3 )

On the top of the **solenoid**, connect the BLACK 6 ga. wire to terminal **D**. (see Fig. 3)

### Step ( 4 )

On the **solenoid**, check that the short BLACK jumper wire lead, is installed from the **solenoid's center** flat spade connector **E**, to the **solenoid's** terminal **D**. (see Fig. 3).

### Step ( 5 )

Attach the BLACK wire from the **rocker switch** to the outer **right** spade, **G** connector, of the **solenoid**. Attach the BLACK wire from the **optional socket assembly** to the same outer **right** spade connector, **G**. *note; the solenoid top side up* (see Fig. 6 and 3)

### Step ( 6 )

Attach the GREEN wire from the **rocker switch** to the outer **left** spade connector **F** on the **solenoid**. Attach the GREEN wire from the **optional socket assembly** to the same outer **left** spade connector **F**. *note; the solenoid top side up* (see Fig. 6 and 3)

### Step ( 7 )

Connect the RED WIRE, from the **rocker switch** and *optionally* from the **socket assembly** to your ATV's Ignition Switch key controlled wire. This wire must only have power when the key is in the on position. A fuse protected key controlled wire is preferred. Fuse should be rated for at least 4 amps. Cover-wind the connection with multi-layers of CE approved electrical insulation tape, (see Fig. 6).

### Step ( 8 )

Connect the short RED 6 ga. wire to the end of the **circuit breaker**, marked " + " positive. Connect the other end of this RED wire to the "+" positive **battery** terminal. (see Fig. 6)

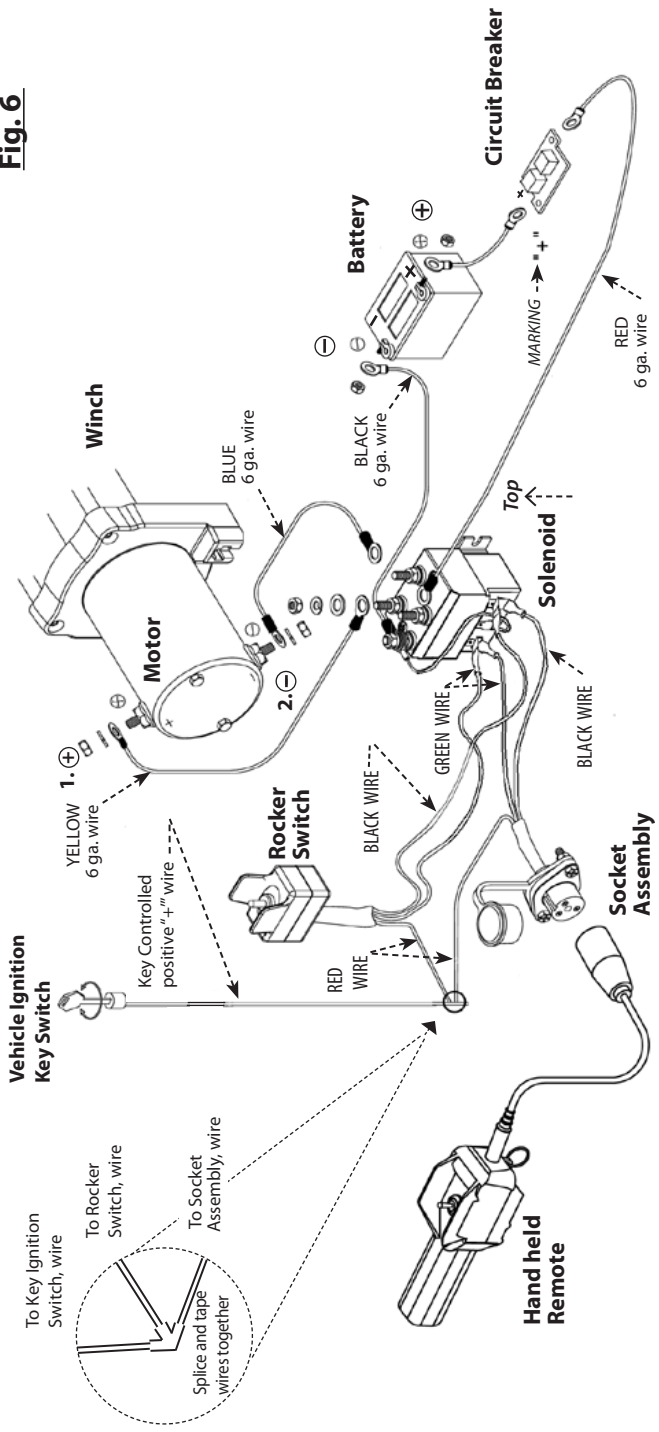
### Step ( 9 )

*Route the opposite end of the BLACK wire from, solenoid terminal D,* and connect to the "-" negative terminal on the **battery**. (see Fig. 6)

### Step ( 10 )

Check that all wiring is clear of sharp edges and pinch points. Check that all wiring is firmly connected to its proper terminal or spade connector. Secure loose wiring with tie wraps and electrical insulation tape.

**Fig. 6**



**Vehicle Ignition Key Switch**

**Winch**

**Motor**

**Rocker Switch**

**Battery**

**Circuit Breaker**

**Solenoid**

**Socket Assembly**

**Hand held Remote**

To Key Ignition Switch, wire  
To Rocker Switch, wire  
To Socket Assembly, wire  
Splice and tape wires together

YELLOW 1. +  
6 ga. wire

BLUE 6 ga. wire

BLACK 6 ga. wire

RED 6 ga. wire

RED WIRE

BLACK WIRE

GREEN WIRE

BLACK WIRE

MARKING → "+"

Top



**⚠ WARNING** Before testing winch operation, be sure to reel off approximately two feet of rope.

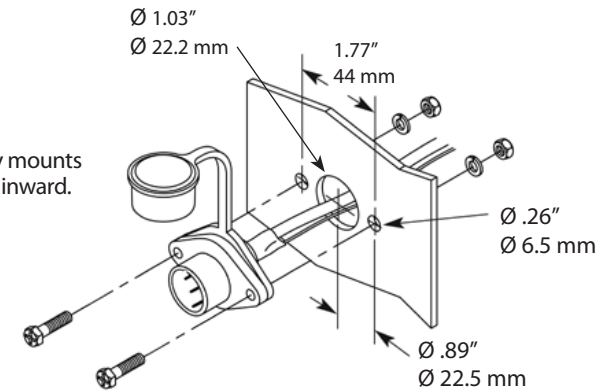
**TEST DRIVE**

1. Double check that all wiring is correct and that there are no exposed terminals that can short to the vehicle frame.
2. Turn the ignition key to the ON position. Check winch for proper operation.

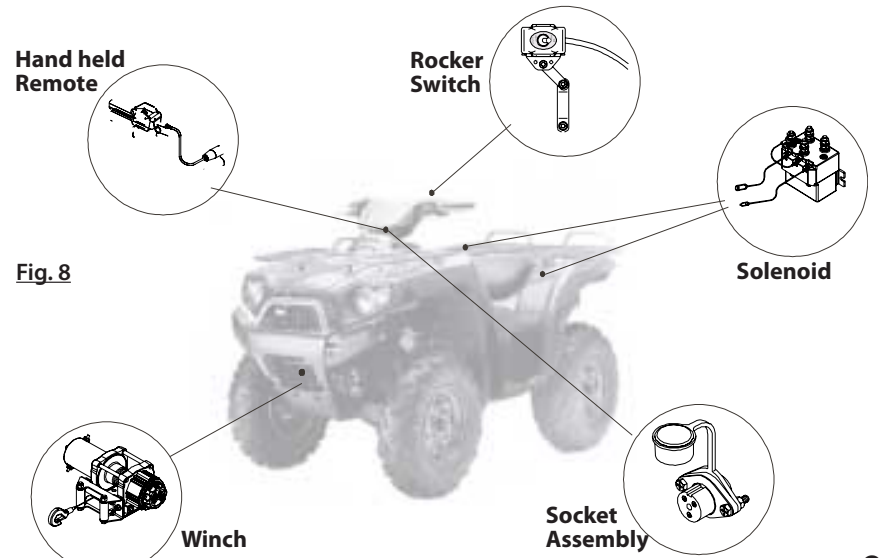
**REMOTE SOCKET MOUNTING - optional**

1. Determine the mounting location for the remote socket.
2. Drill three holes using the included dimensions as a guide.
3. Once the remote socket is mounted, route the jacketed green and black leads back to where the solenoid is mounted. Splice the red lead to a key controlled electrical wire on the ATV.

**Fig. 7** - Socket Assembly mounts from the outside, inward.



**THE COMPLETE KIT**



**Fig. 8**