




# Warnings and Cautions



As you read these instructions, you will see WARNINGS, CAUTIONS, NOTICES and NOTES. Each message has a specific purpose. WARNINGS are safety messages that indicate a potentially hazardous situation, which, if not avoided could result in serious injury. CAUTIONS are safety messages that indicate a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. A CAUTION may also be used to alert against unsafe practice. CAUTIONS and WARNINGS identify the hazard, indicate how to avoid the hazard, and advise of the probable consequence of not avoiding the hazard. NOTICES are messages to avoid property damage. NOTES are additional information to help you complete a procedure. **PLEASE WORK SAFELY!**

 <b>WARNING</b>		
		
<b>MOVING PARTS ENTANGLEMENT HAZARD</b> <p>Failure to observe these instructions could lead to severe injury or death.</p> <p>To avoid injury to hands or fingers:</p> <ul style="list-style-type: none"><li>• <b>Always</b> keep hands clear of rope, hook loop, hook and fairlead opening during installation, operation and when spooling in or out.</li><li>• <b>Always</b> use extreme caution when handling hook and rope during spooling operations.</li><li>• <b>Always</b> use supplied hook strap whenever spooling rope in or out, during installation, and during operation.</li><li>• <b>Always</b> keep vehicle in sight during winching operation.</li><li>• <b>Always</b> wear heavy leather gloves when handling rope.</li></ul>		

 <b>WARNING</b>	
	
<b>CHEMICAL AND FIRE HAZARD</b> <p>Failure to observe these instructions could lead to severe injury or death.</p> <ul style="list-style-type: none"><li>• <b>Always</b> remove jewelry and wear eye protection.</li><li>• <b>Never</b> lean over battery while making connections.</li><li>• <b>Always</b> verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc. when drilling.</li><li>• <b>Never</b> route electrical cables:<ul style="list-style-type: none"><li>- Across any sharp edges.</li><li>- Through or near moving parts.</li><li>- Near parts that become hot.</li></ul></li><li>• <b>Always</b> insulate and protect all exposed wiring and electrical terminals.</li><li>• <b>Always</b> install terminal boots as directed in installation instructions.</li></ul>	

 <b>CAUTION</b>
<b>MOVING PARTS ENTANGLEMENT HAZARD</b> <p>Failure to observe these instructions could lead to minor or moderate injury.</p> <ul style="list-style-type: none"><li>• <b>Always</b> keep wired remote control lead clear of the drum, rope and rigging. Inspect for cracks, pinches, frayed wires or loose connections. Replace remote control if damaged.</li><li>• <b>Always</b> pass wired remote control through a window to avoid pinching lead in door, when using remote inside a vehicle.</li><li>• <b>Never</b> leave remote control where it can be activated during freespooling, rigging, or when the winch is not being used.</li></ul>



## CAUTION

### MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

#### General Safety:

- **Always** know your winch. Take time to fully read the Installation Guide and the Basic Guide to Winching Techniques in order to understand your winch and its operation.
- **Never** operate this winch if you are under 16 years of age.
- **Never** operate this winch when under the influence of drugs, alcohol or medication.
- **Never** exceed winch or rope capacity listed on product data sheet. Double line using a snatch block to reduce winch load.

#### Installation Safety:

- **Always** choose a mounting location that is sufficiently strong to withstand the maximum pulling capacity of your winch.
- **Always** use factory approved mounting hardware, components, and accessories.
- **Always** use grade 5 or better mounting hardware.
- **Never** weld mounting bolts.
- **Always** use care when using longer bolts than those supplied from factory. Bolts that are too long can damage the base and/or prevent the winch from being mounted securely.
- **Always** mount the winch and attach the hook to the rope's end loop before connecting the electrical wiring.
- **Always** position fairlead with WARNING label on top.
- **Always** spool the rope onto the drum in the direction specified by the winch warning label on the winch and/or documentation. This is required for the automatic brake to function properly.
- **Always** prestretch wire rope and respool under load before use. Tightly wound wire rope reduces chances of "binding", which can damage the rope.



## CAUTION

### MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

- **Always** inspect, rope, hook, and slings before operating winch. Damaged components must be replaced before operation. Protect parts from damage.
- **Never** leave remote control plugged into winch when free spooling, rigging, or when the winch is not being used.
- **Never** hook rope back onto itself. This damages the rope.
- **Always** use a choker chain, choker rope, or tree trunk protector on the anchor.
- **Always** remove any element or obstacle that may interfere with safe operation of the winch.
- **Always** take time to use appropriate rigging techniques for a winch pull.
- **Always** be certain the anchor you select will withstand the load and the strap or chain will not slip.
- **Never** engage or disengage clutch if winch is under load, rope is in tension or drum is moving.
- **Never** winch with less than 5 wraps of rope around the drum. The rope could come loose from the drum.
- **Never** touch rope or hook while in tension or under load.
- **Never** touch rope or hook while someone else is at the control switch or during winching operation.
- **Always** stand clear of rope and load and keep others away while winching.
- **Always** be aware of stability of vehicle and load during winching. Alert all bystanders of any unstable condition.
- **Never** use winch to secure a load.



## CAUTION



### CUT AND BURN HAZARD

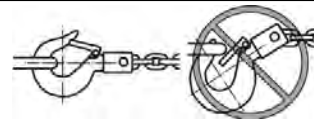
Failure to observe these instructions could lead to minor or moderate injury.

To avoid injury to hands and fingers:

- **Always** wear heavy leather gloves when handling a rope.
- **Never** let rope slip through your hands.
- **Always** be aware of possible hot surface at winch motor, drum or rope during or after winch use.



## CAUTION



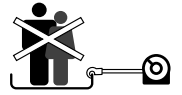
### MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor to moderate injury.

- **Always** use a hook with a latch
- **Always** insure hook latch is closed and not supporting load.
- **Never** apply load to hook tip or latch. Apply load only to the center of hook.
- **Never** use a hook whose throat opening has increased, or whose tip is bent or twisted.



## WARNING



### FALLING OR CRUSHING HAZARD

Failure to observe these instructions could lead to severe injury or death.

- **Never** use winch to lift or move persons.
- **Never** use winch as a hoist or to suspend a load.

## NOTICE

### AVOID WINCH AND EQUIPMENT DAMAGE

- **Always** avoid side pulls which can pile up rope at one end of the drum. This can damage rope or winch.
- **Always** ensure the clutch is fully engaged or disengaged.
- **Never** use winch to tow other vehicles or objects. Shock loads can momentarily exceed capacity of rope and winch.
- **Always** avoid "powering out" for extended distances. This causes excess heat and wear on the winch motor and brake.
- **Always** use care to not damage the vehicle frame when anchoring to a vehicle during a winching operation.
- **Never** "jog" rope under load. Shock loads can momentarily exceed capacity of rope and winch.
- **Never** use winch to secure a load during transport.
- **Never** submerge winch in water.
- **Always** store the remote control in a protected, clean, dry area.
- **Always** double line or pick distant anchor point when rigging. This maximizes pulling power and avoids overloading the winch.

## CAUTION

To prevent accidental activation of the winch and serious injury, complete the winch installation and attach the hook before installing the wiring.

## Safety

When installing your ATV winch system, read and follow all mounting and safety instructions. Always use caution when working with electricity and remember to verify that no exposed electrical connections exist before energizing your winch circuit.

For specifications and performance data, refer to the specification sheet supplied with your winch.

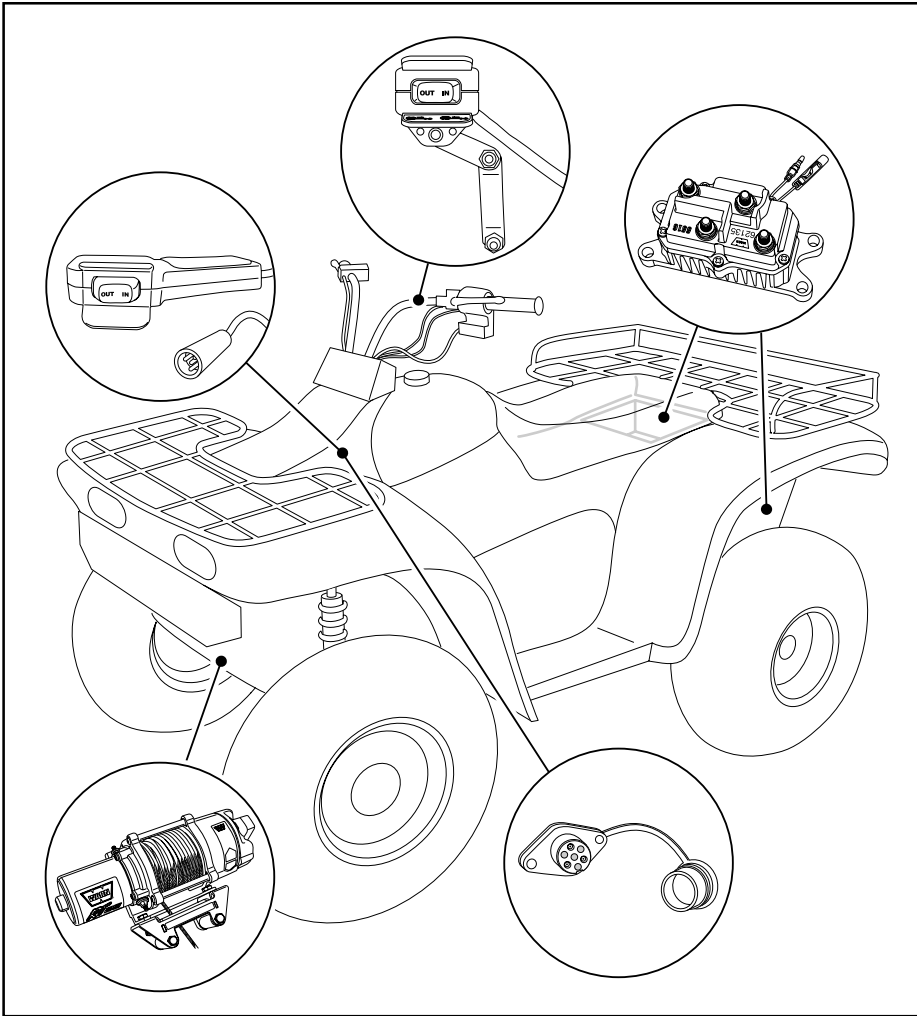


Figure 3: To install the complete kit, you will need to mount the winch, contactor handlebar mounted Mini-rocker switch and remote socket (optional on some models). Mounting locations may vary depending on make and model of the ATV. Read and understand the following instructions to choose the appropriate mounting locations.

## WARN mounting plates are recommended

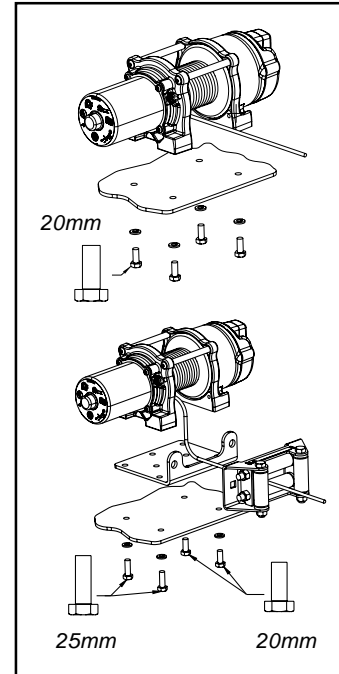


Figure 4: Orientation of winch to mounting plate and bolt lengths.

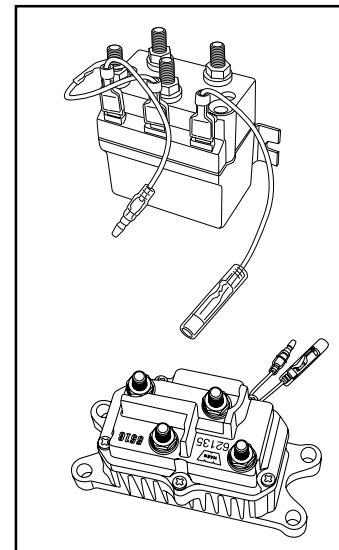


Figure 5. Contactors for the WARN ATV winch

## Step 1 - Mount the Winch

ATV winch mounting kits are available from your Warn Dealer to satisfy nearly all ATV applications. For information on available kits, contact your WARN product dealer.

To secure the winch, always use:

- A flat, secure mounting location at least 4.8 mm (3/16 in.) thick.
- 8 mm (5/16 in.) Lock washers.
- M8-1.25 X 20 mm, grade 8 hex head cap screws when using a one-piece winch mount plate.

**Note:** When using separate winch mount and fairlead plates use M8-1.25 X 25 mm grade 8 hex head cap screws on the motor side of the base as shown in Figure 4.

- Torque the mounting bolts to 16 N-m (12 lb-ft)
- Remove bottom tie bolt. This bolt should be retained for winch service.
- Attach the clevis hook to the wire rope.
- Put clutch in freespool position.
- Manually feed cable loop through fairlead.
- Attach hook to cable loop and re-engage clutch.

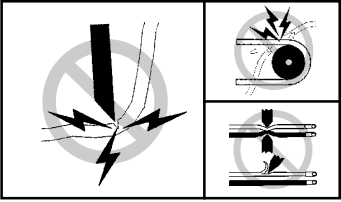
## Step 2 - Mount the Contactor

- The contactor is a primary safety feature in your winch system. It disconnects your winch from its power source when the ATV is not in use. The contactor must be correctly installed to work properly.
- It is recommended that the contactor be mounted close to the battery and in a location that is as clean and dry as possible. Exact location will vary, depending on the ATV. Usual locations include inside, on top, or on the side of rear storage box, and on a few models, under the seat.
- Ensure the contactor mounting location selected provides sufficient clearance from all metal structures such as frame tubes. Do NOT place tools or other items in a position that might come in contact with the contactor directly.
- Drill the mounting holes for the contactor at this time, then move on to step four as it will be easier to attach all the wiring to the contactor before attaching it to the ATV. Do NOT mount the contactor at this time.
- If you will be installing the WARN wireless control, first review the wiring configuration provided here.

### Step 3- Mount the Handlebar Switch

#### **⚠ WARNING**

#### TO PREVENT SERIOUS INJURY OR DEATH FROM ELECTRICAL FIRE:



- Do NOT route electrical cables across sharp edges.
- Do NOT route electrical cables through or near moving parts.
- Do NOT route electrical cables through or near any high heat parts.
- Avoid pinch and wear/abrasion points when installing all electrical cables.

#### TO AVOID INJURY AND PROPERTY DAMAGE:

- Use caution when moving or repositioning any vehicle controls so as to not compromise the safe operation of the ATV. Select a mounting position that will provide clearance for all vehicle controls.
- Before securing the switch cable with tie wraps, make sure that the handlebars have full range of motion.

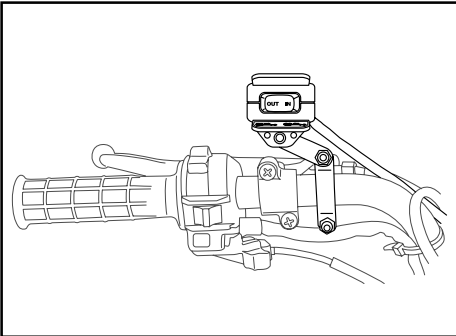


Figure 6: handlebar mount. Exact positioning may vary depending on ATV make and model.

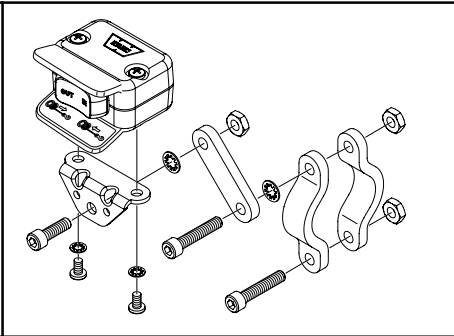


Figure 7: Mini-rocker switch assembly.

- It is recommended that the switch be installed on the left handlebar. A piece of electrical tape around the handlebar will help prevent rotation of mount on the handle bar.
- Do NOT tighten over any hoses or cables.
- Once the handle bar switch is mounted, route the two bullet terminal wires back to where the contactor will be mounted. Splice the end of the red 20ga wire to a key controlled accessory circuit of the ATV (use the provided wire splice). Using a test light, locate a suitable wire from the ATV key switch. The wire should only have power when the key is in the "ON" position.

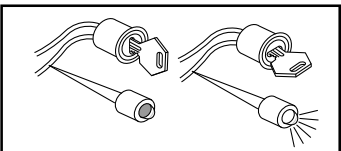


Figure 8: Use a test light to locate a suitable wire.

### Step 4 - Mount the Connector for Remote (optional on some models)

#### **⚠ WARNING**

#### TO PREVENT SERIOUS INJURY OR DEATH FROM EXPLOSION:



- Do NOT drill into gas tank.
- Verify the area is clear behind the mounting location before drilling.

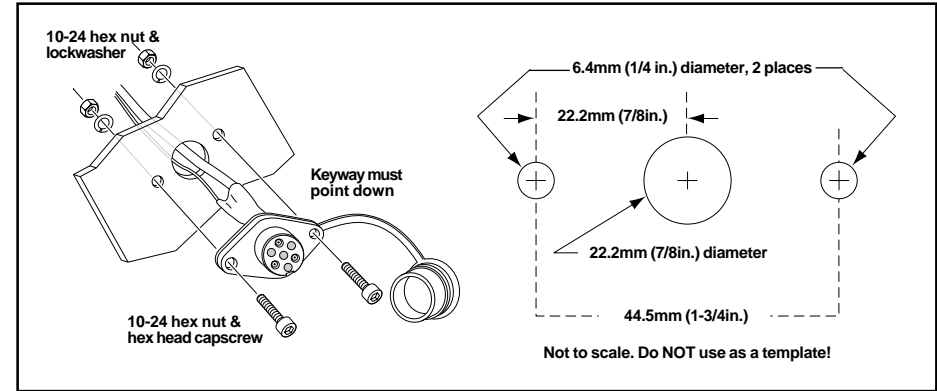


Figure 9. Remote socket installation.

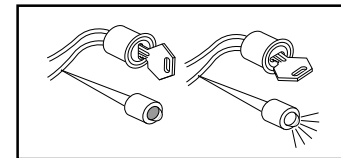


Figure 10: Use a test light to locate a suitable wire.

- After determining the mounting location for the remote socket, drill three holes and install. (see figure 9)
- Once the remote socket is mounted, route the two bullet terminal wires back to where the contactor will be mounted. Splice the end of the red 20ga wire to a key controlled accessory circuit of the ATV (use the provided wire splice). Using a test light, locate a suitable wire from the ATV key switch. The wire should only have power when the key is in the "ON" position.

**NOTE: If installing both switches, both 20 gage red wires MUST be spliced to a key controlled accessory circuit of the ATV as described above.**

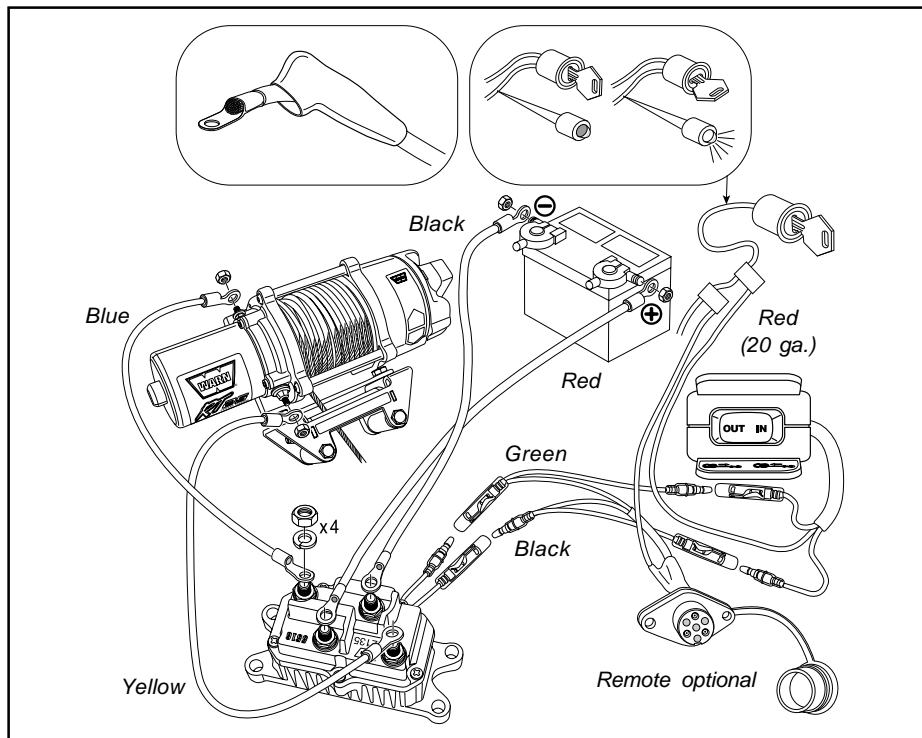


Figure 11. Wiring Installation diagram

### Step 5 - Install the Wiring

#### ⚠ CAUTION

- Always remove jewelry and wear eye protection.
- Never lean over battery while making connections.
- Always verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc. when drilling.
- Never route electrical cables:
  - Across any sharp edges.
  - Through or near moving parts.
  - Near parts that become hot.
- Always insulate and protect all exposed wiring and electrical terminals.
- Always install terminal boots as directed in installation instructions.

#### ⚠ CAUTION

Place the supplied terminal boots on wires before securing to the contactor. All wires must be attached to the contactor before mounting the contactor to the ATV.

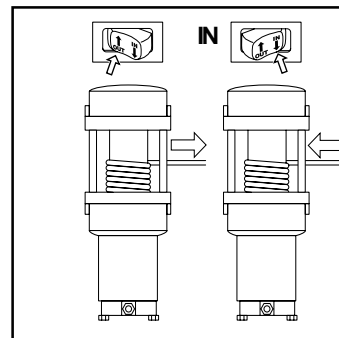
- Attach the yellow and blue electrical cables to the motor terminals on the winch. Yellow is marked #1 and blue is marked #2 on the end of the motor cap. Torque the terminal nuts on the motor to 5.7 N-m (50 lb-in).
- Route the electrical cables back to the contactor and connect to the blue and yellow contactor posts. Do NOT tighten nuts.
- If installing both the handle bar switch and the remote socket, first attach the terminals on the green and black remote socket wires into the contactor (green to green, black to black). Next, attach the terminals on the handle bar switch wires into the "Y" connectors on the remote socket wire harness after removing the dust caps.

- If only installing the handlebar switch, attach the terminals on the green and black handle bar switch wires directly to the terminals of the contactor.
- Attach battery cables to contactor. Connect red cable to red marked post and black cable to black marked post. Do NOT tighten nuts.
- Attach the contactor to the predetermined position on the ATV. Assure that cables do NOT cross sharp edges, moving parts, or contact items that may become hot.
- Torque the terminal nuts on the contactor to 4.5 N-m (40 lb-in). Do NOT over tighten.
- Position insulation boots over terminals. Secure loose cables with zip ties or electrical tape prior to final ATV reassembly.

### Step 6 - Check the System

Before using the winch, verify the following:

- Wiring to all components is correct. All loose wires are tie wrapped tight.
- There are no exposed wiring or terminals. Cover any existing terminal exposures with terminal boots, heat shrink tubing or electricians tape.
- Turn ATV key switch to ON position. Check winch for proper operation. The wire rope should spool in and out in the direction indicated on the switch.



#### ⚠ CAUTION

#### KNOW YOUR WINCH:

- Take time to fully understand your winch and the winching operation by reviewing the *Basic Guide to Winching Techniques* included with your winch.