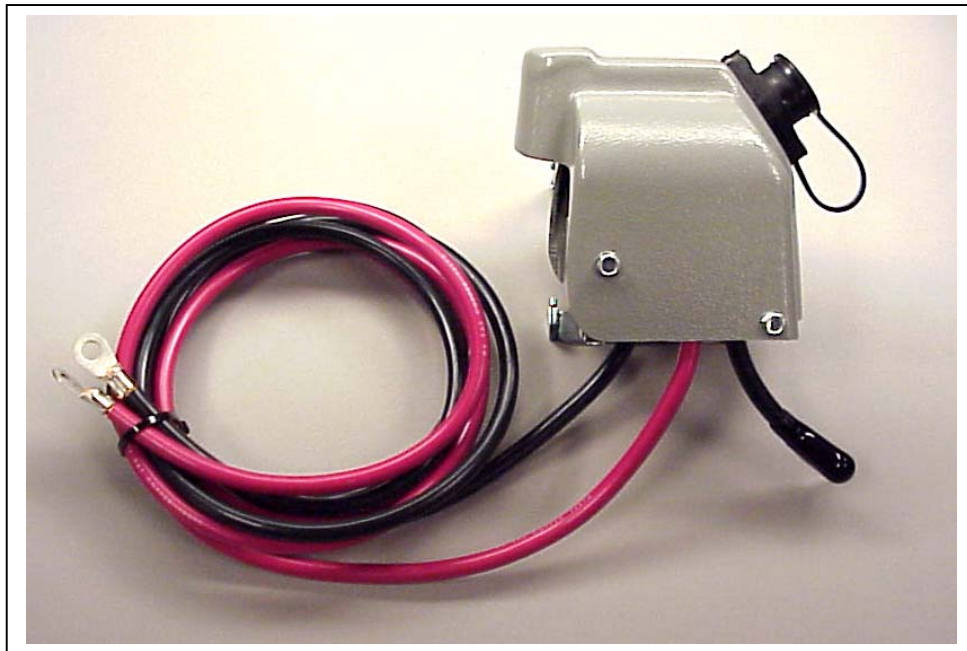




INSTALLATION INSTRUCTIONS

WARN Works™ Contactor Kit

Part Number: 66187



Your safety, and the safety of others, is very important. To help you make informed decisions about safety, we have provided installation and operating instructions and other information on labels and in this guide. This information alerts you to potential hazards that could hurt you or others. It is not possible to warn you about all potential hazards associated with this product, you must use your own good judgment.

CARELESS WINCH INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.

This guide identifies potential hazards and has important safety messages that help you and others avoid personal injury or death. **WARNING** and **CAUTION** are signal words that identify the level of hazard. These signal words mean:

WARNING signals a hazard that *could* cause serious injury or death, if you do not follow recommendations.

CAUTION signals a hazard that *may* cause minor to moderate injury, if you do not follow recommendations.

This guide uses **NOTICE** to call attention to important mechanical information, and **Note**: to emphasize general information worthy of special attention

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Product Description: WARN Works™ Contactor Kit

This Contactor Kit is designed to work with all of the Works™ DC powered winches. It can be mounted directly to the motor end of a Works Winch™ or be remotely mounted to any flat surface.

This kit requires that you have a Works™ 12' remote control for the kit to work. If you do not have one then you will need to purchase Works™ part number 65704.

The contactor kit comes configured to mount to the motor end of the Works™ Winch. For mounting this kit to other location please follow the Remote Mounting Instruction found on page 6.

Introduction

Thank you for choosing WARN Works® for your utility winch needs. All WARN Works® products have been designed and manufactured for many years of problem-free operation. For future reference please record the following information:

Model/Part Number: _____ **Date of Purchase:** _____

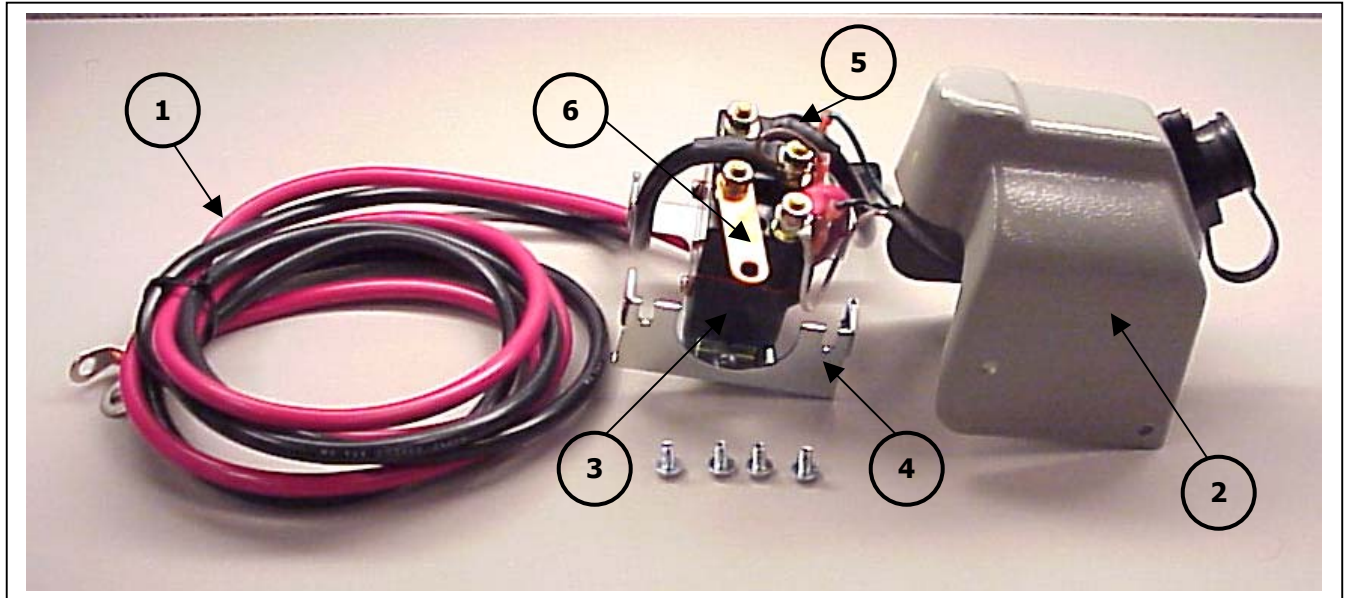
Before you begin

- Read the instructions completely to familiarize yourself with the installation process.
- Review all the notices, cautions and warnings to make sure the kit will be installed correctly and safely.

Parts List

The WARN Works™ Contactor Kit comes from the factory pre assemble and wired so there is no loose or additional parts in the box. Depending upon your application, it may be necessary for you to source additional and/or longer battery cables, and wire from an auto parts store.

The assembled unit consists of the following main components.



1. 2 – 6' by 6 gauge battery cables	2. Contactor cover with remote socket and wire harness.
3. 12 volt DC contactor unit.	4. Mounting bracket.
5. 7" by 6 Gauge motor terminal cable with boot.	6. Motor terminal buss bar.

Recommended Tools

- ❑ Ratchet or end wrenches.
- ❑ 5/16", 7/16", 7mm, 10mm sockets or nut drivers.
- ❑ Standard screwdriver.
- ❑ Drill motor and drill bits (for remote mounting).

Mounting the Contactor kit to a Warn Works® Winch



Warning

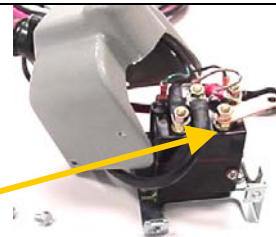
Winch Malfunction Hazard

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

- ❑ Always disconnect battery ground before working on winch.
- ❑ Always ensure the winch is properly grounded to the battery and auto body. Poor ground could cause electric shock.
- ❑ Always place the supplied terminal boots or insulation on wires and terminals, as directed by the installation instructions.
- ❑ Never lean over battery while connecting. Remove jewelry and wear eye protection
- ❑ Always double check wiring to insure the unit is installed correctly.

- ❑ Disconnect the winch from its power source.
- ❑ Remove the old switch or contactor assembly from the motor end of the winch.

1. Remove the Contactor kit from the box. Using a 5/16" socket or nut driver remove the four small screws that hold the cover on to the bracket.



2. Loosen the nut that holds the motor terminal buss bar in place (10mm). **Do not remove the nut or buss bar at this time.**

3. Remove the top nuts and washers from the motor terminal studs (7/16").



4. Loosen the motor mounting bolts (7mm). Do not remove the motor or the bolts from the end of the motor.

5. Back the motor mounting bolts out just far enough to allow the Contactor mounting bracket to slide between the head of the bolts and the motor end cap.



6. Use a screw driver and gently pry off the spring nuts from the contactor mounting bracket.



7. Install the contactor onto the motor by sliding the slotted holes of the contactor mounting bracket up behind the motor bolt heads.
8. Make sure the motor bolts are seated in the bottom of the groves and tighten the motor bolts to **3.5-4.0 lb/ft.**



9. Reinstall the spring nuts onto the bracket.



10. Remove the nut that holds the buss bar to the contactor that you loosened earlier.
11. Place one end of the buss bar onto the contactor terminal and the other end onto the top motor terminal.
12. Place flat washers and nuts on both terminals and tighten. **Motor terminal @3.5-4.0 lb/ft.**
Contactor terminal @ 3.0-3.5 lb/ft.



13. Place the winch on its side.
14. Route the short 7" battery cable to the under side of the bracket.



15. Pull back the protective boot on the cable.
16. Install the cable to the lower side motor terminal and tighten the nut to **3.5-4.0 lb/ft.**
17. Pull the protective boot down the cable and cover the motor terminal and nut.



18. Place the winch right side up.
19. Place the contactor cover over the bracket and line the holes in the cover up with the spring nuts in the bracket
20. Re-install the four screws that hold the cover to the bracket.



- Re-connect the winches power source.
- Disengage the clutch and pull out a length of cable.
- Plug the remote into the contactor kit and run the winch in both power-in and power-out modes to check the installation.

Mounting the Contactor Kit in a Remote Location



Warning

Winch Malfunction Hazard

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

- Always disconnect battery ground before working on winch.
- Always ensure the winch is properly grounded to the battery. Poor ground could cause electric shock.
- Always place the supplied terminal boots or insulation on wires and terminals, as directed by the installation instructions.
- Never lean over battery while connecting. Remove jewelry and wear eye protection
- Always double check wiring to insure the unit is installed correctly.

General Guidelines

- Always mount the Contactor Kit to a flat stable surface.
- Always mount the Contactor Kit in an area where it will not be damaged from moving objects.
- Always mount the Contactor Kit in an area that is protected from extended exposure to the environment.
- Always use 6 gauge or larger battery cable.
- Always use fasteners large enough and long enough to secure the unit properly.

Mounting Bracket Options

The mounting bracket has two provisions for mounting to a flat surface. Both the mounting slots used to mount the bracket to the motor end, and the holes in the base of the bracket that the contactor unit itself mounts to can be use.

When using the Mounting slots, trimming of the contactor cover is required. Figure 2 demonstrates where the cover should be trimmed.

FIGURE 1. – Mounting bracket

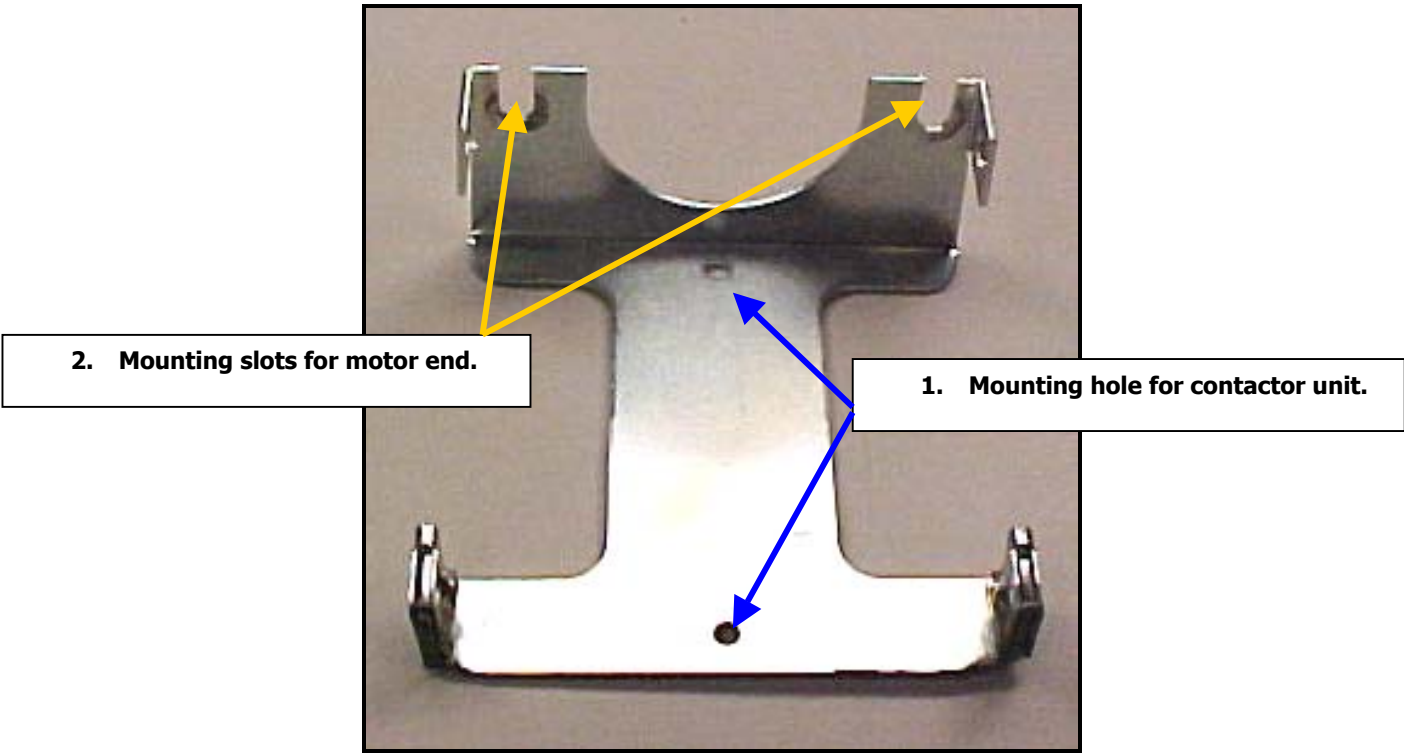
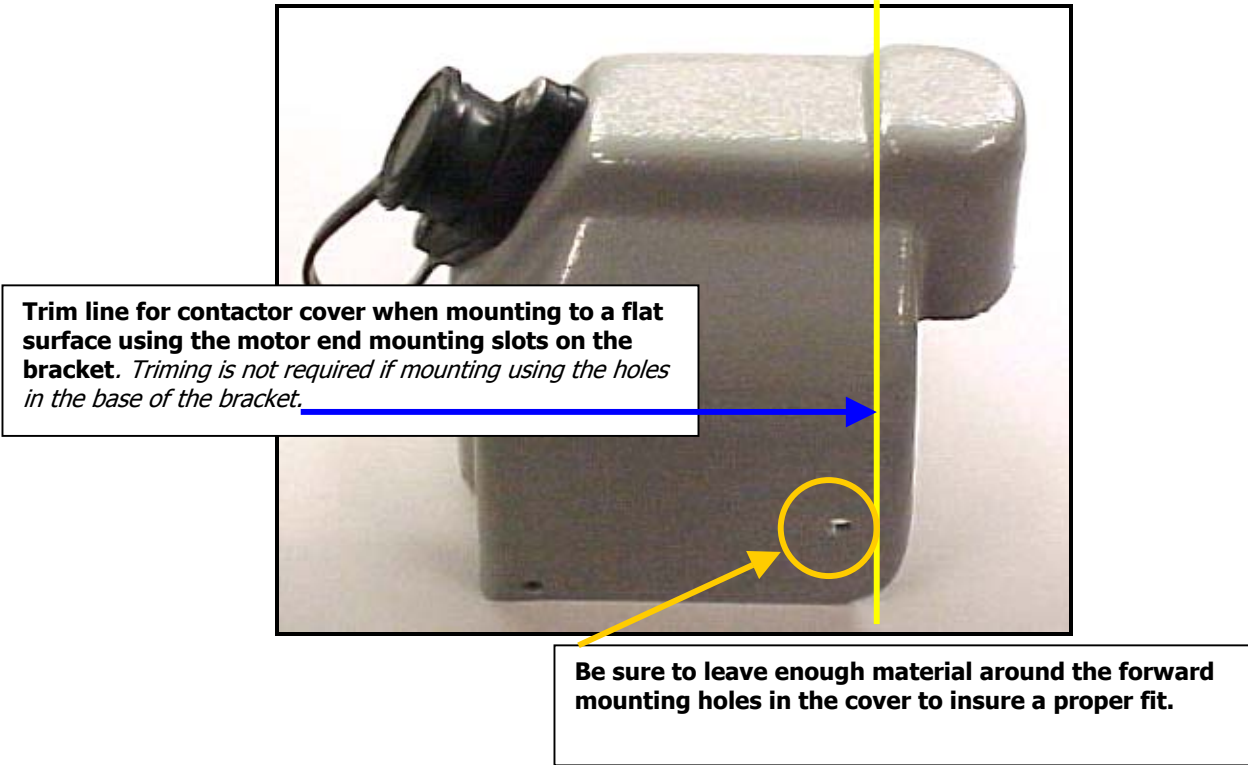



FIGURE 2 – Contactor Cover



Proper Wiring of the Contactor Unit

 Warning
Winch Malfunction Hazard
Failure to observe these instructions could lead to severe injury or death.
<ul style="list-style-type: none"><input type="checkbox"/> Always disconnect battery ground before working on winch.<input type="checkbox"/> Always ensure the winch is properly grounded to the battery. Poor ground could cause electric shock.<input type="checkbox"/> Always place the supplied terminal boots or insulation on wires and terminals, as directed by the installation instructions.<input type="checkbox"/> Always use the same size and quality of cable and/or wire as provided from the factory.<input type="checkbox"/> Always double check wiring to insure the unit is installed correctly.

To mount the WARN Works™ Contactor Kit in a remote location will require disassembling the pre wired unit for installation and to lengthen cables or wires depending upon the application.

It is important that the unit be reassemble in the proper manner for the winch to operate properly and to its published performance.

Figures 3 and 4 below show the proper wiring configuration for the Contactor Kit.

Figure 3 – Cable Connection

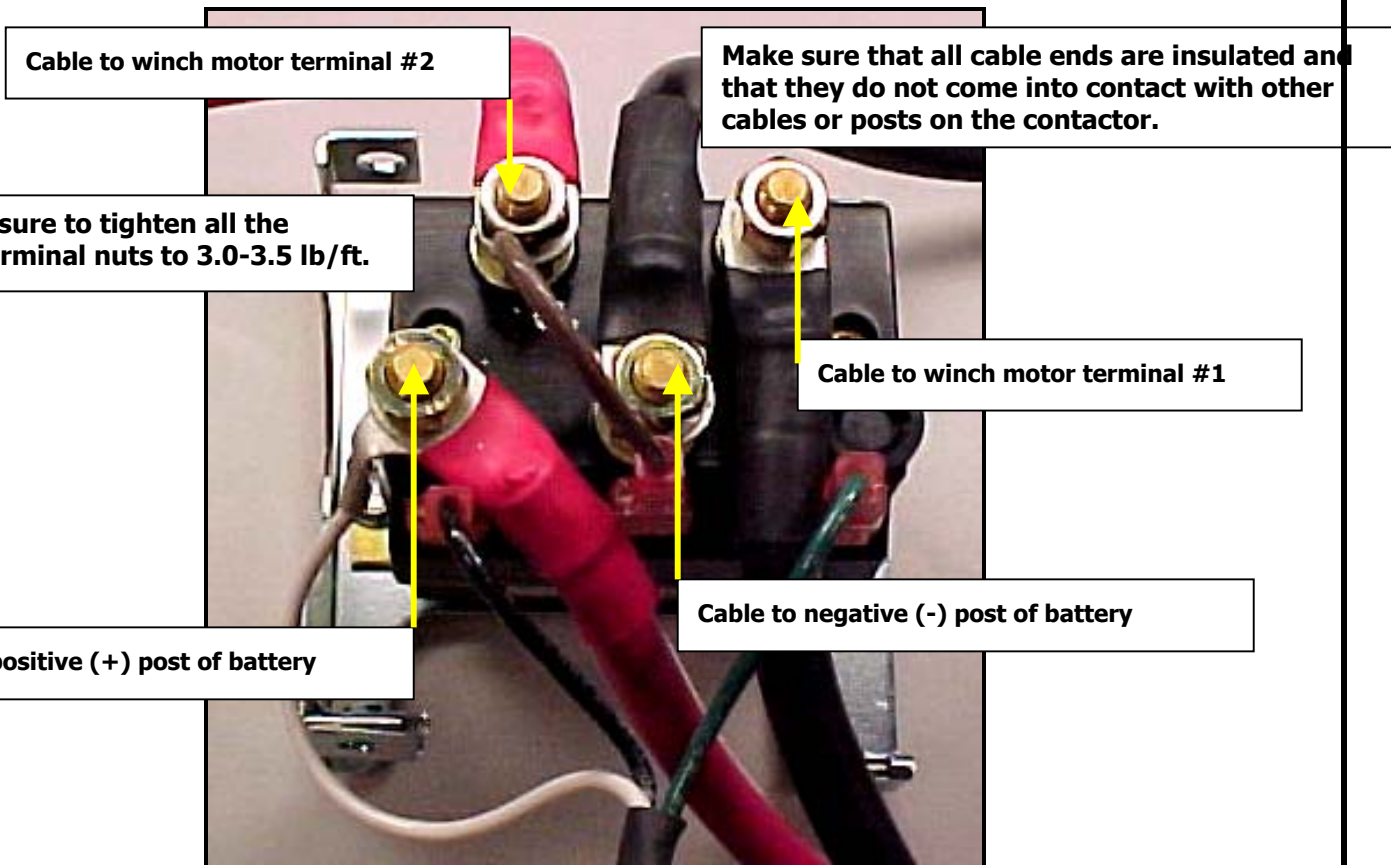
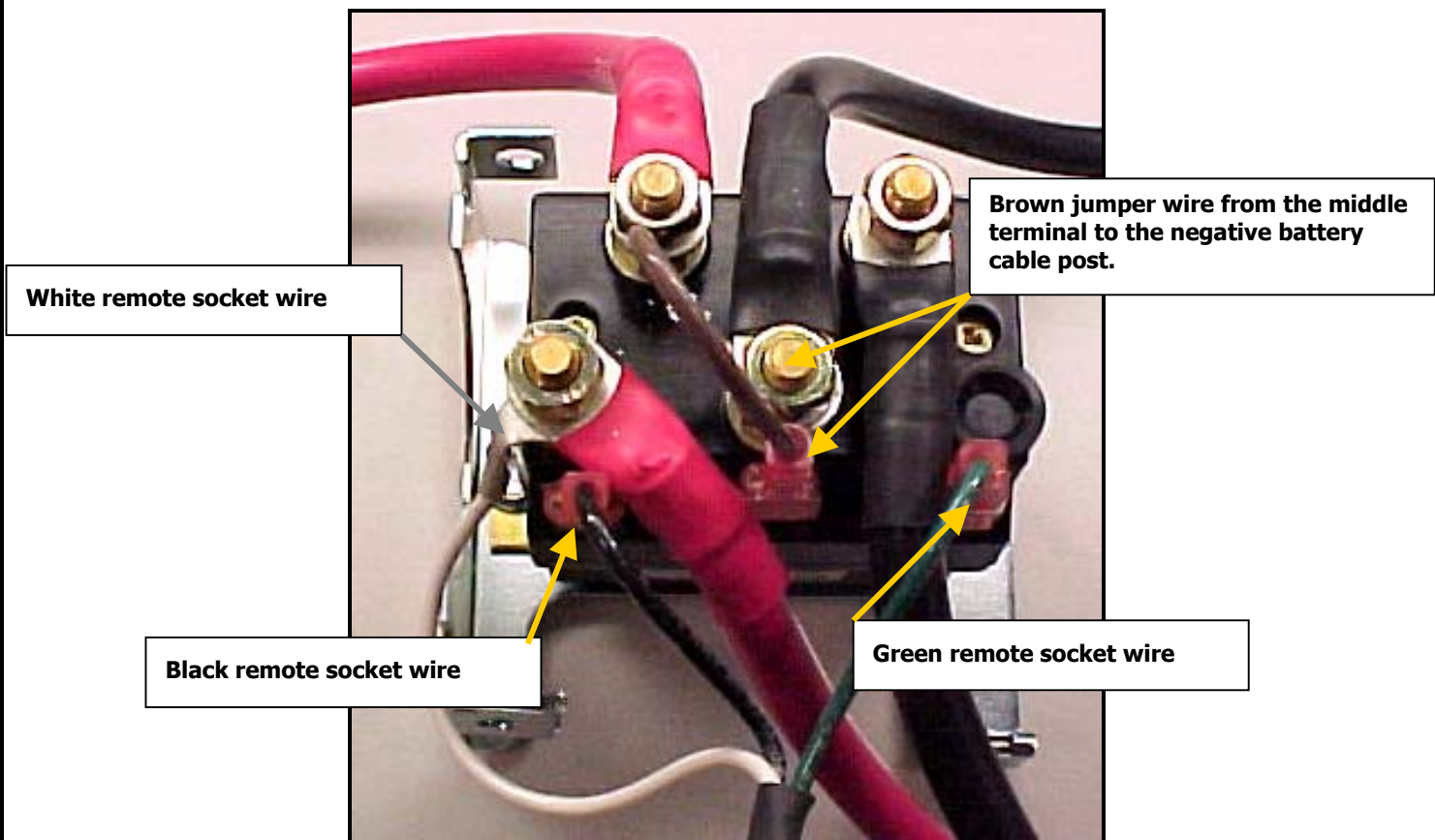


Figure 4 – Control Wires



Customer Support

Should you have any questions about this product or these instruction, please call Warn’s customer service line at 1.800.543.9276, Monday thru Friday between 7:00AM and 4:00PM pacific time for assistance.