

**Honda Rancher '00-'03 Rancher 350 and 400
Winch Mount Kit
MA11917B**



23001 Industrial Blvd Rogers, MN 55374

HARDWARE FOR WINCH MOUNT KIT

QTY	DESCRIPTION
	Winch mount plate, rear support bracket, fairlead bracket, and fairlead spacer brackets
12	¼" nylock nut
6	¼"-20 x 1 1/8" x 1 ¾" Ubolt Fastenal P/N: 42010
2	5/16" nylock nut
2	5/16" flat washer
2	5/16" x ¾" hex head screw (Fastenal P/N: 110120323)
12	¼" flat washer

Rancher Installation

1. Begin by removing the front fascia and front skid plate on the vehicle as shown in figure 1. Save the fasteners

2. Remove the 8mm bolts on both sides located inside the front tires and on the ends of two horizontal tubes on the front tube frame as shown in figure 2.

3. Place the mounting plate (largest plate) inside the front tube frame. The tabs with the slotted holes facing down. The slotted tabs should align where the two 8mm bolts were removed in step 2. Reinstall these two bolts at this time tighten to just finger tight. Install the two 1/4-20 u-bolts and locking hex nuts and flat washers at this time see figure 3, do not tighten down at this time. so the plate can be adjusted for position see figure 2.

4. Place the rear support bracket (rectangular bracket with two holes) into position and attach with the two 5/16-18 x 3/4 hex cap screws, flat

washer and locking nut. Adjust the position of the support bracket so that it comes in contact

with the frame tubes and tighten the fasteners see figures 3 and 4.

Make sure the support bracket maintains contact with the rear frame tubes and tighten down the two front 8mm mounting bolts. Tighten the bolts.

5. Attach the fairlead bracket (with window for fairlead) support to the front frame tubes see figure 5. The support bracket attaches behind the front tubes. Space the bracket away from the tubes using the spacer brackets. Attach the brackets using the 1/4- 20 u-bolts, lock nuts and flat washers

Before tightening the u-bolts make sure the bracket is in the correct position by fitting the front fascia into position and checking location. Tighten the nut.

6. Place the winch into position as shown in figure 6 and figure 7. Attach the winch using 4 5/16-18 x 1 hex head cap screws and 5/16 lock washers. These fasteners will be found in the winch hardware package. Tighten the bolt.

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7. Attach either the fairlead to the fairlead support bracket using the bolts, nuts, and washers provided with the winch as shown in. Hawse users will need to remove the hawse from the fairlead plate before mounting on the support bracket. Tighten all nuts and bolts securely.

8. Switch the winch clutch to free-spool. Manually feed the winch cable through the hawse or roller fairlead. Attach the clevis hook, found with the winch, to the end cable loop. Reengage the winch clutch.

12. Reinstall the front fascia and skid plate using the hardware removed in step 1.

13. Complete the winch installation as described in the winch installation and specification guide that came with the winch.

14. Figures 8 and 9 show location of a suggested position of the contactor that comes with the winch. This location is on the right side of the ATV mounted to the side of the storage box. Mounting the contactor in this location will require drilling two holes in the side of the storage box. See wiring instructions for complete instructions.



Figure 1

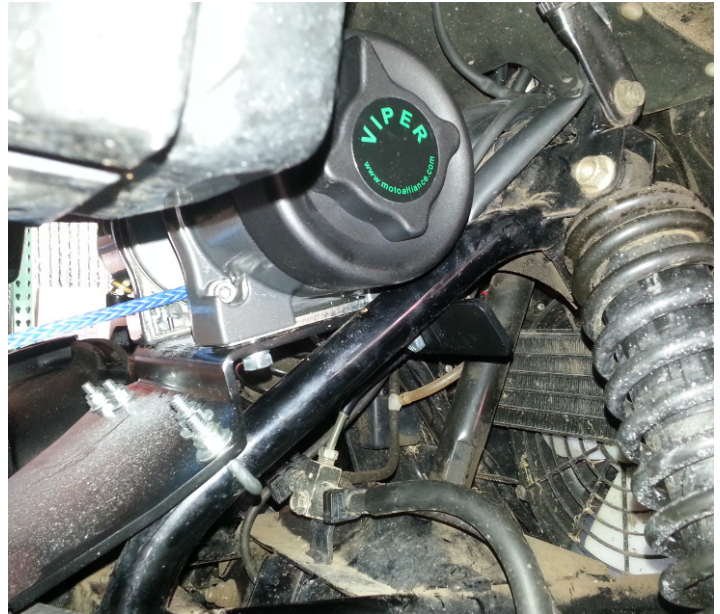


Figure 2



Figure 3

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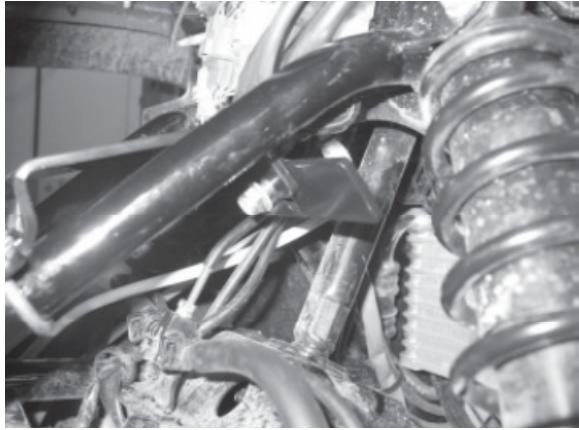


Figure 4



Figure 7



Figure 5



Figure 8



Figure 6



Figure 9

WIRING INSTRUCTIONS

NOTE: Your contactor may be a waterproof 4-post contactor and will be slightly different than the one used in the description used below. When you go to connect the wires, please refer to our technicians' website at <http://www.mettlers.biz/winchwiring.htm> for further pictures and assistance.

1. First determine where to install the contactor (control relay). There is no right or wrong place. We recommend a dry place away from sharp or moving suspension parts. It can be hard to find a totally dry place on an ATV but just try to find the best spot. You may mount it in the front, back or under the seat. You may mount it with U-bolts (holes on contactor are metric.) or bolts. We usually install the contactor in the rear storage compartment if possible because it is dry there. When installing the contactor in the storage compartment, you should attach all the wires first, before bolting it down. We also offer an optional side bracket mount. Which we used on this machine. This bracket allows the contactor to hang on the side of square tubing. There is an additional cost associated with this part and you can call us for details or visit our website.

2. Now the power wires can be run. Take the long set of red/black power wires and attach the red wire to the winch's red terminal and the black wire to the silver terminal. Keep the wire away from moving suspension parts. We left wire loose as we went down the upper frame. When fastening any wire where moisture could cause problems put dielectric tune-up grease (Permatex 22058 from NAPA) on all connections. Also if you want extra vibration protection, Napa has plastic split loom tube conduct that can also be installed over the wire after it has been routed through the frame. (Napa #737300, 3/8" split loom) Connecting the wire to the contactor, you will want the red wire attached to the red nut on the winch motor to go to the blue terminal on the contactor. (Blue is painted on top of the contactor terminal). The black wire attached to the silver terminal on the winch goes to the yellow terminal on contactor. If you get this wiring backwards this will not damage anything, the control switch on handlebars will just work in reverse.

3. Run the power wires from the battery into the compartment or location you have chosen for your contactor. The red wire goes to the positive terminal on the battery and the red terminal on the contactor. The black wire goes negative terminal on the battery and the black terminal on contactor. We didn't attach the red wire until all the rest of the wiring was complete. **Caution!** It is easier to reverse the polarity at the battery then you would think and that can cause damage to your voltage

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regulator, contactor, and can start fires. The battery is capable of supplying a lot of current even to a short.

4. The red switch control wire is the next item, which often raises some questions. The red control wire hanging out of the control cable near the switch goes to the switch 12 volts on the UTV. Some UTV's will have an accessory wire provided and it is spelled out in the owner's manual. The wire will be fused for it. The wires can be many different colors. You could also call an your service center & they will give you the location and color wire for winch control, switch 12 volts wires over the phone. A factory service manual will also have the schematic in it. We found the switch 12 volts by using a 12-volt test light. With the test light clipped to the frame we turned on the key and lit the light. We turn turned off the key and light went out. (Switched 12 volts are defined as 12 volts is removed with the key off, as opposed to battery 12 volts that has power all the time. You can always find switch 12 volts on the backside of the ignition switch.) You may obtain a crimp on side tap terminal for taping into insulated wire at an Auto parts store or hardware store. We bared the insulation and soldered the red wire to the 12-volt wire. We used RTV Silicone on the joint and wrapped it in electrical tape. Some manufacturers provide a connector to plug into under the front access panel. Usually a crimp on spade connector will mate with it.

5. Lastly, fasten down the contactor with the bolts provided in the winch box. Make sure the 10-MM terminal nuts are tight on the contactor and wire terminal lugs and not shorting. Double check the green and black control wires on the contactor. They can mate hard, so make sure they are seated. Then, attach the battery wires to the battery. Your winch is operational. With the ignition key on, the relay should click when the handle bar control switch is activated. You should test both halves of the switch. The click is independent of winch powering 12 volts. It will click even if the battery is not wired to the contactor or winch. Wind in excess winch steel cable by carefully guiding it to the spool.