



INSTALLATION INSTRUCTIONS WINCH MOUNTING KIT

Part Number: 72008

Application: Kymco MXU 250

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 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.

▲ WARNING

INJURY HAZARD

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

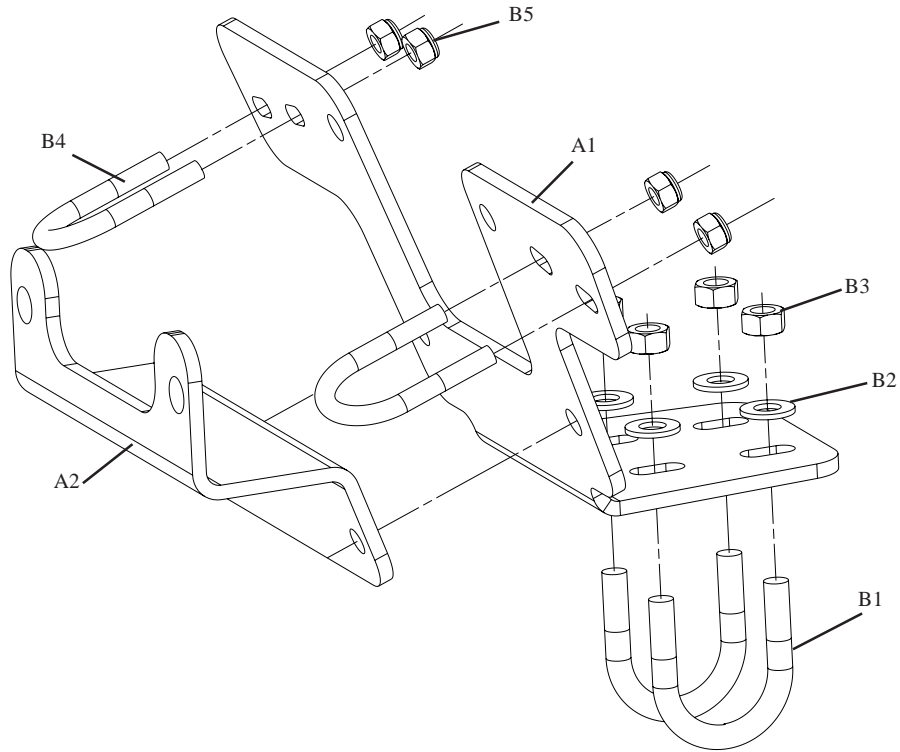
- ❑ **Always** use extreme caution when drilling on any vehicle. Make sure that all fuel lines, brake lines, electrical wires, and other objects are not punctured or damaged when / if drilling on the vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged. Failure to inspect the area to be drilled may result in vehicle damage, electrical shock, fire or personal injury.
- ❑ **Always** wear safety glasses when installing this kit. A drilling operation will cause flying metal chips. Flying chips can cause eye injury.
- ❑ **Always** use extreme caution when cutting and trimming during fitting.
- ❑ **Always** remove jewelry and wear eye protection.
- ❑ **Never** lean over battery while making connections.
- ❑ **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.
- ❑ **Always** use appropriate and adequate care in lifting components into place.
- ❑ **Always** insure components will remain secure during installation and operation.
- ❑ **Always** tighten all nuts and bolts securely, per the installation and operation.
- ❑ **Always** perform regular inspections and maintenance on the winch, winch mount and related hardware.
- ❑ **Never** operate this **WARN** product with damaged or missing parts.

⚠ Caution
Moving Parts Entanglement Hazard
Failure to observe these instructions could lead to minor or moderate injury.
<input type="checkbox"/> Always take time to fully read and understand the installation and Operations Guide included with this product. <input type="checkbox"/> Never operate this product if you are under 16 years of age. <input type="checkbox"/> Never operate this product when under the influence of drugs, alcohol or medications.
Read installation and operating instructions thoroughly.

Notice
Equipment Damage
<input type="checkbox"/> Always refer to the Installation and Specification Guide, supplied in the winch kit, for all wiring schematics and specific details on how to wire this WARN product to your vehicle.
Read installation and operating instructions thoroughly.

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I. Parts List

<u>Ref</u>	<u>Description</u>	<u>Qty</u>
A1	Mounting Bracket	1
A2	Fairlead Mounting Bracket	1
B1	5/16-18 x 1 1/4 x 1 3/4" U-bolt	2
B2	5/16" flat washer	8
B3	5/16-18 lock nut	4
B4	1/4-20" x 1 1/8" x 1 3/4" U-bolt	2
B5	1/4-20 lock nuts	4
C1	5/16-18 x 3/4" bolt	2

II. Tools Required

- Ratchet
- Sockets: 8mm, 10mm, 12mm, 7/16", 1/2",
- Wrenches: 7/16", 1/2"
- Allen Wrench 5/32
- Cutting Utensil
- Masking Tape.

III. Winch Modification

The Warn 1.5ci winch needs to have the end housing re-orientated to work with the Kymco winch mounting kit.

1. Begin by placing winch in freespool.

Support the winch so that it will stand upright on the workbench, Fig. 1. This will ensure that the winch drivetrain will not be dislocated during disassembly.



Figure 1: Position the Winch Upright

2. Remove the two lower cap screws and nuts.
Next remove the two upper cap screws, Fig. 2.



Figure 2: Remove Cap Screws

- Lift the gear housing straight up off the gears. Take care not to disturb the gear set.



Figure 3: Lift Gear Housing

- Rotate the gear housing clockwise 90 degrees and place back down over the gear set. It may take slight twisting motion to have the housing align and drop over the gear set.

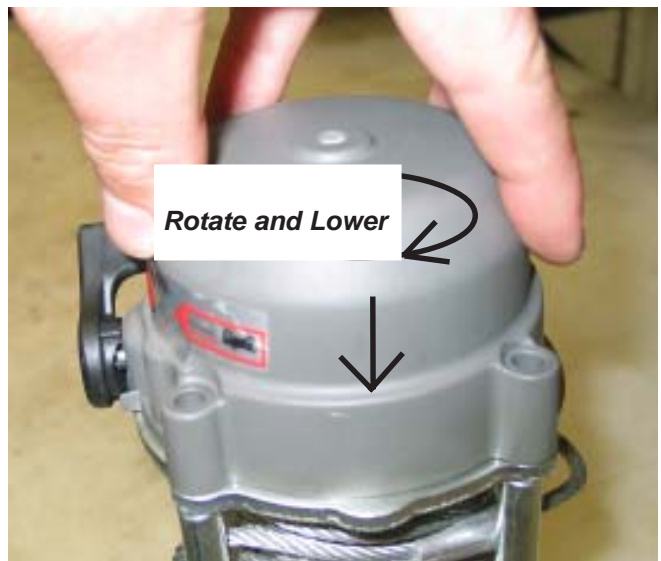


Figure 4: Rotate and Replace Gear Housing

- Align holes and replace hardware securing the endhousing back on the winch.
Torque bolts to 45 in-lbs.
The winch is now ready to be installed.



Figure 5: Reinstall Hardware

IV. Kymco MXU 250 Installation

1. Begin by removing the plastic bumper located on the front of the ATV. Remove the four front bolts and two bolts securing the bumper on the back side, Fig. 6.

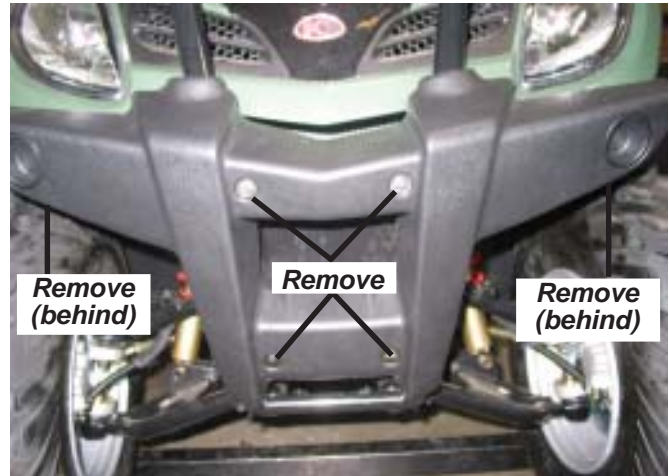


Figure 6: Remove Bumper Bolts

2. Set the bumper aside. Save the fasteners to reinstall the bumper.



Figure 7: Remove Bumper

3. Remove the eight bolts that attach the front framework, Fig. 8.

Set the framework aside and save the fasteners to reinstall the framework.

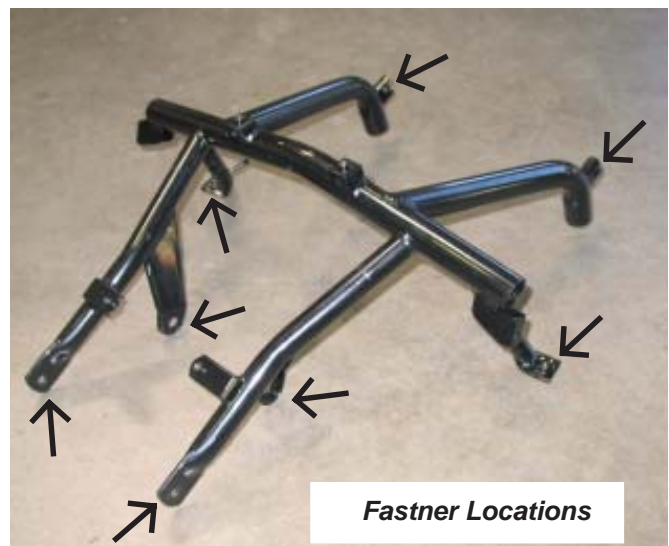


Figure 8: Remove Framework

- The fan shroud will need to be modified by removing the lower portion to make room for the winch. Remove the four bolts securing the fan shroud to the radiator, Fig. 9.

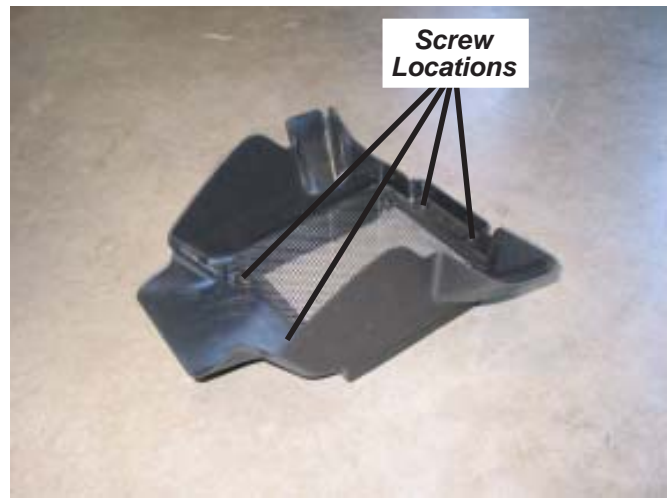


Figure 9: Remove Fan Shroud

- Care needs to be taken when cutting the fan shroud. When making preparation for the cut, use masking tape or some other method to locate a cut line so that not to cut off the lower mounting holes of the shroud. Remove enough plastic so that the winch will have clearance with the shroud. A few trial fit-ups may be necessary before enough plastic is removed. Fig. 10 shows an approximate cutting line.

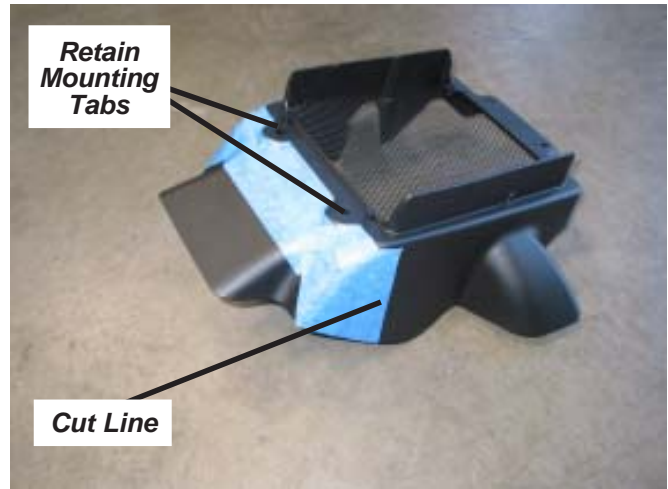


Figure 10: Mark Cut Line

- Clean up the rough cut edges of the plastic and reinstall using original hardware.



Figure 11: Clean and Replace Fan Shroud

7. Replace the front framework that was removed in step 3 using the 8 original bolts that was securing it.

Loosely install the winch mount (A1) using the 5/16" U-bolts (B1) and the 1/4" U-bolts (B4) as shown in Fig.12.

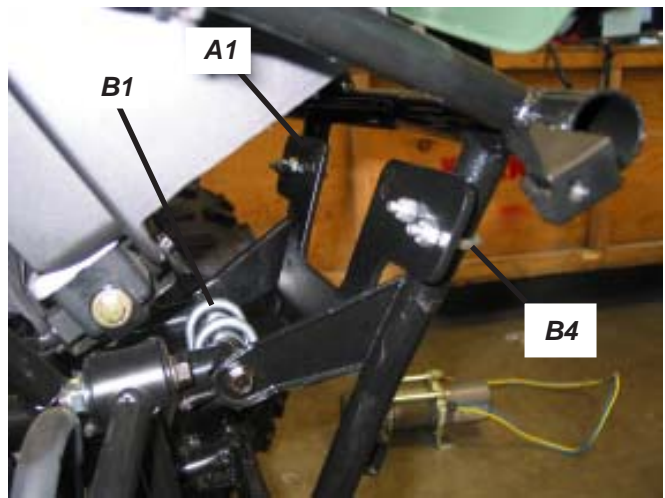


Figure 12: Install Winch Mount.

8. Loosely mount the winch to the mounting bracket using the two 5/16-18 x 3/4 inch bolt (C1) provided with the mounting kit and the lock nuts provided in the winch kit. Install hardware to the upper two mounting holes only as shown in Fig.13. The winch is to be mounted with gear housing on the vehicles right side.

Note: Reference winch installation guide for further assistance.

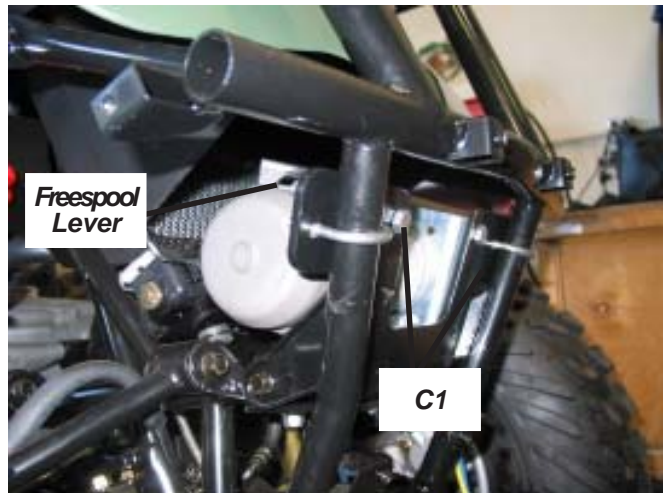


Figure 13: Install Winch

9. Install mount the fairlead bracket (A2) to the winch mount using two 5/16-18 x 1 inch bolts and lock nuts supplied with the winch kit, see Fig.14. With the fairlead bracket mounted, adjust the winch and bracket as needed and tighten all hardware.

Tighten fastener to recommended torque of:

1/4 bolts 6 ft-lbs. (8 N-m)

5/16 bolts 11 ft-lbs. (15 N-m)



Figure 14: Install Fairlead Bracket

10. Mount the fairlead supplied in the winch kit to the fairlead bracket, using the hardware supplied with the winch kit.



Figure 15: Mounting the fairlead

11. The front bumper will need to be trimmed in the same manner as the fan shroud to make clearance for the mounting plate and the fairlead. With masking tape, mark a cut line and trim as necessary. A few trial fit-ups may be necessary until enough material is removed for the bumper to clear the mounting bracket and the fairlead, see Fig. 16.

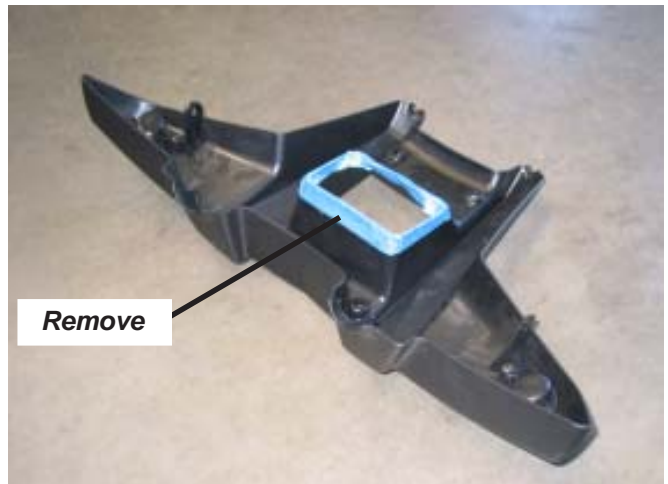


Figure 16: Cut Front Bumper

12. Reinstall the front bumper using the original 6 bolts.



Figure 17: Reinstall Front Bumper

13. Double check to make sure that all fasteners are tightened.

Note: Reference winch installation guide for installing hook.

⚠ WARNING

Tighten all nuts and bolts securely. Failure to check all nuts and bolts prior to use can result in product failure which can lead to vehicle damage and operator injury or death.



Figure 18: Completed Winch Installation on the Kymco MXU 250

V. 2005 Kymco MXU 250 Recommended Contactor Location

1. Contactor Location - Step Three in the winch Installation and Specification Guide:

Notice

Please refer to the Installation and Specification Guide, supplied in the winch kit, for all wiring schematics and specific details on how to wire the winch to the ATV.



Figure 19: Recommended Contactor Location

⚠ WARNING

Avoid all moving and potentially hot components of ATV when routing electrical cables. Avoid areas where the wiring could be pinched when components are reinstalled. Failure to do so can result in product failure which can lead to vehicle damage and operator injury or death.

VI. Maintenance/Care

- Inspect all metal parts on the winch, winch mount, and related hardware. Replace all that appears rusted, cracked or deformed prior to use.
- Inspect all nuts and bolts on the winch, winch mount, and related hardware prior to each use. Tighten all nuts and bolts that are loose. Missing, stripped, fractured, or bent bolts or nuts need to be replaced immediately.
- Check all cables prior to use. Replace cables that are worn or frayed.
- Check all moving and rotating parts. Remove debris that may inhibit the part from moving freely.

⚠ WARNING

Failure to perform regular inspections and maintenance on the winch, winch mount, and related hardware may result in vehicle damage and operator injury or death.