



# INSTALLATION INSTRUCTIONS

## ATV Plow Blade

Part Number: 86766 (48”), 86768 (54”), or 86772 (60”)

Application: All Terrain Vehicles

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.

## Before You Begin

This kit also requires a plow tube base kit, a WARN specific vehicle plow mount, and lift mechanism such as a winch, electric actuator, or universal manual lift. See your local dealer for part numbers and available kits. Please note that the larger blades are very heavy and for some people may be too tiresome to lift with a manual lift. Older plow tube base kits come with a set of skids and plow springs that will not be used in the installation of this kit. Instead, use the skids and springs provided with the blade kit. Additionally, older plow base kits may come with english units fasteners rather than the metric fasteners as described in these instructions. The kits are compatible. Simply use the following guidelines; 8mm = 5/16”, 10mm = 3/8”, and 12mm = 1/2”. A list of replacement parts, such as skids and wear bars, can be found on the last page of this document.

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## I. Tools Required

- Ratchet
- Sockets: 13mm, 17mm, 18mm, 24mm
- Box Wrenches: 13mm, 17mm, 18mm
- Allen Wrenches: 8mm

## II. Torque Specifications

Please use the recommended torque specifications when assembling this product unless otherwise specified in the instructions.

8mm diameter bolt and nuts: 12 ft-lbs (17 N-m)

10mm diameter bolt and nuts: 20 ft-lbs (28 N-m)

16mm diameter nut: 100 ft-lbs (136 N-m)

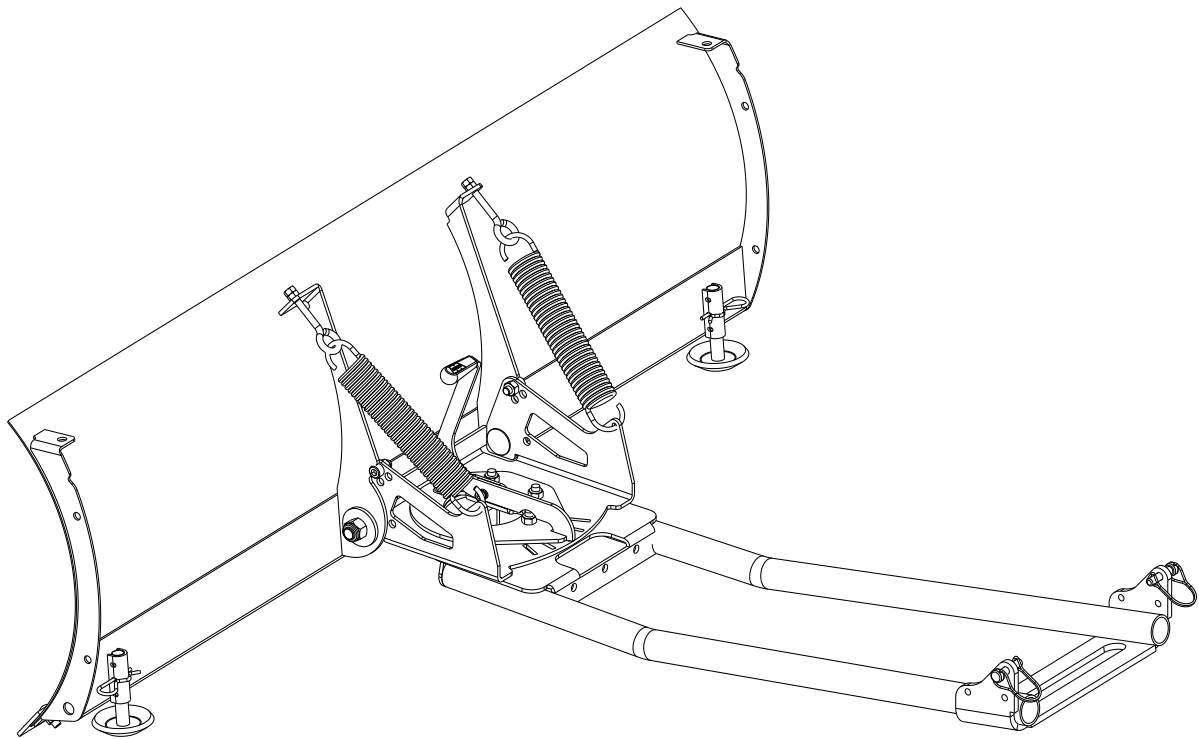
## III. Parts List

<u>Part #</u>	<u>Qty</u>	<u>Description</u>
<i>48" Straight Blade Kit (PN 70948)</i>		
70886	1	48" Plow Blade
37566	1	48" Wear Bar
<i>54" Straight Blade Kit (PN 70954)</i>		
70889	1	54" Plow Blade
38734	1	54" Wear Bar
<i>60" Straight Blade Kit (PN 70960)</i>		
70560	1	60" Plow Blade
37098	1	60" Wear Bar

### *Hardware Kit for all plows*

70987	9*	10mm dia Carriage Bolt
69807	9*	10mm dia Nylon Lock Nut
69669	2	Heavy Duty Plow Spring
68820	2	Heavy Duty Plow Skid
25397	2	Skid Pin

\* The 48" and 54" blades will only use 7 of these fasteners.



## IV. Installation

1. Assemble the plow lever arm per figure 1. Run a 10mm dia shoulder bolt through the lever arm side and out the center hole in the plow base. Use the small compression spring between the shoulder screw and the latch. Terminate with a 8mm dia lock nut. Tighten until the shoulder screw is firmly against the plow base. Latch lever should rotate freely.
2. Attach two socket screws to the side flanges of the plow base as shown in figure 1. Place the socket screw in one of the three holes in the side flange, and place the other socket screw in the same location on the opposite side. Terminate with a 10mm dia lock nut.

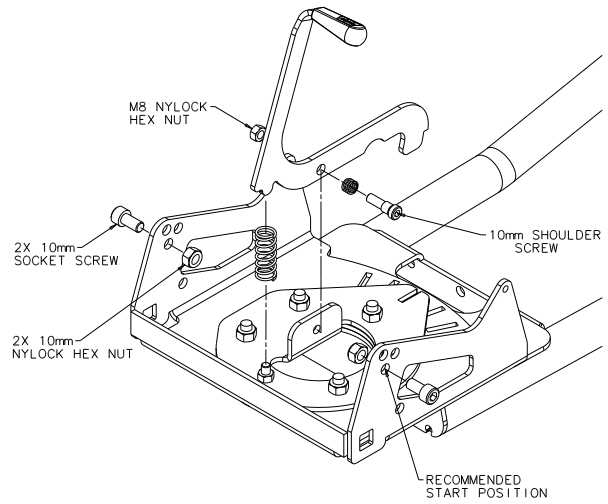


Figure 1 Assemble Plow Lever

*NOTE: It is recommended to first place the socket screw in the middle-lower hole in the side flange of the plow base. Use the hole closest to the blade for less plow undercut, and the hole furthest from the plow blade for more plow undercut.*

3. Attach the wear bar to the plow blade as shown in figure 2. Place 10mm dia carriage bolts through each of the square holes in the wear bar, and through their respective holes on the blade. Terminate with a 10mm dia lock nut.

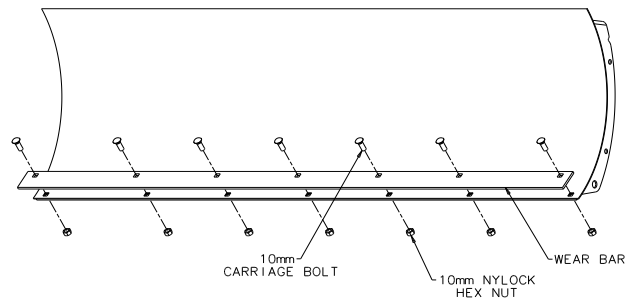


Figure 2 Assemble Wear Bar to Blade

4. Attach the plow blade to the plow base as shown in figure 3. Run a 16mm dia carriage bolt through the large retaining washer, rib bushing, then through the plow blade and base. The rib bushing should rest inside the large hole in the side of the plow. Terminate with a 16mm dia lock nut. Back off the torque if the plow blade doesn't rotate freely around the plow base.

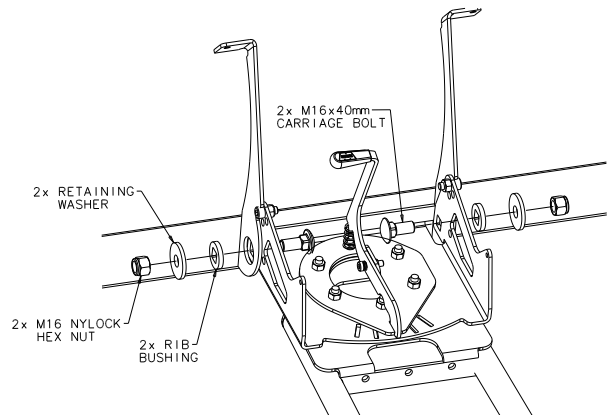


Figure 3 Attach Blade to Tube Base

- Assemble the plow springs as shown in figure 4. Slide a 8mm dia eyebolt up through the small hole located on the center bent flange on the plow blade. Terminate the eyebolt with a 8mm dia nut. Hook the heavy-duty plow spring onto the rear of the side flange of the plow base, and to the eyelet of the eyebolt. Tighten the 8mm nut until there is tension on the spring (i.e.; it is difficult to remove the spring from the eyebolt). Once the desired tension is determined, terminate the eyebolt with a second 8mm dia nut and tighten it against the first 8mm dia nut. If installed correctly, the nuts should not be able to rotate off the end of the eyebolt.

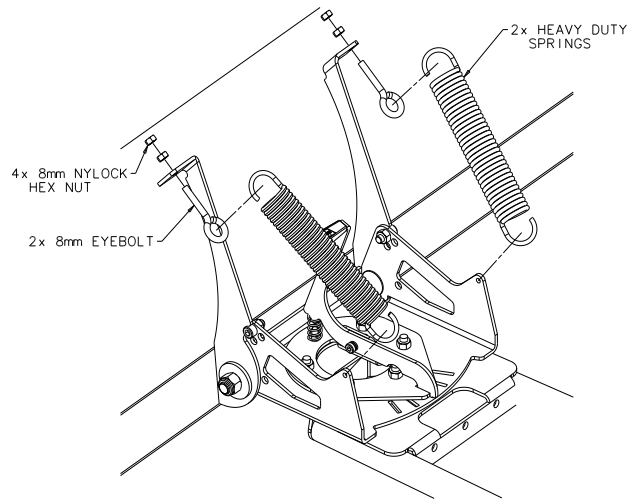


Figure 4 Assemble Plow Springs

- Attach the heavy-duty plow skids to the plow blade. Slide the skid into the skid sleeve toward the edges of the plow blade. Terminate with a skid pin by running the pin through one of the three skid sleeve holes and through the desired skid hole. The skid height can be adjusted in  $5/32$ " increments by placing the skid pin through different holes in the skid sleeve. Be sure to lock the skid pin when completed to prevent losing the pin and skid during plowing.

**NOTE:** Set the skids higher than the edge of the plow blade for gravel and decorative surfaces. Set the skids at plow edge level for pavement and concrete surfaces. Failure to use the skids can result in scratches to the roadway surface and reduced wear bar life.

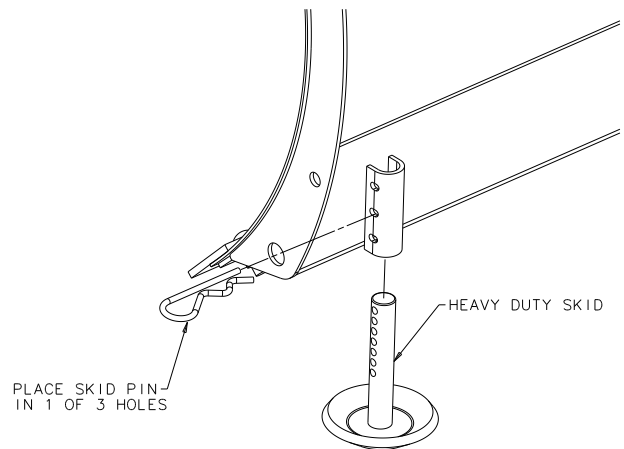


Figure 5 Assemble Heavy Duty Skids

**Installation is now complete, please proceed to the next section.**

## VI. Maintenance/Care

- Inspect all metal parts on the plow, plow mount, and related hardware prior to each use. Replace all parts that appears rusted or deformed.
- Inspect all nuts and bolts on the plow, plow mount, and related hardware prior to each use. Tighten all nuts and bolts that appear to be loose. Stripped, fractured, or bent bolts or nuts must be replaced.
- 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 plow, plow mount, and related hardware may result in vehicle damage and operator injury or death.**

The following replacement parts are available for purchase:

<u>Part #</u>	<u>Description</u>	<u>Notes</u>
39416	48" Wear Bar	1x 37566
39415	54" Wear Bar	1x 38734
62601	60" Wear Bar	1x 37098
69212	Heavy Duty Skid and Pin	2x 68820, 2x 25397

Contact your nearest WARN dealer for ordering. To find a dealer nearest you, contact the WARN dealer locator line at 1-800-910-1122.

If you are having problems with your plow, please follow the steps below:

1. Reference the installation instructions for tips or notes.
2. Contact the dealer where you purchased the kit.
3. Call an authorized WARN Service Center from the warranty sheet included in the kit. Please have the following information available before calling; part number (listed on front of instructions), date of purchase, and make, model, and model year of ATV.
4. Contact WARN customer service at 1-800-543-9276 or [www.warn.com](http://www.warn.com). Again, please have the following information available before calling; part number (listed on front of instructions), date of purchase, and make, model, and model year of ATV.