



## KAWASAKI MULE 3000 SNOW PLOW Installation Instructions (p/n: KAF30-033)

### VEHICLE PREP

A) Select a level area to raise and support the front of the vehicle on jack stands, or another suitable device, for safely working under the vehicle. If not already equipped, install heavy duty front suspension springs (p/n 92144-1919). **CAUTION:** Heavy Duty front springs are required to maintain level vehicle attitude and proper front suspension travel with the snow plow attached.

B) 4 WHEEL DRIVE ONLY. Remove the front differential skid plate. Retain for future use if the plow mounting bracket is removed.

### ASSEMBLING THE PLOW

A) (FIG. 1) Apply grease to the A frame eye bolt hole and area that will be inside the trip frame. Attach the A frame to the trip frame as shown by holding the A frame parallel to the trip frame, pushing the latch up through the cutout in the trip frame, and then rotating the tip of the A frame into position. Insert 1/2" X 4" eyebolt and washer provided. Attach with nylon lock nut provided and tighten until there is no play between the A frame and the trip frame but the A frame still pivots freely. Bolt the latch bracket to the top of the A frame with four 1/2-20 x 1 1/2" bolts and 1/2-20 stover locknuts. Bolt to top of A frame only. Make sure the latch moves freely, and the trip frame pivots freely between the latch plate and the A frame, while tightening bolts.

B) (FIG. 2) Apply grease to two of the 1/2" bolts supplied in the hardware kit. Attach the trip frame to the moldboard with two 1/2" bolts and nylon lock nuts. Snug the bolts but do not tighten. The trip frame should pivot freely about the moldboard but not rattle. Install the two trip springs and 3/8" eyebolts provided as shown. Tighten the eye bolts until the springs just start to tension. Do not tighten further. **NOTE: Check tightness by slipping a piece of paper between the spring coils at the end of the spring. There should be just enough clearance for it to fit.** Install the two blade markers to the moldboard with the hardware provided in the blade marker kit.

### INSTALLING THE PLOW

**NOTE:** See page 5 for parts diagram and descriptions.

A) (FIG. 3) Apply a small coating of grease to the ends of the vehicle frame cross brace where the U bolts attach to the A frame bracket. Position the A frame bracket pointed downward under the front of the vehicle as shown and install to the frame cross brace with the two U bolts provided.

Figure 1

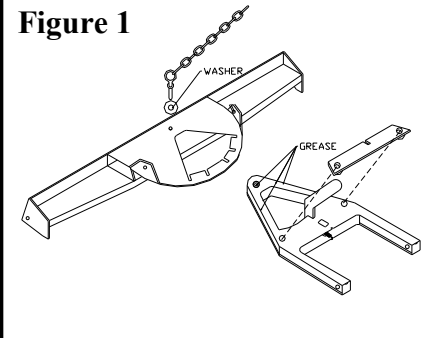


Figure 2

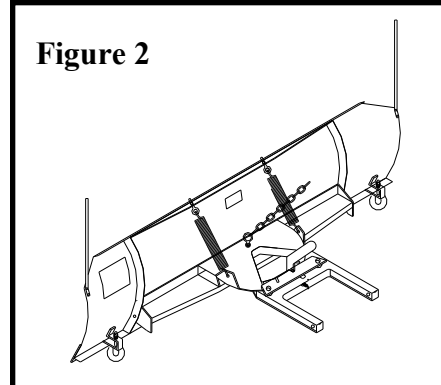
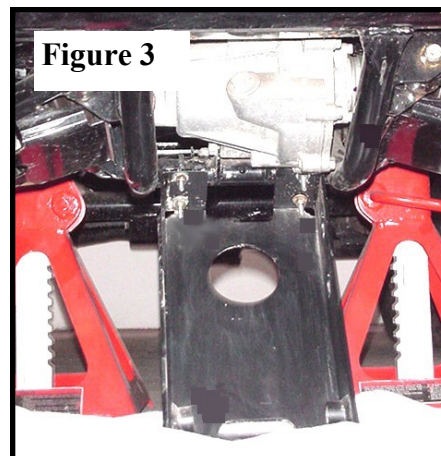


Figure 3





## ASSEMBLING THE PLOW (continued)

Snug but do not tighten the bolts. Rotate the bracket up into position and adjust so that it clears the frame and differential. Rotate the bracket back down and moderately tighten (but do not over torque) the U bolts and rotate back into place. A box end wrench can now be used to fully tighten the U bolts.

**B) (FIG. 4)** Install the A frame bracket mount to the front of the A frame bracket and bottom of the vehicle frame with six  $\frac{3}{8}$ " x 1" bolts as shown. Take the vehicle off of the jack stands and lower to the ground.

**C) (FIG. 5)** Install rubber weather seal on left and right chassis brackets and bumper mount as shown.

**D) (FIG. 6)** Install the left and right chassis brackets with four  $\frac{5}{16}$ " x  $1\frac{1}{4}$ " bolts, and bumper bracket provided. Install the lift arm with one of the  $\frac{1}{2}$ " quick release pins as shown before tightening the bolts. Confirm the assembly is centered on the bumper and drill 2 holes into the front of the bumper as shown. Attach the bottom of the assembly to the bumper with  $\frac{5}{16}$ " x  $1\frac{1}{4}$ " bolts through these holes.

**E) (FIG. 7)** Install the electric lift cylinder to the chassis brackets with the other  $\frac{1}{2}$ " quick release pin and to the lift arm with  $\frac{1}{2}$ " bolt provided.

**F) (FIG. 8)** Have an assistant help move the plow A frame assembly into place holding the A frame arms above the reinforcing plates on the A frame bracket. Turn the steering wheel all the way to the right to create enough clearance to install the  $\frac{5}{8}$ " quick release pin. Line up the holes and install the quick release pin.

**G)** Attach the chain to the A frame eye bolt assembly with the shackle provided. Attach chain to the lift arm with the quick attach pin. It is important to take as much slack out of the chain as possible to maximize ground clearance when the plow is raised.

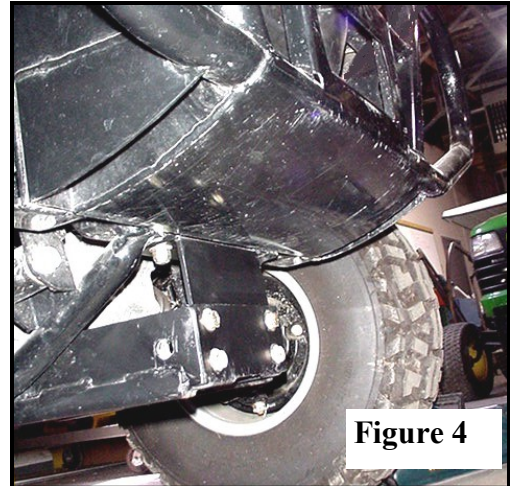


Figure 4

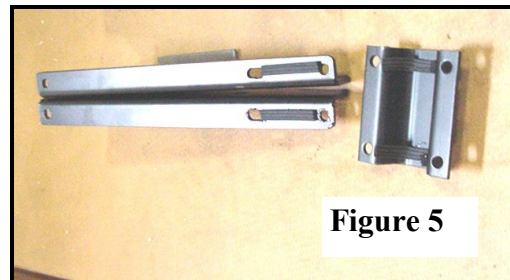


Figure 5

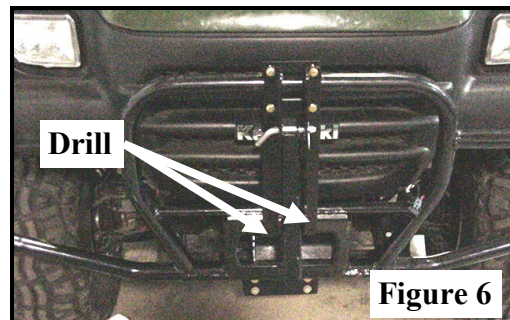


Figure 6

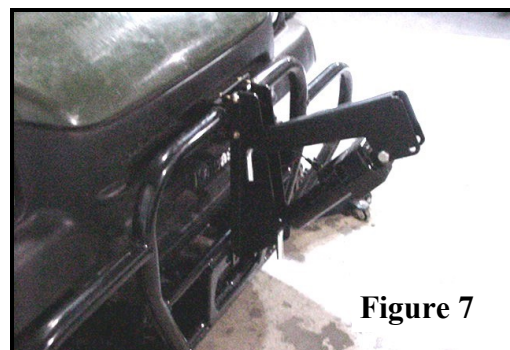


Figure 7

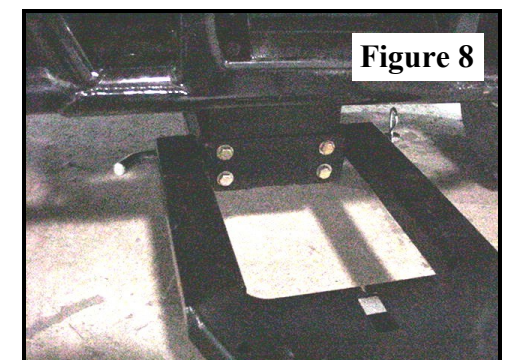


Figure 8



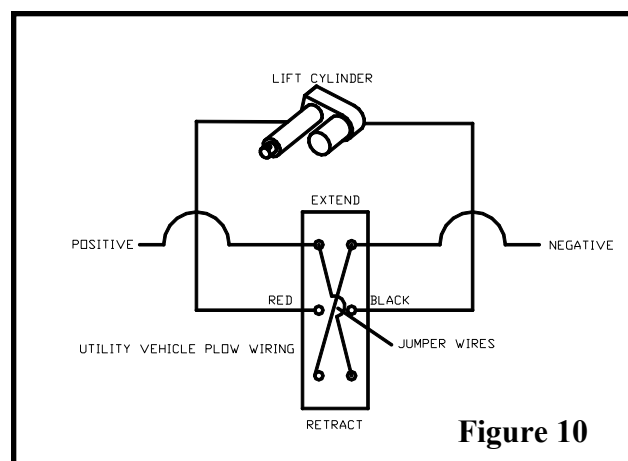
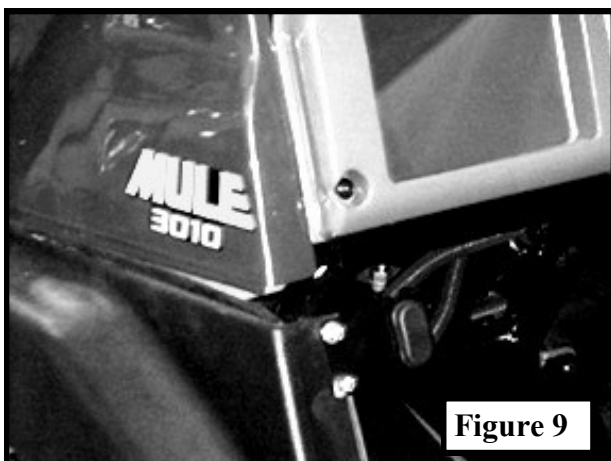
## WIRING THE PLOW

A) Install the connectors provided in the wiring kit on the ends of the red and black 12 ga. wire provided. Install the wire in split loom and route to the inside of the vehicle. The recommended route is through the bumper mount, up the side of the driver's side fender well, and into the vehicle through the same slot that the brake line comes through. **NOTE:** Be sure to leave enough slack in the front of the bumper to allow the wires to travel up and down at least 4" so the cylinder can be extended. **CAUTION:** Be sure the wire is positioned such that it cannot be pinched or rubbed by any suspension or steering components. Wire tie the wires to the back of the bumper mount and to the brake line mounting bracket inside the fender well so that it cannot be pinched by the suspension spring.

B) (FIG. 9) Mount the supplied switch bracket as shown. Drill the top of the driver's side fender and mount with supplied 1/4-20 hardware.

C) (FIG. 10) Run the wires from the actuator to the switch. Attach push-on terminals on the wires and attach to the switch as shown. Install the switch to the bracket.

D) Use the remaining wire and loom to run from the switch to the battery. Wire tie as necessary. Install a ring terminal and butt splice connector onto the supplied in line fuse. Attach fuse to red wire with the butt connector and to the positive battery terminal with the ring terminal. Attach a ring terminal on the black wire and install to the negative battery terminal.





## OPERATIONAL NOTES

### WARNING:

**NEVER OPERATE THE PLOW NEAR OTHER PEOPLE**

**NEVER PARK VEHICLE WITH BLADE RAISED**

**IN NO CASE SHALL CURTIS INDUSTRIES BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES FOR BREACH OF THESE WARNINGS OR ANY OTHER PRACTICES CONTRARY TO NORMAL PRACTICE**

- A) If desired, the plow may be removed for the summer or between storms. Remove the quick pins from the A frame lift chain and the A frame. Remove the plow assembly from the vehicle. Unplug the lift cylinder and remove the quick pins attaching the lift cylinder and lift arm. **NOTE:** We recommend storing the lift cylinder assembly out of the weather.
- B) As the cutting edge wears, adjust the skid shoes by moving the shims from the bottom of the bracket to the top. Once one side of the cutting edge is worn down, it can be removed and flipped over to make use of the other side.

## REPLACEMENT SERVICE PARTS

### DESCRIPTION

72" Cutting Edge

Skid shoes

Trip Spring Set

Heavy Duty Front suspension springs

### PART#

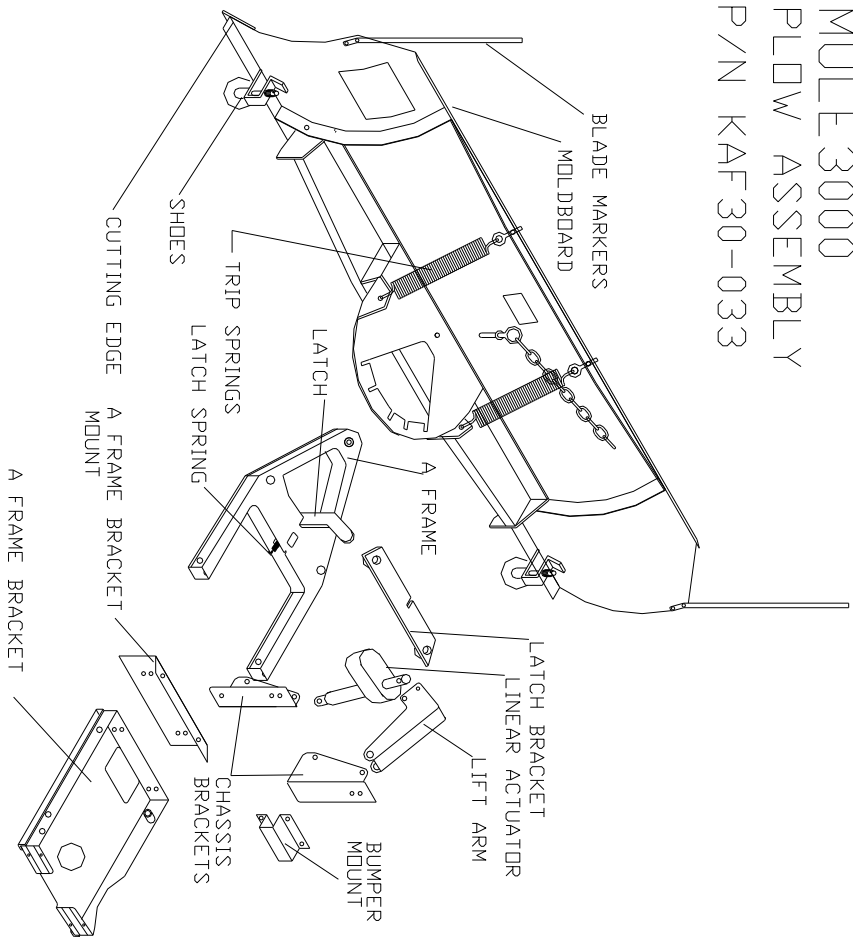
KAF25-039E

KAF25-039S

KAF25-039SP

92144-1919

# MULE3000 PLOW ASSEMBLY P/N KAF30-033



## PARTS LIST

DESCRIPTION	QTY/UNIT
KAF25-039E CUTTING EDGE	1
KAF25-039P7 MOLDBOARD	1
KAF25-039S SHDES	2
KAF25-039P13 BLADE MARKERS	1 PAIR
KAF25-039P8 TRIP FRAME	1
KAF25-039SP TRIP SPRINGS	2
KAF25-039P9 A FRAME	1
KAF25-039P15 LATCH	1
KAF25-039P6 LATCH SPRING	1
KAF25-039P17A ANGLE LATCH BRACKET, UTP	1
KAF30-039P11L LEFT CHASSIS BRACKET	1
KAF30-039P11R RIGHT CHASSIS BRACKET	1
KAF30-039P20 BUMPER BRACKET	1
KAF25-039P1 LINEAR ACTUATOR	1
KAF25-039P12 LIFT ARM	1
KAF25-039P10 A FRAME BRACKET	1
KAF25-039P21A A FRAME BRACKET MOUNT	1
KAF25-039P14 SWITCH MOUNTING BRACKET	1
KAF25-039P2 SWITCH	1
KAF25-039HWK HARDWARE KIT	1
(9) 3/8-16 X 1" BOLTS (GRADE5)	
(4) 3/8-16 X 1-1/4" BOLTS (GRADE5)	
(16) 3/8-16 NYLON LOCK NUTS (GRADE5)	
(31) 3/8" FLAT WASHERS	
(2) 1/4-20 U BOLTS	
(4) 1/4-20 NYLON LOCK NUTS	
(4) 1/4" FLAT WASHERS	
(6) 5/16-18 X 1-1/4" HEX HEAD BOLTS	
(6) NYLON LOCK NUTS	
(12) 5/16" FLAT WASHERS	
(2) 1/2" DIA. QUICK RELEASE PINS (KAF25-039P4)	
(1) 3/8" DIA QUICK RELEASE PIN (KAF25-039P3)	
(1) 5/8" DIA QUICK RELEASE PIN (KAF25-039P5)	
(4) 1/2"-20 X 1-1/2" GRADE 8 BOLT	
(4) 1/2"-20 DVAL LOCK CONICAL TOP HEX NUT GRADE 8	
(3) 1/2"-13 2-1/4" GRADE 5 BOLT	
(4) 1/2"-13 NYLON LOCK NUT	
(1) 1/2" FLAT WASHER	
(1) 1/2" 4" FORGED EYE BOLT	
(1) LENGTH CHAIN (15 LINKS)	
(1) SHACKLE	
(2) 3/8"-16 X 2-1/2"EYE BOLTS	