



# SAFETY

## SAFETY DEFINITIONS

### ⚠ WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

### ⚠ CAUTION

Indicates a situation that, if not avoided, could result in damage to product or property.

**NOTE:** Identifies tips, helpful hints and maintenance information the owner/operator should know.

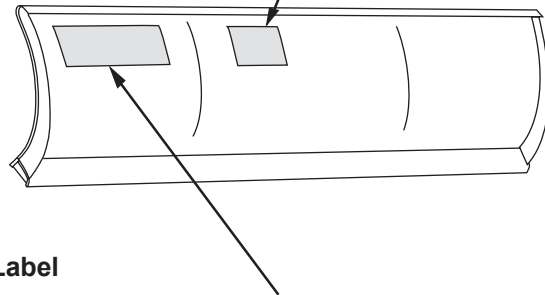
### Warning and Caution Label

#### ⚠ WARNING

LOWER BLADE WHEN VEHICLE IS PARKED.  
REMOVE BLADE ASSEMBLY BEFORE PLACING VEHICLE ON HOIST.  
DO NOT EXCEED GVWR OR GAWR INCLUDING BLADE AND BALLAST.

#### ⚠ CAUTION

READ *OWNER'S MANUAL* BEFORE OPERATING OR SERVICING SNOWPLOW.  
TRANSPORT SPEED SHOULD NOT EXCEED 45 MPH. REDUCE SPEED UNDER ADVERSE TRAVEL CONDITIONS.  
PLOWING SPEED SHOULD NOT EXCEED 10 MPH.  
SEE YOUR SALES OUTLET FOR APPLICATION RECOMMENDATIONS.



## WARNING/CAUTION & INSTRUCTION LABELS

Become familiar with and inform users about the warning and instruction labels on the back of the blade.

### Instruction Label

UltraMount<sup>®</sup> SYSTEM INSTRUCTIONS

### MOUNTING PLOW (ON)

Read Owner's Manual for complete instructions.

**STEP 1**

After seating plow horns in receiver brackets, pull Handle up; Shoe will lift off the ground.

**STEP 2**

Pull and hold Lock Pin out; then rotate Handle UP and release Lock Pin. It must lock into UPPER hole. Stand Hook must grip Receiver Pin.

**STEP 3**

Plug in electrical connections. Repeat steps 1 and 2 on other side of plow.

**STEP 3**

Push down top of Shoe; Shoe will be on the ground. Repeat steps 2 and 3 on other side of plow. Back vehicle away.

**STEP 2**

Pull and hold Lock Pin out; then rotate Handle DOWN and release Lock Pin. It must lock into LOWER hole.

**STEP 1**

After lowering blade and turning control off, disconnect electrical connections.

### REMOVING PLOW (OFF)

Read Owner's Manual for complete instructions.

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Patents: US 4,280,062; 4,999,935; 5,420,480; RE 35,700; 6,145,222; 6,209,231; 6,253,470; CAN 2,060,425; patents pending.

# SAFETY

## SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury, and/or equipment and property damage. Read and understand labels and the *Owner's Manual* before installing, operating, or making adjustments.

### **⚠ WARNING**

Lower blade when vehicle is parked. Temperature changes could change hydraulic pressure, causing the blade to drop unexpectedly or damaging hydraulic components. Failure to do this can result in serious personal injury.

### **⚠ WARNING**

Remove blade assembly before placing vehicle on hoist.

### **⚠ WARNING**

The driver shall keep bystanders clear of the blade when it is being raised, lowered or angled. Do not stand between the vehicle and the blade or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

### **⚠ WARNING**

Keep hands and feet clear of the blade and A-frame when mounting or removing the snowplow. Moving or falling assemblies could cause personal injury.

### **⚠ WARNING**

Do not exceed GVWR or GAWR including blade and ballast. The rating label is found on driver-side vehicle door cornerpost.

### **⚠ CAUTION**

Refer to the current selection list for minimum vehicle recommendations and ballast requirements.

### **⚠ CAUTION**

To prevent accidental movement of the blade, always turn the ON/OFF switch to OFF whenever the snowplow is not in use. The control indicator light will turn off.

## PERSONAL SAFETY

- Wear only snug-fitting clothing while working on your vehicle or snowplow.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

# SAFETY

## FIRE AND EXPLOSION

### ⚠ WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

## VENTILATION




### ⚠ WARNING

Vehicle exhaust contains deadly carbon monoxide (CO) gas. Breathing this gas, even in low concentrations, could cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

## TORQUE CHART

### ⚠ CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to torque chart. Use standard methods and practices when attaching snowplow including proper personal protective safety equipment.

<b>Recommended Fastener Torque Chart (Ft.-Lb.)</b>			
Size	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
<b>Metric Grade 8.8 (Ft.-Lb.)</b>			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155
These torque values apply to fasteners except those noted in the instruction.			

# MOUNT INSTALLATION

## MOUNT BRACKETS

1. Remove the bumper, with brackets attached, from the vehicle. Remove threaded attaching fasteners and retainers from bumper brackets.

**NOTE: If vehicle is equipped with a sway bar, the bar and brackets must be removed prior to attaching mount brackets. Retain all parts for reassembly if mount is ever removed from the vehicle.**

2. Position the mount brackets tight against the outside and bottom of the vehicle frame, and against the long protruding rivet. (On vehicles without frame rivets, position mounts to front edge of 1/2" holes in bottom of vehicle frame rails.)  
**Clamp mounts in place. (See Photo 1.)**

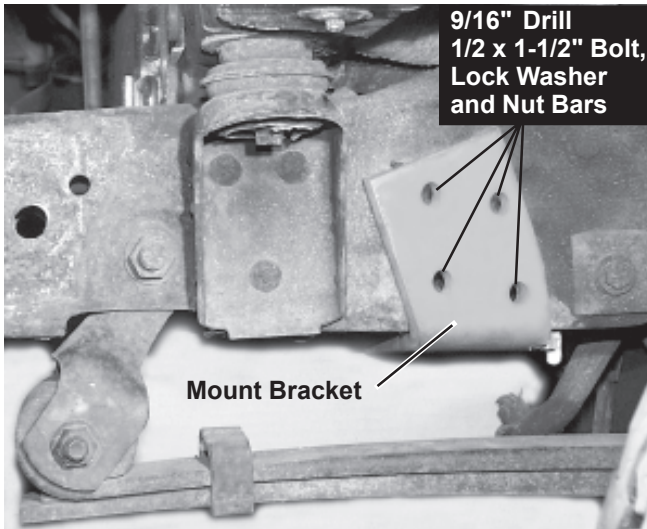


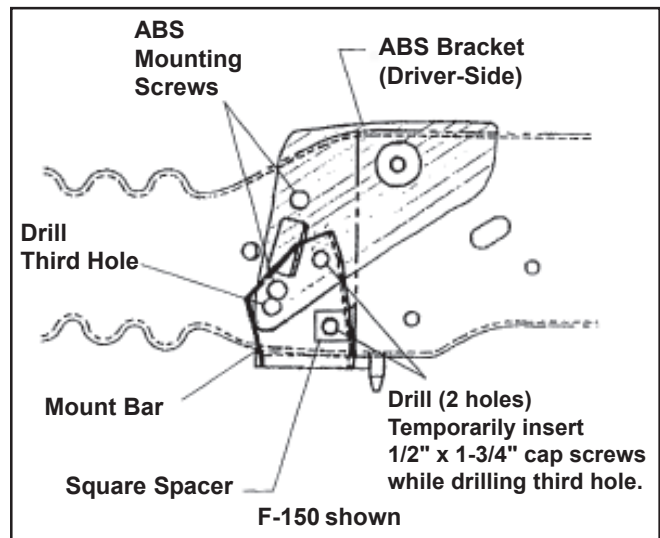
Photo 1

**NOTE: Vehicles with ABS bracket shown in diagram require the following steps to install mount bar on drivers side.**

- A. Remove the two cap screws mounting the ABS bracket.
- B. Pry ABS bracket away from the vehicle frame and remove lower cage nut by pushing nut up into the slot.
- C. Replace top bolt.

- D. Locate mount brackets per MOUNT BRACKETS (Step 2)
- E. Temporarily insert 1/2" x 1-3/4" cap screws into rear holes to hold mount brackets in position while drilling front (third) hole.
- F. Place square spacer between mount bracket lower rear hole and vehicle frame to adjust for ABS mounting bracket.

**Continue installation for MOUNT BRACKETS (Step 3).**



3. Use mount as template to drill four 9/16" holes in each side of vehicle frame. Install two nut bars to the inside of each vehicle frame rail aligning with drilled holes.

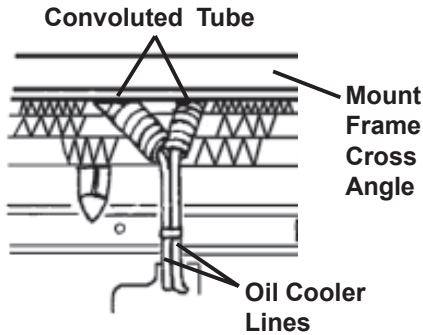
**NOTE: On F-150 and Bronco installations, straighten nut bar wires and use a vise grip to hold the end for insertion into the frame.**

Fasten each mount to the nut bars with four 1/2" x 1-1/2" cap screws and lock washers. Use a drift pin to align one hole while attaching cap screw to the other. Tighten cap screws to corresponding Torque Chart values.

# MOUNT INSTALLATION

## MOUNT FRAME

1. On vehicles with transmission cooler located in front of the radiator on the passenger side, install a convoluted tube over each cooler line above "Y" formed by cooler lines.



2. Prior to placing mount frame on vehicle frame. Assemble (4) 1/2 x 1-1/2 cap screws, flat washers, and locknuts from the inside out through the bumper brackets on the vehicle frame. (Do not tighten nut. These fasteners will be used to attach bumper later.) (See photo 2.)

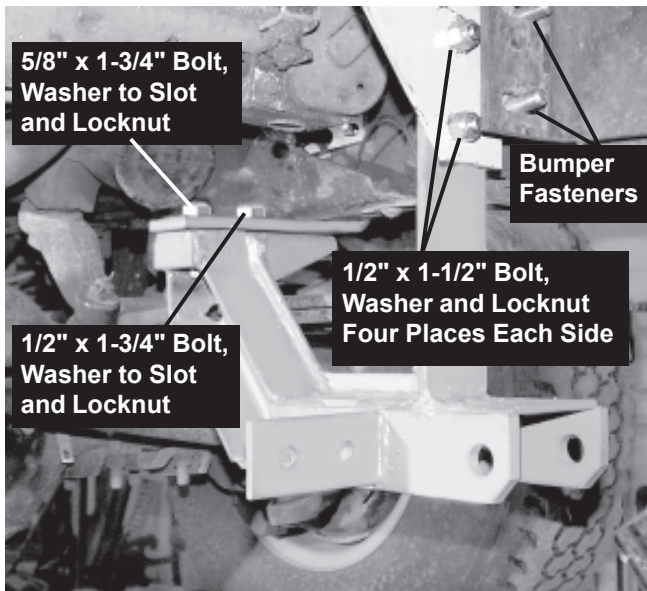


Photo 2

3. Align large holes and from the outside of the frame, insert a 5/8" x 1-3/4" bolt, two flat washers and locknut on each side of the vehicle. Install a flat washer against mount frame side plate and against vehicle frame. (Depending on model and year, the

hole location for the 5/8" and 1/2" fasteners may vary.) Install one fastener for each frame hole.

If vehicle has only one 5/8" diameter hole, drill two 1/2" holes through frame using mount as a guide. Attach with 1/2" fasteners.

(See Photo 3 and Photo 4.)

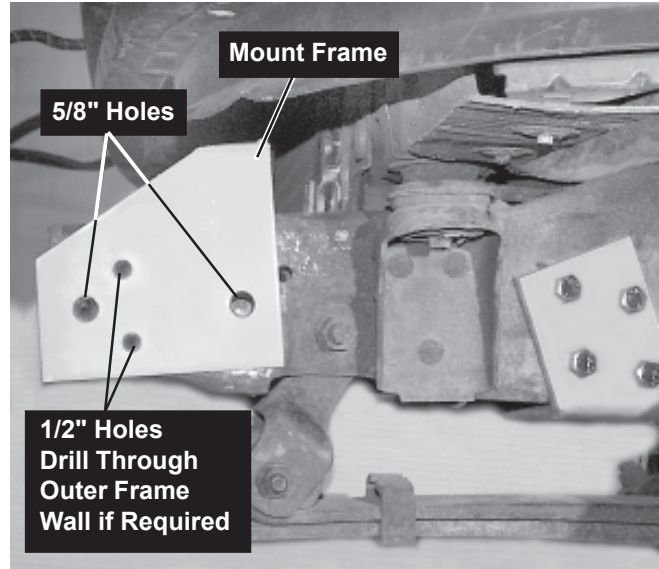


Photo 3

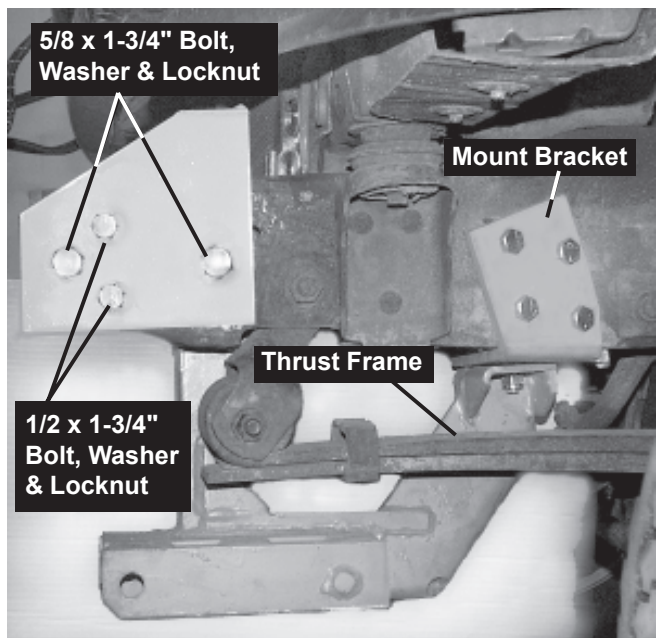


Photo 4

# MOUNT INSTALLATION

## THRUST FRAME

1. Loosely attach thrust frame to each mount bracket with one 1/2" x 1-3/4" bolt, flat washer and locknut in the inner hole. Install flat washers against slots in mounts. (See Photo 5.)

### ⚠ CAUTION

Check for and maintain adequate clearance horizontally and vertically between hoses, steering linkage at maximum right turn, alternator drives, oil cooler lines and do not collapse evaporator hose.

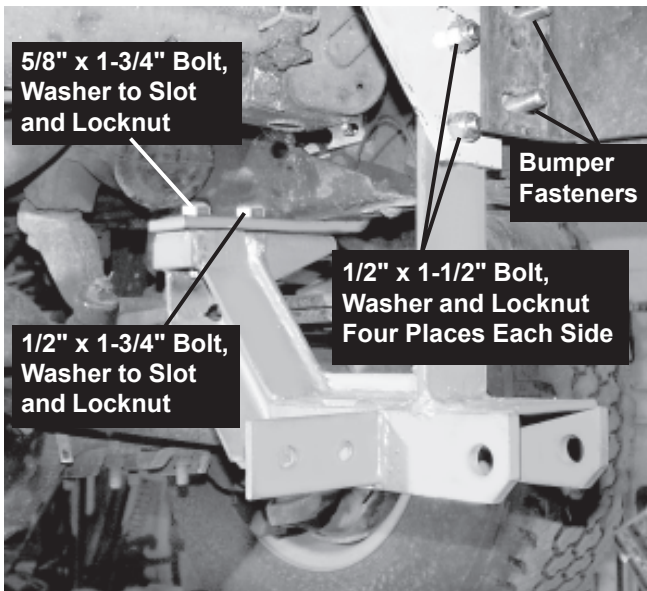


Photo 5

2. If the vehicle has an evaporator cannister that interferes with the mount, remove the cannister and install the furnished bracket to the original cannister mounting holes using existing fasteners. Secure cannister to the rear side of bracket using four finished 5/16" x 1" bolts, flat washers and locknuts. Install flat washers against slots.
3. Attach front of thrust frame to mount frame using four 1/2" x 1-1/2" bolts, flat washers to slots and locknuts (four per side).

## CROSS BRACE

1. Loosely attach cross brace between both mounts using 1/2" x 1-1/2" cap screws and locknuts.



Photo 6

## FASTENERS

Starting with the mount frame to vehicle frame fasteners tighten all bolts to the corresponding Torque Chart Value.

## BUMPER

Reinstall bumper to original position using 1/2" x 1-1/2" cap screws with 1/2" flat washers under heads and locknuts. (Called out in step 2 page 5.) (See Photo 5.)

**NOTE:** After five to ten hours of snowplow usage, retorque all mount assembly fasteners.



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