Lit. No. 67449 February 1, 2003





FORD MOUNT INSTALLATION INSTRUCTIONS

Bronco, F-150/250/350 4X4 1992-1996

– and –

Ford F-250 2WD (over 8,500 GVWR) Ford F-350 2WD (over 10,000 GVWR) **Super Duty 1992-1997**

Model No. 1299

A CAUTION

Read this document before installing the snowplow.

A CAUTION

See your WESTERN® outlet for application recommendations. The Selection List has specific vehicle and snowplow requirements.

SAFETY DEFINITIONS

A WARNING

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

A 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/CAUTION & INSTRUCTION LABELS

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

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.



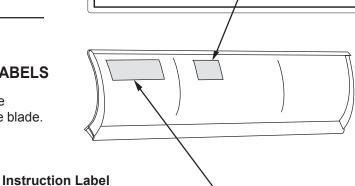
CAUTION

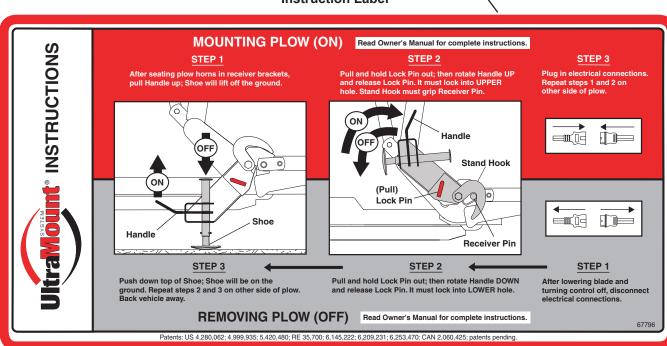
READ OWNER'S MANUAL BEFORE OPERATING OR SERVICING SNOWPLOW.

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. /





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.

A 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.

A WARNING

Remove blade assembly before placing vehicle on hoist.

A 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.

A 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.

A WARNING

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

A CAUTION

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

A 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.

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

A 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

A 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.

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

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.

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.)

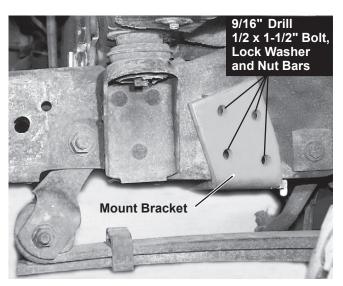


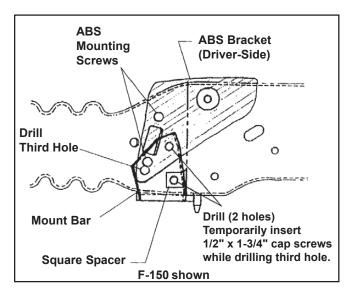
Photo 1

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.

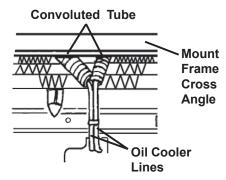
NOTE: On F-150 and Bronco installations, straighten nut bar wires and use a vise grip to hold the end for insertion into the frame.

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

 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.)

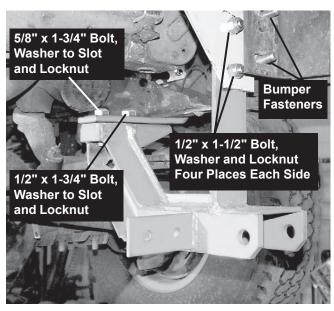


Photo 2

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.)

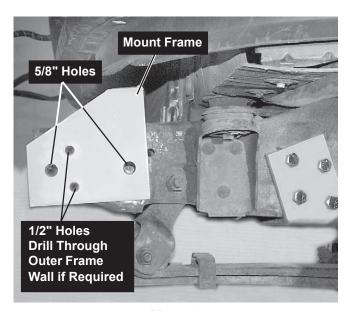


Photo 3

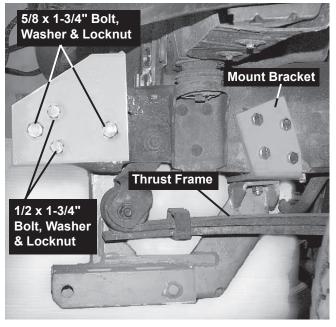


Photo 4

MOUNT INSTALLATION

THRUST FRAME

 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.)

A 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.

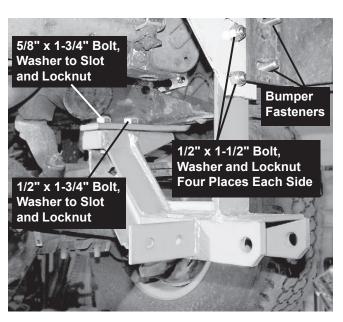


Photo 5

- 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.
- 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 lock nuts.



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 underheads 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.



A DIVISION OF DOUGLAS DYNAMICS, L.L.C.

Western Products reserves the right under its Product Improvement Policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein. Western Products and the vehicle manufacturer may require and/or recommend optional equipment for snow removal. Western Products offers a limited warranty on the snowplows and accessories. See separately printed page for this important information. The following are registered® trademarks of Douglas Dynamics, L.L.C.: UltraMount® and WESTERN®.