



Fisher Engineering

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Minute² Mount[®]

SYSTEM

MOUNT KIT

Ford F-650 2WD **2004 - 07**

International 4000 Series 2WD **2001 - 07**

Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your FISHER[®] outlet/Web site for specific vehicle application recommendations before installation. The Kit Selection Guide has specific vehicle and snowplow requirements.

SAFETY DEFINITIONS

⚠ WARNING

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

⚠ CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

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

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.

⚠ WARNING

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.

⚠ WARNING

Remove blade assembly before placing vehicle on hoist.

⚠ CAUTION

Refer to the Kit Selection Guide for minimum vehicle recommendations and ballast requirements.

PERSONAL SAFETY

- Remove ignition key and put the vehicle in park or in gear to prevent others from starting the vehicle during installation or service.
- 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 a vehicle. Keep all open flames away from gasoline tanks 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 lethal fumes. Breathing these fumes, even in low concentrations, can 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 the torque chart. Use standard methods and practices when attaching snowplow including proper personal protective safety equipment.

| Recommended Fastener Torque Chart (ft-lb) | | | |
|---|---|---|---|
| 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 |
| Metric Grade 8.8 (ft-lb) | | | |
| 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. | | | |

INSTALLATION INSTRUCTIONS

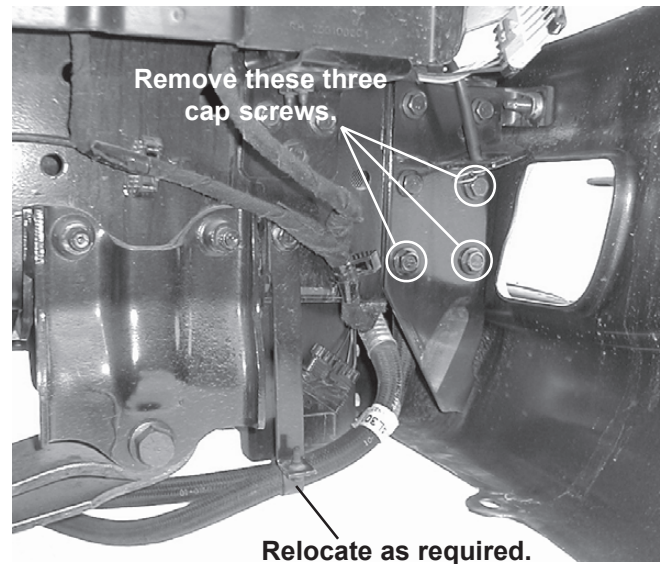
NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

1. Remove front bumper by removing the four fasteners from the front of the bumper. Retain the fasteners for bumper reinstallation.
2. If vehicle is equipped with tow hooks, remove both tow hooks. The tow hooks cannot be used with the mount installed. Retain tow hooks and fasteners for reinstallation if snowplow is removed. If the vehicle is not equipped with tow hooks, remove the three cap screws shown in the photo on both sides of the vehicle.

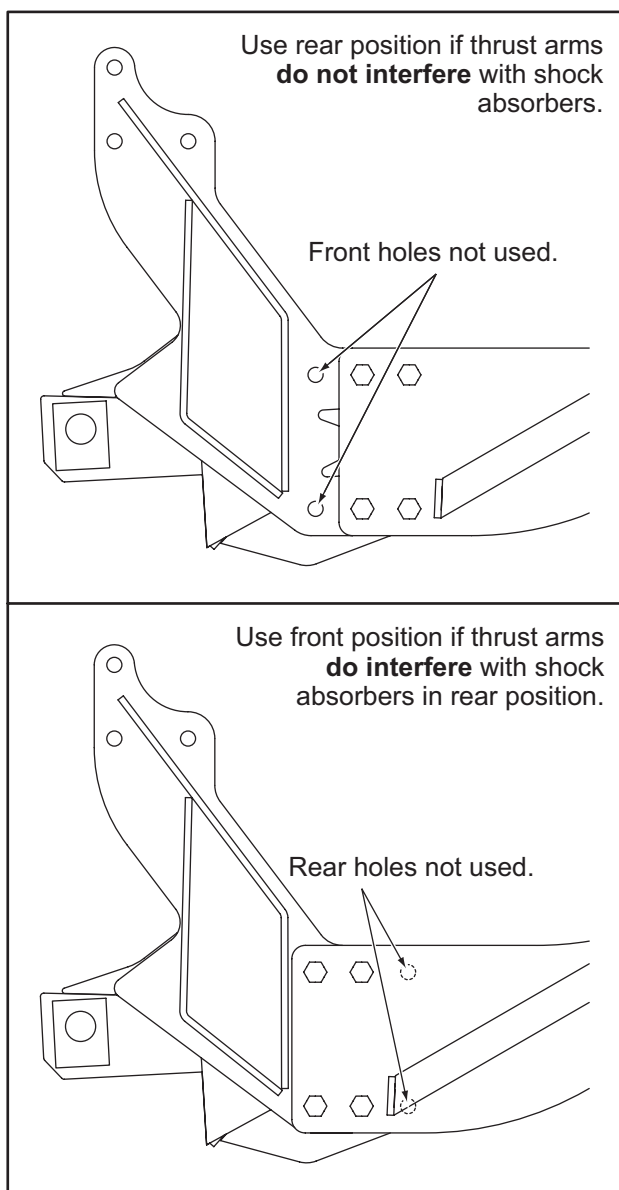
⚠ CAUTION

Use caution not to pinch, cut or drill through any wires or hoses running along the frame rails.

3. If vehicle is equipped with an automatic transmission, relocate the hose hanger bracket approximately 1" higher to clear the angle on the front of the pushplate (see photo). It may also be necessary to turn the hose fittings at the front of the radiator a few degrees.



4. Align the three holes in each side of the pushplate with the holes in the bumper brackets, and attach the pushplate with six M12 x 50 mm hex cap screws and lock washers. Hand tighten.
5. Align one of the thrust arms with the pushplate in the rear position *if it does not interfere with the shock absorber*. If the thrust arm does interfere in the rear position, use the front position. (See below.) Ensure that the ABS cable is not pinched by the thrust arm.



⚠ CAUTION

Use caution not to pinch, cut or drill through any wires or hoses running along the frame rails.

6. Insert four 1/2" x 2-1/2" cap screws through the thrust arm and pushplate. Place a 1/2" locknut on each cap screw, and hand tighten.
7. Repeat Steps 5–6 on the opposite side of the vehicle.
8. Using a floor jack, lift the mount tight against the frame, and clamp the locators at the rear of the thrust arms to the bottom of the frame rails. Using the holes in one of the thrust arms as guides, drill three 5/8" holes into the side of the frame rail. Insert two 5/8" x 3-1/2" cap screws and one 5/8" x 2-1/2" cap screw through the thrust arm and the holes in the frame. Place a 5/8" locknut on each cap screw, and hand tighten. Repeat on opposite side of vehicle.
9. Keeping the jack and clamps in place and starting at the front of the mount, tighten the six M12 cap screws followed by the eight 1/2" cap screws and finishing with the six 5/8" cap screws according to the torque chart.
10. Check clearances between the assembled truck mount and any wires, hoses, and brake lines. Use the provided anti-chafing material when clearances are inadequate to prevent contact during normal vehicle operation.
11. Reinstall bumper using the original fasteners.

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

Fisher Engineering 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. Fisher Engineering or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. Fisher Engineering offers a limited warranty for all snowplows and accessories. See separately printed page for this important information. The following are registered (®) trademarks of Douglas Dynamics, L.L.C.: FISHER®, Minute Mount® 2.

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