



Fisher Engineering

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Minute² Mount[®]

SYSTEM

MOUNT KIT

Ford F-150 4X4

2004 - 08

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.

WARNING/CAUTION AND INSTRUCTION LABELS

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

NOTE: If labels are missing or cannot be read, see your sales outlet.

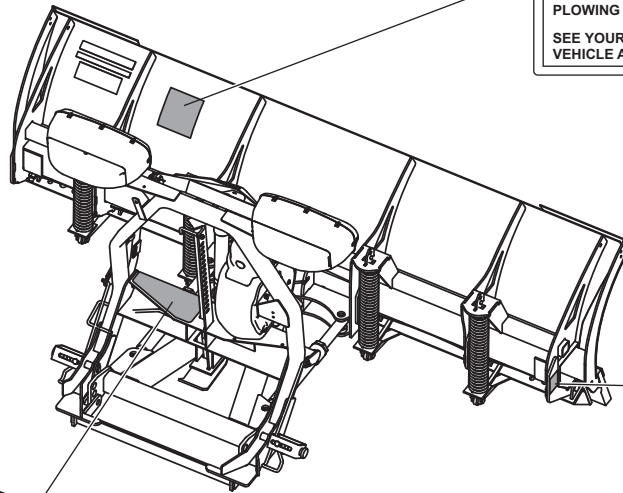
Warning/Caution Label

⚠ WARNING

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

⚠ CAUTION

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



Multiple Pinch Points Label



XLS™ Blades Only (both sides)

Instruction Label

1. Push **Pin Release Handle** down to pull out **Connecting Pins**.

2. Drive vehicle slowly to engage **Pushplates** into **Attachment Arms**.

3. Stand in front of blade. Fully raise **Pin Release Handle** to release **Connecting Pins**.

4. Push **Headgear** toward vehicle to allow **Connecting Pins** to fully engage **Pushplates**. If unable to push **Headgear** from in front of blade, stand in front of **Headgear** on driver side and push **Headlamp Bracket**.

5. Pull out **Jack Lock**. Push **Pin Release Handle** into **Stop**.

6. While holding **Jack Lock** out, use **Jack Handle** to raise **Jack** fully. Release **Jack Lock**.

7. Attach all electrical connectors.

1. Place control in Lower/Float to put blade down.

2. Pull and hold **Jack Lock** out. **Jack** will drop to ground. Then pull **Pin Release Handle** away from **Stop** and **Jack Lock**. Release **Jack Lock**. Verify **Jack** is locked by trying to lift **Jack**.

3. Stand in front of blade. While pushing **Headgear** toward vehicle with left hand, push **Pin Release Handle** down to disengage **Connecting Pins**. Make sure **Connecting Pins** are fully retracted. If unable to push **Headgear** from in front of blade, stand in front of **Headgear** on driver side and push **Headlamp Bracket**.

4. Detach all electrical connectors.

ATTACH
DETACH

U.S. Patents 4,999,935; 5,353,530; 5,420,480; 6,253,470; 6,944,978; RE 35,700; CAN Patent 2,060,425; and other patents pending.

Read Owner's Manual For Complete Instructions

27451

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 could 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 the blade and ballast. The rating label is found on the 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 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.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communication Equipment such as cell phones or two-way radios.

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

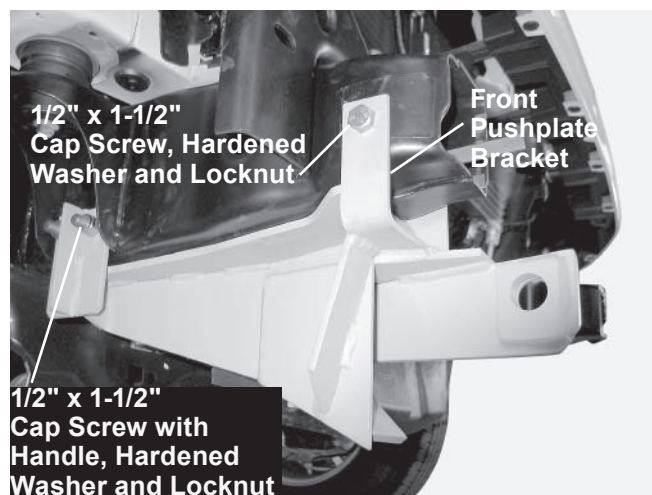
NOTE: For easier assembly and installation, vehicle and all snowplow components should be on a smooth, level, hard surface, such as concrete.

1. Detach the rubber splash shield at the bottom edge of the bumper by removing three plastic fasteners. From the top surface of the bumper remove four metric cap screws which fasten the plastic trim, hood-release handle and grille bumper. Also remove the hood-release cable support. Remove the tow hooks from the vehicle frame and save for reinstallation if the mount is removed from the vehicle.
2. If necessary, remove the skid plate and save the parts for reinstallation if the mount is removed from the vehicle.
3. Disconnect the fog lamp harness connections if so equipped.
4. Remove four nuts (two on each side of the vehicle) from the back surface of the bumper brackets. Slide the bumper forward to remove.
5. Place the passenger's side pushplate against the vehicle frame rail. Attach it by inserting a 1/2" x 1-1/2" cap screw and washer inside the frame, through the front tow hook hole and 17/32" diameter hole in the top surface of the pushplate. Secure with a 1/2" locknut. Verify the pushplate is tight against the frame rail.

⚠ CAUTION

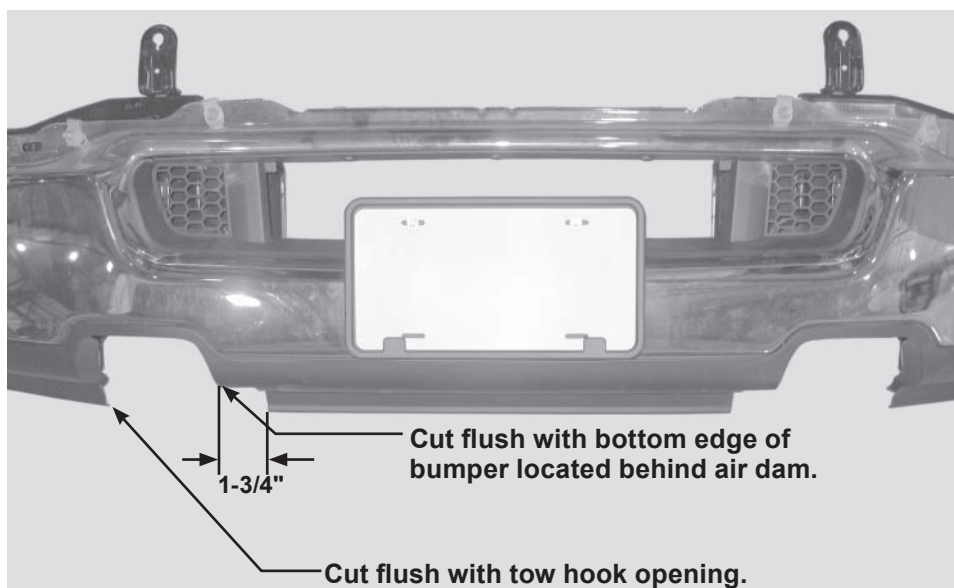
Use caution not to pinch, cut or drill through any wires or hoses running along the frame rail.

- Using the front pushplate bracket as a template, drill a 1/2" hole through the outer and inner side walls of the frame rail. Insert a 1/2" x 1-1/2" cap screw through the hole in each side of the pushplate and frame rail side wall. Secure with hardened washer and locknut from within the frame rail.



- Using the 9/16" diameter holes in the pushplate side plate as a template, drill 1/2" holes through the side wall of the frame rail. Insert a 1/2" x 1-1/2" cap screw with handle and hardened washer from within the frame rail through each hole and secure with a locknut.
- Repeat for the driver's side.
- Torque all fasteners according to the torque chart.
- The air deflector will require notching for clearance of the pushplates, or it may be removed from the vehicle. If the deflector is removed from the vehicle, save the deflector and fasteners for reinstallation in the event the snowplow mount is removed from the vehicle.
- Reinstall the bumper to its original position using existing fasteners.
- Reconnect the fog lamp harness connectors if so equipped.
- Reattach the rubber splash shield at the bottom edge of the bumper and, at the top surface of the bumper, reinstall four metric hex cap screws, plastic trim, hood-release handle and grille bumper. Reinstall the hood-release cable support.

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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