



Minute² Mount[®]

SYSTEM

MOUNT KIT

Ford Super Duty F-250/350/450/550

2008 - 16

Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your FISHER[®] outlet/website for specific vehicle application recommendations before installation. The eMatch selection system 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.

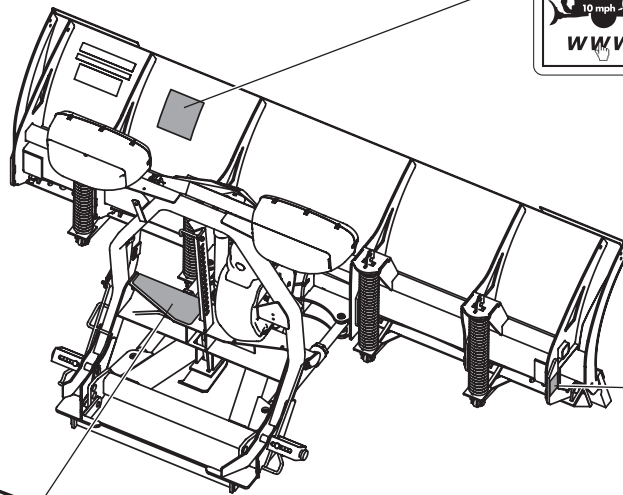
WARNING/CAUTION AND INSTRUCTION LABELS

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.
⚠ CAUTION	
	Read Owner's Manual before operating or servicing snowplow.
	Transport speed should not exceed 45 mph (72 km/h). Further reduce speed under adverse travel conditions.
	Plowing speed should not exceed 10 mph (16 km/h).
	See your sales outlet/Web site for specific vehicle application recommendations.



Multiple Pinch Points Label

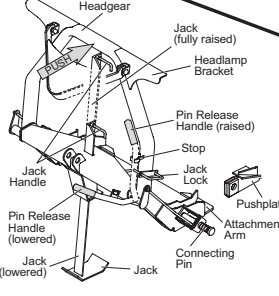
⚠ WARNING



Multiple Pinch Points

XLSTM™ Blades Only (both sides)

Instruction Label



U.S. patents 6,408,549; 6,526,677; 6,711,837; 6,928,797; 6,944,978; 7,400,058; 7,430,821; 7,681,334; 7,737,576; 7,797,659; CAN patents 2,223,783; 2,354,297; 2,356,036; 2,832,102; 2,839,052; and other patents pending.

Read Owner's Manual for complete instructions.

<ol style="list-style-type: none"> Place control in Lower/Float to put blade down. 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 that Jack is locked by trying to lift Jack. 	<ol style="list-style-type: none"> Push Pin Release Handle down to pull out Connecting Pins. Drive vehicle slowly to engage Pushplates into Attachment Arms. Stand in front of blade. Fully raise Pin Release Handle to release Connecting Pins. 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. Pull out Jack Lock. Push Pin Release Handle into Stop. While holding Jack Lock out, use Jack Handle to raise Jack fully. Release Jack Lock. Attach all electrical connectors. 	<p>ATTACH</p> <p>DETACH</p>
--	---	-----------------------------

27451-12

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 the blade when the 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 vehicle and 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 control OFF whenever the snowplow is not in use. The power indicator light will turn OFF.

⚠ WARNING

Remove blade assembly before placing vehicle on hoist.

⚠ CAUTION

Refer to the online selection system 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, text messaging devices, pagers, 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.

NOISE

Airborne noise emission during use is below 70 dB(A) for the snowplow operator.





VIBRATION





Operating snowplow vibration does not exceed 2.5 m/s² to the hand-arm or 0.5 m/s² to the whole body.

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					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Grade 5	 Grade 8		 Grade 5	 Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995

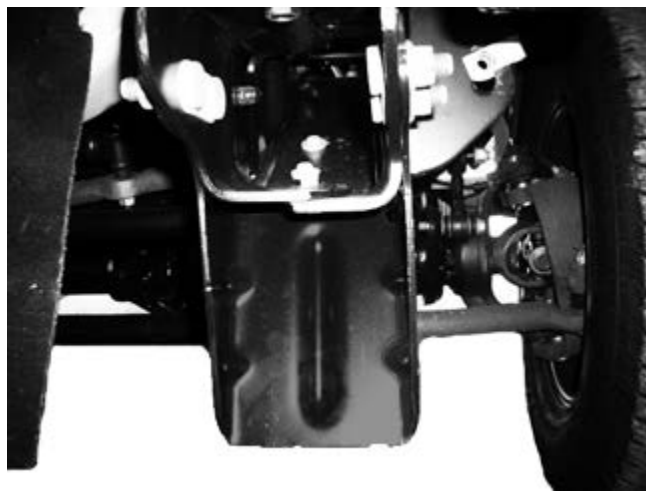
Metric Fasteners Class 8.8 and 10.9					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Class 8.8	 Class 10.9		 Class 8.8	 Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701

These torque values apply to fasteners except those noted in the instructions.

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 the air dam and bumper. Retain the fasteners for later installation.
2. Remove compatibility structures, if vehicle is so equipped. Retain them for reinstallation if the mount kit is removed from the vehicle.



Remove compatibility structures.



3. Remove the metal sway bar brackets and retain them for reinstallation later in this procedure.

4. Completely remove the sway bar fasteners and bolt clips from the keyholes in the truck frame. Retain the fasteners and clips for reinstallation if the mount kit is removed from the vehicle.
5. Place a spacer inside the passenger's side of the truck frame with the slots closest to the center of the vehicle. Insert a 7/16" x 2-1/2" cap screw down through a 7/16" washer, the spacer, and the truck frame.
6. Position the passenger-side rear bracket so that the cap screw goes through the appropriate hole.

On 2011–16 model year F-250 and F-350 installations and all F-450 and F-550 installations, insert an additional 7/16" washer between the truck frame and the rear bracket.

Place the sway bar in position and align the sway bar bracket so that the fastener is in the correct hole. Attach a 7/16" locknut and hand tighten.

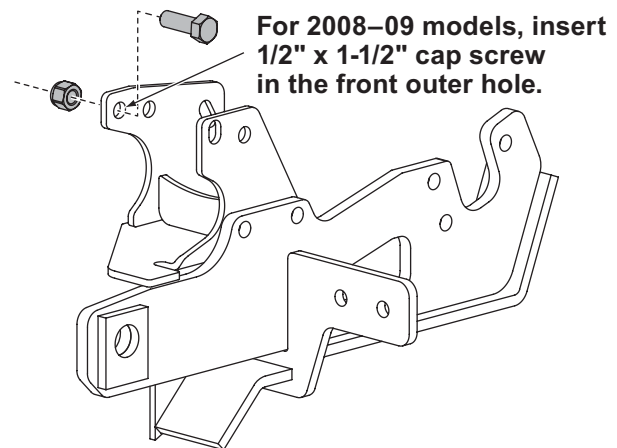
7. Insert a second 7/16" x 2-1/2" cap screw through a 7/16" washer, the spacer, and the truck frame.

On 2011–16 model year F-250 and F-350 installations and all F-450 and F-550 installations, insert an additional 7/16" washer between the truck frame and the rear bracket.

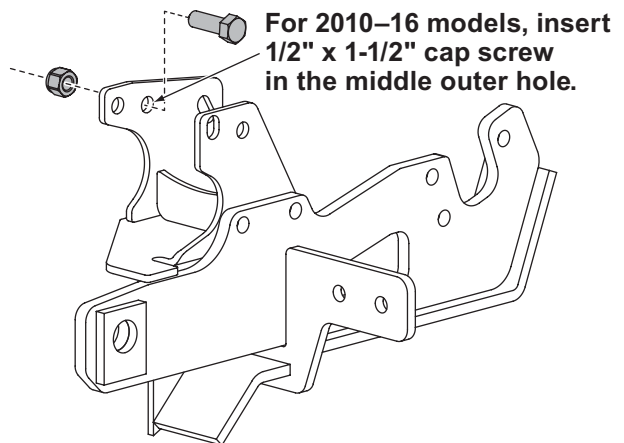
Insert the cap screw through the rear bracket and sway bar bracket. Attach a 7/16" locknut and hand tighten.

8. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the front hole in the rear bracket. Attach a 1/2" locknut and hand tighten.
9. Position the passenger-side mount so that the rear hole is aligned with the rear hole in the bracket. Insert a 1/2" x 1-1/2" cap screw through the hole in the mount and rear bracket, attach a 1/2" locknut and hand tighten.
10. Rotate the mount up against the truck frame. Insert a 1/2" x 1-1/2" cap screw into the rear inner hole at the front of the mount and through the truck frame. Attach a 1/2" washer and 1/2" locknut on the inside of the truck frame and hand tighten.

11. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the front inner hole in the mount. Attach a 1/2" locknut on the inside of the truck frame and hand tighten.
12. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the rear outer hole in the mount. Attach a 1/2" washer and 1/2" locknut and hand tighten.
13. **For 2008–09 model years:** Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the front outer hole in the mount. Attach a 1/2" locknut and hand tighten.



For 2010–16 model years: Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the middle outer hole in the mount. Attach a 1/2" locknut and hand tighten.



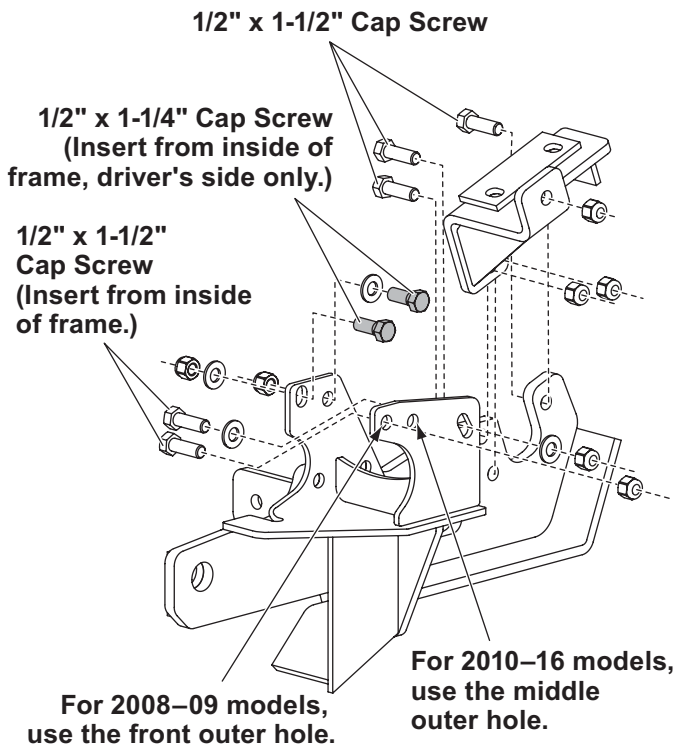
14. Install two more cap screws through the holes in the mount and rear bracket. Attach locknuts to fully secure the rear bracket to the mount. Hand tighten the fasteners.

15. Repeat Steps 5–9 on the driver's side.
16. Rotate the mount up against the truck frame. Insert a 1/2" x 1-1/4" cap screw and 1/2" washer into the truck frame and out through the rear inner hole at the front of the mount. Attach a 1/2" locknut and hand tighten.

⚠ CAUTION

Diesel-equipped vehicles must use supplied 1/2" x 1-1/4" cap screws between frame and intercooler to prevent intercooler damage during assembly and use.

17. Insert a 1/2" x 1-1/4" cap screw into the truck frame and out through the front inner hole in the driver-side mount. Attach a 1/2" washer and 1/2" locknut and hand tighten.

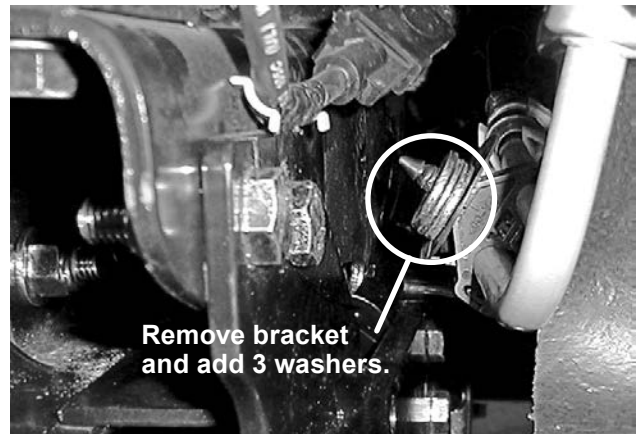


18. Insert a 1/2" x 1-1/2" cap screw and 1/2" washer into the truck frame and out through the rear outer hole in the mount. Attach a 1/2" washer and 1/2" locknut and hand tighten.

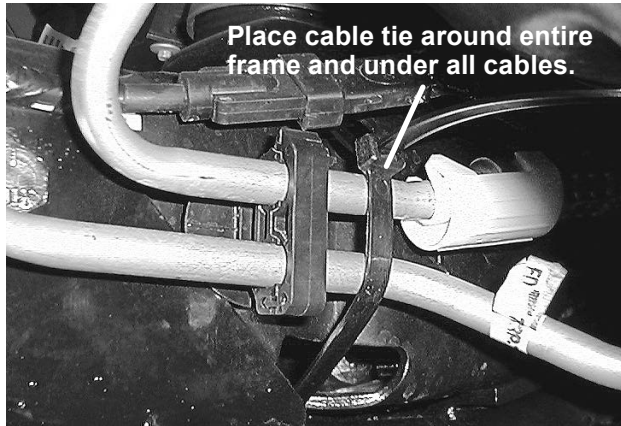
19. **For 2008–09 model years:** Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the front outer hole in the mount. Attach a 1/2" locknut and hand tighten.

For 2010–16 model years: Insert a 1/2" x 1-1/2" cap screw into the truck frame and out through the middle outer hole in the mount. Attach a 1/2" locknut and hand tighten.

20. Install two more 1/2" x 1-1/2" cap screws through the holes in the mount and rear bracket. Attach 1/2" locknuts to fully secure the rear bracket to the mount. Hand tighten fasteners.
21. Install the cross bar on the rear side of the mount tabs using four 1/2" x 1-1/2" cap screws and 1/2" locknuts. Hand tighten fasteners.
22. Fully tighten the rear bracket fasteners according to the torque chart.
23. Make sure the mounts are tight up against the truck frame. Fully tighten the fasteners securing the mount to the truck frame and rear bracket according to the torque chart.
24. Remove the plastic bracket holding the metallic cooling lines from the passenger's side of the truck frame. Stack three 1/2" washers over the fastener.



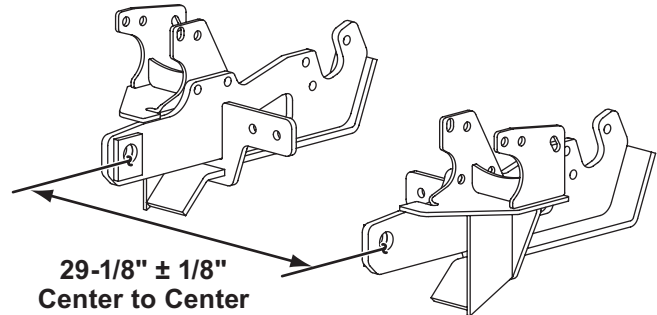
25. Reinsert the fastener into the original hole to hold its position. Wrap the cable tie around the entire frame and tubing behind the bracket. Do not wrap cable tie over any other wires or tubes or go inside the truck frame.



26. Tighten the cable tie until it is snug, taking care not to crimp tubing. Trim excess length.



27. Check for a connecting arm distance of $29\text{-}1/8'' \pm 1/8''$. If the connecting arm distance is not within $29\text{-}1/8'' \pm 1/8''$, then $1/2''$ washers may be used to shim one or both mounts in the appropriate direction to obtain the desired dimension. Tighten all fasteners according to the torque chart after achieving the appropriate dimensions.



28. Reattach the air dam and bumper using the original fasteners.

29. If the air dam does not clear the mounts, notch it as needed.

NOTE: For 2008–10 model year vehicle applications, install the 29596 Headlamp Extension Bracket Kit to the headgear according to the instructions included with the bracket kit.

NOTE: After five to ten hours of snowplow usage, retorque all mount 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, LLC: FISHER®, Minute Mount® 2.

Printed in U.S.A.
