

31263

Mount Kit Personal Plow

Ford Ranger

2010 - 11

Installation Instructions

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your sales outlet/Web site for specific vehicle application recommendations before installation. The Kit Selection Guide/Selection List has specific vehicle and snowplow requirements.

SAFETY DEFINITIONS

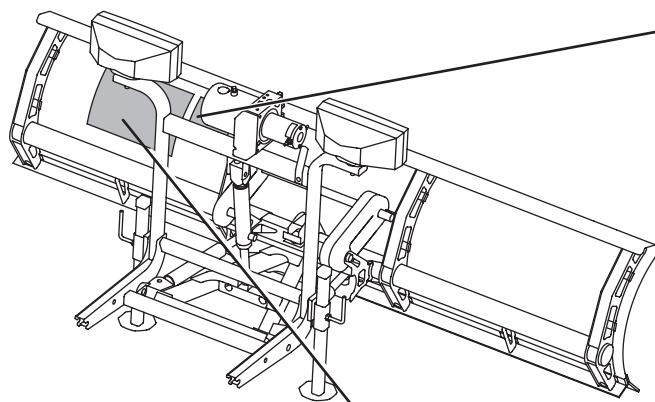
⚠ WARNING

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 & INSTRUCTION LABELS

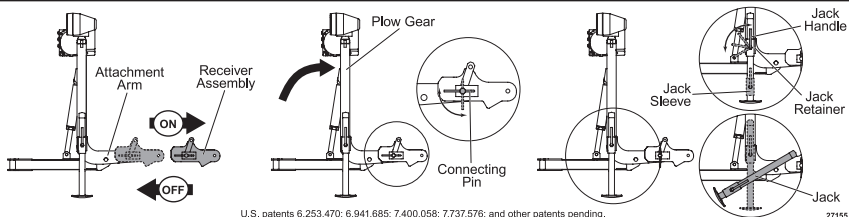
Become familiar with and inform users about the warning/caution labels on the back of the blade and the instruction label on the headgear.

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

⚠ WARNING	
	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. 09909

This snowplow is for personal/homeowner use only.

- ATTACH INSTRUCTIONS**
1. Make certain both **connecting pins** are fully retracted.
 2. Drive vehicle slowly to completely insert **attachment arms** into **receiver assembly** slots.
 3. Twist both **connecting pins** to release spring tension, then push **plow gear** toward vehicle so **connecting pins** fully engage holes in **attachment arms**.
 4. Loosen one **jack handle** and slide **jack sleeve** down below **jack retainer**. Remove **jack** and retighten **jack handle**. Repeat for other **jack** and store them.
 5. Connect all electrical cables from vehicle to snowplow.



- U.S. patents 6,253,470; 6,941,685; 7,400,058; 7,737,576; and other patents pending.
5. Back vehicle away from snowplow.
 6. See Owner's Manual for proper snowplow storage.
 3. While pushing **plow gear** toward vehicle to release **connecting pin** tension, pull **connecting pin** out on one side and twist pin handle to keep pin retracted. Repeat procedure for other **connecting pin**.
 4. Disconnect all electrical cables.
 1. Put blade on ground using **LOWER/FLOAT** on snowplow control. Leave control **ON** and in **FLOAT**.
 2. Attach **jacks**. Loosen **jack handle**, put **jack** on ground, and raise **jack sleeve** until fully engaging **jack retainer**. Tighten **jack handle**. Repeat for other **jack**.
- DETACH INSTRUCTIONS**
- Read Owner's Manual for complete instructions.

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 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 Kit Selection Guide/Selection List 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

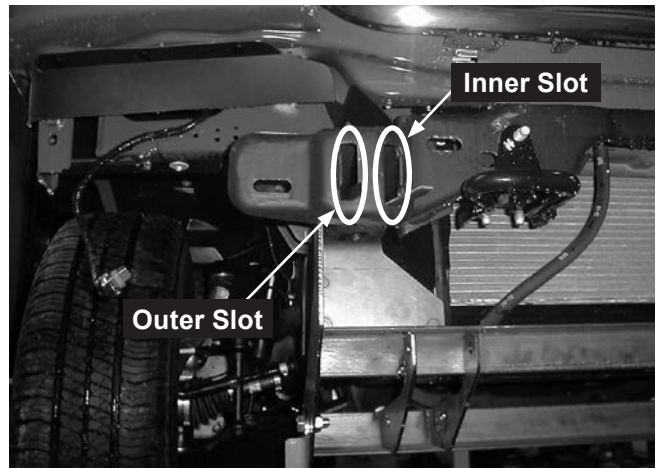
Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow including proper personal protective safety equipment.

Recommended Fastener Torque Chart (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 bumper. If vehicle is equipped with optional metal skid pan, it must also be removed.
2. Position the front mount against the bottom of the frame rails. Insert a cap screw on handle through the outer slot in the bumper mounting bracket at the front of one of the frame rails. Place a 1/2" hardened washer on this bolt and pass it through the slotted hole in the side of the frame and the hole in the front mount. Loosely secure with a 1/2" locknut. Refer to photo below.
3. Repeat on the opposite side frame rail.
4. Insert a cap screw on handle through the inner slot in the bumper mounting bracket at the front of one of the frame rails. Place a 1/2" hardened washer on this bolt and pass it through the slot in the bottom of the frame and the slot in the front mount. Loosely secure with a 1/2" hardened washer and 1/2" locknut.

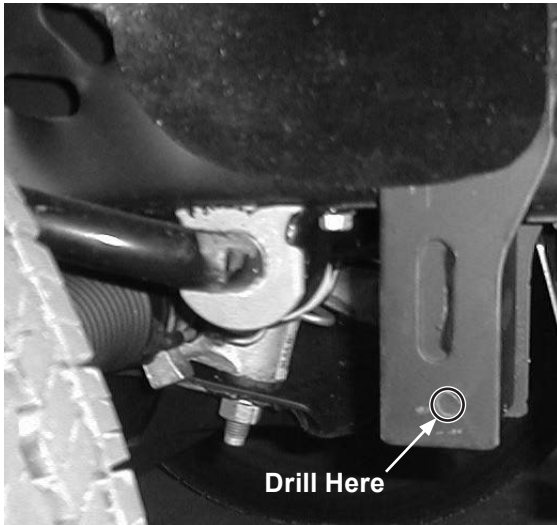


5. Repeat on the opposite side frame rail.

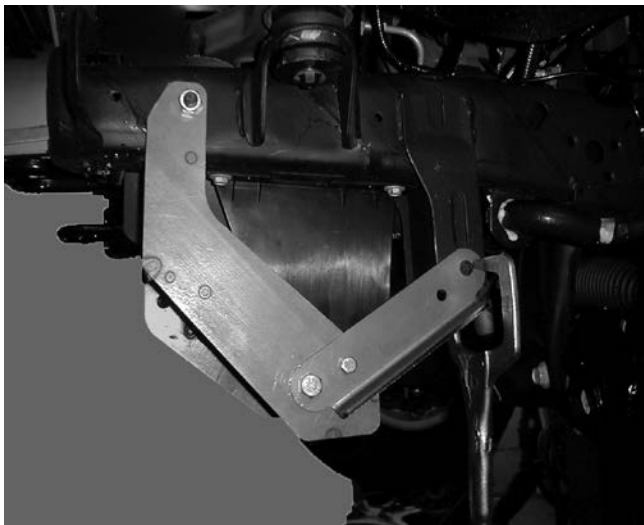
⚠ CAUTION

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

6. Drill a 17/32" diameter hole in the compatibility structures welded to both frame rails. Use the hole in the first layer as a guide.

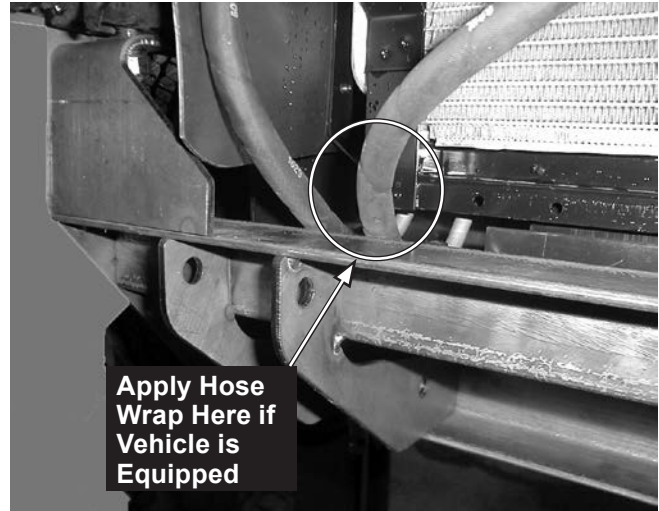


7. Align the thrust arm's 1/2" diameter holes with these drilled holes and loosely secure with a 1/2" x 1-1/4" cap screw and locknut. Align the 1/2" diameter hole on the opposite end of the thrust arm with the 1/2" diameter hole on the rear of the front mount. Loosely secure with a 1/2" x 1-1/4" cap screw and locknut. Place a 3/8" cap screw through the smaller holes of the thrust arm and front mount and loosely secure with 3/8" locknut.



8. Repeat on opposite side.

9. Tighten all fasteners according to the provided torque chart, starting with the 1/2" cap screws on handles passing through the bottom of the frame, then working front to rear.
10. Apply hose wrap material provided, using the provided zip ties to protect any cooling hoses that may come in contact with the mount structure.



11. Trim the cap screws on handles flush with bumper bracket.
12. If the vehicle was equipped with a metal skid pan, modify as necessary to reinstall it using the original fasteners.
13. Reattach and align bumper, notching the lower plastic section, if necessary, to clear the mount and the removable plow receivers.

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

The company 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. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for snow removal. Do not exceed vehicle ratings with a snowplow. The company offers a limited warranty for all snowplows and accessories. See separately printed page for this important information.

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