



## GENERAL INSTRUCTION GUIDELINES

### READ THIS FIRST:

- Read these instructions fully prior to beginning work. Verify all parts listed below are in the kit packaging, and all tools, equipment, skills and methods are on hand to safely complete the installation.
- Read the attached GENERAL INSTALLATION NOTES prior to beginning any work.
- Installation of these components should be performed by experienced and qualified mechanics, using safe and correct tools and equipment. Northwoods recommends this installation be performed by a qualified, certified automotive shop.
- Use safe methods in all work operations. Support the vehicle safely as required on a lift or hoist, or certified jack stands.

## GENERAL INSTALLATION NOTES

- Installation shall be performed by qualified, experienced mechanics capable of performing this type of work. Northwoods recommends the work be performed in qualified ASE certified shops.
- Use only quality, certified tools and equipment appropriate for the job.
- Vehicle should only be supported by certified hoists, lifts, or jackstands of adequate capacity.
- Use only certified, dedicated spring compressors to compress and assemble springs. Northwoods recommends springs only be assembled and installed by qualified auto repair shops, using quality spring compression tools.
- Actual lift heights will vary by vehicle due to vehicle accessories, weights, loading, wear, initial ride height, and other factors.
- Upon completion of installation of springs or other suspensions and steering components, vehicles should be immediately aligned at a qualified shop.
- Modification to vehicle ride height requires re-alignment of headlights.
- Full inspection of all components installed should be checked after 300 miles of driving, including torque of all fasteners.
- Modified vehicles will handle and perform differently from stock vehicles, and the modified vehicle characteristics should be considered for driving safety. Modified vehicles may have affects to vehicle steering and response, and increased braking distances due to increased vehicle weight or larger tires.
- Modified vehicles may exhibit increased wear to suspension and other components, as well as an increase in vibration due to changes in component alignment and operating angles.
- Northwoods Performance Warranty, Return, and Replacement policies can be found on-line at [northwoodsperformance.com](http://northwoodsperformance.com), RESOURCES tab.



## SKID PLATE INSTALLATION INSTRUCTIONS

2003-2011 FORD CROWN VICTORIA (includes Mercury Grand Marquis)

Installation time: 2-3 hours

### SKID PLATE KIT MATERIAL LIST

#### FRONT

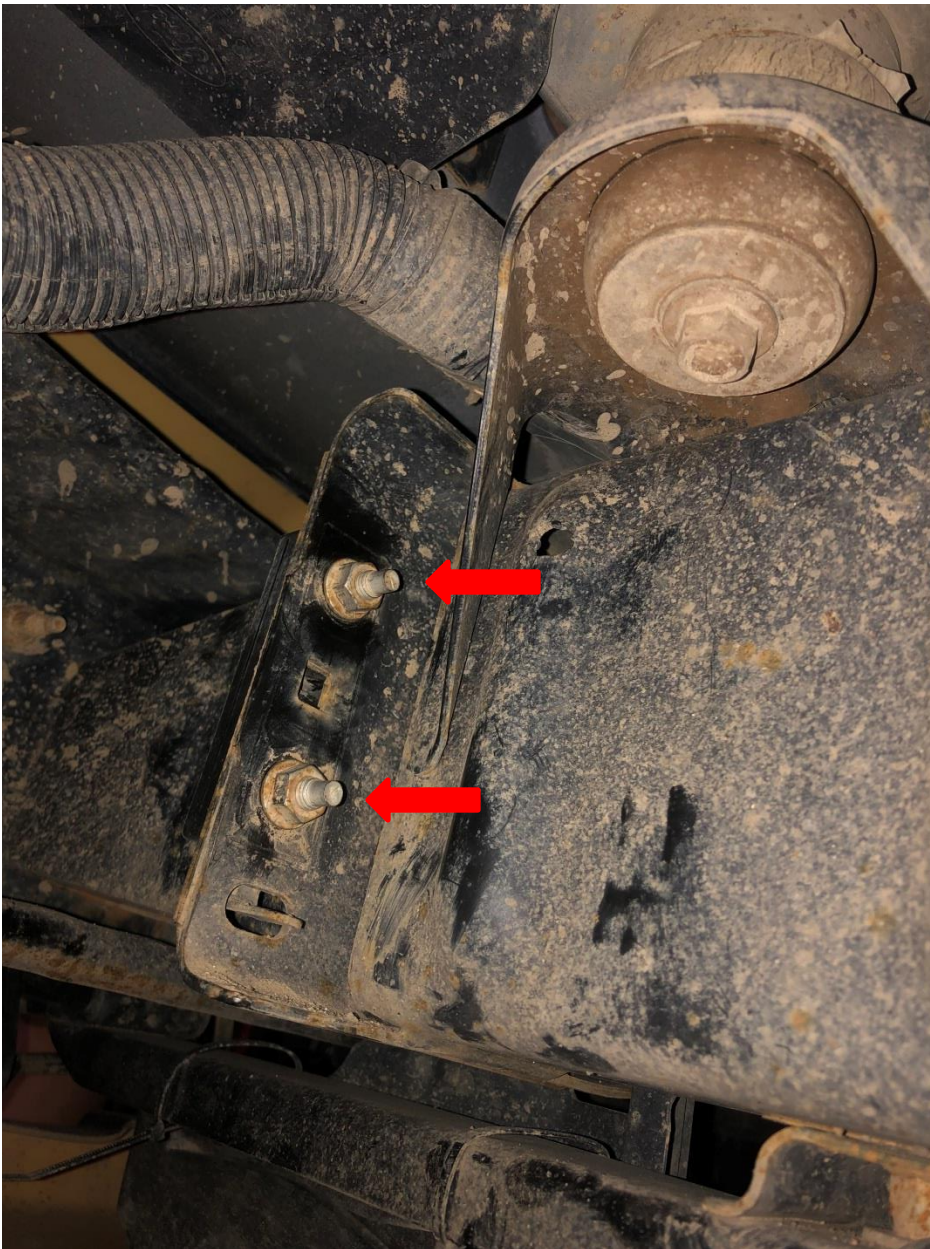
- 1 Front Skid Plate
- 2 Front Mounting Bracket
- 4 5/16-18 X 2-1/2" bolts
- 8 5/16 flat washers
- 4 5/16-18 nylock nuts
- 2 1/2-13 X 1-1/4" socket head cap screws
- 2 1/2-13 nut
- 4 1/2" flat washers
- 2 1/2" lock washers
- 2 3/8-16 X 1-1/2" socket head cap screw
- 2 3/8-18 X 1-1/8" U-nut
- 2 3/8 flat washer

#### MID

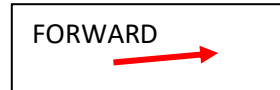
- 1 Mid Skid Plate
- 2 3/8-16 X 1-1/2" socket head cap screw (if no front skid)
- 2 3/8-18 X 1-1/8" U-nut (if no front skid)
- 2 3/8 flat washer (if no front skid)
- 2 3/8-16 X 1-1/2" socket head cap screw
- 2 3/8-18 X 1-1/8" U-nut
- 2 3/8 flat washer
- 2 bushing, 1-1/4" OD 7/16 ID L=5/8"

### SKID PLATE INSTALLATION

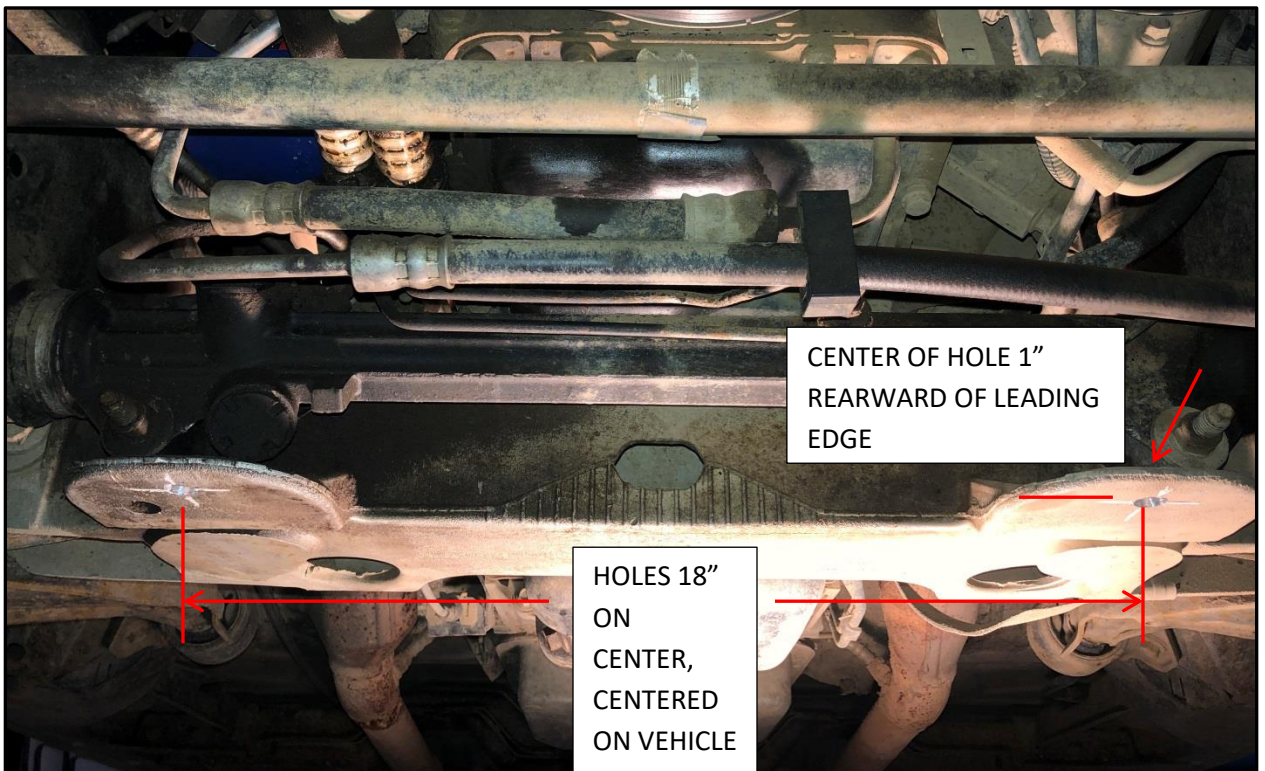
1. Remove the factory air dam.
2. On the front of the inner fender well, remove the bolts on the outside of the front bumper frame, two bolts per side with plastic backing panel attached.



3. Install the front brackets with the flat plate facing forward, using the 5/16 hardware. Install the bolts loosely—do not tighten until skid plate is fully fitted.



4. On the cast aluminum steering box bracket, locate two holes 18" on center, 1" rearward from the front of the bracket. Alternatively, install the skid plate with the front bolts, and locate and mark the rear holes. Drill  $\frac{1}{2}$ " holes on the marked locations.



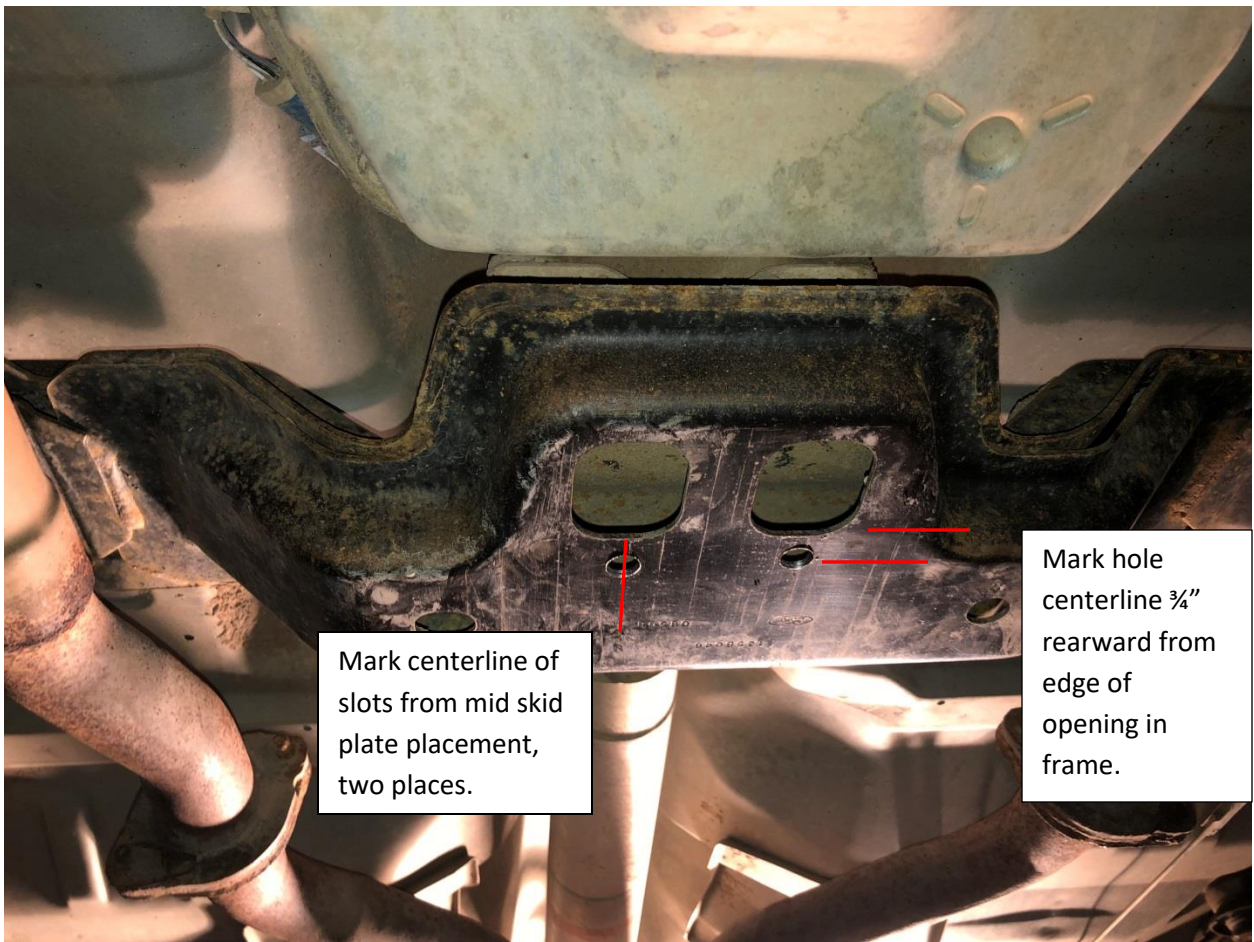
5. Install the  $\frac{3}{8}$  U-nuts on the bracket.



6. Install the skid plate and all hardware. Align the plate, and tighten the front body mounted brackets, the rear skid plate bolts, and the front skid plate bolts.

If also installing the mid skid plate—

1. With the vehicle still safely supported, support the front skid plate in position, and remove the rear skid plate bolts. Lower the skid plate slightly.
2. Place and hold the mid skid plate in position, with the front of the plate slipped under the rear of the front plate.
3. Install the 3/8 bolts through the rear of the front skid plate and front of the mid skid plate mounting holes. Do not tighten fully.
4. Center and align the plate in position, and mark the centerline of the two rear mounting holes on the transmission support bracket.
5. Remove the mid skid plate.
6. Mark hole centers  $\frac{3}{4}$ " rearward from the transmission support bracket punched holes along the centerline of the marked hole positions.



Mark centerline of slots from mid skid plate placement, two places.

Mark hole centerline  $\frac{3}{4}$ " rearward from edge of opening in frame.

7. Drill  $\frac{1}{2}$ " holes through the transmission bracket bottom plate only.
8. Install two U-nuts through the punched holes in the transmission support bracket.
9. Install the mid skid plate, with the front edge under the rear of the front skid plate.
10. On the rear bolt mounts, install the two spacers between the skid plate and the transmission bracket.



11. Align the two plates, and tighten all hardware and bolts.

Enjoy the peace of mind and protection of your new skid plates!