



INSTALLATION INSTRUCTIONS

Hidden Winch Mount For 2008 Ford Super Duty Kit 78105

Your safety, and the safety of others, is very important. To help you make informed decisions about safety, we have provided installation and operating instructions and other information on labels and in this guide. This information alerts you to potential hazards that could hurt you or others. It is not possible to warn you about all potential hazards associated with this product, you must use your own good judgment.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.

This guide identifies potential hazards and has important safety messages that help you and others avoid personal injury or death. **WARNING** and **CAUTION** are signal words that identify the level of hazard. These signal words mean:

WARNING signals a hazard that could cause serious injury or death, if you do not follow recommendations.

CAUTION signals a hazard that may cause minor to moderate injury, if you do not follow recommendations.

This guide uses **NOTICE** to call attention to important mechanical information, and **Note**: to emphasize general information worthy of special attention.

WARNING

INJURY HAZARD

Failure to observe these instructions could lead to severe injury or death.

- Always** use extreme caution when drilling on any vehicle. Make sure that all fuel lines, brake lines, electrical wires, and other objects are not punctured or damaged when/if drilling on the vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged. Failure to inspect the area to be drilled may result in vehicle damage, electrical shock, fire or personal injury.
- Always** wear safety glasses when installing this kit. A drilling operation will cause flying material chips. Flying chips can cause eye injury.
- Always** use extreme caution when cutting and trimming during fitting.
- Always** remove jewelry and wear eye protection.
- Always** insure components will remain secure and adequately supported during installation and operation.
- Always** tighten all nuts and bolts securely, per the installation instructions.
- Always** replace all worn or damaged parts before operating.
- Never** operate this WARN product with damaged or missing parts.

Notice

Equipment Damage

- Always** refer to the Operator's Manual, supplied in the winch kit, for all wiring schematics and specific details on how to wire a WARN winch product to your vehicle.
Read Operating Manual thoroughly.

This WARN Hidden Winch Mount is designed to handle WARN Large Frame Winches up to 16,500 lb capacity.

Before You Begin

- Read and understand these Installation Instructions.
- Refer to Figure A to become familiar with the components and hardware in this kit.

PARTS LIST

<u>PART NO.</u>	<u>QUANTITY</u>	<u>DESCRIPTION</u>
78101	1	Winch Carrier
78313	1	LH Frame Extension
78314	1	RH Frame Extension
78536	1	M15000 Control Pack Bracket
78451	1	LH Bumper Brace Bracket
78453	1	RH Bumper Brace Bracket
78687	1	Hood Release Bracket
78864	1	License Plate Bracket
78323	1	Hardware Kit for Hidden Winch Kit
78319	1	Skirt Kit
78771	1	Hardware Kit for Skirt Kit

TORQUE SPECIFICATIONS

BOLT SIZE	TORQUE
3/8 inch	30 lb. ft (40.7 N-m)
7/16 inch	50 lb. ft. (67.8 N-m)
1/2 & 5/8 inch	75 lb. ft. (101.7 N-m)

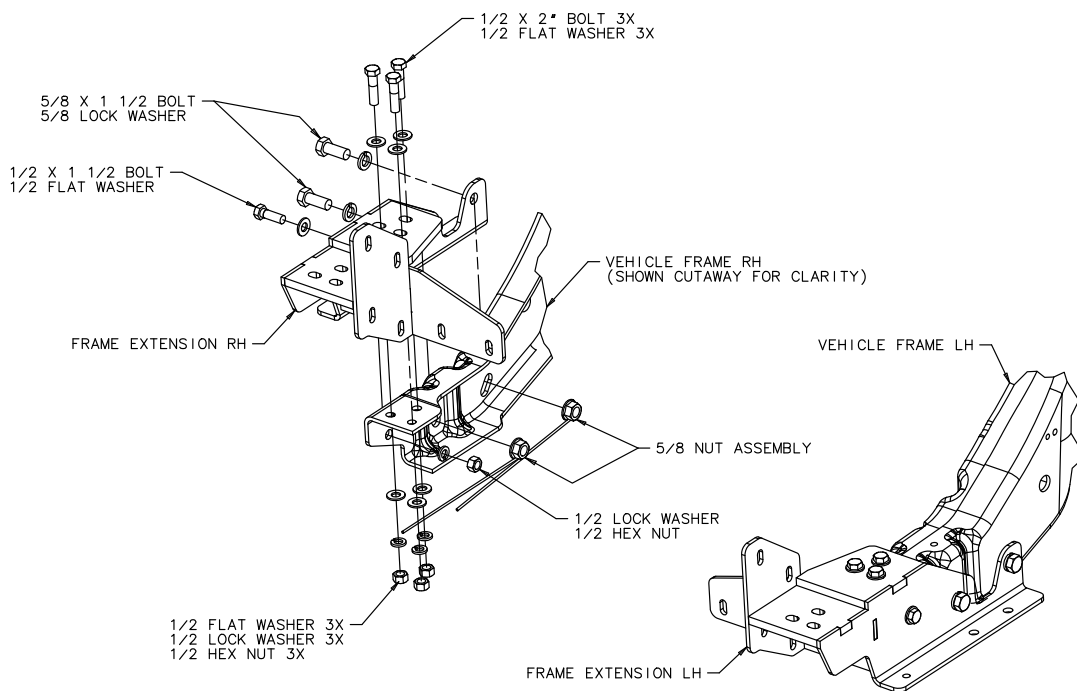


Fig A - Bracket Installation Exploded View

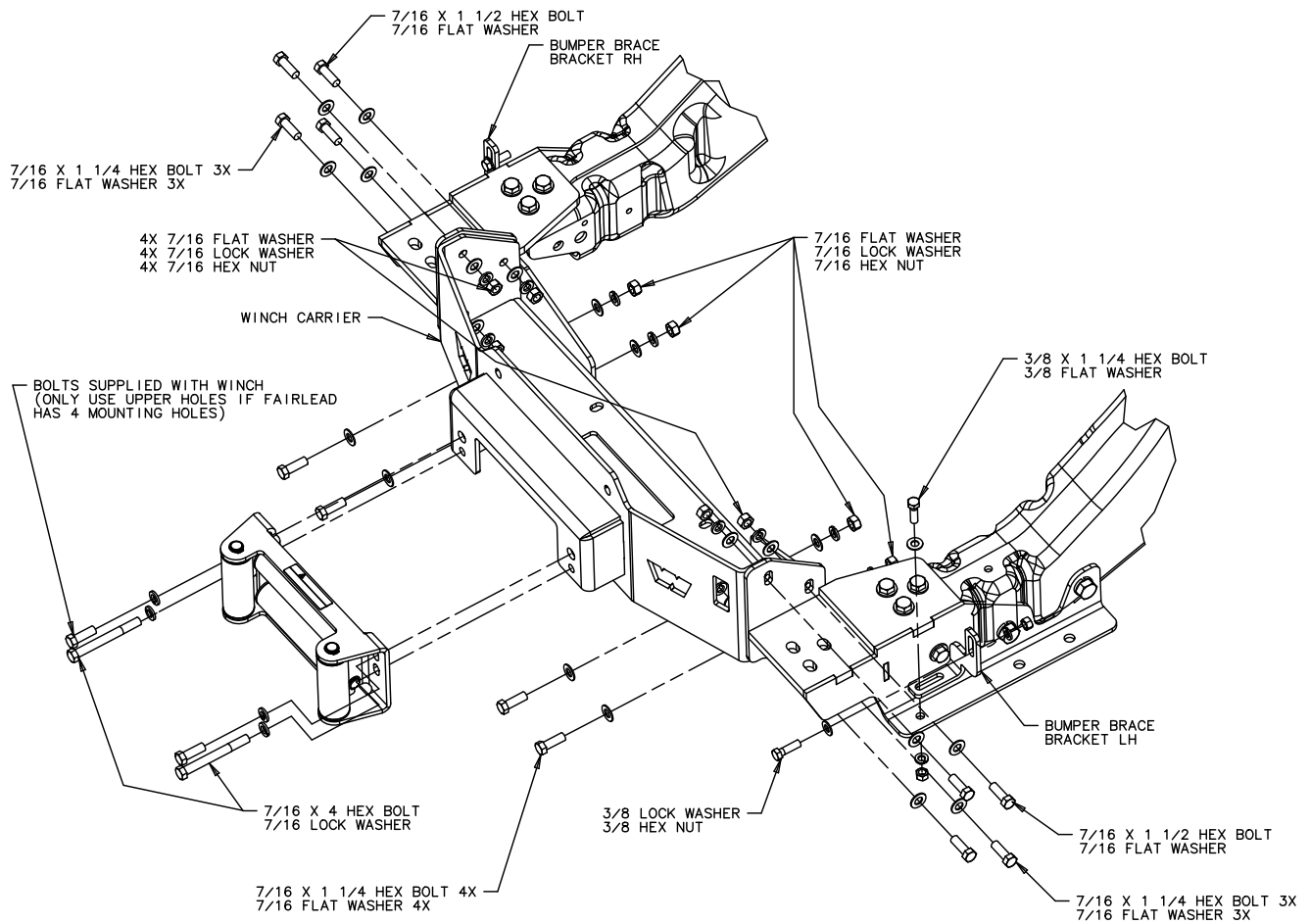


Figure B - Winch Mount Installation Exploded View

Vehicle Disassembly

1. Disconnect the fog lamps if equipped. The plug is inboard of the driver side headlamp with an additional retainer below. **See Figure 1**

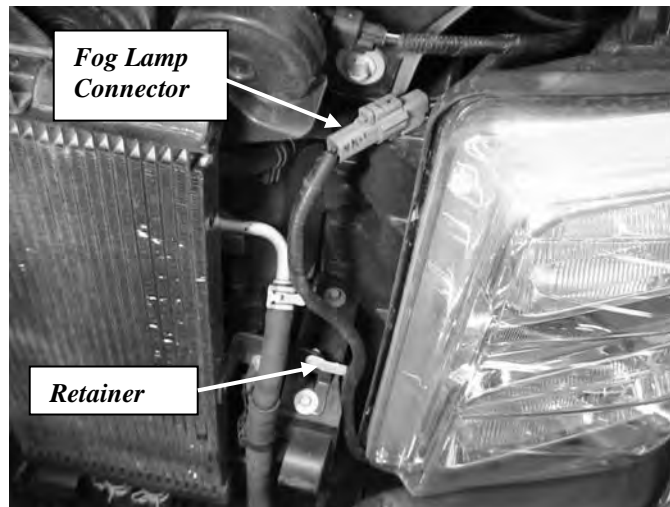


Figure 1 Fog Lamp Disconnect

2. Detach any other wires or cables that are connected to the bumper such as block heater cables. Remove and discard the rubber air deflector flap if applicable.
3. Remove and discard the front license plate and bracket if equipped.

4. Early production trucks have the hood release lever and bracket attached to the back of the bumper. If you have one of these, remove the release lever from the bracket and remove the bracket from the bumper. See **Figure 2**

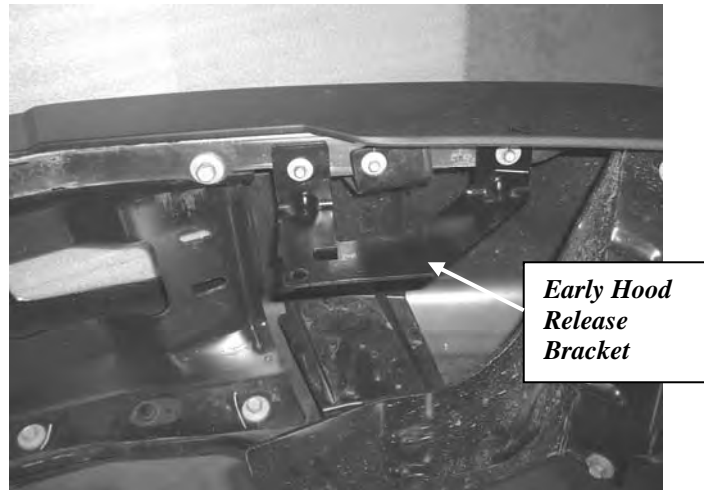


Figure 2 Early Hood Release Bracket

5. Later production trucks have the hood release attached next to the radiators. The release lever should be left in place on these trucks. See **Figure 3**



Figure 3 Late Hood Release Bracket

6. Remove the bolts attaching the bumper end brackets to the frame. The brackets should be left in place on the bumper. See **Figure 4**

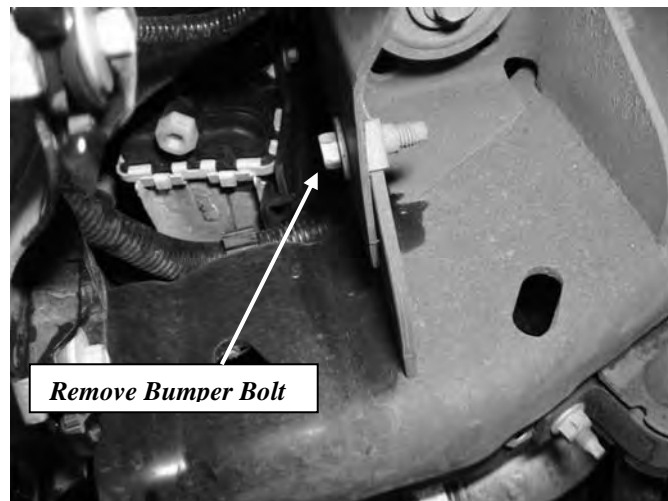


Figure 4 LH Bumper Bracket Bolt

7. Remove the (4) front mounting bolts (2 outboard of each tow loop) and remove the bumper. Place the bumper face down on a protective surface. The bolts and nut plates will be reinstalled later. **See Figure 5**

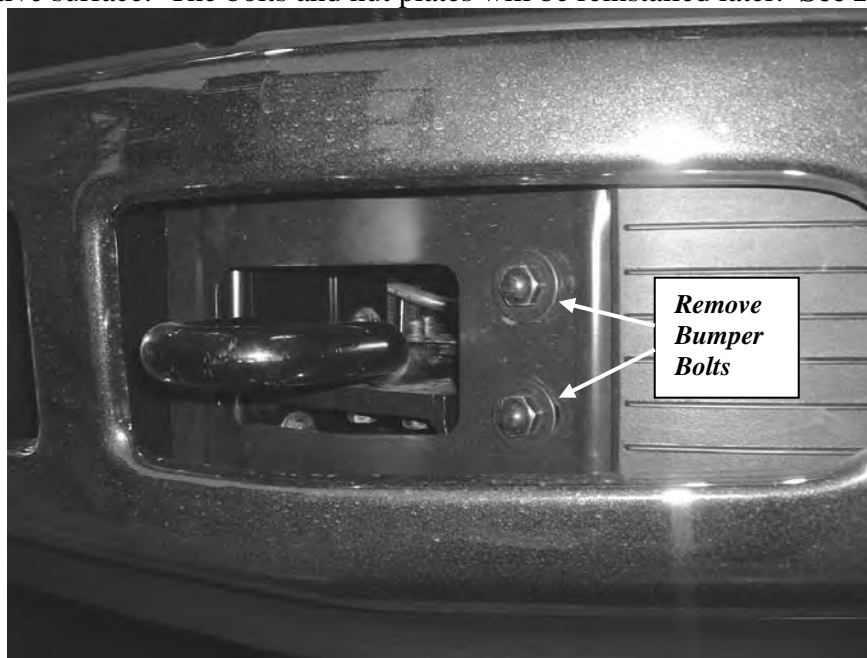


Figure 5 LH Front Bumper Bolts

8. Remove the (3) bolts securing each tow loop/bumper bracket to the frame. Remove the tow loops. Note left and right tow loops for later installation.

Bumper Preparation

9. Measure 4" outward from the center of the center hole in the upper bumper flange, in both directions. Mark these locations with vertical lines from the bottom edge of the flange to just below the bend at the top of the bumper flange. Measure again at 6" outward from the center of the center hole in both directions and mark these locations with lines. **See Figure 6.**

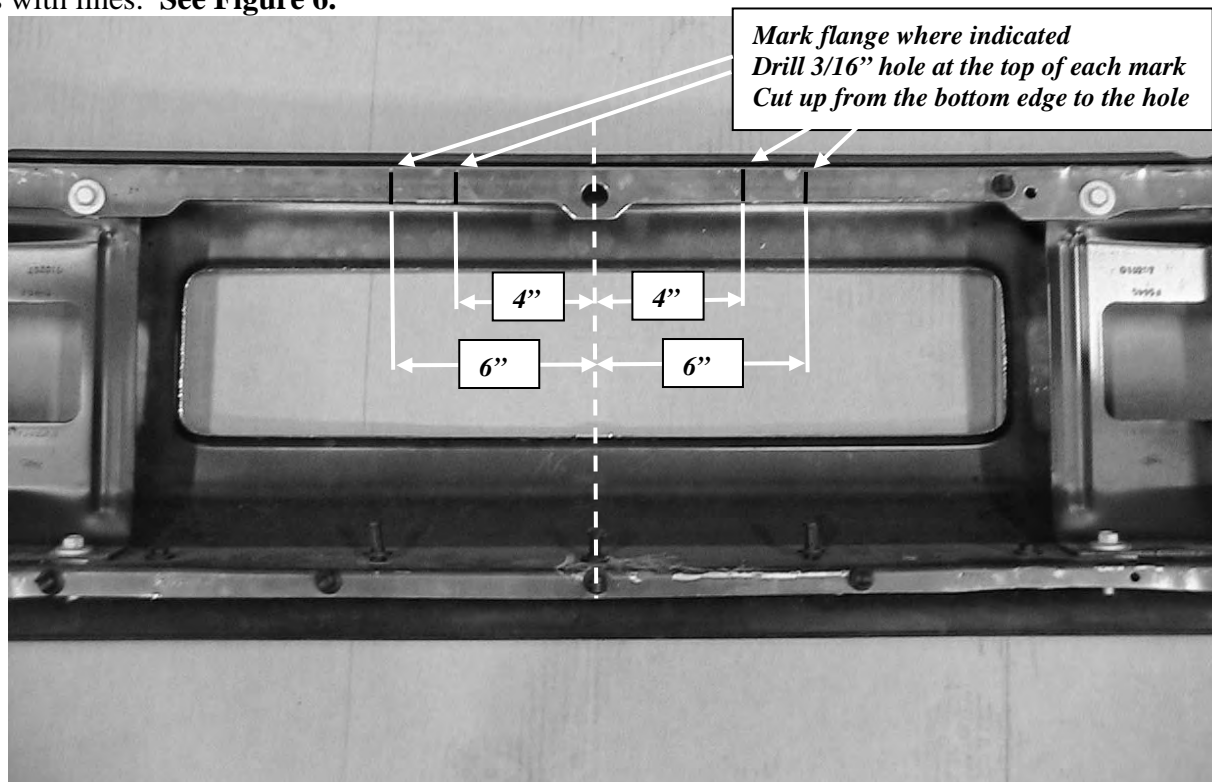


Figure 6 Bumper Flange drilling/cutting locations. Left and right side should be marked the same.

10. Drill 3/16" holes through the lines just below the bend at top of the bumper. Use a saw or cutting wheel to cut up to the holes from the bottom edge of the flange.

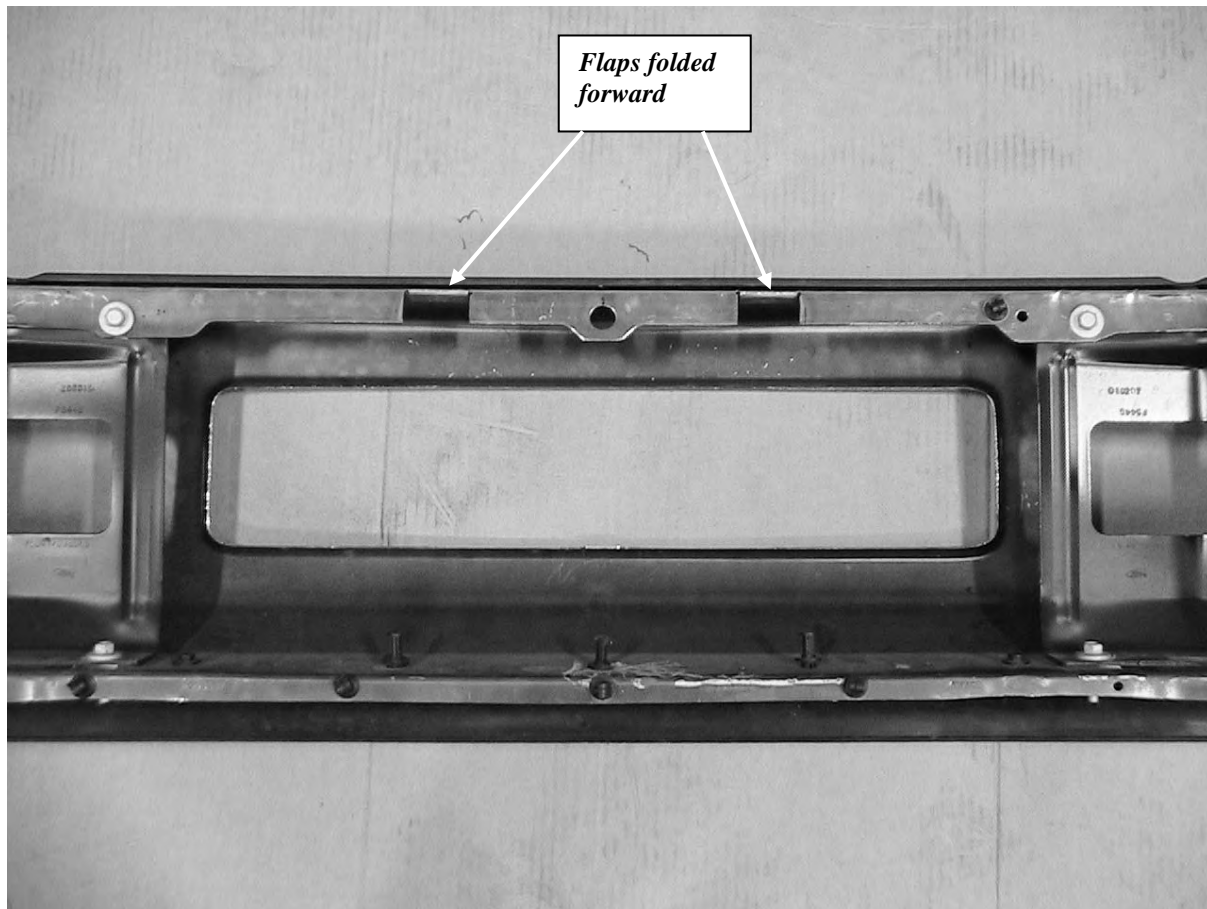
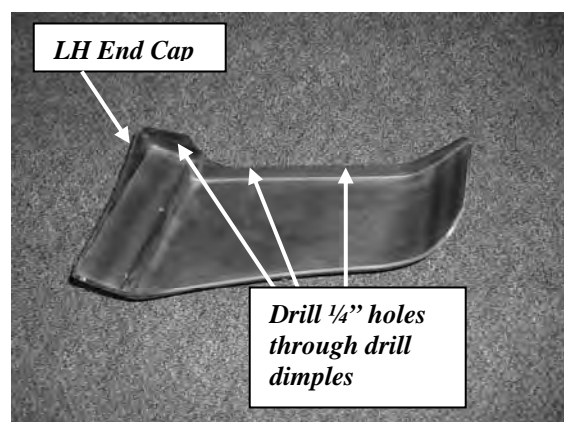
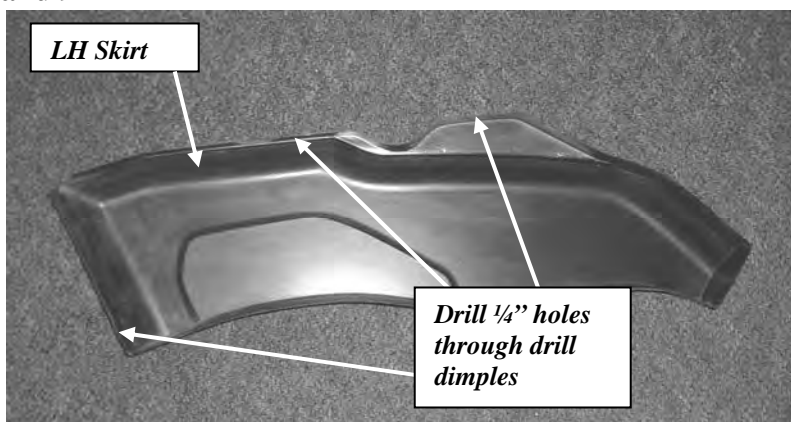


Figure 7 Bumper flange shown with tabs folded forward

11. Use an adjustable wrench and pliers to bend the "flaps" forward. These notches will provide clearance for the winch drum supports. See Figure 7

Skirt Kit Installation (optional) If you are installing the optional Skirt Kit you should do so now.

12. Drill 1/4" holes through each of the dimples molded into the Skirts (3ea) and End Caps (3ea). See Figures 8 and 9



Figures 8 and 9 Drill dimple locations for Skirt and End Cap, LH shown

13. Hold the LH Skirt in place. The part should be against the underside of the bumper tread and moved left or right for best fit. The upper bumper end bracket bolt may have to be loosened and the bracket slid forward to clear the Skirt. Tighten the bolt after moving it. **See Figure 10**

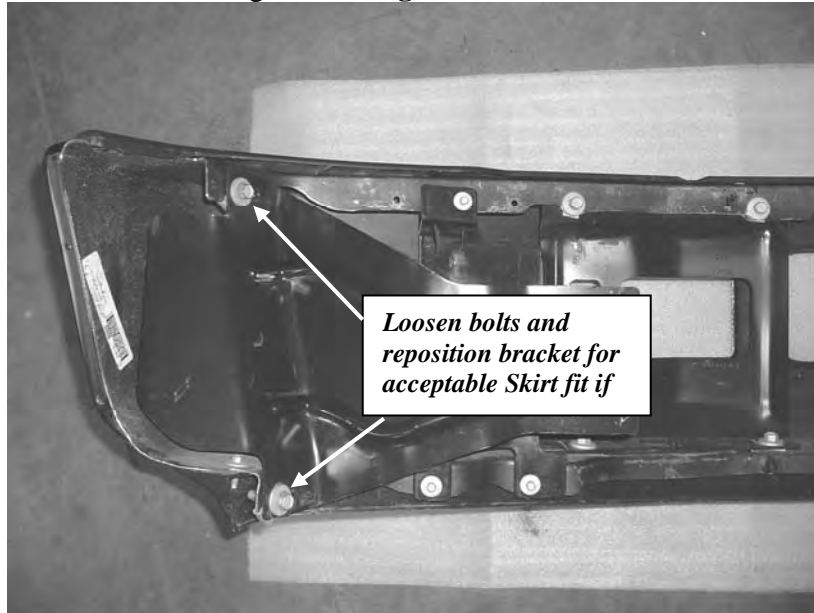


Figure 10 LH bumper bracket

14. With the Skirt in position, mark the bumper flange through the (2) corresponding holes in the Skirt. Remove the Skirt and drill a 1/4" hole through the bumper flange at each mark. Center punching the mark can prevent the drill from "walking" while drilling.



Figure 11 LH Skirt held in position



Figure 12 LH Skirt held in position

15. Install 1/4" hardware in each hole. Use 1/4" flat washers on both sides of the holes. It is only necessary to "snug" these fasteners. Over tightening will fracture the plastic Skirt.

16. Hold the RH Skirt in place against the bumper. Mounting holes should already be in the bumper. If the truck has a bumper mounted hood release, reinstall the screws from the original bracket through the new, extended bracket through the Skirt and into the original clip nuts attached to the bumper. Again, the upper bumper end bracket bolt may have to be loosened and the bracket slid forward to clear the Skirt. Again, tighten the bolt after moving the bracket.

17. If the truck is not equipped with a bumper mounted hood release, use the 1/4" hardware to attach to the Skirt using the existing holes in the bumper flange. Do not use the new hood release bracket provided in the kit.

18. Hold the LH End Cap in position. The outer surface should be even with the bumper surface and the upper contours should generally match the corner of the bumper and the top of the Skirt. Mark the hole locations onto the bumper end (2 holes) and Skirt end (1 hole).



Figure 13 LH End Cap and Skirt in position

19. Remove the end cap and drill 1/4" holes through each mark. Install 1/4" fasteners through each hole using flat washers on both sides.



Figure 14 LH End Cap and Skirt installed

Hidden Winch Mount Installation

20. Hold each Frame Extension bracket in place on the frame. Install a 5/8 x 1 1/2" bolt through each of the rear holes into the slots in the side of the frame. Thread the bolts into special 5/8" nuts-with-handles inside the frame. Do not tighten yet.

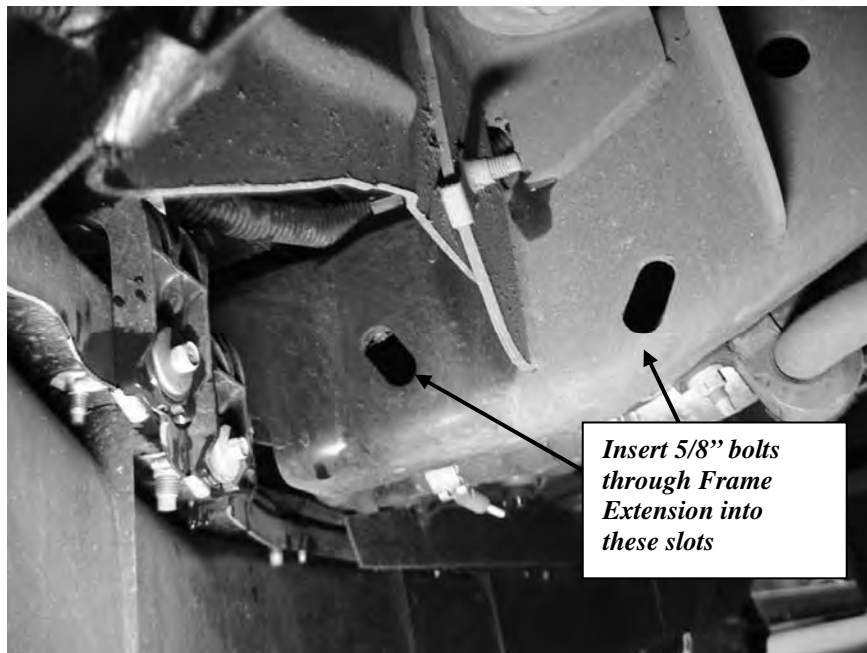


Figure 15 LH frame rail

21. Install a 1/2 x 1 1/2" bolt through the front Frame Extension hole into the hole in the side of the frame. Install a 1/2" nut, lock washer and flat washer inside the frame. Do not tighten yet.

22. Install (3) 1/2 x 2" bolts with flat washers through each Frame Extension into the tow loop holes in the top of the frame. Install 1/2" flat washer, lock washers and nuts. Do not tighten yet.

NOTE: The frame holes are sized for metric fasteners. It may be necessary to enlarge some of these holes to fit a 1/2" bolt.

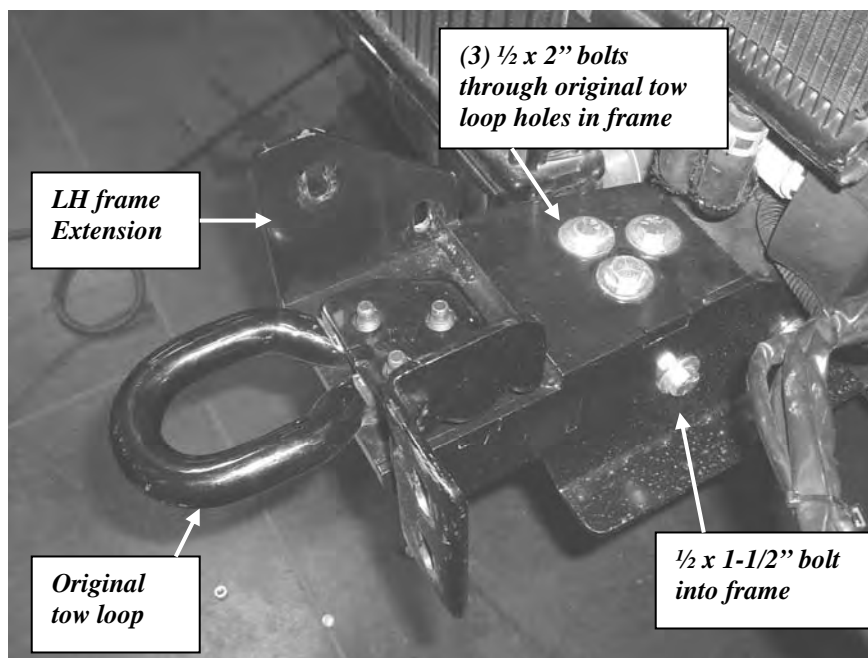


Figure 16 LH Frame Extension bolted in place

23. Hold the Winch Carrier in position and insert 7/16 x 1-1/4" bolts with flat washers through the (2) front slots and bottom slots in the Frame Extension and through the Winch Carrier holes. Install 7/16" lock washers and nuts. Install a 7/16 x 1-1/2" bolt and flat washer through the rear slot in the frame extensions and through the winch carrier holes. Install 7/16" lock washers and nuts. Do not tighten yet.

NOTE: It is important to use the correct bolt lengths in these holes. Bolts longer than specified can interfere with the winch motor and prevent proper winch alignment.

NOTE: If you are installing a Skirt Kit, insert the 7/16 x 1-1/2" bolts through the Skirt Brackets before installing in the Frame Extensions and Winch Carrier.

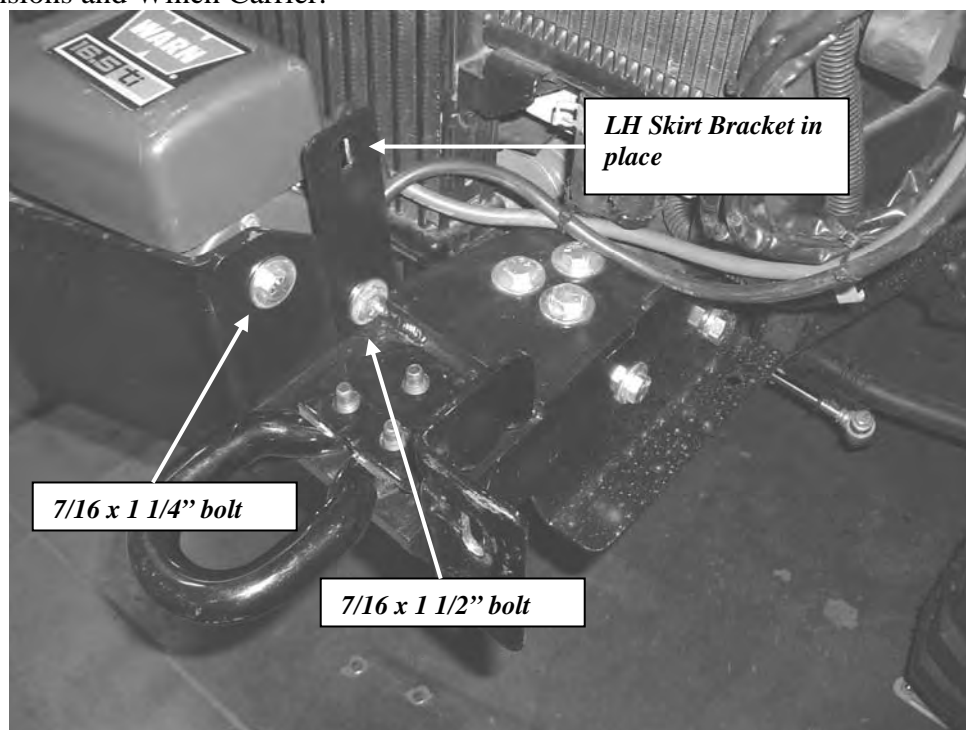


Figure 17 Winch Carrier installed, note Skirt Bracket location

24. Install a 7/16 x 1-1/2" bolt and flat washer through each slot located in the lower flange of the Winch Carrier and through the slots in the Frame Extensions. Install 7/16" flat washers, lock washers and nuts. Do not tighten yet.

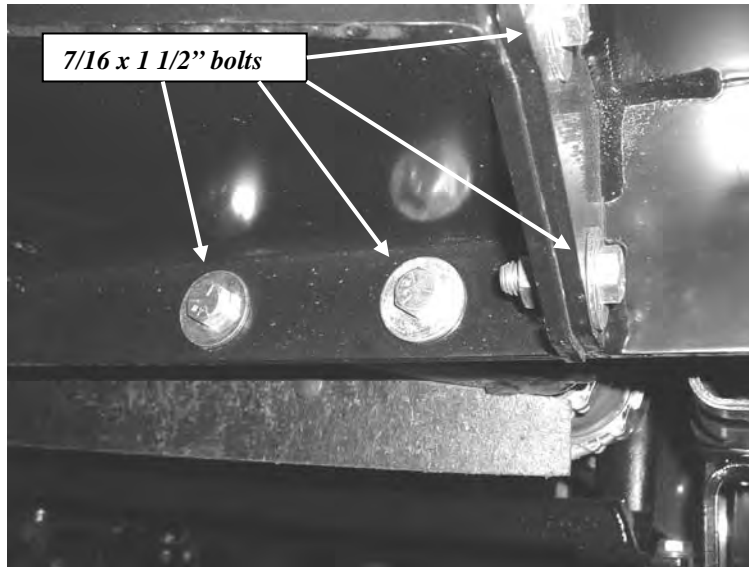


Figure 18 LH Lower Carrier flange

25. Align the Winch Carrier with the edges of the Frame Extensions and tighten the 7/16" hardware to the recommended torque, starting with the side bolts and ending with the (4) Carrier lip bolts. If installing the Skirt, Do not tighten the (2) Skirt Bracket bolts until after the bumper is installed.

26. Center the Winch Carrier and tighten the (6) 1/2" bolts installed in the tow loop holes, to the recommended torque.

27. Tighten the (2) 1/2" frame bolts to recommended torque.

28. Tighten the (4) 5/8" frame bolts to the recommended torque. Cut the wire handles where they exit the frame.

29. Position the original tow loop/bumper brackets on top of the Frame Extensions. Make sure they are on the correct sides. Install the (6) original tow loop bolts through the bottom of the Frame Extensions and into the tow loops. Do not tighten yet. **See Figure 16.**

30. Install the winch now. If you are installing a Warn M15000, replace the Control Pack Bracket with the one provided in this kit. Remove the (2) 1/4" nuts and remove the bracket. Install the new Control Pack Bracket to the same studs using the same hardware.

31. Place the winch in the Carrier and feed the wire rope through the opening in the front of the Winch Carrier. Temporarily install, but do not tighten the 7/16 x 4" bolts through the Carrier into the lower front winch holes. (This is only for alignment until the other bolts are installed.)

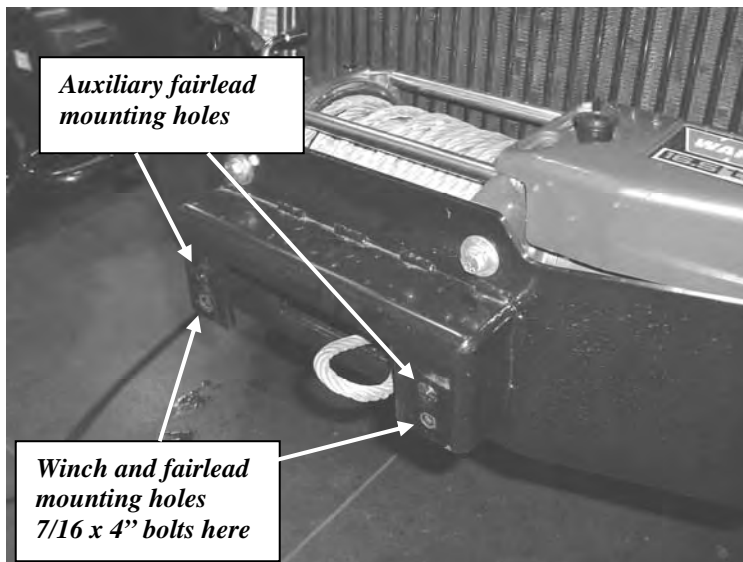


Figure 19

32. Install the hardware provided with the winch for the remaining winch mounting holes. Tighten to the recommended torque.

33. Remove the 7/16 x 4" bolts.

34. Place the bumper into position. Lift the bumper so the flange (where the slots were cut) fits over the top edge of the Winch Carrier. The bumper can then be rotated into place so the fairlead mounting surface extends through the opening in the bumper.

NOTE: The Skirt Brackets should be positioned inboard (winch side) of the Skirts.

35. Install the (4) original front bumper bolts and nut plates through the bumper and tow/bumper brackets. Center and level the bumper and tighten the hardware.

36. Install the 1/4" carriage bolts that came with the Skirt Kit through the inboard Bracket and into the holes drilled in the Skirt. Install 1/4" flat and lock washers, and nuts and tighten. Also tighten the 7/16" hardware at the opposite end of the Bracket.



Figure 20 RH Skirt Bracket installed

37. Install the Bumper Brace Brackets on the Frame Extension flange. Attach the factory bumper end brackets to the Bumper Brace Brackets. Use the 3/8" hardware at both ends. Tighten to recommended torque. (See **Figure B** for details)

38. Feed the wire rope through the Fairlead and install it using the 7/16 x 4" bolts, lock and flat washers. If you are installing a front license plate, place the License Plate Bracket provided between the Fairlead and the Carrier before tightening the hardware. Tighten to the recommended torque. If the Fairlead has two mounting slots per side, use the center slots for the 4" bolts. Install this type of Fairlead with the second set of slots above the centered slots. The mounting hardware included with the winch can be installed here for additional Fairlead support.

NOTE: The 7/16 x 4" bolts must **ALWAYS** be installed through the fairlead into the winch. There are additional threaded holes in the carrier to bolt to, however this set of holes should **NEVER** be used unless the 7/16 x 4" bolts are used in the center holes.



Figure 21 Fairlead and bumper installed

39. Reconnect the fog lamps. Install the license plate (if applicable) below the fairlead, on the bracket installed earlier. Re-attach or secure any wires or cables previously disconnected.

40. The mounting kit installation is complete. Refer to the Winch Operator's Manual to complete the winch installation.



Figure 22

⚠ WARNING

PERFORM REGULAR INSPECTIONS ON THE WINCH, WINCH MOUNT, AND RELATED HARDWARE. NEVER OPERATE THE WINCH OR WINCH MOUNT WITH DAMAGED OR MISSING PARTS. FAILURE TO FOLLOW THIS WARNING MAY CAUSE VEHICLE DAMAGE AND OPERATOR INJURY OR DEATH.