

INSTALLATION INSTRUCTIONS WINCH MOUNTING PLATE

Part Number: 74247

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:

A 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.

INJURY HAZARD

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

Always Read the Winch Operator's Manual and all warning labels before operating.

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 metal chips. Flying chips can cause eye injury.
- Always use extreme caution when cutting and trimming during fitting.
- Always remove jewelry and wear eye protection.
- □ Never lean over battery while making connections.
- □ Never route electrical cables:
 - Across any sharp edges.
 - Through or near moving parts.
 - Near parts that become hot.
- **Always** insulate and protect all exposed wiring and electrical terminals.
- Always install terminal boots as directed in installation instructions.
- Always use appropriate and adequate care in lifting components into place.
- Always insure components will remain secure 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.

A Caution

Moving Parts Entanglement Hazard

Failure to observe these instructions could lead to minor or moderate injury.

- Always take time to fully read and understand the installation and Operations Guide included with this product.
- Never operate this product if you are under 16 years of age.
- Never operate this product when under the influence of drugs, alcohol or medications.

Read installation and operating instructions thoroughly.

Notice
Equipment Damage
Always refer to the Installation and Specification Guide, supplied in the winch kit, for all wiring schematics and specific details on how to wire this WARN product to your vehicle. Read installation and operating instructions thoroughly.

NOTES (As Applicable)

If the vehicle does not have factory front tow hooks, this winch mount will require minor cutting of the inside and top of the original bumper.

If the vehicle does have factory front tow hooks, this winch mount may require opening up the factory tow hook holes. The factory tow hooks cannot be reused with this kit.

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II. PARTS LIST

Hardware List

Part Number	Qty	Description	Part Number	Qty	Description
74635	1	Hardware Kit	1824	4	7/16-14 X 14-1/4 Bolt
74015	1	Winch Mounting Plate	2146	4	7/16 Lock Washer
88313	1	LH Front Frame Bracket	6819	6	5/8-11 X 1-1/2 Bolt
88312	1	RH Front Frame Bracket	6820	6	5/8 Lock Washer
89854	1	LH Rear Frame Bracket	6821	6	5/8-11 Nut
89855	1	RH Rear Frame Bracket	220026	8	7/16 Flat Washer, Large
74632	1	Inner Frame Cross member	11124	4	7/16-14 X 1-1/2 Round Head Bolt, Black
13222	2	Tow Hook	80646	8	7/16-14 X 2 Carriage Bolt, Black
88413	2	Front Frame Bracket Doubler	18118	2	7/16-14 X 14-1/2 Bolt, Black
		•	18111	16	7/16-14 Nut, Black
			18113	18	7/16 Lock Washer, Black
			68959	12	5/8 Flat Washer
			74636	18	7/16 Flat Washer, Large, Black
			74883	4	7/16-14 X 2-1/2 Round Head Bolt, Black
			2583	4	7/16-14 Hex Nut

III. TOOLS REQUIRED

- -Standard Socket Set
- -Metric Socket Set
- -3/8 Racket
- -3/8 Extension
- -Drill Motor and 1/4" Bit
- -Plastic cutting device (i.e. utility knife, saw blade)
- -Pliers

IV. TORQUE SPECIFICATIONS

- 7/16 50lb. ft. (67.8 N-m)
- 5/8 125 lb. ft. (169.5 N-m)

WARN INDUSTRIES

V. INSTALLATION

1. Prepare the front of the vehicle

Remove the front splash pan skid plate from vehicle. Save the factory plastic fasteners.

Remove the plastic trim panel from the top of the frame in front of the grille.

Unplug the factory fog light wiring if so equipped.

Remove the eight nuts that fasten the bumper to the frame.

Remove the front bumper from the vehicle.

Disconnect the plastic fog light wire loom fasteners from the frame.

2. Install frame hardware

Locate and install the outer frame brackets to each side of the vehicle. Use **Figure 1** to determine each brackets location. Install each bracket on the frame using the 5/8" x 1-1/2" long bolts, flat washers, lock washers and nuts. Some 2010 do not have the upper 5/8" mounting hole shown in Figure 1. This bolt location will not be used for those applications.

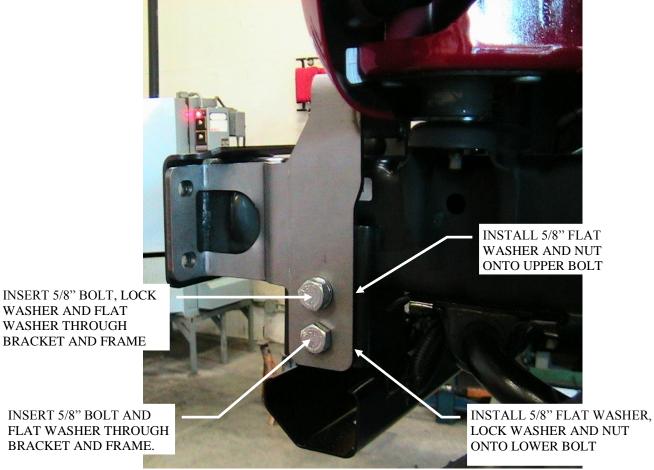


Figure 1: Driver's Side Outer Frame Bracket

WASHER AND FLAT WASHER THROUGH BRACKET AND FRAME

INSERT 5/8" BOLT AND FLAT WASHER THROUGH BRACKET AND FRAME.

Install a 5/8" bolt and flat washer through the outer frame bracket lower hole. Then install a 5/8" bolt, lock washer and flat washer through the upper hole. It is necessary to install the lock washer to the bolt for the upper bolt holes due to minimal clearance inside the bracket. Reach up inside the frame and install a flat washer and nut to the upper bolt. Install a flat washer, lock washer and nut to the lower bolt. Do not tighten these bolts at this time. Repeat this for both sides of the frame.

Next, install the inner frame cross member using Figure 2 as a guide. Attach the cross member to the inside of the frame using the 5/8" hardware.

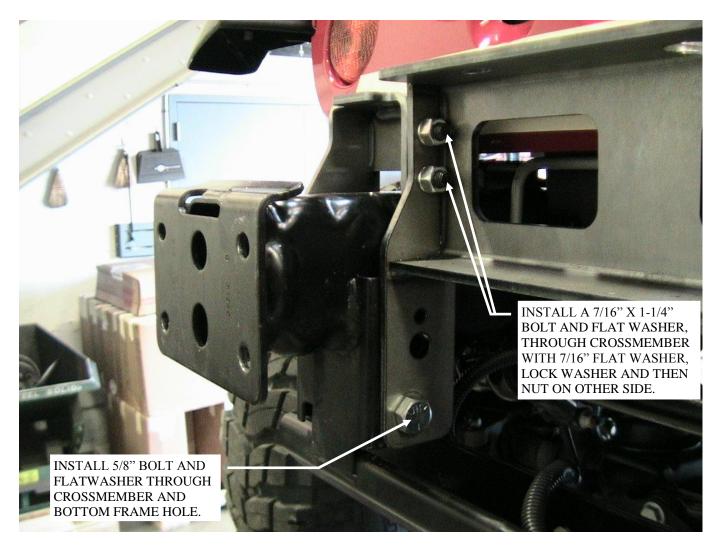


Figure 2: Installation of inner frame cross member

Install a 5/8" bolt and flat washer through the cross member and the lower frame hole. Reach up inside the frame and install a flat washer, lock washer and nut to the bolt. Install the 7/16" x 1-1/4" long bolts with flat washers through the cross member and add flat washer, lock washer and nut on the outer side.

Once all of the hardware is installed, tighten the 7/16" hardware to the previously stated torque spec. Do not tighten the 5/8" hardware at this time.

3. Prepare and Install bumper

It is necessary to trim the factory plastic bumper to allow for the main frame brackets to fit into the bumper.

Remove the steel portion of the bumper by removing the 8 bolts that fasten the steel bumper to the plastic. Save these bolts. Some vehicles may only have 4 bolts connecting the steel portion of the factory bumper to the plastic bumper.

If your vehicle does not have tow hook cutouts in the top of the bumper it is necessary to cut access holes in the top of the bumper. Place the plastic portion of the bumper on a flat working surface. Using a $\frac{1}{4}$ " drill bit and drill motor, drill the corners of the formed area as shown in **Figure 3**.

A WARNING

Drilling operations can cause flying chips. **WEAR SAFETY GOGGLES.** Flying chips can cause eye injury.



Figure 3: Drill corners of tow hook cutout

Upon drilling the corners of the tow hook area, use a utility knife, skill saw or other cutting device to cut the plastic between the drilled holes as shown in **Figure 4**.



Figure 4: Tow hook cutout

Depending on which model vehicle you are working on, it may be necessary to now trim out the inside of the bumper to allow for adequate main frame bracket fit.

If your vehicle is equipped with factory tow hooks, insert the main frame brackets into the inside of the bumper and check for any interference. You may need to widen the factory cutout as shown in **Figure 4**. Once the front frame bracket easily slides through the top cutout in the bumper as in **Figure 5**, test fit the steel portion of the bumper.

With the steel portion of the bumper installed into the back of the plastic bumper, the main frame brackets must be able to mount flush to the factory bumper as shown in **Figure 6**. Trim out the inside of the plastic bumper as necessary.

If your vehicle is not equipped with factory tow hooks, it will be necessary to cutout the inside of the plastic bumper as shown in **Figure 7**. Be sure not to cut through the front face of the bumper. This step is easily completed using a cutting wheel.

Note: The main frame brackets are left and right side specific. See Figures 7 and 9 for clarity.



Figure 5: Front Frame Bracket fitment into plastic bumper



Figure 6: Front Bracket must fit flush to steel bumper



Figure 7: Cutout of inside of plastic bumper

Once the plastic bumper is trimmed to fit the main frame brackets, refer to **Figure 5** for the assembly of the rail end brackets and rail end doubler brackets. Use the 8, 7/16-14 x 2 black carriage bolts for the front face of the rail end brackets. There is a left and right bracket so make sure the brackets are placed on the correct side. The winch plate, square holes should be closer to the center of the vehicle. Before placing the rail end brackets into the factory bumper shell, make sure that the two black 7/16" x 2-1/2" long round head bolts are placed into the front two holes of each main frame bracket as shown in **Figure 8**. Then install the steel portion of the factory bumper to plastic portion using the 4 or 8 factory bolts removed earlier. Torque the factory bolts to 45 ft/lbs.



Figure 8: Install 7/16" Round Head bolts into frame bracket prior to installing steel bumper

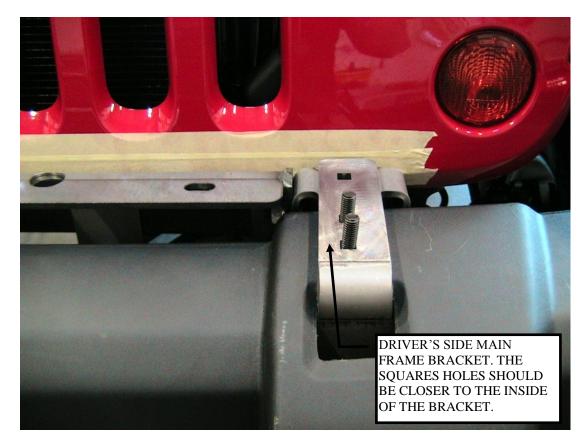


Figure 9: Driver's side main frame bracket

Now install the front bumper assembly to the frame. Align the 8, 7/16-14 carriage bolts with the mounting holes on the front frame rails and slide the bumper into position. Attach on the back side using 7/16 flat washer, 7/16 lock washer and 7/16-14 nut.

Temporarily install the rear 7/16" winch plate bolts as shown in Figure 11. Once the rear bolts are temporarily in place, begin to tighten the 8 7/16" bolts that mount the bumper to the frame. Then tighten the 6 5/8" bolts that mount the rear brackets and inner cross member to the frame. Torque all bolts to the previously specific value.

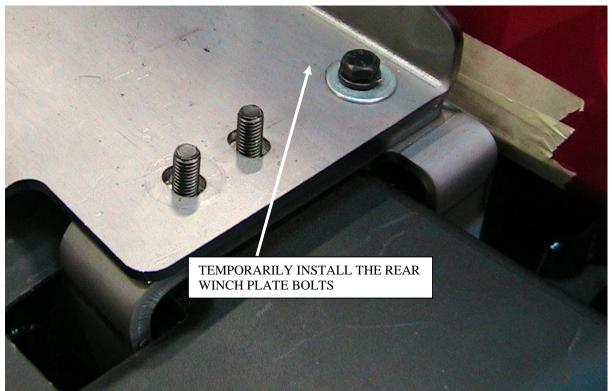


Figure 10: Rear winch plate bolt

If you are installing a winch at this time, do so now per the manual and hardware supplied with the winch.

A WARNING READ THE VEHICLE'S OPERATOR MANUAL, WINCH OPERATOR MANUAL, AND ALL WARNING LABELS PRIOR TO OPERATION OF VEHICLE AND WINCH.

Once all of the bumper and bracket hardware is properly torqued, install the winch plate to the frame brackets using the 7/16" flat washers, lock washers and nuts for the front 2 bolts on each side. Install the 2 black 7/16" x 1-1/2" bolts with lock washers and flat washers into the rear mounting hole on each side as shown in Figure 10. Install the 4 7/16" x 1-1/2" round head bolts through the winch plate and inner cross member. Reach up from the bottom and install a 7/16" flat washer, lock washer and nut onto the bolts. **See Figure 11**. Torque the winch plate to the brackets using the previously specified value.

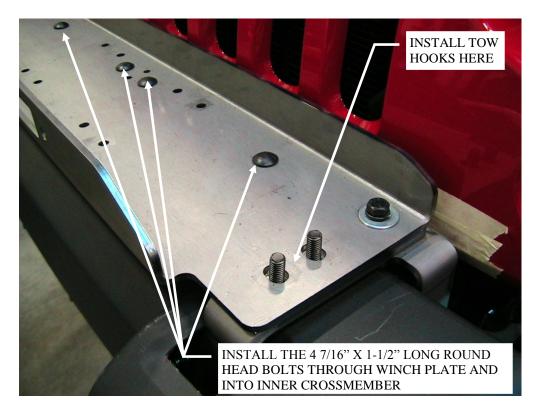


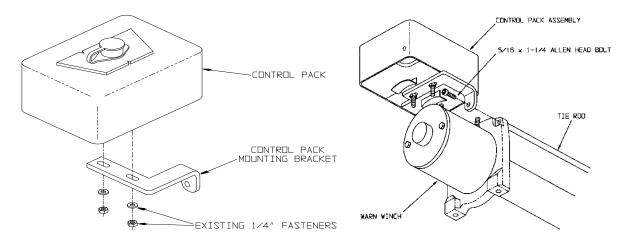
Figure 11: Center bolts

Re-install the fog light wire loom to the frame locations.

Re-install the front splash pan skid plate using the factory hardware.

Plug the fog light wiring to the lights.

If installing solenoid bracket PN 26368 on the winch refer to the following diagrams:



THE WINCH MOUNTING PLATE INSTALLATION IS NOW COMPLETE. PROCEED TO SECTION IV TITLED "MAINTENANCE/CARE".

WARN INDUSTRIES

A WARNING

FAILURE TO SECURELY TIGHTEN ALL BOLTS ON THE WINCH PLATE, WINCH, AND FAIRLEAD CAN RESULT IN PRODUCT FAILURE WHICH MAY RESULT IN VEHICLE DAMAGE AND OPERATOR INJURY OR DEATH. DOUBLE CHECK THAT ALL BOLTS ARE SECURELY TIGHTENED PRIOR TO USE.

VI. MAINTENANCE/CARE

- 1. Inspect all parts on the winch, winch mount, and related hardware prior to each use. Replace all hardware that appears rusted or deformed.
- 2. Inspect all nuts and bolts on the winch, winch mount, and related hardware prior to each use. Tighten all nuts that appear to be loose. Stripped, fractured, or bent bolts or nuts need to be replaced.
- **3.** Check all cables prior to use. Replace cables that look worn or frayed.
- 4. Check all moving or rotating parts. Remove debris that may inhibit the part from moving freely.

VII. TROUBLE SHOOTING

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



INSTALLATION INSTRUCTIONS WINCH MOUNTING PLATE FOR STOCK BUMPER Part Number: 88140, 88418 FOR 8274

Application: Jeep JK 2012+

GENERAL SAFETY PRECAUTIONS

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

A WARNING

Impact and Moving Parts Entanglement 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 metal chips. Flying chips can cause eye injury.
- · Always use extreme caution when cutting and trimming during fitting.
- Always remove jewelry and wear eye protection.
- Never lean over battery while making connections.
- Always use appropriate and adequate care in lifting components into place.
- Always insure components will remain secure during installation and operation.
- Always tighten all nuts and bolts securely, per the installation and operation.
- · Always perform regular inspections and maintenance on the winch, winch mount and related hardware.
- · Always replace all worn or damaged parts before operating.
- · Never operate this WARN product with damaged or missing parts.
- · Never work under vehicle before properly securing vehicle.

Read installation and operating instructions thoroughly.

WARN INDUSTRIES, INC. 12900 S.E. Capps Road, Clackamas, OR USA 97015-8903, 1-503-722-1200, FAX: 1-503-722-3000 Customer Service: 1-800-543-9276 Dealer Locator Service: 1-800-910-1122 International Sales/Customer Service: 1-503-722-3008 International Fax: 1-503-722-3005

A CAUTION

Moving Parts Entanglement Hazard

FAILURE TO OBSERVE THESE INSTRUCTIONS COULD LEAD TO MINOR OR MODERATE INJURY

Always take time to fully read and understand the installation and Operations Guide included with this product.

• Part edges may be sharp!

Read installation and operating instructions thoroughly.

NOTICE

Equipment Damage

Always refer to the Installation and Specification Guide, supplied in the winch kit, for all wiring schematics and specific details on how to wire this WARN product to your vehicle.
Read installation and operating instructions thoroughly.

NOTES

The Warn Elite Bumper for the Jeep JK will accept a large range of mid frame winches with up to 12,000 lb. capacities. The Bumper has been designed to accommodate the standard $4-1/2 \times 10^{\circ}$ feet down mounting pattern as well as the $4-1/2 \times 6^{\circ}$ short drum pattern. The Warn PowerPlant HD and HD can be installed using the offset mounting holes and included Offset Fairlead Plate.

BEFORE YOU BEGIN

- The Elite Bumper is designed to accept a wide variety of mid frame winches. Standard 4-1/2 x 10", 4-1/2 x 6" short drum and 4-1/2 x 10" offset mounting holes are available. Some winches mounted in some locations may require sheet metal trimming. The Warn PowerPlant must be mounted in the offset position and will require trimming of the top of the Jeep bumper mounting plate. The Warn 9.5ti and 9.5cti mounted in the center position will require trimming of the plate but will require no trimming in the offset position.
- Models equipped with factory fog lamps will need to have the wires lengthened before installing in the outboard locations in the Elite Bumper. Additional wire and connectors are included in this kit as well as special brackets for installing factory fog lamps.
- 2012 Jeep JK's are equipped with a canister mounted to the inside of the driver side frame rail, behind the bumper. This must be relocated and the metal bracket trimmed before bumper installation. Instructions on how to do this are included.
- The Elite Bumper is not compatible with the factory skid plate. It will not be reinstalled after installation of the WARN Elite Bumper

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TOOLS REQUIRED

- Ratchet, extensions, universal
- Sockets: 10mm, 18mm, 7/16", 5/8", 11/16", 15/16"
- End Wrenches: 10mm, 3/16", 7/16", 5/8", 11/16"
- Phillips Screwdriver, metal cutting saw

TORQUE SPECIFICATIONS

1/48 lb. ft. (10.8 N-m)5/1617 lb. ft. (12.5 N-m)3/830 lb. ft. (40.7 N-m)7/1650 lb. ft. (67.8 N-m)1/275 lb. ft. (101.7 N-m)

	P A R T S	LIST	
Description	<u>Qty</u>	<u>P/N</u>	
Hex Bolt 5/16-18 x 1 ¹ / ₄ ZN PLT	1	2770	
Hex Bolt 3/8-16 x 1 ½ ZN PLT	2	8160	
Washer Lock 7/16 Black	18	18113	
Hex Nut 7/16-14 ZN PLT	4	2583	
Hex Nut 7/16-14 Black	16	18111	
Washer 7/16 Flat ZN PLT	8	220026	
Washer 7/16 Flat Wide Black	18	74636	
Carriage bolt 7/16-14 x 1 ¹ / ₄ Black	4	13617	
Carriage Bolt 7/16-14 x 2 Black	8	80646	
Carriage Bolt 7/16-14-2 1/2 Black	4	74883	
Washer 5/8 Flat ZN PLT	10 2	68959 18118	
Hex Bolt 7/16-14 x 1 ½ Black Hex Nut 5/8-11 ZN PLT	2	18118 6821	
Washer Lock 5/8 ZN PLT	4	6820	
Hex Bolt 5/8-11 x 1 ½ ZN PLT	6	6819	
Washer Lock 7/16 ZN PLT	4	2146	
Hex Bolt 7/16-14 x 1 ¹ / ₄ ZN PLT	4	1824	
Tow Hook Black	2	13222	
Solenoid Bracket	1	26368	
Winch Plate JK Jeep	1	74015	
Winch Plate JK Jeep - 8274 (not shown)	1	74023	
Bracket Doublers Rail End	2	88413	
Bracket RH Rail End	1	88312	
Bracket LH Rail End	1	88313	
Bracket Welded Inner Frame	1	88308	
Bracket Rear RH Frame	1	88306	
Bracket Rear LH Frame	1	88307	
Weld nut plates	2	88035	
			ひ む
	3		88414A

1. Remove skid plate by removing 6 plastic Phillips head fasteners, 4 across the bottom of the bumper and 1 behind each end of the blocker beam. Figures 2 and 3.

2. Unplug the factory fog lamps if equipped. Detach the wire harness from the bumper. Figure 4.

3. the frame ends. Access from behind the bumper.

Remove the 8 nuts (4 each side) that secure the bumper to

Remove the trim panel from the top of the frame by remov-4. ing the 2 plastic fasteners.











Figure 3

Use a grinder or file to enlarge the slot in the factory canister bracket to match the frame hole behind it, about 5/8" diameter. Figure 5. Touch up raw edge with paint to prevent rust. Figure 6.

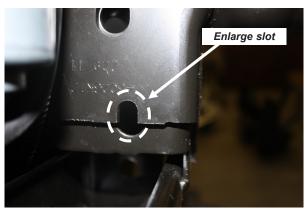


Figure 5

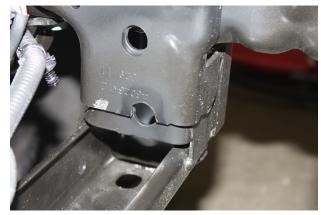


Figure 6



Figure 7



Figure 8

6. Place the inner frame bracket (24) into position between the frame rails as shown in figure 7.

 Place the 5/8-11 welded nut plate (27) into position inside the frame rail and bolt the side supports of the inner frame bracket (24) to the side of the frame rail using 5/8-11 x 1 ¹/₂ hex bolt (15) and 5/8 flat washer (11) as shown in figures 8 and 9.



Figure 9



Figure 10



Figure 11



Figure 12

8. Attach the left and right hand rear frame brackets to the side of the frame rails. Use 5/8-11 x 1 ½ hex bolts (15), 5/8 flat washer (11), 5/8 lock washer (14) and 5/8-11 hex nut (13). The hex nuts, flat washer and lock washer will go on the inside of the frame rail. The hex bolts and flat washer will go through the rear frame brackets and into the frame rail as shown in figures 10 and 11.

Attach the top of the left and right hand rear frame brackets (25 and 26) to the inner frame bracket (24). Use 7 /16-14 x 1 ¼ hex bolts (17), 7/16 flat washer (6), 7/16 lock washer (16) and 7/16-14 hex nuts, see figure 12.

A WARNING

Drilling operations can cause flying chips. WEAR SAFETY GOGGLES. Flying chips can cause eye injury.

10. Prepare and Install bumper

It is necessary to trim the factory plastic bumper to allow for the main frame brackets to fit into the bumper.

Remove the steel portion of the bumper by removing the 8 bolts that fasten the steel bumper to the plastic. Save these bolts. Some vehicles may only have 4 bolts connecting the steel portion of the factory bumper to the plastic bumper.

If your vehicle does not have tow hook cutouts in the top of the bumper it is necessary to cut access holes in the top of the bumper. Place the plastic portion of the bumper on a flat working surface. Using a $\frac{1}{4}$ " drill bit and drill motor, drill the corners of the formed area as shown in Figure 13.

Upon drilling the corners of the tow hook area, use a utility knife, skill saw or other cutting device to cut the plastic between the drilled holes as shown in Figure 14.



Figure 13



Figure 14

11. Remove the inner steel frame from the inside of the factory bumper, see figure 15 and 16.



Figure 15

12. Assemble the rail end brackets (22 and 23) and the rail end doubler brackets (21). Use the 8, 7/16-14 x 2 black carriage bolts (9) for the front face of the rail end brackets, see figures xx and xx. There is a left and right bracket so make sure that the brackets are placed on the correct side. The driver side bracket, should have the square holes closer to the inside of the bracket, see figure 17 and 18.



Figure 16

13. Before placing the rail end brackets into the factory bumper shell make sure that the two $7/16-14 \times 2 \frac{1}{2}$ black carriage bolts (10) are place into position in the rail end bracket, see figure 18 and 19.



Figure 17

14. Re-install the steel shell back inside the factory bumper, this will capture the rail end brackets into the factory bumper.



Figure 18

15. Install the front bumper assembly to the frame. Align the 8, 7/16-14 carriage bolts with the mounting holes on the front frame rails and slide the bumper into position. Attach on the back side using 7/16 flat washer (7), 7/16 lock washer (3) and 7/16-14 hex nut (5).



Figure 19

- 16. Place the winch plate (20) into position on the support brackets. Attach the rear corners of the winch mounting plate with 7/16-14 x 1 ½ black hex bolt (12), 7/16 black lock washer (3), and 7/16 black flat washer (7). Place the tow hooks over the 7/16-14 black carriage bolts sticking up through the winch mounting plate and secure with 7/16 black flat washer (7), 7/16 black lock washer (3) and 7/16-14 black lock washer (3) and 7/16-14 black lock washer (3).
- 17. Attach the rear of the winch mounting plate (20) using 4 $7/16-14 \times 1$ ¹/₄ black carriage bolts (8), 7/16 black flat washer (7), 7/16 black lock washer (3) and 7/16-14 black hex nut (5). The back of the winch mounting plate will attach to the top of the inner frame bracket (24).
- 18. Make sure all the bumper and bracket hardware has been properly torqued.
- 19. If you are installing a winch at time, do so now per the manual and hardware supplied with the winch.
- 20. Re-install the fog light wire loom to the frame locations. Re-install the front splash pan skid plate using the factory hardware. Plug the fog light wiring to the lights.

If installing solenoid bracket PN 26368 on the winch refer to the following diagrams:

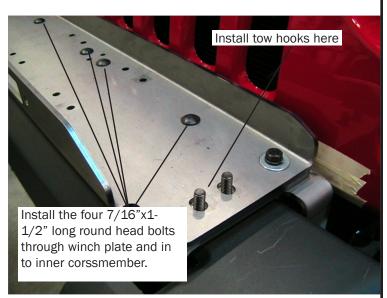


Figure 20



Figure 21

