



Installation Instructions:
(Part # SB612931)
 2017 Ford Super Duty
 F-250/F-350 M1A2 Front Bumper
 Kit

NOTE: Carefully read entire instructions thoroughly before attempting to install this part.

Parts Included	Qty	Parts Included	Qty
84-388TU002 M1A2 Front Bumper	1	90-612931-03 Hardware Pack: Winch Cradle	1
388TU012 Frame Mount: Driver	1	14mm-2.0 X 40mm Hex Bolt Gr. 10.9	2
388TU013 Frame Mount: Passenger	1	14mm-2.0 X 160mm Hex Bolt Gr. 10.9	6
88-388TU003 Winch Cradle	1	14mm-2.0 Nylock Nut	14
388TU005 Winch Cradle Cover	1	14mm Flat Washer	6
388TU010 D-Ring	2	90-612931-04 Hardware Pack: Bumper Wings	1
388TU006 Wing Mount: Driver	1	6mm-1.0 X 30mm Hex Bolt Gr. 8.8	4
388TU007 Wing Mount: Passenger	1	6mm-1.0 X 14mm Hex Bolt Gr. 8.8	2
388TU004 Light Bar Face	1	6mm-1.0 Nylock Nut	10
388TU014 Light Mount: Driver	1	6mm Flat Washer	4
388TU015 Light Mount: Passenger	1	90-612931-05 Hardware Pack: Bumper Wings	1
388TU016 Cover Bracket	2	6mm-1.0 X 30mm Black Button Head Bolt	7
388TU017 Nut Plate	2	6mm-1.0 X 14mm Black Button Head Bolt	2
90-XXXX 6" LED Light Bar	2	6mm-1.0 X 30mm Metrix Hex Head Bolt	2
90-XXXX 21" LED Light Bar	1	6mm-1.0 Nylock Nut	18
90-612931-01 Hardware Pack: Bumper Mount	1	6mm Flat Washer	2
12mm-1.5 X 45mm Hex Bolt Gr. 8.8	6	90-612931-06 Hardware Pack: Light Bar Bracket	1
12mm-1.5 Nylock Nut	6	8mm-1.25 X 30mm Black Button Head Bolt	4
12mm Flat Washer	12	8mm-1.25 Nylock Nut	4
90-612931-02 Hardware Pack: Frame Mounts	1	8mm Flat Washer	8
12mm-1.5 X 45mm Hex Bolt Gr. 10.9	8	90-612931-07 Hardware Pack: Light Bar Mounts	1
12mm Flat Washer	8	6mm-1.0 X 14mm Hex Bolt Gr. 8.8	6
		6mm Flat Washer	6

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INSTALLATION:

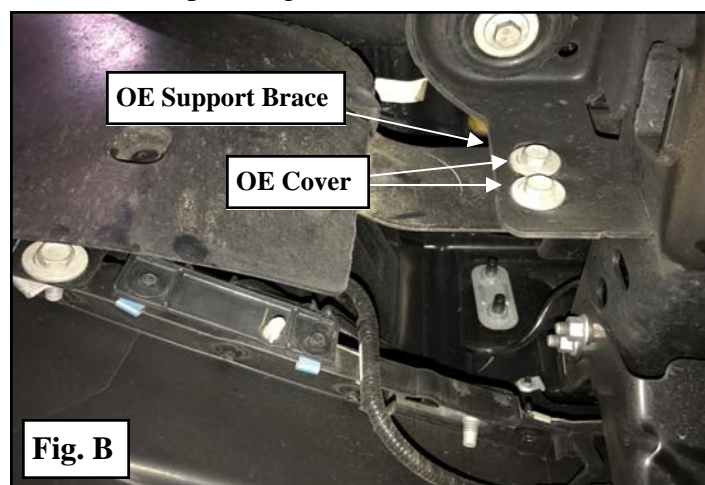
Step 1: Park the vehicle on a flat level surface. Apply the parking brake and chock all 4 wheels.

Step 2: Place masking tape on the areas of the front fenders that can be scratched by removal of the OE front bumper. **Remove the license plate. Keep OE hardware for reuse.**

Step 3: Remove the bumper front mounting bolt covers by carefully lifting them up and out. (Fig. A)



Step 4: Unbolt the (2 per side) OE bolts securing the support braces underneath and behind the corners of the OE front bumper. (Fig. B)



Step 5: If vehicle is equipped with daytime running lights, disconnect the wiring harness connector on the driver side frame rail by depressing the tab and pulling connector apart. (Fig. C)

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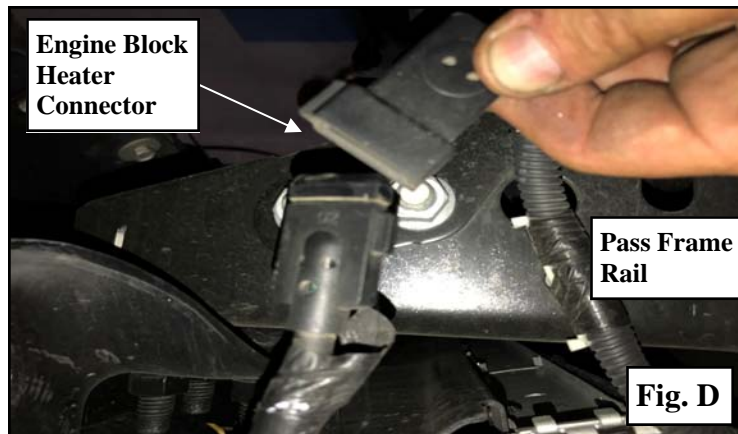


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(Part # SB612931)
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F-250/F-350 M1A2 Front Bumper
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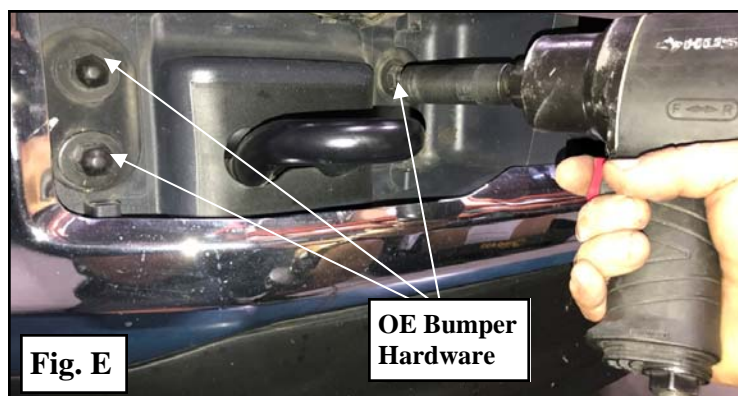


Step 6: If the vehicle is equipped with an optional engine block heater, disconnect the wiring harness connector on the outside of the passenger side frame rail. (Fig. D)



Step 7: Support the OE front bumper and loosen the (4 per side) 18mm OE bolts around each tow hook. (Fig. E)

IMPORTANT! 18mm OE bolts *MUST* be loosened before bumper removal or the weld nuts securing them will spin.



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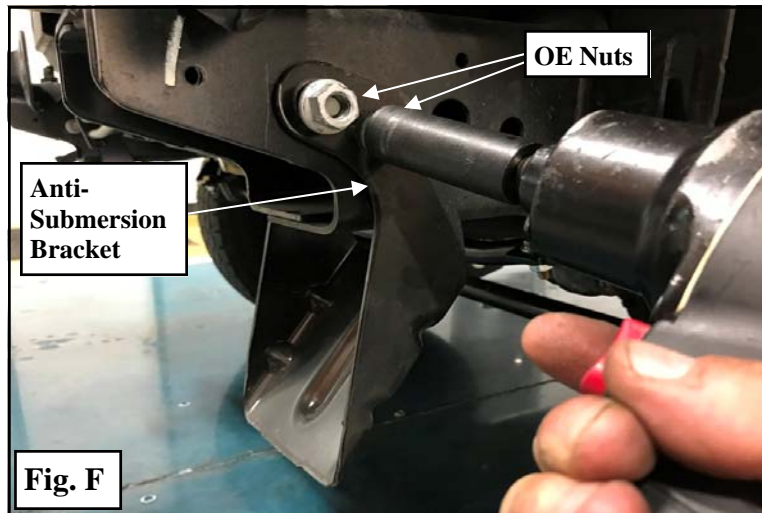


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(Part # SB612931)
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Kit

Step 8: Carefully slide the OE front bumper off the tow hooks and set aside.

Step 9: Remove the **18mm OE nuts** and **OE bolt plates** securing the anti-submersion brackets and remove the brackets from the vehicle. (Fig. F)



Step 10: Remove the previously loosened (**4 per side**) **18mm OE bolts** securing the tow hooks and mounting brackets. Remove the tow hooks and brackets from the vehicle. (Fig. G)



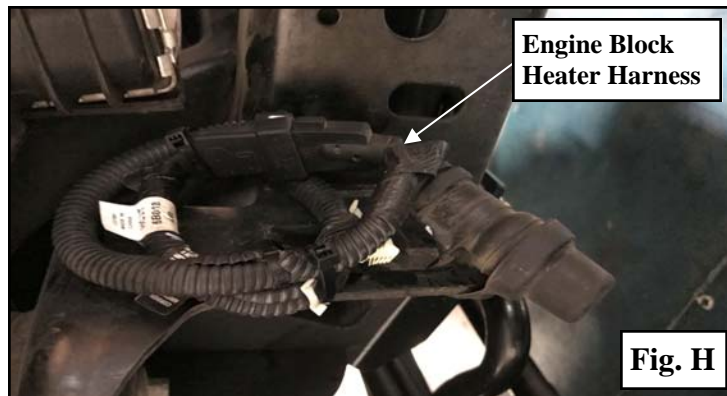
Step 11: Remove the plastic rivet securing the engine block heater harness to the frame rail. If you wish to retain the block heater; remove the engine block heater harness from the bumper and reconnect it to the main front harness and secure to the body mount near the support brace. (Fig. H)

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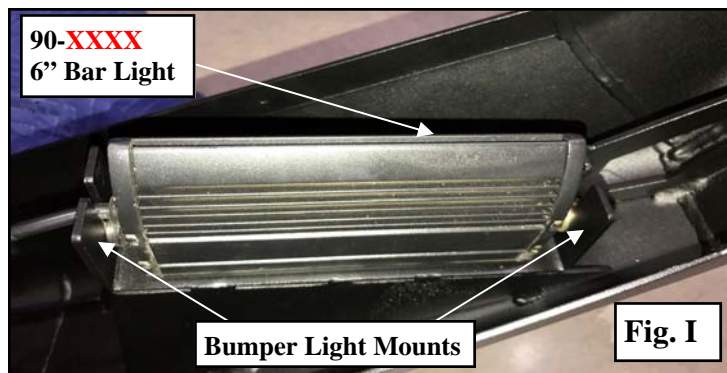


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(Part # SB612931)
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F-250/F-350 M1A2 Front Bumper
Kit



Step 12: Install 6" bar lights (90-XXXX) into lower light mounts on new M1A2 front bumper (84-388TU002) wings. Secure using the hardware provided in bar light kits. (Fig. I)



Step 13 (OPTIONAL): S4 style 2" X 2" LED pod lights (Sold Separately) can also be installed into M1A2 front bumper (84-388TU002). Install light mounts (388-TU014 *drvr* and 388-TU015 *Pass*) to M1A2 front bumper and secure using (3 Per Side) 6mm X 14mm bolts and hardware. Install S4 LED pod light to light mount and secure using hardware provided in bar light kits. (Fig. J)



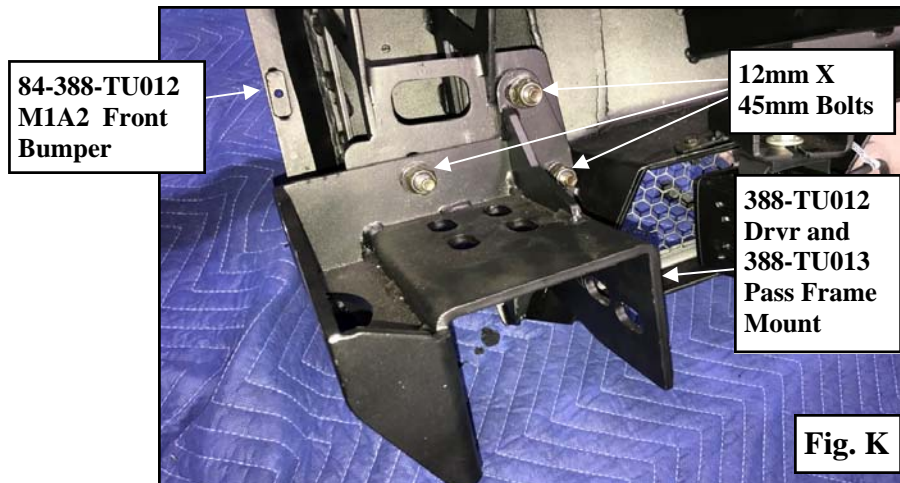
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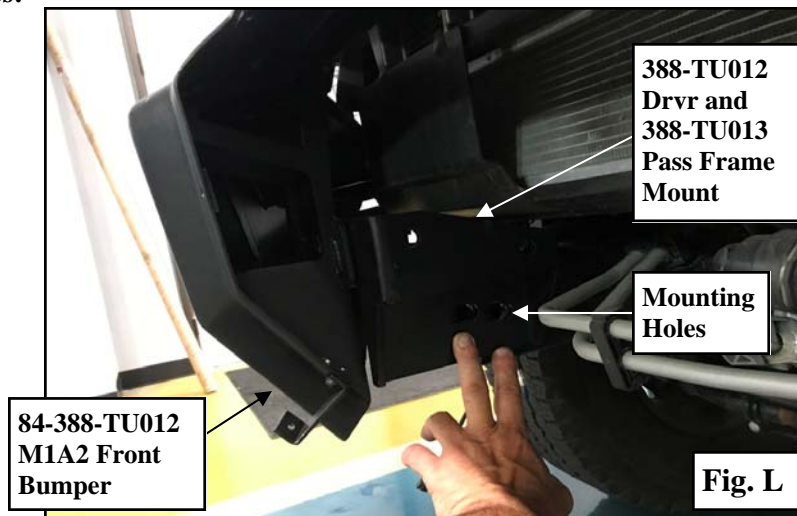
(Part # SB612931)
2017 Ford Super Duty
F-250/F-350 M1A2 Front Bumper
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Step 14: Install the frame mounts (**388TU012 Drvr** and **388TU013 Pass**) to the M1A2 front bumper (**84-388TU002**) using the supplied **12mm X 45mm** bolts and hardware. Leave loose at this time for adjustment. (Fig. K)



Step 15: Carefully raise the M1A2 front bumper (**84-388TU002**) assembly into place and position the frame mounts (**388TU012 Drvr** and **388TU013 Pass**) on the frame rails. Slide the assembly toward the rear of the vehicle until the mounting holes in the frame mounts align with the mounting holes in the frame rails. (Fig. L)

IMPORTANT!: Ensure the bumper is held firmly in place and not allowed to fall off the frame rails.



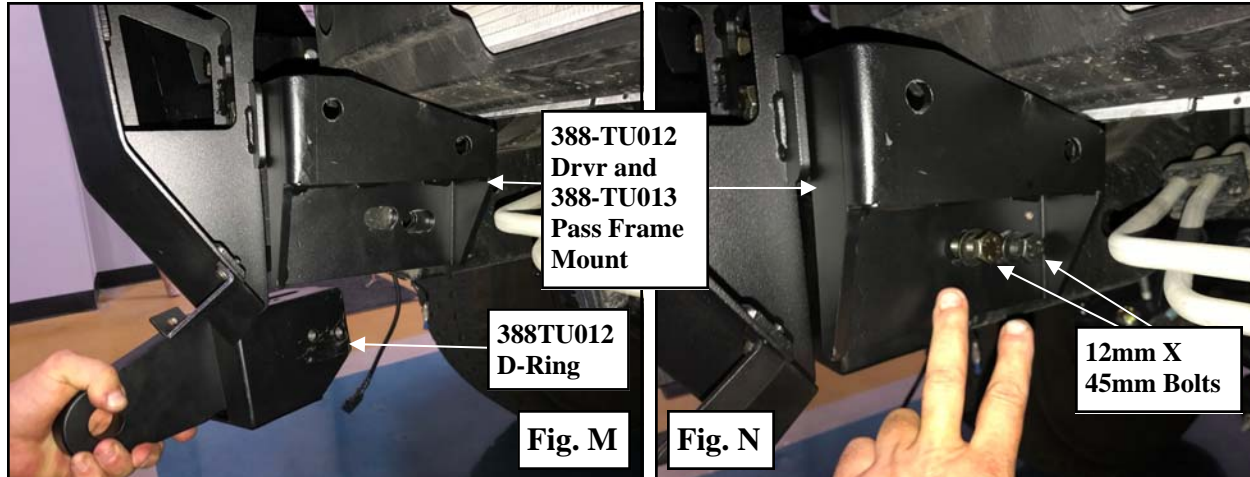
Step 16: Install the D-rings (**388TU010**) into the frame rails. (Fig M) Align the mounting holes in the D-rings (**388TU010**), frame mounts (**388TU012 Drvr** and **388TU013 Pass**), and frame rails and install the (**2 per side**) **12mm X 45mm** bolts and hardware. Leave loose at this time for adjustment. (Fig. N)

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(Part # SB612931)
2017 Ford Super Duty
F-250/F-350 M1A2 Front Bumper
Kit

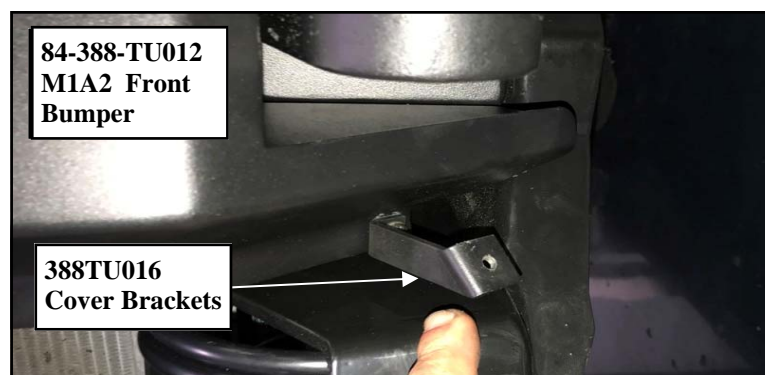


Step 17: Install the wing mounts (388TU006 Drvr and 388TU007 Pass) to the M1A2 front bumper (84-388TU002) using the (2 Per Side) 6mm X 30mm bolts, (1 Per Side) 6mm X 14mm bolt and hardware.

Step 18: Center the bumper on the vehicle and verify there is at least **12mm** of clearance between the headlights, grill, fenders. Tighten the **12mm** bumper mounting bolts snug only at this time.

Step 19: If you are installing a winch complete steps 20 through 25. If you are not installing a winch complete to step 26.

Step 20: Install the cover brackets (388TU016) to M1A2 front bumper (84-388TU002) and secure using the (1 Per Side) 6mm X 14mm button head bolts and hardware. (Fig. T)



Step 21: Position the winch onto the winch cradle (88-388TU003) and secure by following the instructions provided with the winch. Install the winch and fairlead into the cradle and torque the mounting bolts to manufacturers specs.

NOTE: If possible, side mounting the winch control box is recommended.

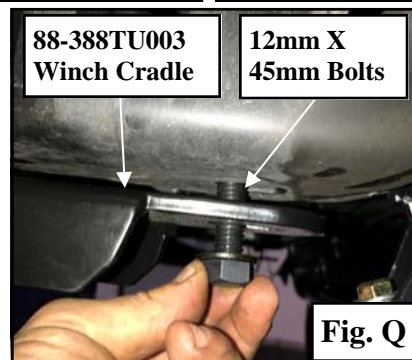
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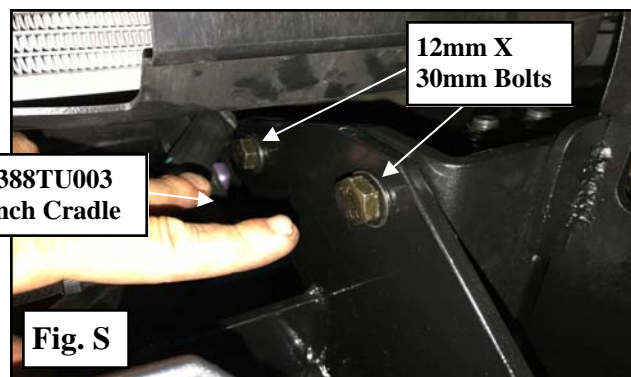
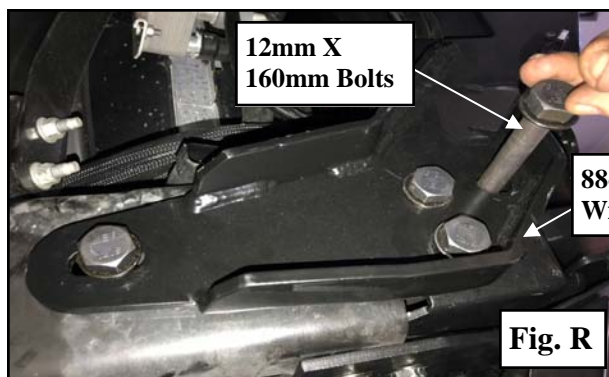
Installation Instructions:

(Part # SB612931)
2017 Ford Super Duty
F-250/F-350 M1A2 Front Bumper
Kit

Step 22: Using a jack, carefully raise the winch cradle (88-388TU003) with the winch installed, and position on the top of the frame mounts (388TU012 Drvr and 388TU013 Pass) (Fig. O) Align the mounting holes in the winch cradle with the mounting holes in the frame mounts. (Fig. P) Insert the (1 Per Side) nutplates (388TU017) into the frame and install the **14mm X 40mm** and washer in the rear most hole through winch cradle, frame mounts and into the nut plate. (Fig. Q)



Step 23: Install the (3 per side) **14mm X 160mm** bolts and hardware in the forward winch cradle (88-388TU003) mounting holes. (Fig. R) Install the (2 per side) **14mm X 30mm** bolts and hardware in the upper winch cradle mounting holes. (Fig. S) Tighten the **14mm** bolts until the winch cradle is tight against the frame mount, but still allows for adjustment.



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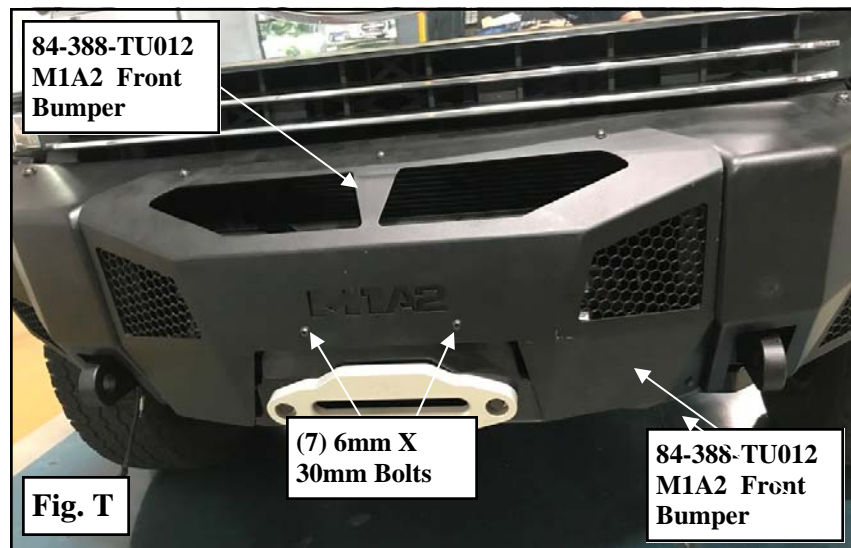


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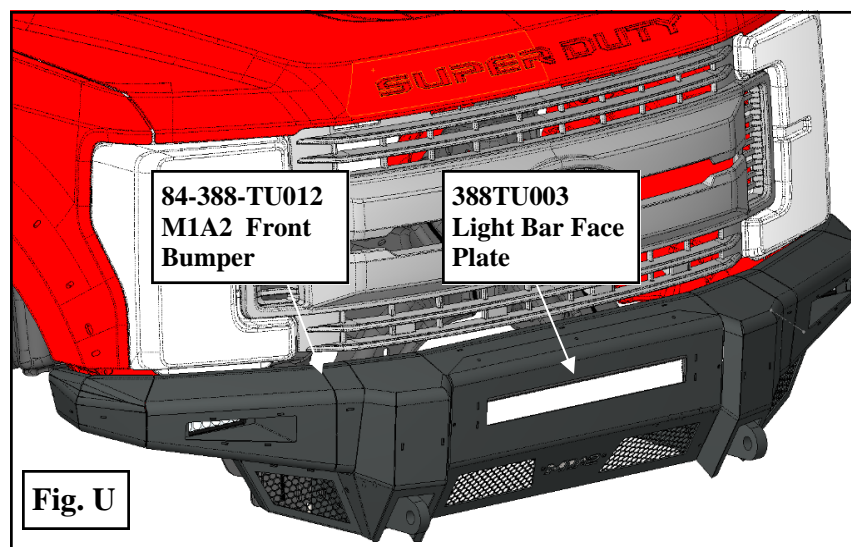
(Part # SB612931)
2017 Ford Super Duty
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Step 24: Recheck and verify that bumper alignment is still centered on the vehicle and torque the **14mm** mounting bolts according to the torque chart on page 9.

Step 25: Install the cradle cover (**388TU005**) to M1A2 front bumper (**84-388TU002**) and cover brackets (**388TU016**) and secure using the (7) **6mm X 30mm** button head bolts and hardware. (Fig. U)



Step 26: Bumpers without a winch installed, install 21" LED light bar (**90-XXXX**) into light bar face plate (**388TU003**) and secure using the hardware provided in the light bar kit. Secure the light bar face plate (**388TU003**) to M1A2 front bumper (**84-388TU002**) using the (7) **6mm X 30mm** button head bolts and hardware. (Fig. V)



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Step 27: If you are planning on wiring the LED light bars to a dash switch; use the hardware and instructions provided with the LED light kits. Test, aim & adjust the LED lights at this time.

IMPORTANT!: If planning on wiring LED lights into the OE harness; this vehicle uses variable voltage to operate the running lights, it is recommended this task is performed by qualified automotive electrician.

Step 28: Recheck all hardware for proper torque at this time. Torque all hardware according to manufacturer's specifications or chart on page 9.

Step 29: Installation is now complete.

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

Bolt Torque and ID						
Decimal System			Metric System			
All Torques in Ft. Lbs. Maximums						
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15	20	M6	5	9	12
3/8	30	45	M8	18	23	27
7/16	45	60	M10	32	45	50
1/2	65	90	M12	55	75	90
9/16	95	130	M14	85	120	145
5/8	135	175	M16	130	165	210
3/4	185	280	M18	170	240	290

1/2-13x1.75 HHCS
Grade 5 Grade 8
(No. of Marks + 2)

M12-1.25x50 HHCS

G = Grade (Bolt Strength)
 D = Nominal Diameter (Inches)
 T = Thread Count (Threads per Inch)
 L = Length (Inches)
 X = Description (Hex Head Cap Screw)

P = Property Class (Bolt Strength)
 D = Nominal Diameter (Millimeters)
 T = Thread Pitch (Thread Width, mm)
 L = Length (Millimeters)
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(Part # SB612931)
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Product cleaning and maintenance instructions

Stainless Steel Finish – Aluminum polish may be used to polish small scratches and scuffs on the finish. Mild soap, window or glass cleaner may be used to clean the finish. **Dual state powder coat finish** – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you may wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish. **Textured coated finishes** should be cleaned with a mild soap on a damp sponge. Do not apply polish or was that requires to be removed by means of buffing. This type of wax is commonly used at car wash facilities. **Chrome Finish** – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish you should wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish.

Limited Warranties

Smittybilt's products are covered under the following limited warranties only. Note that the duration of the limited warranty differs according to the material and finish of the product purchased. Subject to the duration and conditions of the limited warranty stated below, Smittybilt warrants to the original retail purchaser that its products are free from defects in material and workmanship. All other warranties and representations express or implied, are hereby disclaimed, including fitness for merchantability and buyer's intended use or purpose. All parts are sold "AS IS" except for the limited warranties granted herein. Buyer assumes all risks as to the selection, suitability and performance of all goods and products selected. This limited warranty does not cover damage or impairment in any part due to misuse, improper installation, accident or contact with on-road or off-road hazards, product modification, improper or inadequate cleaning and/or maintenance. Smittybilt is not responsible for items damaged during shipping. This warranty is not transferable from the original buyer. For the original Buyer to be eligible for the limited warranty coverage, the Buyer must provide proof of purchase. Smittybilt strongly recommends returning the warranty registration card.

Customer's remedy hereunder shall be limited only to repair or replacement (at Smittybilt's option) of any defective part(s) returned to Smittybilt at customer's expense. The determination of whether or not a returned part is defective or subject to coverage under the limited warranties stated herein shall be made at Smittybilt's sole discretion.

Duration of Limited Warranty

Limited Lifetime Warranty on Stainless Steel Products -

Smittybilt stainless steel products carry the foregoing limited repair or replacement warranty against workmanship and defects in the material so long as the original purchaser retains the original stainless steel parts.

Limited Five (5) Year / 50,000 Mile Pro-Rata Warranty (whichever occurs first) on Dual-Stage Powder Coating Products -

Smittybilt dual-stage powder coated products carry the foregoing limited repair or replacement warranty for a period of (5) years or 50,000 miles (whichever occurs first) from date of purchase against workmanship and defects in the material, provided that any claim submitted after (2.5) years from date of purchase shall, if accepted, be satisfied by Smittybilt offering customer a credit on the purchase of a replacement product equal to fifty percent (50%) of customer's initial purchase price.

Limited Three (3) Year / 36,000 Mile Pro-Rata Warranty (whichever occurs first) on Chrome Products-

Smittybilt chrome products finished carry the foregoing limited repair or replacement warranty for a period of three (3) years or 36,000 miles against workmanship and defects in the material (whichever occurs first) from the date of purchase.

To assure product quality, Smittybilt reserves the right to change product design, material, specification and finishes without prior notice to customers. This limited warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply as to you. Also, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Smittybilt reserves the right to discontinue product lines and substitute products, or provide other remedies than those listed in this limited warranty for those discontinued products.

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