



Installation Instructions:
(Part # SB612850)
2007-2013 TOYOTA FJ CRUISER
M1 Front Bumper Kit

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

Parts Included	Qty
93-9101 M1 Front Bumper	1
93-9117 Winch Mounting Plate	1
90-9131 Window Bezel: Drvr	1
90-9132 Window Bezel: Pass	1
90-7926 Nut Plate	2
93-7829 License Plate Mount	1
90-9135 Bumper Shim: 1/8"	2
90-9136 Bumper Shim: 1/4"	2
S/B612800-01 3 1/2" Clear Driving Light Kit	1
90-9137 XRC Winch Box Relocation Bracket	2
90-9138 X20 Winch Box Relocation Bracket	2
90-9139 A/C Hard Line Relocation Bracket	1
90-3240 -6 Adel Clamp	1
90-9510 Washer Reservoir Cover	1
90-6888 Hardware Pack: Window Bezels	1
#10-24 X 3/4" Stainless Button Head Bolt	8
#10-24 Nylock Nut	8
#10-24 SAE Flat Washer	8

Parts Included	Qty
90-6626 Hardware Pack: Lights/license plate/winch/adel	6
1/4"-20 X 3/4" Hex Bolt Gr. 8	2
1/4"- 20 Nylock Nut	2
1/4" SAE Flat Washer	4
90-6502 Hardware Pack: Front Bumper	2
1/2" X 1 1/4" Hex Bolt Gr. 8	2
1/2" SAE Hardened Flat Washer	2
90-6908 Hardware Pack: Winch Relocation Bracket	1
6mm-1.0 X 16mm Hex Bolt	4
6mm- 1.0 Nylock Nut	4
6mm Washer	8
90-6892 Hardware Pack: Fair lead/license plate bracket	1
7/16" X 1 1/4" Hex Bolt Gr. 8	2
7/16" Stover Nut	2
7/16" SAE Hardened Flat Washer	4
90-6948 Hardware Pack: Washer Reservoir Cover	1
5/16" X 3/4" Button Head Allen Bolt Black	3
5/16" Nylock Nut	3
5/16" Flat Washer	3

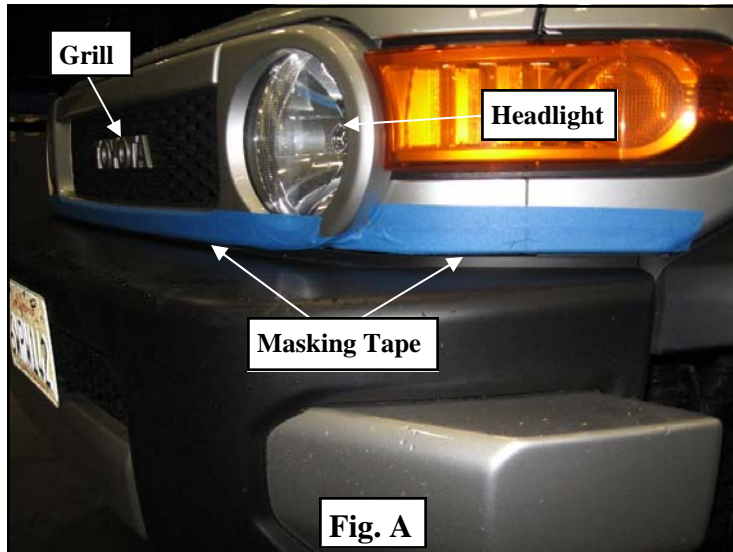


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INSTALLATION:

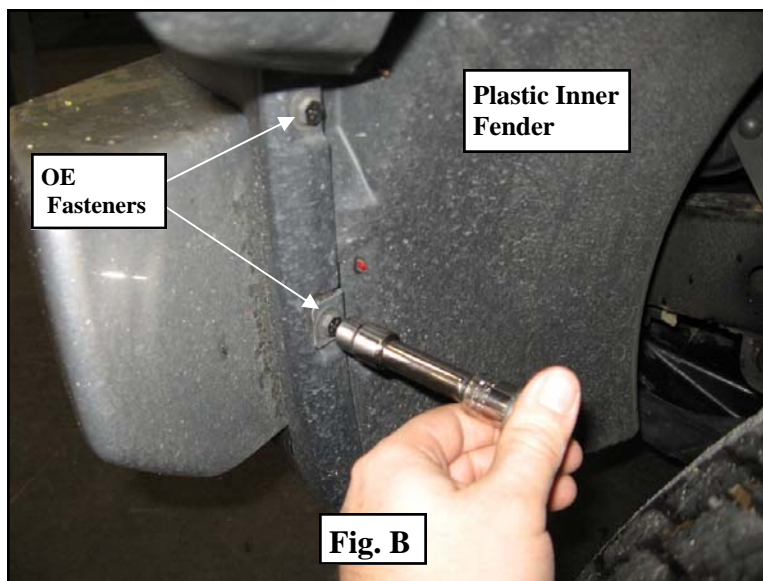
Step 1: Place masking tape on the areas of the front fenders, headlights and grill that can be scratched by removal of the OE front bumper. (Fig. A)



Step 2: Unbolt and remove the license plate from the bumper.

Step 3: Unplug the wiring harness for the fog lights at the main connector.

Step 4: Remove the (2) OE fasteners from the lower front of the plastic inner fender wells. (Fig. B)

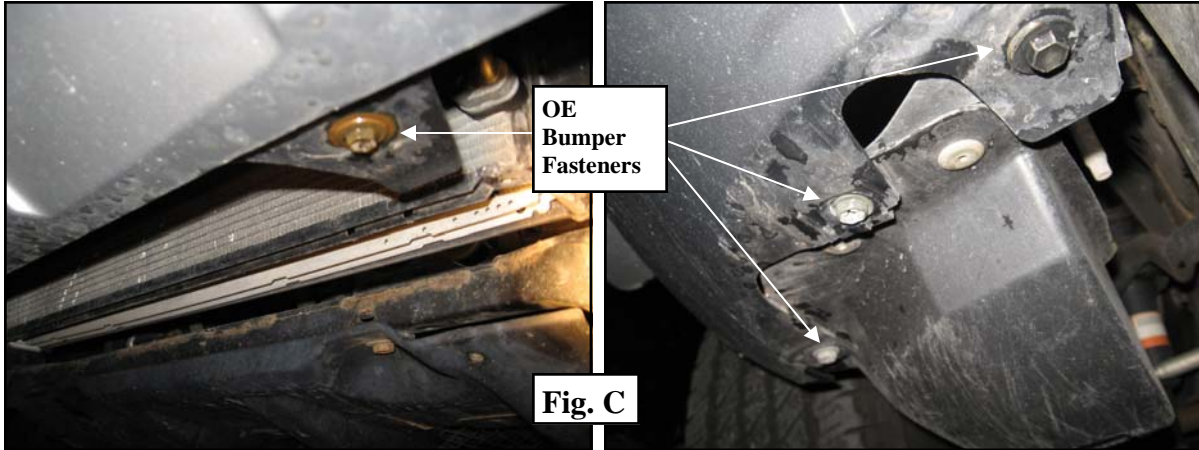




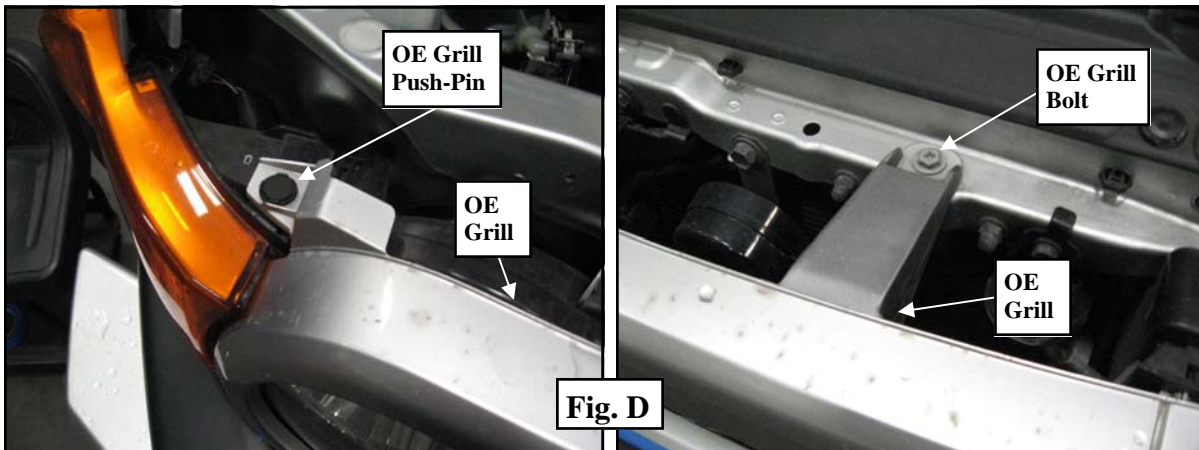
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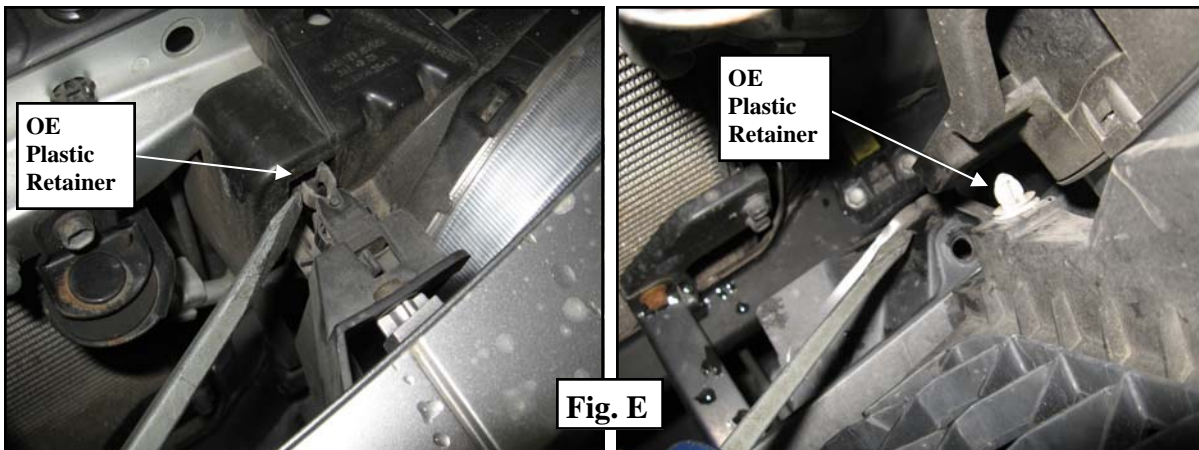
Step 5: Remove the (4) OE fasteners on the bottom side of the bumper. (Fig. C)



Step 6: Unbolting the grill will make removing the front bumper easier. Start by removing the (4) OE fasteners (2 OE push-pins and 2 OE bolts) from the top of the grill. (Fig. D)



Step 7: Carefully release the OE plastic retainers and remove the grill. (Fig. E)

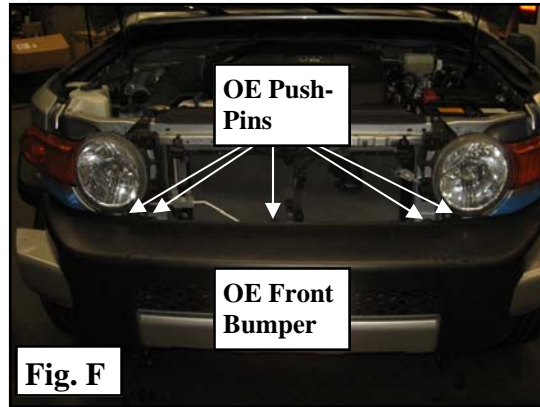




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Step 8: Remove the (5) OE plastic push-pins from the bumper. (Fig. F)

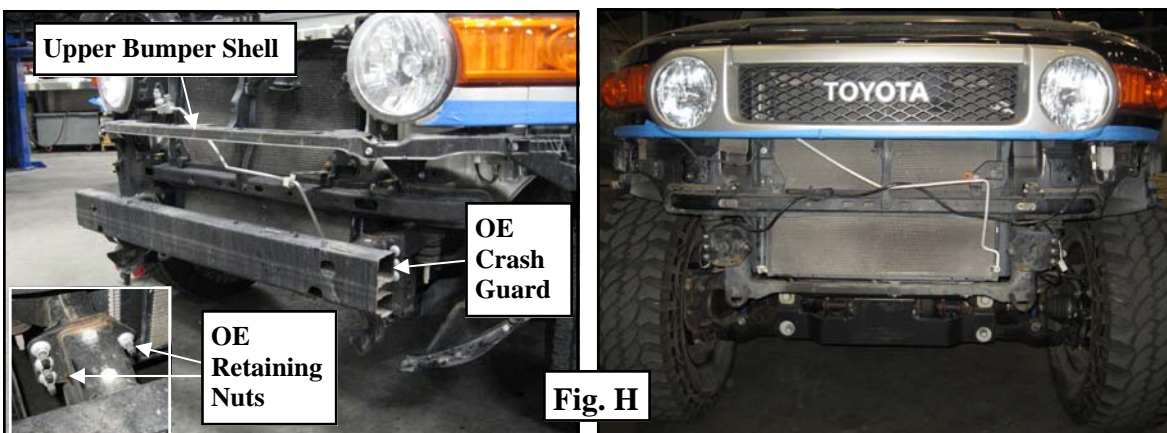


Step 9: Unclip the OE front bumper and carefully remove the bumper from the vehicle. Save OE hardware for reinstallation. (Fig G)

IMPORTANT!: Refer to your Toyota factory manual for your, vehicle specific, bumper removal instructions.



Step 10: Unbolt the (4 per side) OE retaining nuts. Remove the crash guard and upper bumper shell frame. Save the OE nuts for reinstallation. (Fig. H)

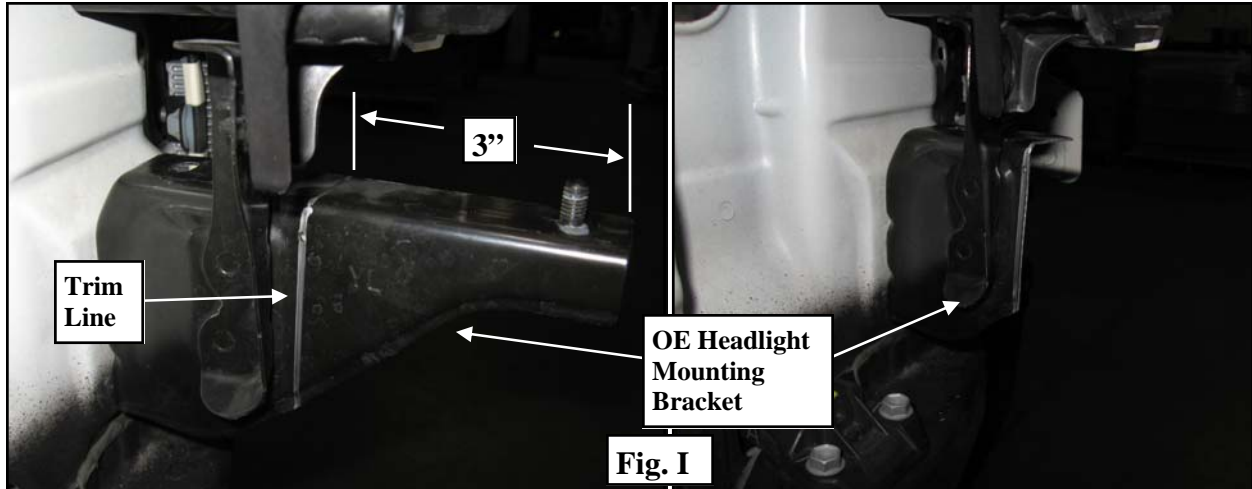




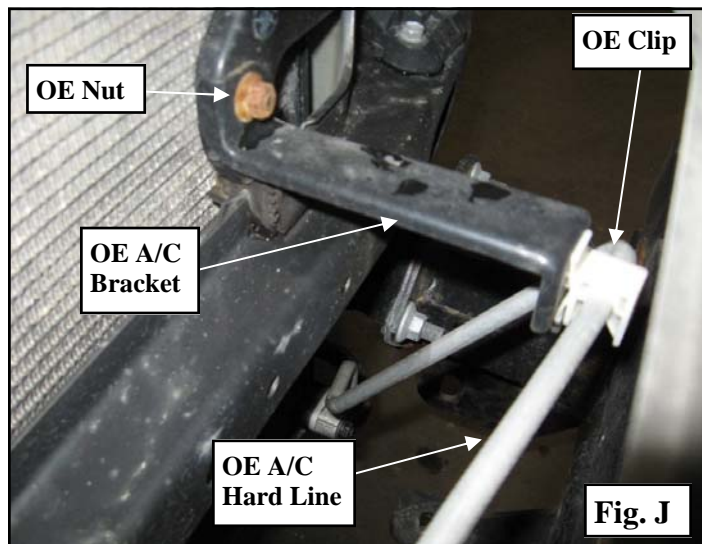
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Step 11: Some newer model vehicles will need to have the headlight mounting bracket trimmed before installing the new bumper. Measure in **3"** from the edge of the bracket and scribe a line. Using a suitable cutting tool, (abrasive cutoff wheel, Sawz-all, etc.) trim the headlight bracket. (Fig. I)



Step 12: Unclip the A/C hard line and unbolt the OE bracket. Save the OE nut for reinstallation. (Fig. J)



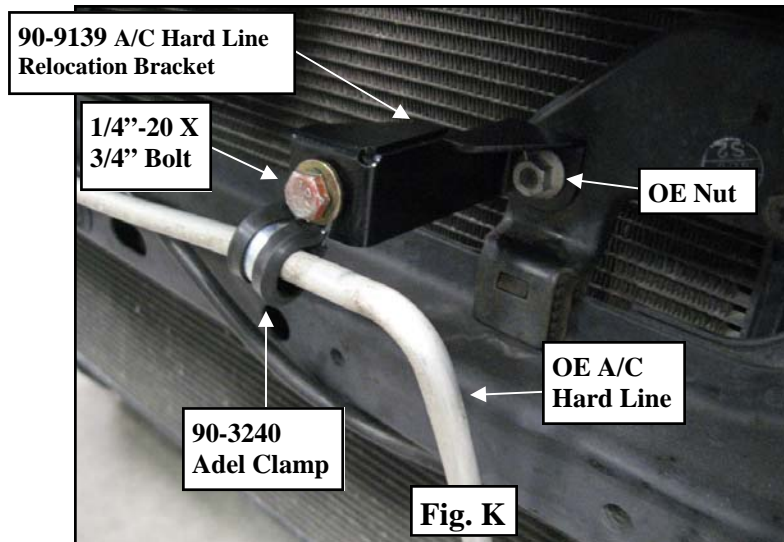
Step 13: Install the new A/C hard line relocation bracket (90-9139) using the previously removed OE nut. (Fig. K)

Step 14: Carefully bend the A/C hard line back towards the bracket and secure using the provided Adel clamp (90-3240) and 1/4"-20 X 3/4". (Fig. K)



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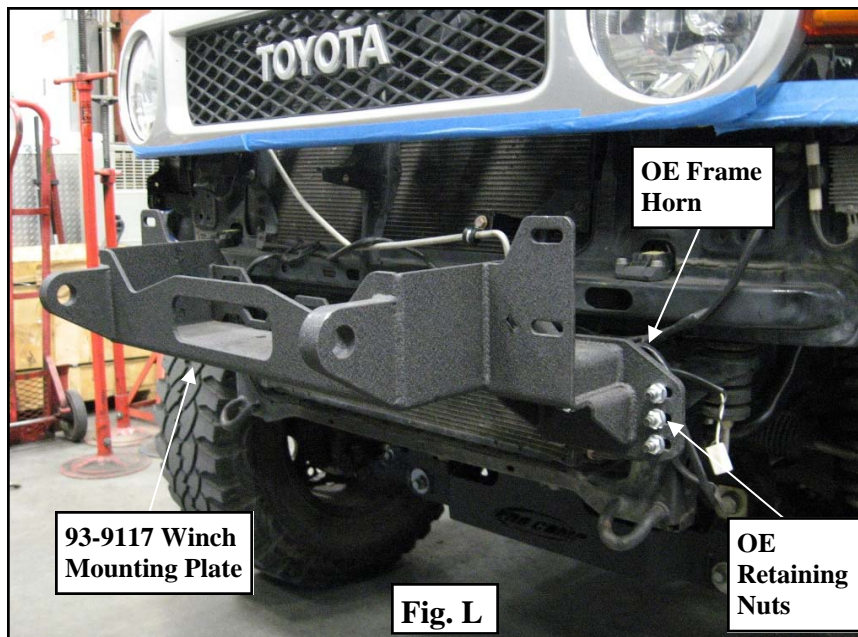
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Step 15: Reinstall the OE grill to the vehicle using the previously removed OE hardware.

Step 16: Lift the winch mounting plate (93-9117) onto the frame horns and center on the OE studs. Secure the winch mounting plate (93-9117) to the bumper mounting brackets using the previously removed (4 per side) OE retaining nuts. Be careful not to hit the radiator or coolers. Torque the OE nuts to manufacturers specifications. (Fig L)

NOTE: Be sure to center the cradle between rails, due to irregularities from the manufacturer, you may need to adjust the winch mounting plate left or right to center the D-rings for the front bumper shell installation.

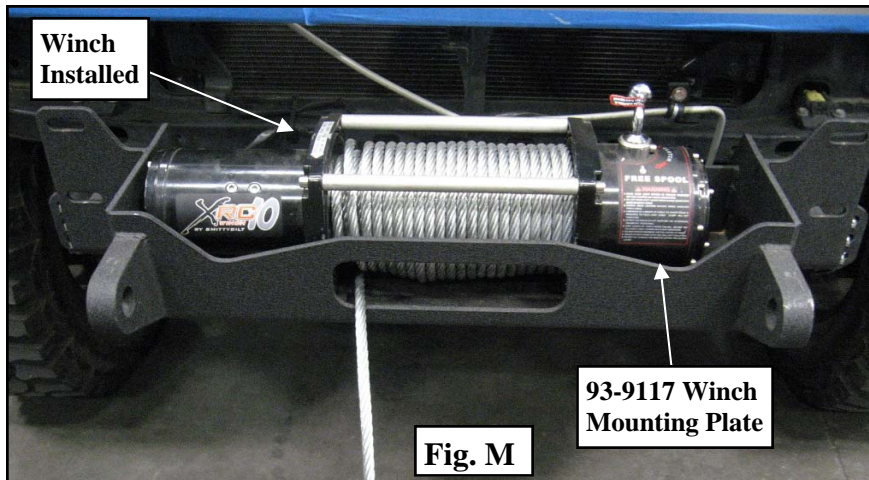




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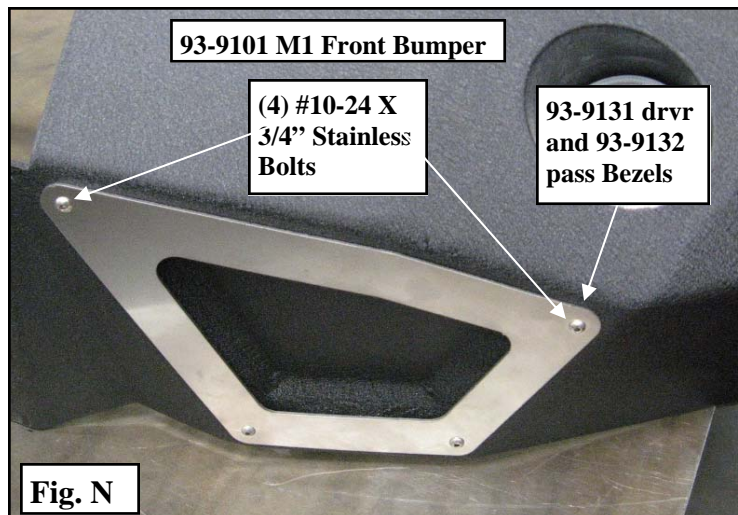
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Step 17: If you are installing a winch, do so at this time. The winch will be secured to the winch mounting plate (93-9117) by the hardware supplied in the winch kit. Be sure to pull the winch cable and hook through the window in the winch mounting plate. Leave at least 3 to 4 feet of slack in the cable. (Fig. M)



NOTE: Do not install the winch control box at this time. It will be installed later.

Step 18: Install the window bezels (90-9131 *drv*r and 90-9132 *pass*) to the new M1 front bumper (93-9101) using (4 per side) 10-24 X 3/4" stainless button head bolts and #10 hardware. (Fig N)



Step 19: Modify the vehicle wiring harness and DLAA fog light connector.

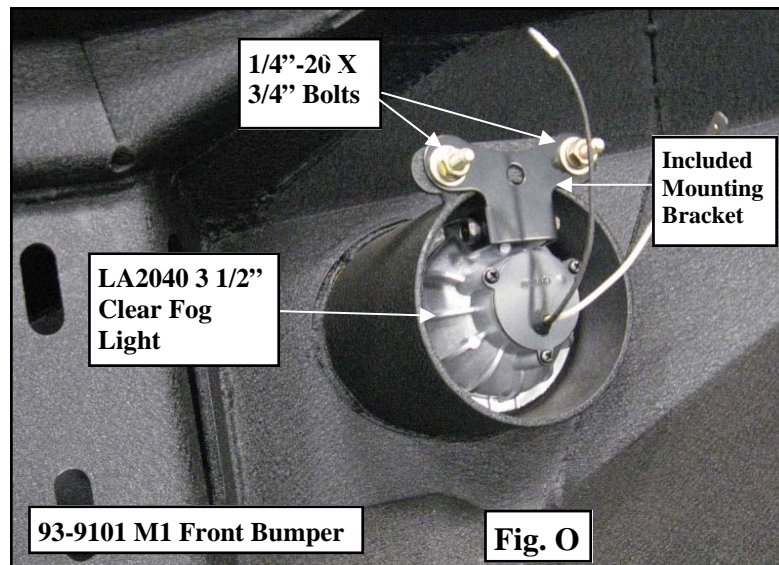
IMPORTANT!: DO NOT connect the winch or fog lights wiring harnesses until the bumper is fully installed.

Step 20: Install the included mounting bracket to the 3 1/2" clear DLAA fog light (LA2040) from clear driving light kit (S/B612800-01). (Fig O)



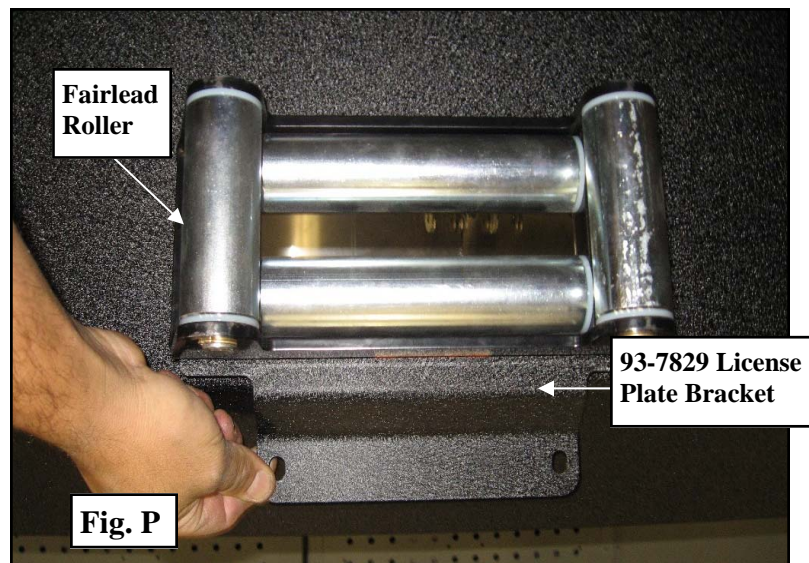
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Step 21: Install the fog lights into the new M1 front bumper (93-9101) using the supplied (2 per side) 1/4"-20 X 3/4" bolt and hardware. (Fig O)

Step 22: Install the license plate bracket (93-7829) and fairlead roller onto the new M1 bumper (93-9101) using supplied 7/16" X 1 1/4" bolts and hardware. Secure the license plate to the license plate bracket using the (2) supplied 1/4" X 3/4" bolts and hardware. (Fig. P)

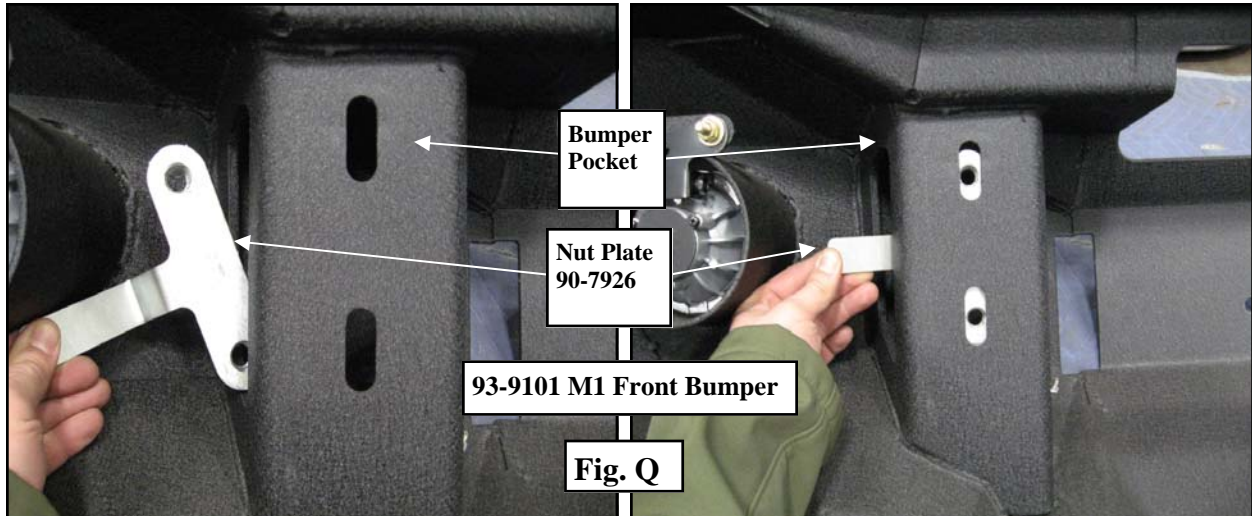




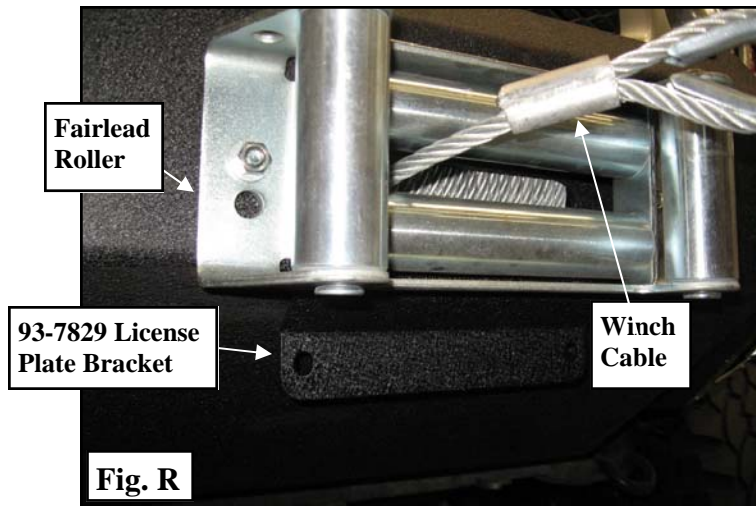
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Step 23: Install the nut plates (90-7926) into the pockets on the M1 front bumper. (Fig Q)



Step 24: Pull the winch cable through the roller fairlead on the bumper. (Fig R)



Step 25: Carefully raise, while pulling the winch cable and keeping it tight, and install the new M1 bumper (93-9101) assembly onto the mounting flanges on the winch mounting plate (93-9117). Secure using the supplied (2 per side) 1/2" X 1 1/2" bolts, (1 per side) nut plates (90-7926) and (2 per side) USS 1/2" washers. (Fig S)

NOTE: 1/4" shims (93-9136) and 1/8" (93-9135) shims are provided in the event that proper bumper alignment can not be achieved. Install the shims as necessary and tighten the 1/2" bolts.

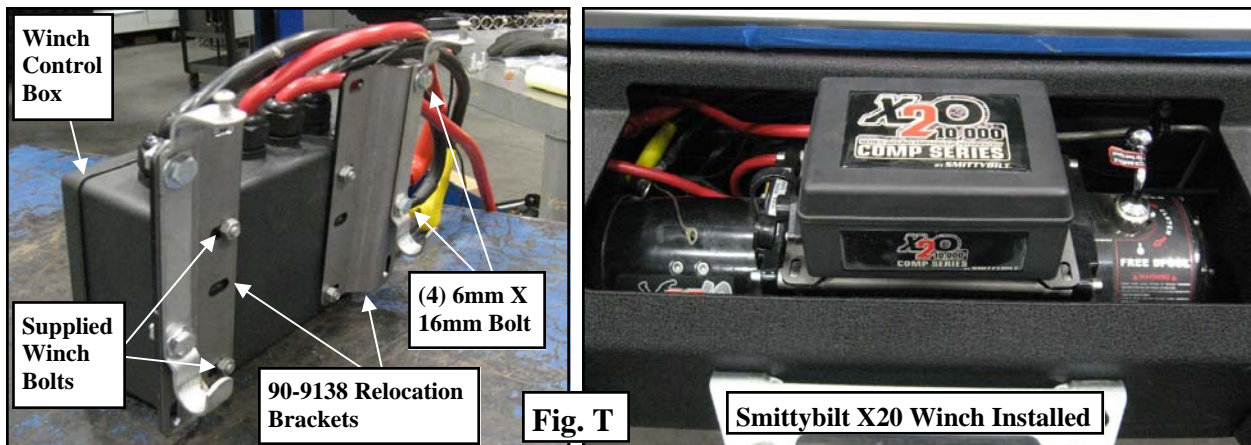


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Step 26: If you purchased a Smittybilt X20 winch kit, use the winch control box relocation brackets (90-9138), mounting hardware provided in the winch kit and the (4) provided 6mm X 16mm bolts and hardware. (Fig T)

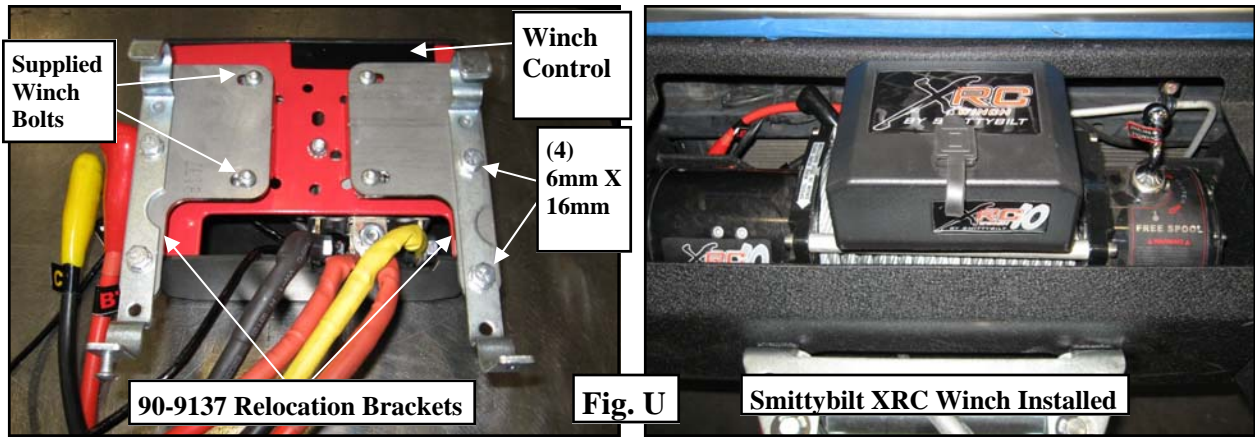


Step 27: If you purchased a Smittybilt XRC winch kit, use the winch control box relocation brackets (90-9137), mounting hardware provided in the winch kit and the (4) provided 6mm X 16mm bolts and hardware. (Fig U)



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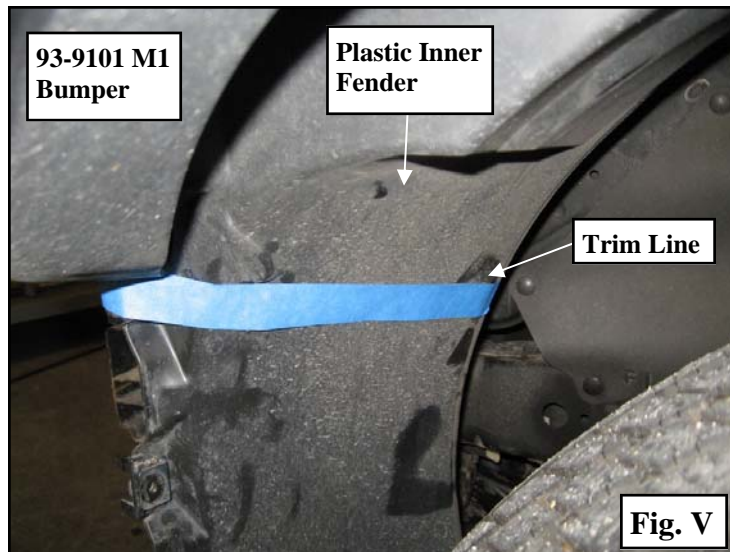
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Step 28: Install the winch wiring per the manufactures instructions. Carefully route the (+) lead keeping it clear of sharp metal, areas of excessive heat or any moving parts. Secure the leads using the supplied zip ties.

NOTE: *Be sure to select clean area and sand away the wax coating/paint to ensure a proper ground connection.*

Step 29: It may be necessary to trim the plastic inner fender liners to line up correctly with the new bumper. To trim, use the lower edge of the bumper as a guide, mark and trim the OE plastic inner fender using a razor knife or another suitable cutting tool. Trim the inner fender, as needed, to line up correctly with the M1 bumper (93-9101). (Fig V)



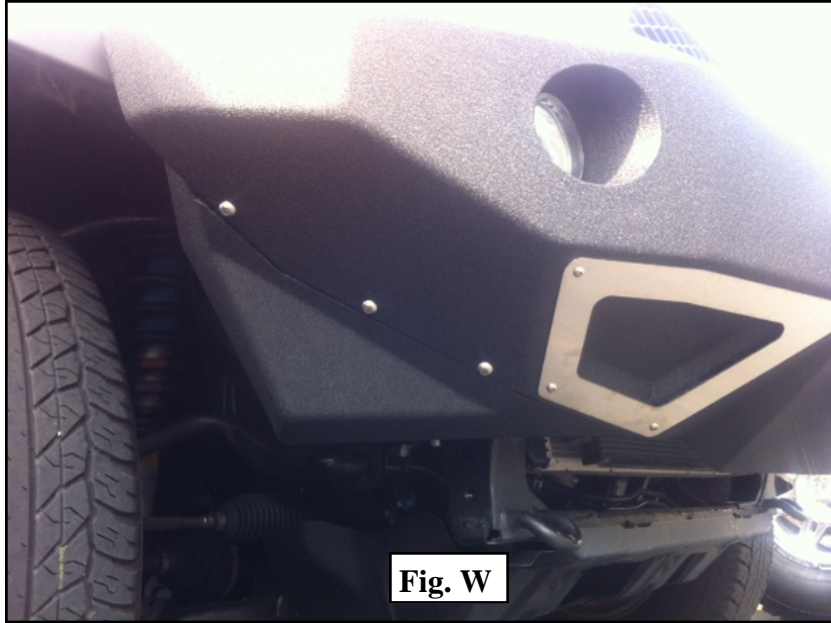
Step 30: Connect the fog light wiring connectors to the connectors on the vehicle. Test, aim & adjust the fog lights at this time.



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Step 31: If your vehicle has an exposed windshield wiper reservoir, install the wiper reservoir cover (90-9510) to the (3) larger holes in the passenger side of the M1 (93-9101) bumper using the (3) supplied 5/16" X 3/4" and hardware. Secure the (2) smaller cover holes using the (2) lower 10-24 X 3/4" stainless window bezel bolts and hardware. (Fig W)



Step 32: Installation is now complete. (Fig X)





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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)

D T L X

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

M12-1.25x50 HHCS
 Property Class (Bolt Strength)

D T L X

P = Property Class (Bolt Strength)
 D = Nominal Diameter (Millimeters)
 T = Thread Pitch (Thread Width, mm)
 L = Length (Millimeters)
 X = Description (Hex Head Cap Screw)



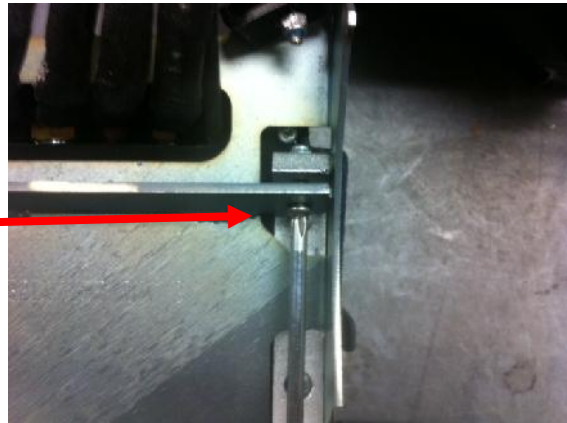
XRC and X2O Gen 2
Winch mount
amendment.

X2O (Gen 2)

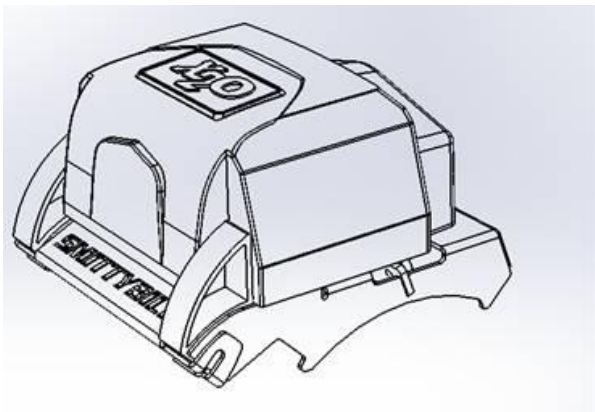
Step 1: With the control box mount brackets attached to control box, place on the adapter bracket. Secure the back section with the included hardware. (Fig 1, 2)



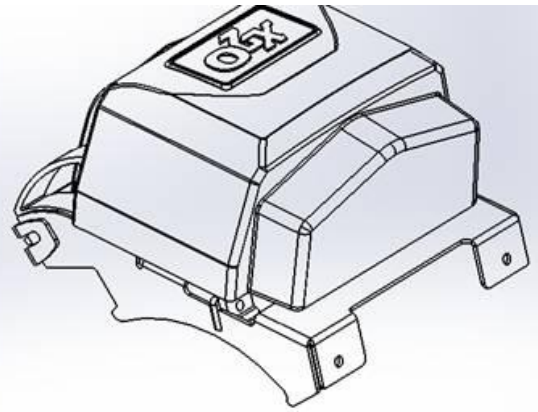
(Fig 1)



(Fig 2)



(Fig 3)



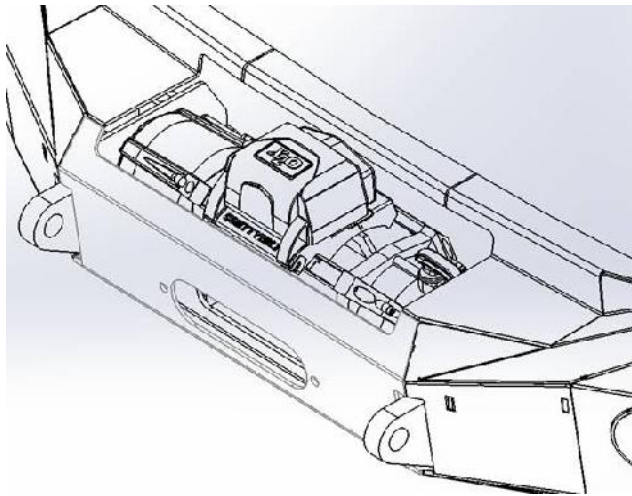
(Fig 4)

Step 2: If you have a steel cable winch, it will be easier to install if you free spool out the first 2 layers in order to give you room to secure the bracket to the winch. Place adapter bracket on winch tie-bars. The front of the bracket fits over the front tie-bar, secure the back of the bracket using the included hardware (L-brackets, screw, nut) that comes with the winch. (Fig 5-8)

Depending on how high or low your bumper is attached, it may also help ease of install if you loosen it.



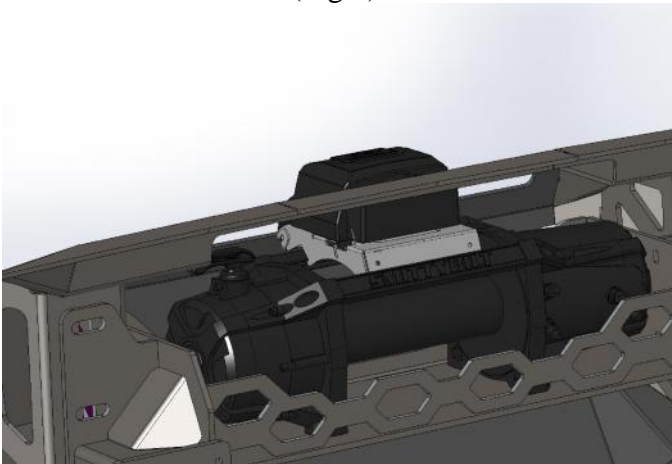
XRC and X2O Gen 2
Winch mount
amendment.



(Fig 5)



(Fig 6)



(Fig 7)



(Fig 8)

Step 3: Once bracket is firmly installed, proceed to install/connect winch wiring per manufacturers instructions. Check winch for proper wiring, when confirmed proceed to power in the cable and/or install synthetic rope.



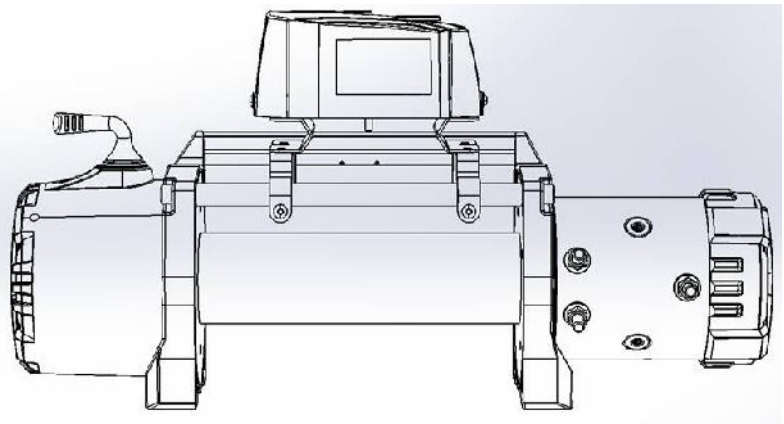
XRC and X2O Gen 2
Winch mount
amendment.

XRC (Gen 2)

Step 1: Remove screws from bottom of control box and secure adapter brackets to the bottom with same hardware. Note – the open side of the brackets face outward. (Fig 1, 2)



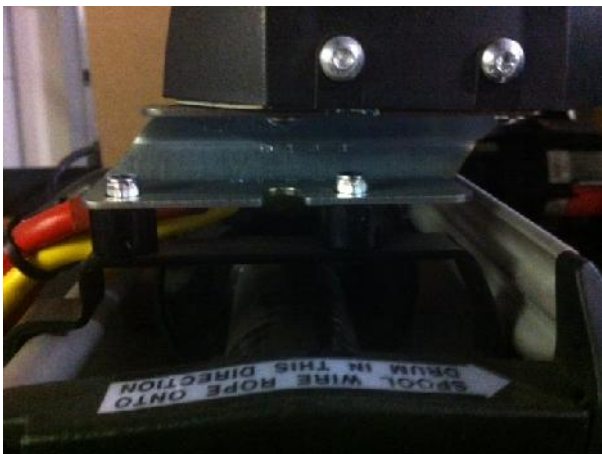
(Fig 1)



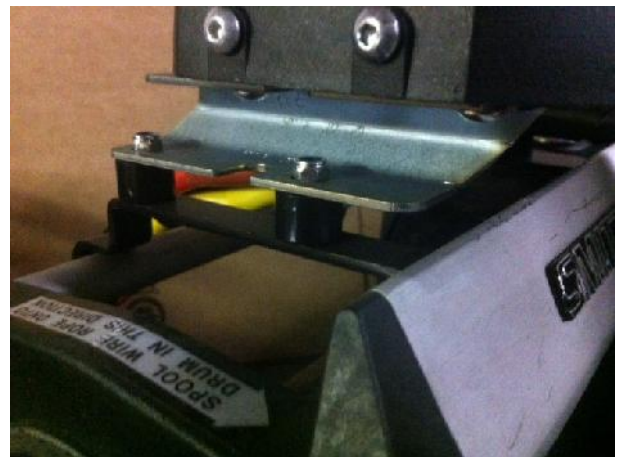
(Fig 2)

Step 2: Attach the control box mount brackets and spacers (using included hardware) to previously installed adapter brackets.

Step 3: If you have a steel cable winch, it will be easier to install if you free spool out the first 2 layers in order to give you room to secure the bracket to the winch. Place winch brackets on winch tie-bars per winch instructions. (Fig 3, 4, 5)



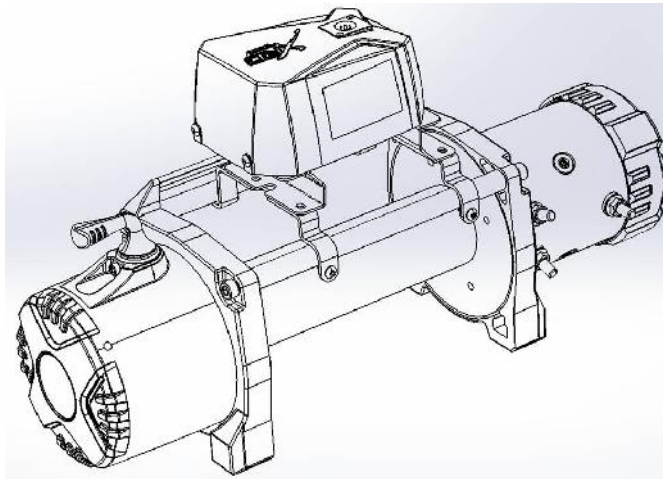
(Fig 3)



(Fig 4)



XRC and X2O Gen 2
Winch mount
amendment.



(Fig 5)

Step 4: Once bracket is firmly installed, proceed to install/connect winch wiring per manufacturers instructions. Check winch for proper wiring, when confirmed proceed to power in the cable and/or install synthetic rope.



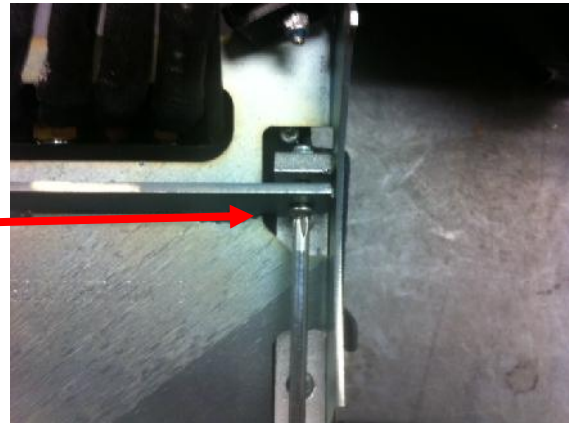
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X2O (Gen 2)

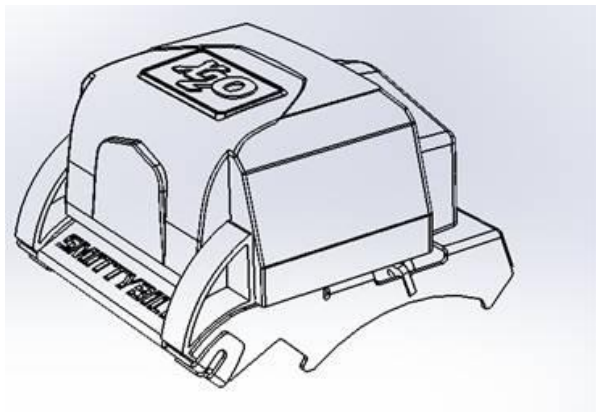
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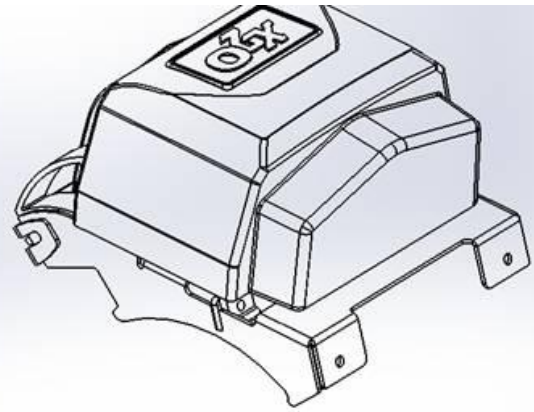
(Fig 1)



(Fig 2)



(Fig 3)



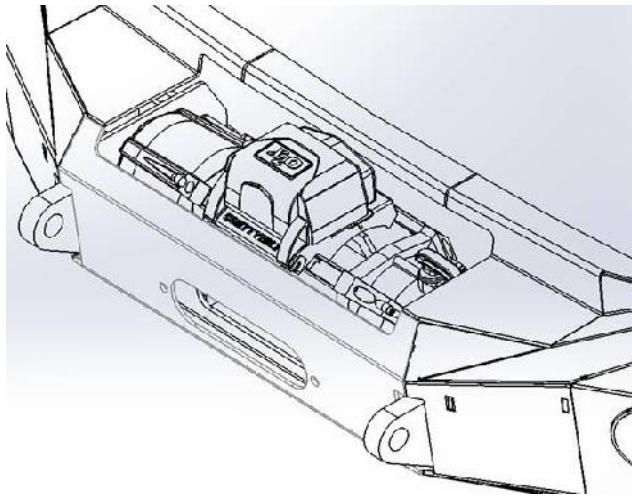
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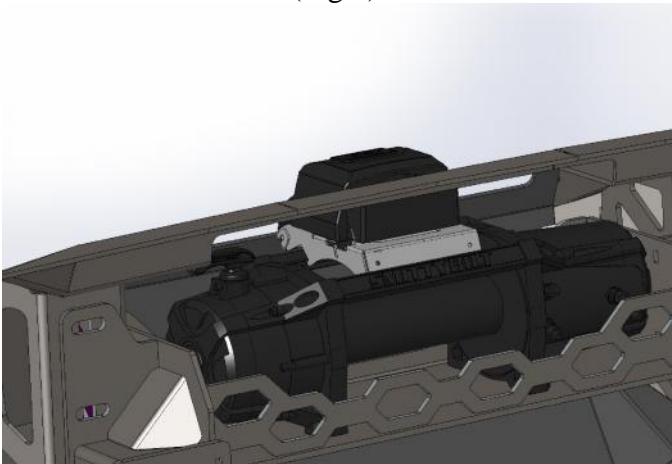
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(Fig 5)



(Fig 6)



(Fig 7)

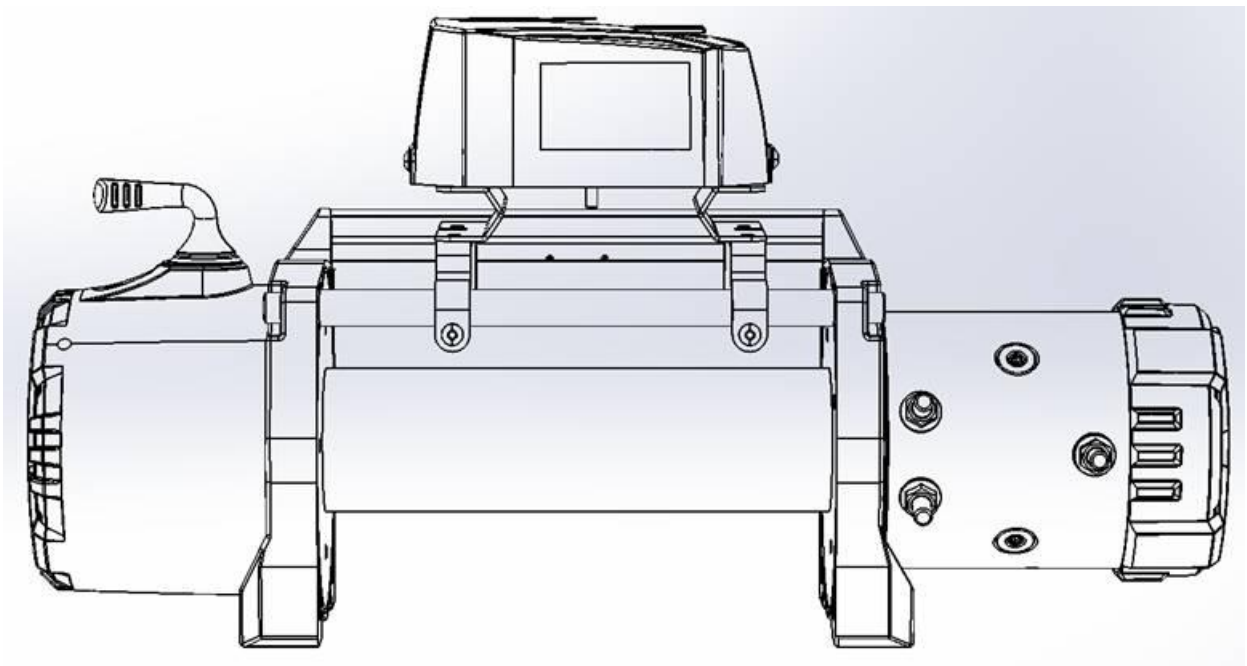


(Fig 8)

Step 3: Once bracket is firmly installed, proceed to install/connect winch wiring per manufacturers instructions.



XRC and X2O Gen 2
Winch mount
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