



INSTALLATION GUIDE

BBR075

RAID BULL BAR TO SUIT RAM DS



- Ironman 4x4 BBR075 Bull Bar to suit Ram DS.
- It will take approximately 2 hours to install.

NOTE: This product has been tested for air bag compatibility and therefore the mounting system **MUST NOT** be modified

IMPORTANT: Bull bar installations should only be done by a qualified person and it's the responsibility of this person to ensure correct fitment.

Before Installation

PLEASE NOTE:

It is always good practice to disconnect the battery while working on 12-Volt systems. Please check owner's manual to see vehicle specific requirements as some models may need battery backup.

Caution: Auto electrical work should only be carried out by a competent person. Vehicle wire colours are listed as a guide and may vary on some makes and models. The function of each wire should be checked before any connections are made.

All wires tapped into the factory harness should be soldered and then insulated with electrical tape or heat shrink.

Using only a LED test light, test all electrical components of the vehicle before and after wiring. This is to ensure that everything works correctly.

IMPORTANT:

Bull Bar installations should only be done by a qualified person, and it is the responsibility of this person to ensure correct fitment.

Read instructions fully before commencing fitment.

Do not remove labels from this bull bar. It is good practice to record the bull bar batch number on the customer's job card for future reference.

BULL BAR CARE INSTRUCTIONS:

To maintain finish of the product, wash regularly using a PH neutral Car wash, hose off and chamois dry. Do not use acidic or alkaline cleaners. Plastic components can be maintained with a silicon spray or similar (non-acidic or alkaline based)

The fitting instructions are correct at the time of publication date. Ironman 4x4 cannot be held responsible for any vehicle manufacturer changes. It is the installers responsibility to ensure correct fitment.

NOTE: Optional light Options

Optional centre light bar ILBDR002B (Requires x1)

Optional Cube lights: (can install up to x 4 cube lights)

40W BRIGHT CUBE SPOT BEAM - Part Number: ILED80B

40W BRIGHT CUBE SPOT BEAM - AMBER COLOUR Part Number: ILED80BA

40W BRIGHT CUBE FLOOD BEAM - CLEAR COLOUR ILED80BF

40W BRIGHT CUBE FLOOD BEAM - AMBER COLOUR Part Number: ILED80BFA

It is important to work safely and use appropriate safety equipment while working.

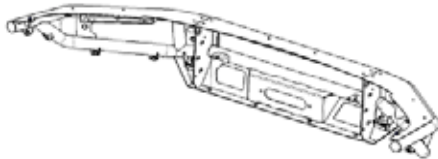
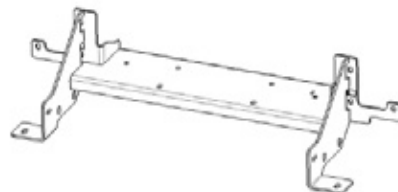



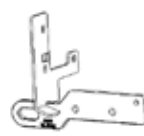


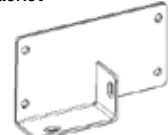






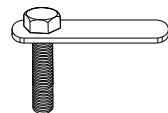
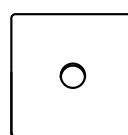
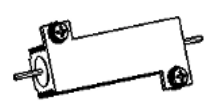
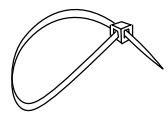



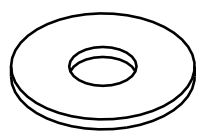
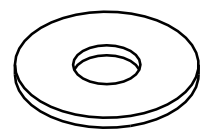
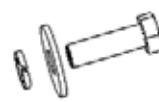
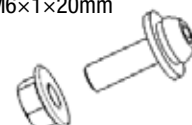
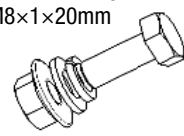


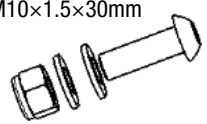




WARNING

- Ironman 4x4 recovery points are FEA Tested during design and Destruction tested during development to establish the Working Load Limits. **(WLL)**
- Ironman 4x4 recovery points have been designed as a matching pair, supplied in right, and left sides for vehicle specific fitment.
- Ironman 4x4 include specific mounting hardware to ensure correct fitment to your 4WD. The correct fitment of these components is critical for your safety.
- Do not use this recovery point for any other vehicle make or model other than the one intended and specified by Ironman 4x4.
- Do not alter or modify the recovery point in any way. Doing so may compromise the points strength and integrity.
- Ensure that bolts are tightened to specified torque.
- Don't remove warning labels from the recovery point. (Some recovery points require the warning labels to be installed, these must be **installed**)
- It is advised to use an equalizing or bridle strap, failure to do so correctly can result in recovery point fatigue and bending and voiding your warranty.
- Never use a single recovery point combined with a side load pull.
- Recovery Points are designed for a straight-line pull, by pulling on an angle/sideways pull may result in a reduction of the **WLL**.



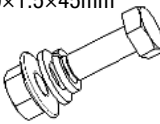
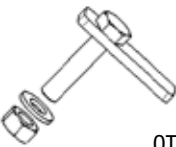
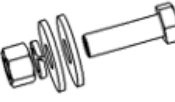

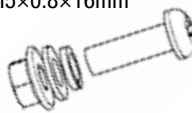
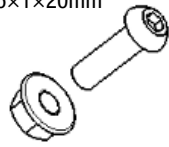
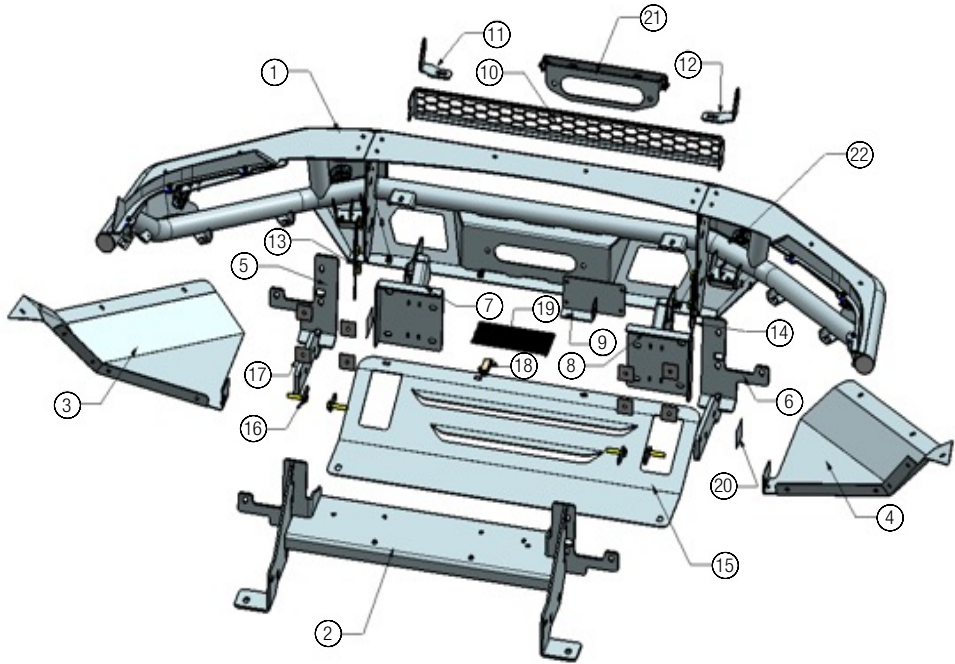
Bull Bar Parts List

<p>1. Bull Bar Channel</p>  <p>QTY-1</p>		<p>2. Winch Cradle</p>  <p>QTY-1</p>		
<p>3. Side Bash Plate LHS</p>  <p>QTY-1</p>	<p>4. Side Bash Plate RHS</p>  <p>QTY-1</p>	<p>5. Recovery Point LHS</p>  <p>QTY-1</p>	<p>6. Recovery Point RHS</p>  <p>QTY-1</p>	<p>7. Chassis Mount Bracket LHS</p>  <p>QTY-1</p>
<p>8. Chassis Mount Bracket RHS</p>  <p>QTY-1</p>	<p>9. Control Box Mounting Bracket</p>  <p>QTY-1</p>	<p>10. Light Bar Mesh</p>  <p>QTY-1</p>	<p>11. Light Bar Mounting Bracket LHS</p>  <p>QTY-1</p>	<p>12. Light Bar Mounting Bracket RHS</p>  <p>QTY-1</p>
<p>13. Nut Plate LHS</p>  <p>QTY-1</p>	<p>14. Nut Plate RHS</p>  <p>QTY-1</p>	<p>15. Centre Bash Plate</p>  <p>QTY-1</p>	<p>16. T bolt M10</p>  <p>QTY-4</p>	<p>17. PVC bolt holder sheet $\Phi 10$</p>  <p>QTY-8</p>
<p>18. Resistor</p>  <p>QTY-1</p>	<p>19. Zip Tape 2.75*1*200 buckle</p>  <p>QTY-10</p>	<p>20. Recovery Point Warn Sticker</p>  <p>QTY-1</p>	<p>21. License Plate Mounting Bracket</p>  <p>QTY-4</p>	<p>22. Parking Sensor Holder</p>  <p>QTY-4</p>
<p>23. Spacer 6mm</p>  <p>QTY-4</p>	<p>24. Spacer 3mm</p>  <p>QTY-4</p>	<p>25. Bolt, spring/flat washers M6\times1\times16mm</p>  <p>QTY-2</p>	<p>26. Bolt, spring/flat washers, Flange nut M6\times1\times20mm</p>  <p>QTY-2</p>	<p>27. Bolt, spring/flat washers, Flange nut M8\times1\times20mm</p>  <p>QTY-2</p>
<p>28. Bolt, spring/flat washers, Flange nut M8\times1\times25mm</p>  <p>QTY-10</p>	<p>29. Bolt, spring/flat washers M8\times1\times25mm</p>  <p>QTY-12</p>	<p>30. Bolt, spring/flat washers, Nyloc nut M10\times1.5\times30mm</p>  <p>QTY-2</p>	<p>31. Bolt, Nut, spring/flat washers M10\times1.5\times35mm</p>  <p>QTY-4</p>	<p>32. Bolt, spring/flat washers M10\times1.5\times35mm</p>  <p>QTY-6</p>

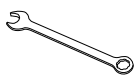

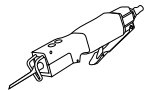
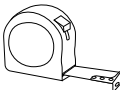
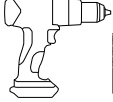

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Bull Bar Parts List (continued)

<p>33. Bolt, spring/flat washers, Flange nut M10×1.5×45mm</p>  <p>QTY-8</p>	<p>34. T-Bolt, flat washers, nut M10×1.5×45mm</p>  <p>QTY-4</p>	<p>35. Bolt, Nut, spring/flat washers M12×1.5×45mm</p>  <p>QTY-4</p>	<p>36. Bolt, spring/flat washers M12×1.5×45mm</p>  <p>QTY-2</p>	<p>37. Pan screw, spring/flat washers, Flange nut M5×0.8×16mm</p>  <p>QTY-4</p>
<p>38. Bolt, Flange nut M6×1×20mm</p>  <p>QTY-4</p>				

Tools Required

<p>Metric spanner set</p> 	<p>Metric socket set</p> 	<p>Air hacksaw</p> 	<p>Tape measure</p> 	<p>Drill and drill bits</p> 	<p>Screwdriver set</p> 
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Bolt Tension Chart

Property Class	TORQUE	NOMINAL DIAMETER - COARSE THREAD			
		M6 x 1	M8 x 1.25	M10 x 1.25	M12 x 1.25
8.8	Nm	10.5	25	49	88
	ft/lb	7.7	18	36	64



1. Before installation, check bull bar application is compatible with your vehicle.

Remove and retain number plate, if fitted, to be reinstalled later.

Disconnect negative battery terminal.

Please check owner's manual to see vehicle specific requirements as some models may need battery backup.



-
2. Unwrap bull bar.

-
3. Remove and retain top plenum cover. Ensure to keep all plastic clips.



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4. Once plenum cover is removed, Locate the upper grille 10mm bolts and remove. Unclip the lower grille support clips, remove grille.

NOTE: Ensure to keep all grille retaining hardware.



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5. Remove all factory bumper bar retaining clips and bolts (including splash tray clips). Unbolt and remove factory stone tray/bash plate. There is a hidden bolt up under each side of the guard liner, once located remove.

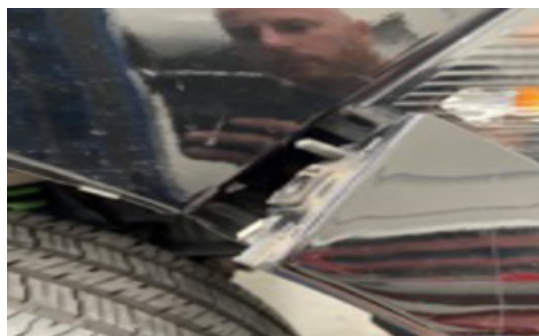


6. Disconnect factory fog lights, and park light wiring. Also disconnect the factory bar loom.

NOTE: if vehicle is fitted with factory parking sensors disconnect wiring main plug.



7. Carefully unclip and remove factory bumper, taking note of the side locating lugs on each side of the bar.



8. Unbolt and disregard factory lower headlight bumper support retaining bracket. Repeat on opposite side.



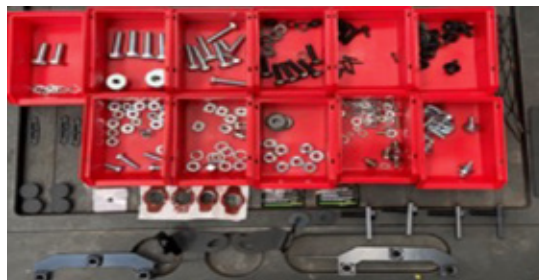
9. Unbolt all factory bumper bar reinforcement 18mm bolts and remove.



- 10.** Unclip upper and lower air damp and disregard.



- 11.** Unwrap the hardware. It is good practice to lay out all hardware and cross reference against the parts list.



- 12.** Unwrap winch cradle, bar brackets and recovery points.



- 13.** Fit winch cradle and recovery points to the front of vehicle. The cradle will need to be slid up on an angle with recovery points wedge between the side of the cradle and the rear of the factory chassis mounting plates. Do not tighten the bolts at this stage as adjustment will be required once bull bar is installed.



14. Feed T-bolt N#34 2x (M10X1.5X45mm T-bolt, washer) up into outer chassis rail pedestal and through bull bar cradle outer mount.

NOTE: for ease of fitment, you can mount 2 x N#36 (M12x1.5x45mm bolt, washer, nut) through the lower cradle mount to chassis. These bolts will need to be removed to fit centre bash plate.

Do not tighten the bolts at this stage as adjustment will be required once bull bar is installed.



15. Loosely Bolt up 4 x N#35 (M12x1.5x45mm washer, spring washer and nut) through the recovery point and cradle.

Do not tighten the bolts at this stage as adjustment will be required once bull bar is installed.



16. Install chassis bracket to winch cradle plates using N#33 8 x (M10x1.5x4.5) making note of Right and Left plates.

Do not tighten the bolts at this stage as adjustment will be required once bull bar is installed.



17. Find a fixed point on the vehicle, take measurements, square up the cradle. Repeat on both sides until cradle is centred.



- 18.** If winch is being installed, refer to winch installation instructions steps 19-21.

- 19.** If installing a winch, use the provide winch control box mounting plate.



- 20.** Install winch control box mounting bracket to winch control box using N#37 4 x (M5x.08x16mm nut, washer, spring washer and flange nut)

Once control box is mounted, mount the bracket to the cradle using N#26 2x (M6x1x20mm bolt, washer, spring washer flange nut)



- 21.** Note: If installing the control box with supplied bracket, it is advised to drill a 6mm drain hole in the lower control box housing. Making note to not damage internal components.



- 22.** Wiring of park lights can now be wired.

NOTE: Supplied resistors must be connected to park light wiring to ensure correct function.

IMPORTANT: For parking sensors to function correctly these instructions must be followed closely. Before removing sensors from original bumper bar, note the location and orientation of each sensor so when they are fitted back into the Raid bar this can be replicated.



- 23.** Remove the parking sensor wiring and parking sensors from the factory bumper taking note of the direction and position of each sensor.

Remove grommets from the sensor holes in Raid bumper.



- 24.** Fit sensor with factory silicone sleeve to the sensor holder. Use flat side of clamping plate to secure the sensor. The sensor will false alarm if excess pressure is applied to the sensor body.



- 25.** Clean inside the Raid bar, around sensor holes and mounting surface of parking sensor holders using grease and wax remover.



- 26.** Apply adhesion promoter to mounting surfaces around sensor holes and on sensor holders. This step is important to ensure sensor holders adhere properly to the bull bar.



27. Remove protective film from one side of double-sided tape and apply to mounting surface of sensor holder.

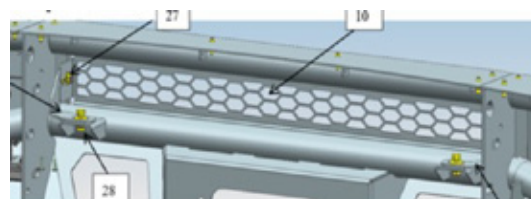


28. Remove protective film from double-sided tape and apply sensor holder/sensor to Raid bar making sure sensors are in the same positions as they were in the original bumper and in the same orientation.



29. Plug the parking sensors wiring extension loom into the factory harness and run cabling in between bracket.

30. Assemble and install light bar into the centre bar section using the supplied brackets and hardware. The brackets provide some adjustment to ensure centralized positing and vertical aim of the light. Light bar cable can be secured to the small holes found on the inside edge of bull bar using cable ties.



Brackets N#11 & N#12. Hardware N#27 2X (M8x1x20mm bolt, washer, spring washer nut) & N#28

2x (M6X1X20mm bolt, washer, spring washer nut)

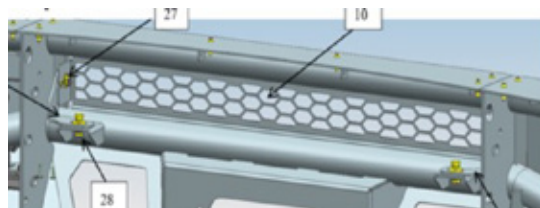
NOTE: Optional centre light bar ILBDR002B



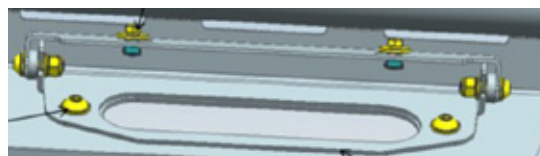
- 31.** Assemble and install Ironman 4x4 cube lights to light pod. Fit the supplied spacer under light bracket. The brackets provide some adjustment to ensure centralized positing and vertical aim of the light. The Cube Light cable can be secured to the inside edge of bull bar using cable ties.



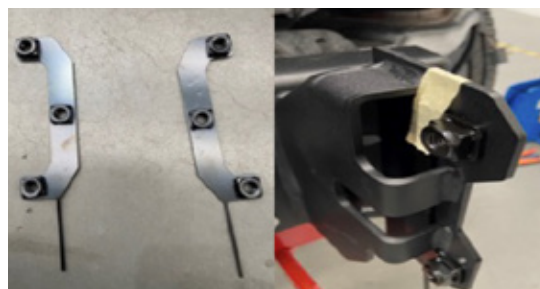
- 32.** If you are not fitting the optional light bar. There is a mesh infill supplied. You will still need to use the Light bar support brackets to install mesh. Bracket N#11 & N#12. Hardware N#27 2X (M8x1x20mm bolt, washer, spring washer nut) & N#28 2x (M6X1X20mm bolt, washer, spring washer nut)



- 33.** Install license plate mount bracket onto Bull bar N#26 2x (M6x1x20mm bolt, washer flange nut).
If winch is being installed, fit the fairlead as well.



- 34.** Install N#12 Right and Left N#11 nut plates into position. To avoiding the plates moving or falling out of position, place small amount of masking tape to hold in position.



- 35.** Install Bull bar headlight infills on to bar using N#39 (M6x1x20mm bolt, flange nut) Do not tighten the bolts at this stage as adjustment will be required once bull bar is installed.



- 36.** Install Ironman 4x4 Raid bumper into position, aligned to the chassis mounting holes. We recommend 2 people when lifting the bumper into position to avoid injury or damage to the vehicle and components.



- 37.** Tension all fasteners and mounting hardware, refer to page 5.

Including the alignment of the headlight infill panels

N#32 6X(M10x1.5x30mm)



- 38.** Drill and pin bar into position using M10 bolts, washers and nuts supplied.



- 39.** Connect/wire up blinkers, parkers, and fog lights, light bars (if applicable).

Refer to wiring diagram on page 20.

NOTE: Connect main parking sensor plug if vehicle is equipped with Front sensors.



- 40.** Install the protection plate T-bolt N#34 2x (M10x1.5x45mm t-bolt, washer, nut) to Chassis pedestal using the inner chassis rail as shown. Repeat on the other side.

Once installed use N#17 PVC holder sheet to holder T-bolt in place.



- 41.** Remove earlier fitted 2 x N#36 (M12x1.5x45mm bolt, washer, nut) through the lower cradle mount to chassis. This bolt will need to be removed to fit centre bash plate.

- 42.** Install Recovery point label stickers on both the right and left recovery point.



- 43.** Install captive nuts into bolt side Bull bar wings.



- 44.** Install centre protection plate with black M8 bolts provided. N#29 4X (M8x1x25mm) and 2 x N#36 (M12x1.5x45mm bolt, washer, nut) Bolt the UBP through the lower cradle mount and then to chassis.



- 45.** Install both wing protection plates with black M8 bolts provided. N#29 6X (M8x1x25mm)



- 46.** Bolt number plate to the vehicle with M6 hardware supplied.



- 47.** Trim guard liners, drill 2 holes as shown and secure in place behind wing protection plates with cable ties (not supplied).



- 48.** Reinstall top plenum grille and connect negative battery terminal if removed.



Once Bull Bar is Installed

Ensure all bolts are tensioned correctly, it is good practice to do a vehicle pre trip check before heading away or every 10k kms. Visually inspect bull bar and hardware, retention bull bar hardware or when needed.

Check the operation of the blinkers, park lights, fog-lights and winch if installed and ensure that they are all functioning correctly. Make sure all electrical wiring is clear of sharp edges and is secured correctly.

If vehicle is fitted with parking sensors, radars and or front cameras check they are operating correctly. Some makes and models may need to return to the dealership for recalibration.

Stand back and admire your work.



Winch Installation

1. Bolt winch to cradle. Bolt fairlead to recess in front of bull bar using bolts, washers and nuts provided.



2. Fit bull bar to vehicle referring to steps of bull bar fitting instructions.

3. Refer to steps 19-21 of main instructions.

4. Connect three colour coded cables to the corresponding poles on winch motor.



5. Connect the thin black earth wire and negative battery cable to the earth connection on the opposite side of winch motor.



6. Run the positive and negative battery cables into the engine bay taking care to secure cables away from any sharp or moving objects.

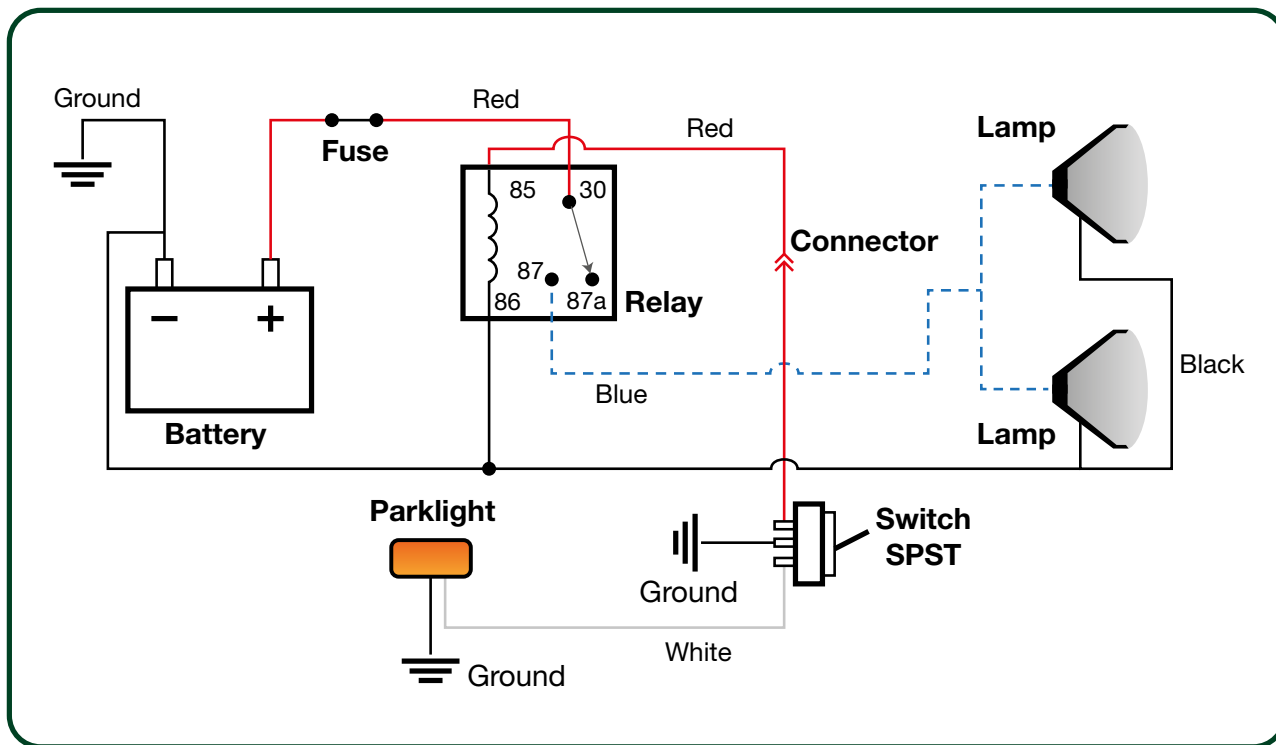
7. Connect positive and negative battery cables main battery of vehicle (Not Auxilliary Battery).

8. Attach breather hose to barb fitting on winch motor. Run hose to the highest available point in engine bay and cable tie in position. Cable tie hose away from any sharp, hot or moving objects.



Wiring Diagrams

FOG LIGHTS



WITHOUT FACTORY FOG LIGHTS

