

Front Bar Installation Instructions

Nissan Patrol Y62 Series 5



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Bumper Evo 3D

Please Read Prior to Commencing Installation



Thank-you for choosing to equip your vehicle with our product. Following are some of the great features that our bar includes:

- Our bar is designed to follow the original lines and aesthetics of your vehicle.
- The approach angle of your vehicle will be increased dramatically, while increasing protection.
- Our modular system allows you to replace parts individually.
- We do not cut the original plastic bumper, thus it can be reinstalled if required.

Before commencing the installation it is important that you read and understand these installation instructions, if you require any technical advice please contact your closest Rhino 4x4 dealer.

Welcome to the Rhino 4x4 team!



A T T E N T I O N

- Do not attach VFPS vehicle using any fixing points not intended for this purpose.
- Do not use this product on any other vehicle make or model, other than those specified.
- Do not remove the warning labels or Rhino 4x4 logo from the VFPS.
- Do not modify the VFPS in any way.

Bill of Materials



C H E C K L I S T								

Step 1 Remove Bumper and grille

Start by removing the original bumper and grille, including all factory bumper brackets. Ensure the factory front protection plate is also removed.

See figures 2-4 for assistance in locating some of the harder to find bumper attachment points.



Figure 1: Remove trim under headlight

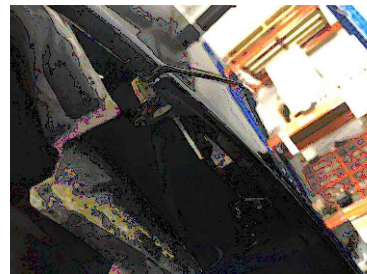


Figure 2: 10mm Hex screw under wheel arch liner

Note that there are hidden clips behind the side air duct.

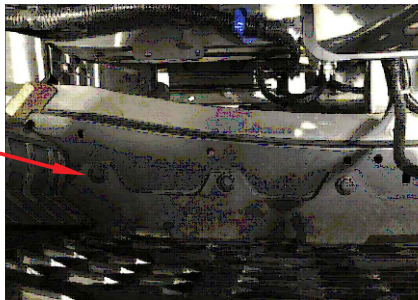


Figure 3: Clips at the bottom of the grille

If your vehicle does not have the internal threads, M10 rivet nuts will have to be inserted to the chassis to retain the bash plate.

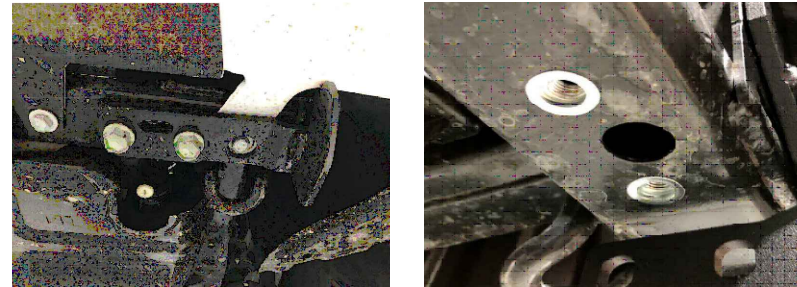


Figure 4: With skid bracket (Left) Without skid bracket (Right)

The L-Bracket shown below will have to be used to fix the bottom mounting point of the headlight.

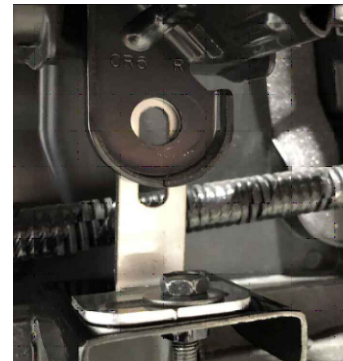


Figure: Headlight Fastening Bracket

Step 2 Cut Headlight Bracket

Two brackets for the headlight require cutting for clearance.

The first cut must be made along the red line suggested in figure 5.

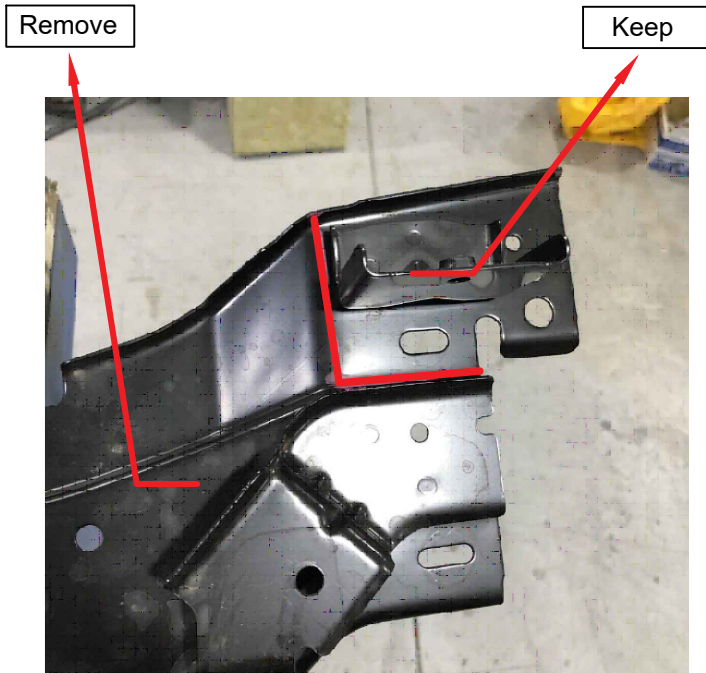


Figure 5: First member that requires cutting

The second cut must be made along the red line suggested in figure 6.



Figure 6: First member that requires cutting

Step 3 Remove Recovery Point

There is a factory recovery point located on the right hand (driver's) side of the vehicle. This must be removed, allowing the bash plate bracket to be installed.

This recovery point can be seen in figure 7.

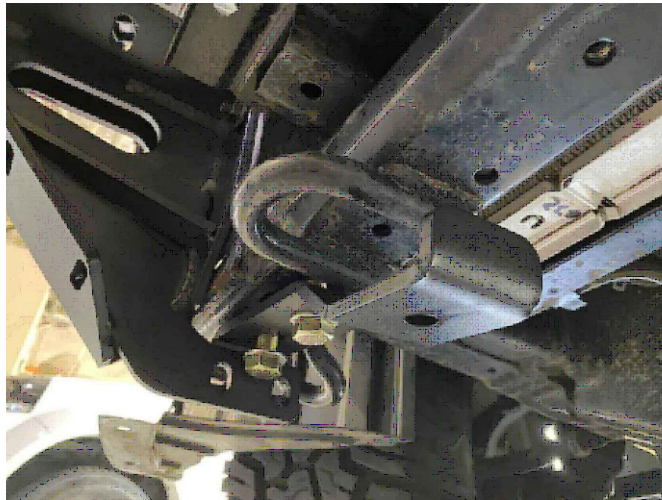


Figure 7: Factory recovery point location on chassis

A 1mm cutting disk can be used to, first cut off the front hoop.

Next, carefully grind away the welds taking care to not cut into the vehicles chassis.

The region should then be coated in anti-corrosion paint, as shown in figure 8.



Figure 8: Painted surface after removing recovery point

Step 4 Fog Light Wiring

Now the bumper is removed, the OEM fog light wiring harness should be accessible.

On the black plug (figure 9a) pin 1 is the positive DRL signal, and pin 4 is the positive indicator signal.

The wires on the back of the plug can be bridged onto and wired to the fog light in the following sequence.

Brown wire (DRL) → Pin 1

Yellow wire (indicator) → Pin 4

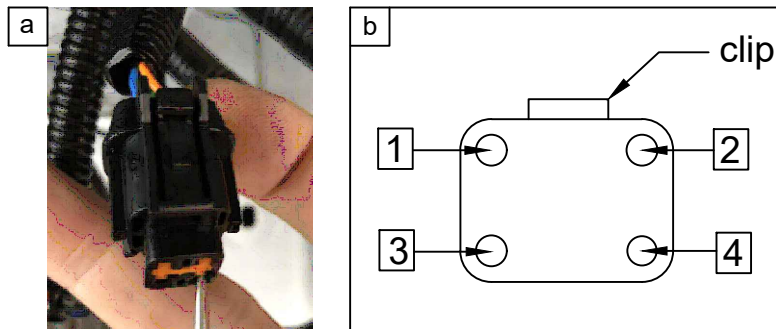


Figure 9: Identifying plug (a) and plug pin positions (b)

If wiring a spot light or light bar that requires a high beam signal, you will have to also locate the 6 pin grey plug (figure 10a) at the rear of the headlight.

On this plug, the high beam signal can be tapped into via the wire associated with pin number 6.

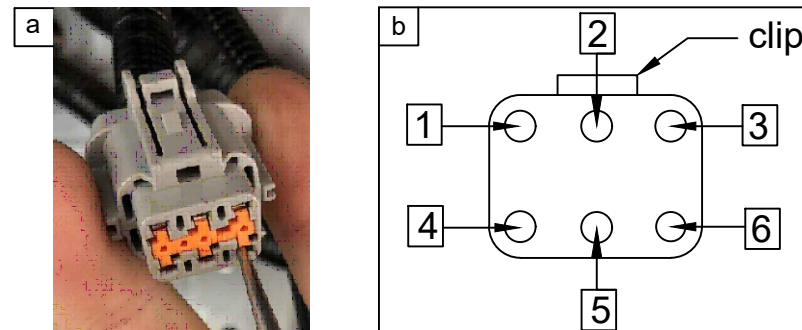


Figure 10: High beam wire location

Please refer to appendix 1.0 for further high beam wiring harness details and appendix 2.0 for fog light wiring details.







Step 5 Attaching chassis brackets

Place and secure the bottom bracket (k) using 4 M12 nuts (l), bolts (a) and washers (b), as per figure 11.

Then mount the inside bracket (c) using the plate (p) with again the M12 nuts (l), bolts (a) and washers (b), as per figure 12.

If your vehicle has a bracket welded in the section circled (figure 12), this must be removed for the radar bracket to sit vertically.

Table 1: Part list for step 5

FASTENING BOLTS			
	a	Hex 12 1.25 x 30	06
	b	Washer D13	12
	c	Inside Bracket	02
	k	Bottom Bracket	02
	l	Nut 12 1.25	06
	p	Plate	02

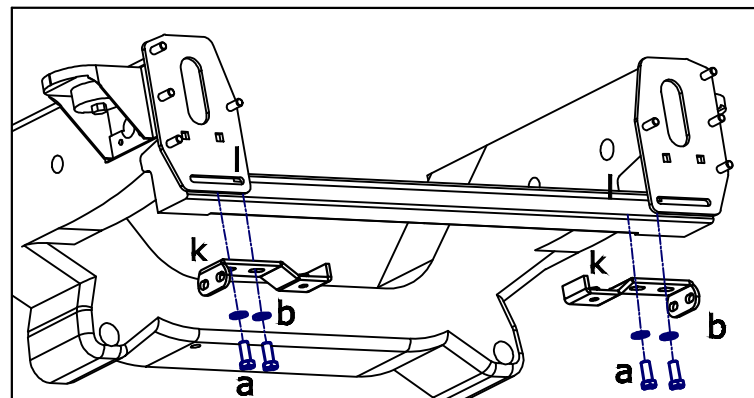


Figure 11: Attaching bottom bracket

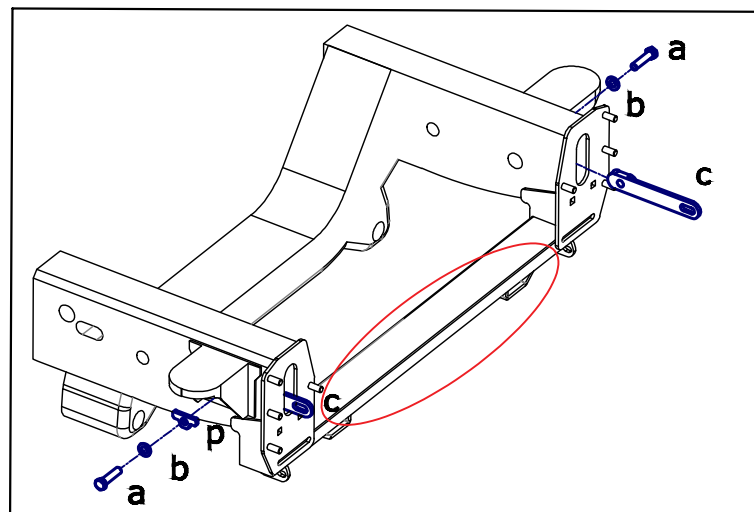


Figure 12: Attaching inside bracket








Step 6 Attaching chassis brackets

Attach the left and right Rhino bumper mounting brackets to the chassis legs using the 8 original nuts, as per figure 13.

Then use the supplied nuts, bolts and washers to fasten the chassis bracket at the side holes, as shown in figure 14.

The winch cradle can then be mounted on top of these front chassis brackets using the 6 M12 nuts, bolts and washers provided.

Table 2: Bolt list for step 6

FASTENING BOLTS			
	b	Washer D13	10
	h	Hex Flange 10 1.50 x 30	06
	i	Washer D10	06
	j	Nut 10 -1.50	04
	l	Nut 12 1.25	02
	q	Hex 12 1.25 x 50	02
	z	Original Nut	08

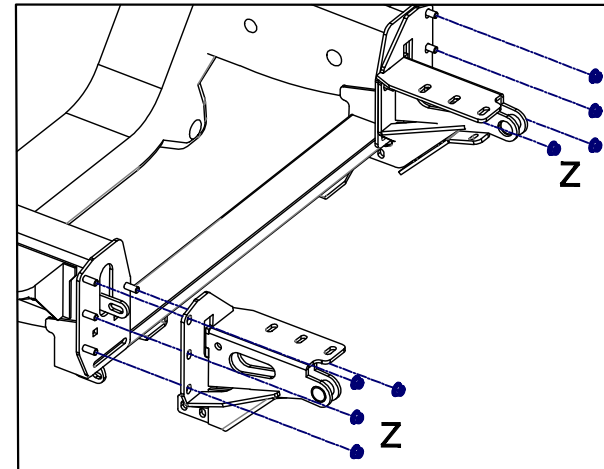


Figure 13: Front bolts for mounting the chassis bracket

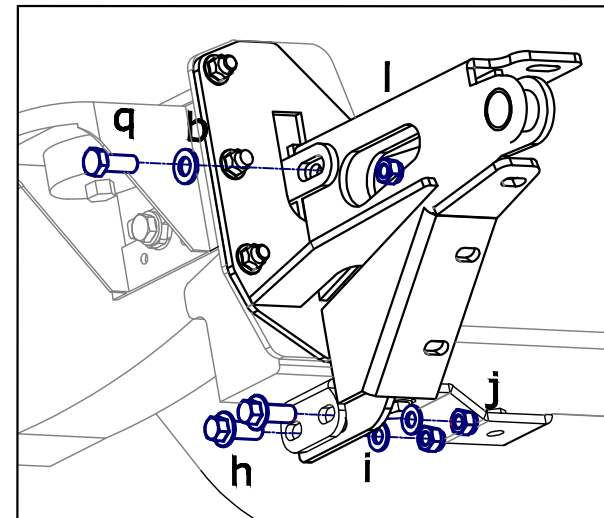


Figure 14: Side bolts for mounting the chassis bracket

Step 7 Assembling the Wings

Attach the top piece to the main body of the wing using the M8 nuts, bolts and washers, as suggested by figure 15.

The supplied rubber strip must then be run along the top of each wing, this rubber will close the gap between the top of the wing and the headlight.

Then attach the wing to the winch cradle using the M10 nuts, bolts and washers as suggested by figure 17.

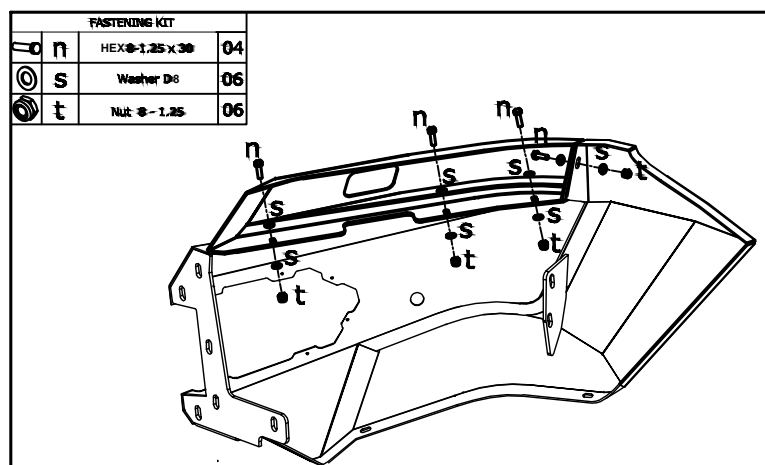


Figure 15: Bolting together wing assembly

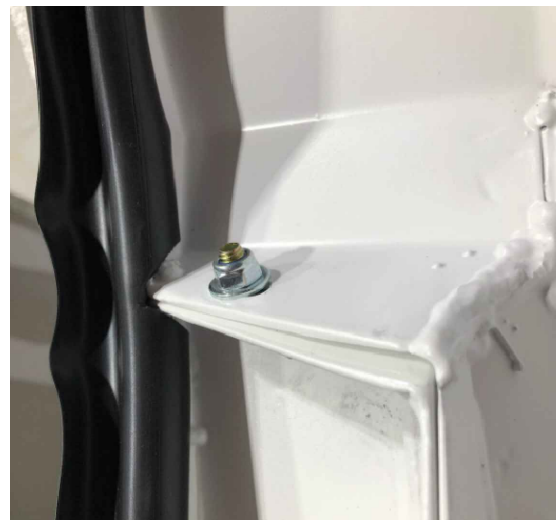


Figure 16: Rubber strip v-notch cutout

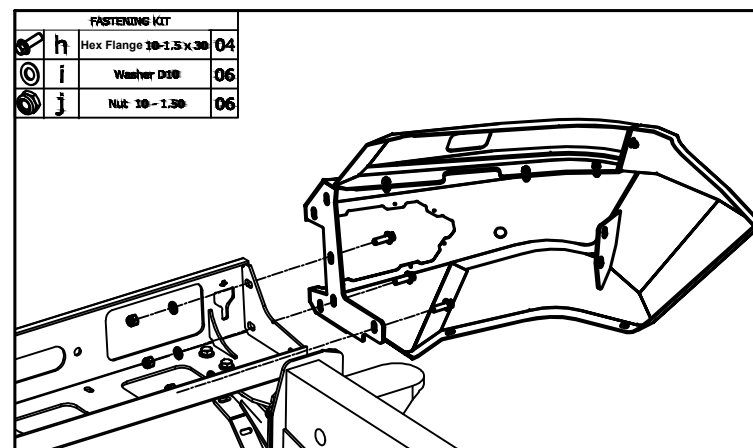


Figure 17: Mounting wing to the winch cradle

Step 8 Washers, Sensors and Lights

Using double sided tape and sikaflex, mount the headlight washer to the wing.

Ensure that the rear section of the headlight washer is pointing downward when attaching this part (Figure 18).

In a similar way, mount the sensor housings to the bar.

Then place the sensor in the housing to ensure appropriate fitment, all sensor plugs should be pointing towards the center of the bar.



Figure 18: Mounting the headlight washer

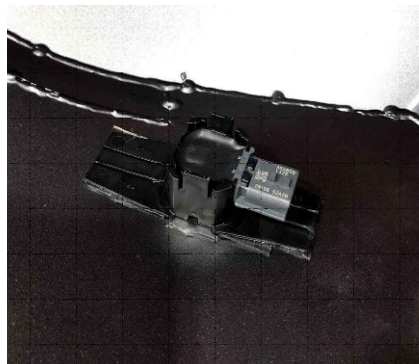


Figure 19: Mounting the sensors

Combat light brackets will be required for mounting the 20" light in the upper mid section.

Mount the light as shown in figure 20 using M8 hex head bolts and Nyloc nuts.






Figure 20: Mounting the light bar

Step 9 Attaching Lower-Mid Section

Attach the lower-mid section using two M10 nuts, bolts and washers, as per figure 21 below.

Table 3: Bolt list for step 9

FASTENING BOLTS			
	h	Hex Flange 10 1.50 x 30	02
	i	Washer D10	02
	j	Nut 10 1,50	02

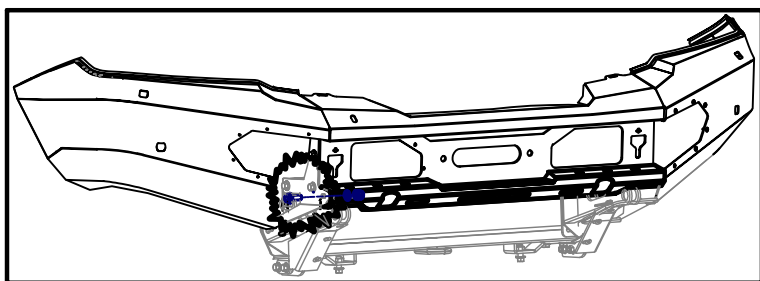








Figure 21: Attaching the lower mid-section to the wings

Step 10 Attaching Upper-Mid Section

Attach the upper-mid section using four M10 nuts, bolts and washers as per figure 22.

Attach the grille plate using two M8 nuts, bolts and washers (figure 23).

Table 4: Part list for step 10

FASTENING KIT			
	a	Hex Flange 10-1.5 x 30	04
	b	Washer Ø10	06
	c	Nut 10 - 1.50	06
	r	Hex Flange 8-1.25 x 20	02
	s	Washer D8	02
	t	Nut 8 - 1.25	02

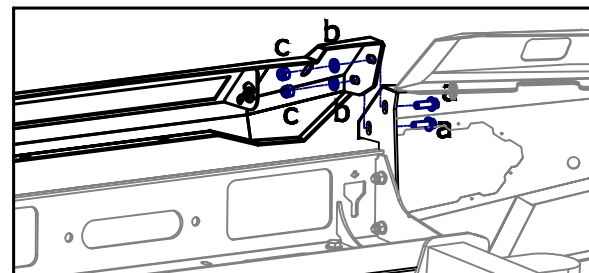


Figure 22: Attaching the upper-mid section to the wings

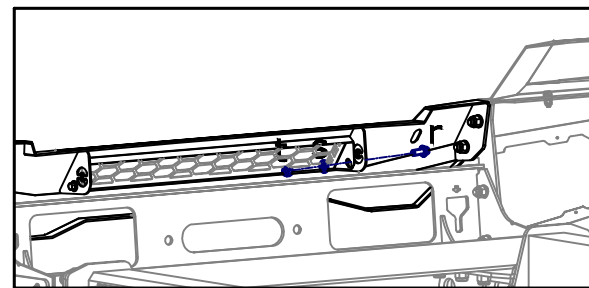


Figure 23: Attach the grille to the upper-mid section




Step 11 Front Radar Sensor

If your vehicle has a front radar sensor it must be relocated such that the bash plate will not interfere with its function.

First mount the radar sensor to the bracket as displayed in figure 24.

Then attach the bracket to the winch cradle as shown in figure 25.

Table 5: Bolt list for step 11

FASTENING KIT		
	Hex 6-100 X 15	04
	Washer D10	04
	Nut 10 1,50	04

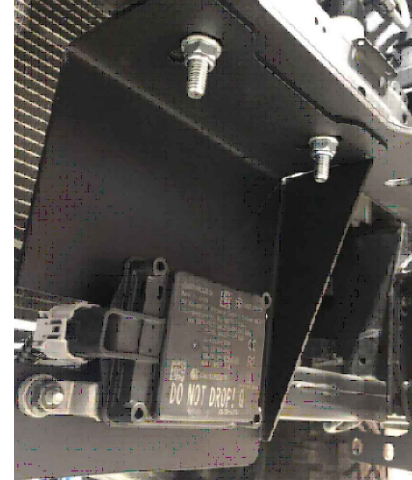


Figure 24: Mounting radar to the bracket



Figure 25: Front view of radar bracket

Step 12 Mounting the Winch

If you are not mounting a winch to your Rhino 4x4 front bar, please ignore this step.

Using the 4 M10 bolts supplied with the winch kit, mount the winch to the cradle as depicted by figures 26 and 27.

Next mount the winch fairlead as shown by figure 28.

Instructions for winch wiring can be found in the winch kit.

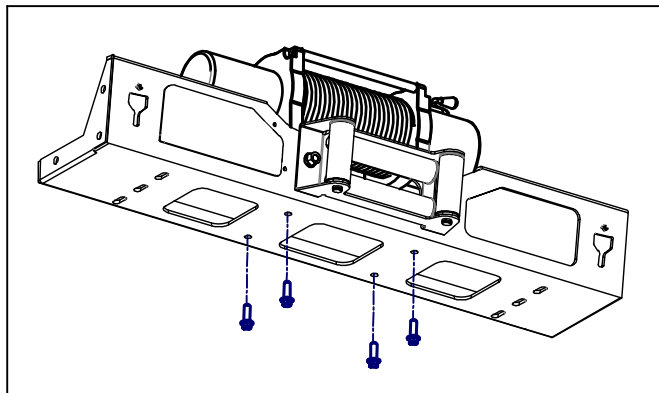


Figure 26: Bottom view of winch mounting position

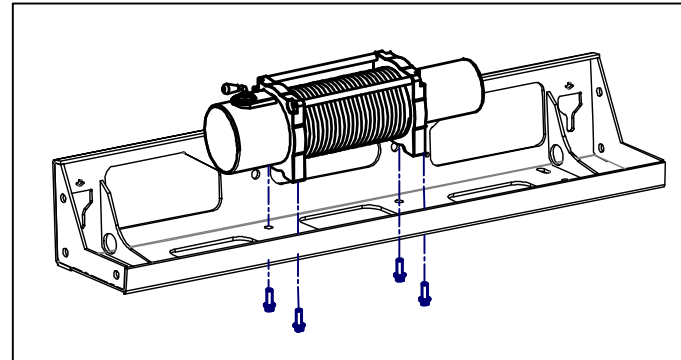


Figure 27: Top view of winch mounting position

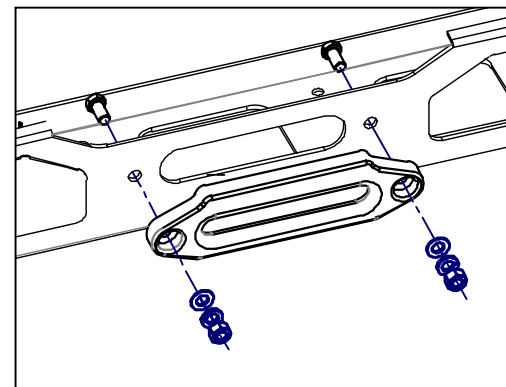









Figure 28: Mounting the winch fairlead

Step 13 Wing Support Bracket

The chassis bracket must first be mounted using a U-bolt on each side, as represented in figure 29.

Table 6: Bolt list for step 13

FASTENING BOLTS			
	a	Hex 12 1.25 x 30	08
	b	Washer D13	08
	j	Nut 10 I.5	04
	i	Washer D10	04
	l	Nut 12 1.25	08
	m	Hex Flange 10 I.50 x 20	04
	u	Threaded rod	02

Mount the wing support bracket such that the distance between it and the chassis bracket is 205mm.

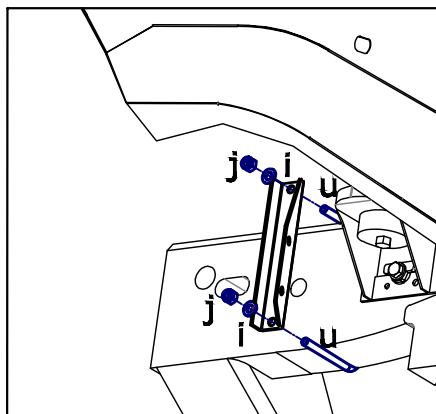


Figure 29: Attaching fog light to the wings

The wing support bracket can then be mounted to the previously attached chassis bracket, as in figure 30. With the top of the wing support bracket on the correct side of the wing mounting point (figure 31), fasten the remaining two bolts on either side.

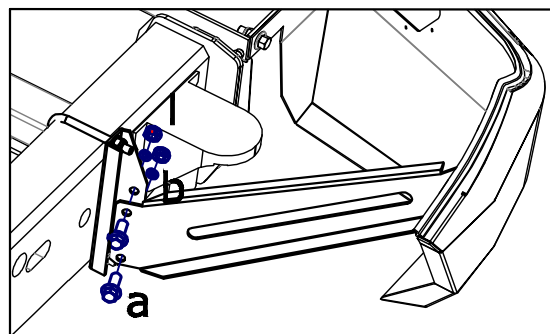


Figure 30: Attaching fog light to the wings

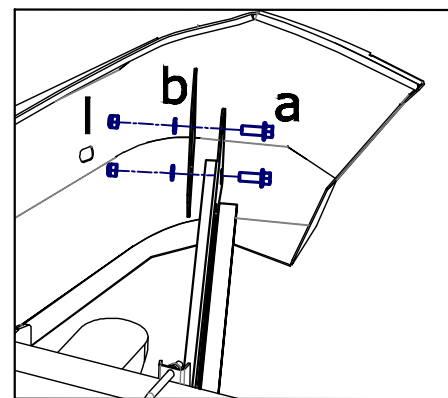


Figure 31: Fastening top of the wing support bracket

Step 14 Fog Light Assembly

The fog lights must be connected to the OEM headlight wiring harness. This should have been completed in step 4, however may still be completed at this stage by referring back to step 4.

Mount the fog lights to the molded surround in the kit, ensure that they are correctly aligned by referring to figures 32 and 33.

Then, using the screws provided attach the fog lights to the wings as per figure 34.

Table 7: Bolt list for step 14

LED LIGHT SET KIT			
	μ	Self-drilling T1 1/2"	12
	λ	Hex 6-100 x 20	08
	φ	Washer D6	16
	ψ	Nut 6 - 100	08
	ω	Tapping Screw	08

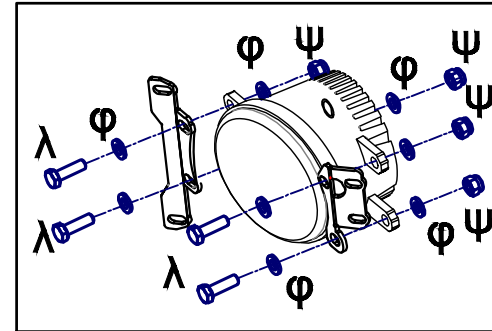


Figure 32: Attaching fog light brackets

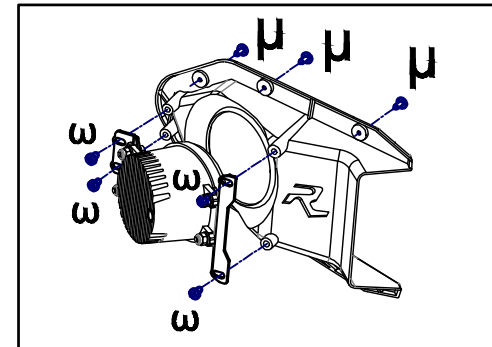


Figure 33: Mounting fog light to molded surround

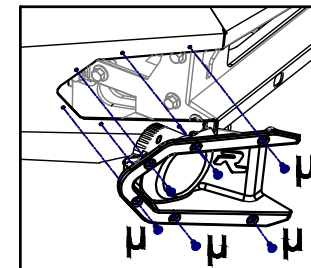





Figure 34: Attaching fog light to the wings

Step 15 Bash Plate Assembly

The two aluminum bash plates can then be mounted, the lower bash plate should be positioned behind the the upper bash plate, as portrayed in figure 35.

Table 8: Bolt list for step 15

FASTENING BOLTS			
	o	Countersunk screw .10 1 50 x 30	06
	r	Hex Flange 8-1.25 x 30	04
	p1	THREADED PLATE 10-1.50	06

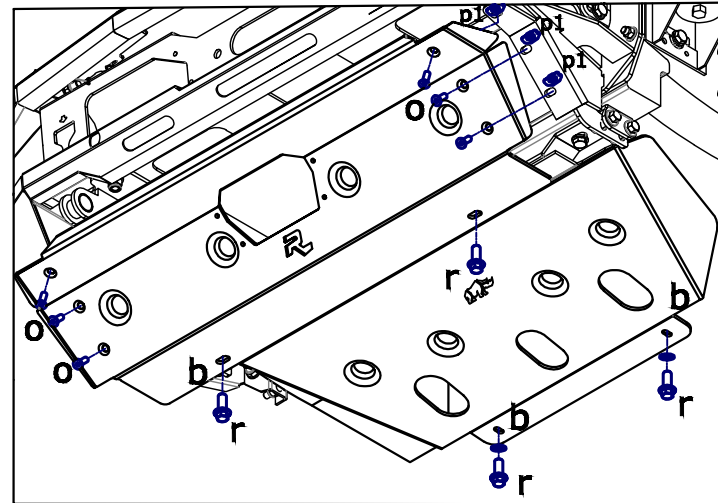


Figure 35: Attaching the bash plate

Step 17 Trim Wheel Arch Liner

The wheel arch liner should be trimmed such that it can be tucked behind the wing support bracket on the chassis.






Figure 36: Trimming the wheel arch liners.

Step 16 Mount Under-Wing Covers

Mount the under-wing covers as shown in figure 37.

Please note also that the underwing cover plates may scrub on larger tyres.

Table 9: Bolt list for step 16

FASTENING KIT			
	n	Allen Button 6-100 x 15	06
	e	Washer D6	06
	f	Nut 6-100	06

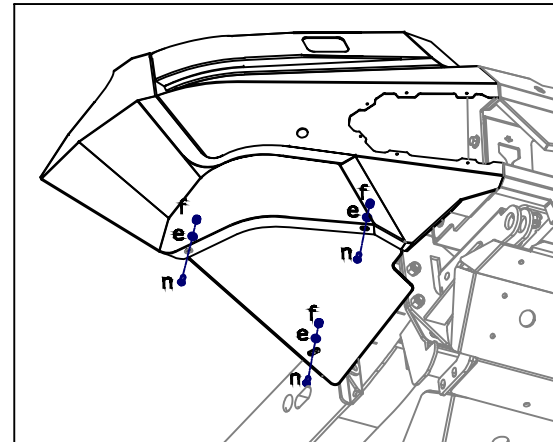
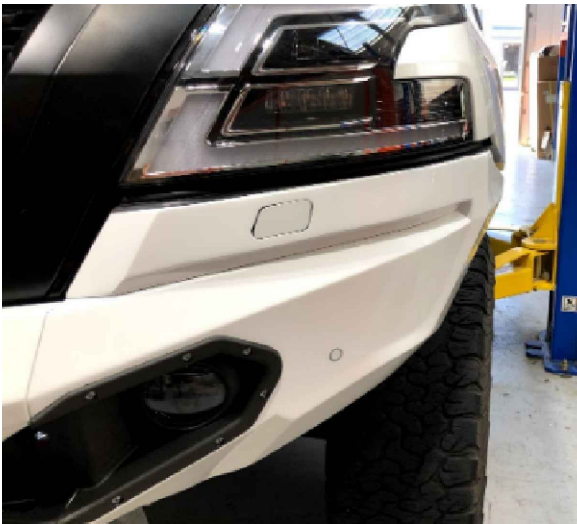


Figure 37: Mounting under-wing cover

Alignment Images



Installation Complete!

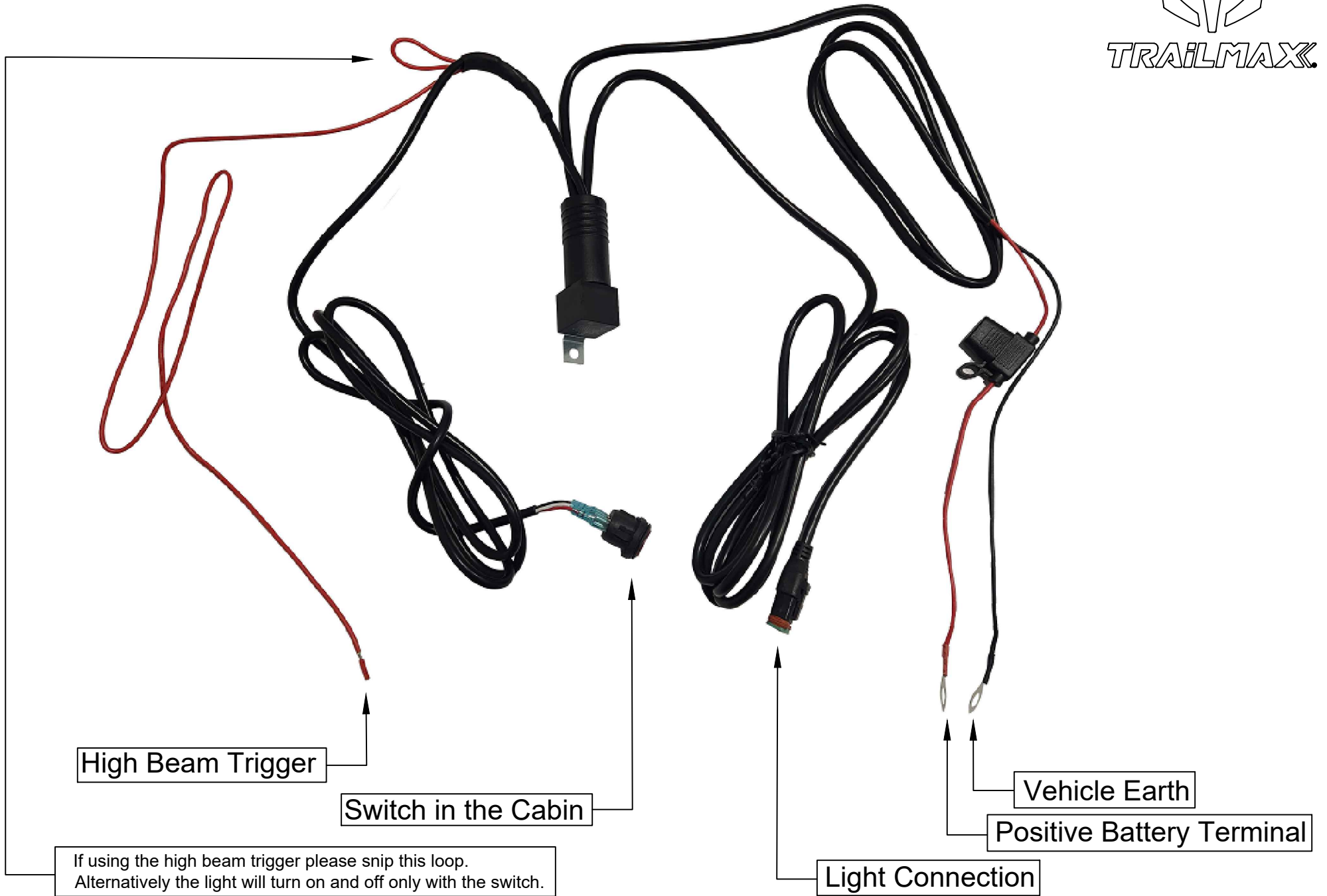


Thank-you for becoming a part of the Rhino 4x4 team, your support allows us to continue providing the 4x4 industry with quality products.

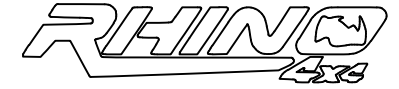
We are always looking for ways to make your experience with us even better, so please take the chance to share your thoughts on our product by accessing the survey below.



Appendix 1.0 - Light Wiring Harness

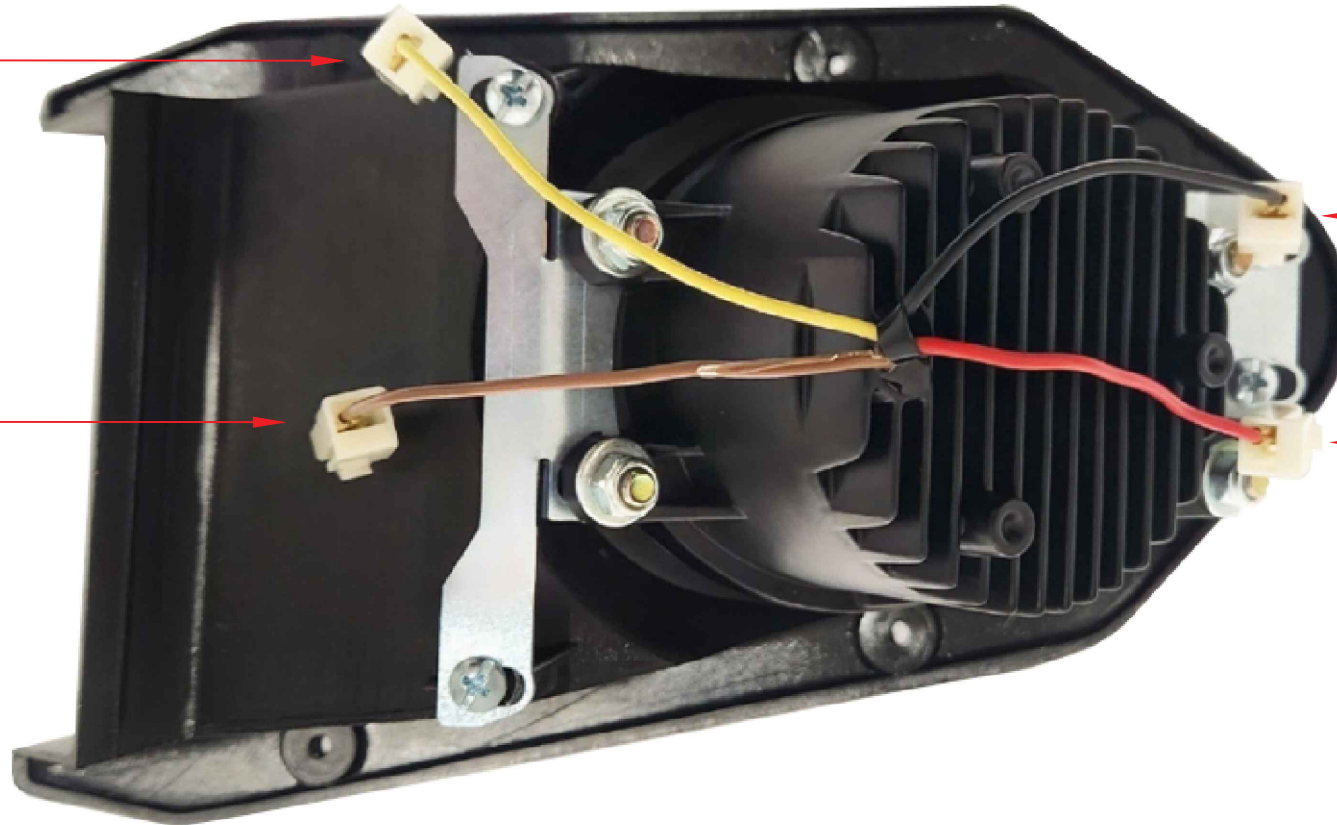


Appendix 2.0 - Fog Light Wire Description



Indicator Wire

DRL Wire



Earth

Fog Wire