



## FITTING INSTRUCTIONS



PRODUCT :

# PIAK GENESIS LOOP WINCH BAR

VEHICLE MODEL :

## MAZDA BT-50 2020

PRODUCT PART NUMBER :

PK105MA20G\_RB0\_URPMB  
PK105MA20G\_RB0\_URPMG  
PK105MA20G\_RB0\_URPBO

PK105MA20G\_RMB\_URPMB  
PK105MA20G\_RMB\_URPMG  
PK105MA20G\_RMB\_URPBO

FITTING TIME :

**Approx. 3 hours**

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**BULL BAR SAFETY NOTICE :**

INSTALLATION SHOULD ONLY BE DONE BY APPROPRIATELY QUALIFIED OR EXPERIENCED PERSONS IN ACCORDANCE WITH THESE INSTRUCTIONS.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THE PRODUCT IS CORRECTLY FITTED.

**WARNING :**

Do not attach Vehicle Frontal Protection System (VFPS) to the vehicle using anchorages not intended for this purpose. (e.g. engine mounting bolts)

Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.

Do not remove the plaque or label from the VFPS.

Do not modify the structure of the VFPS in any way.

The VFPS has been produced to provide continued functionality of parking sensors and other "driver assist" features as closely as possible to Original Equipment. However, as all possible road conditions and combination of other accessories fitted to the vehicle which may affect functionality characteristics cannot be anticipated, **the driver remains responsible at all times for properly controlling the vehicle, monitoring all "driver assist" features and intervening where required to ensure the vehicle is safely operated.**

**IMPORTANT INFORMATION :**

Before installing the VFPS :

Check that all components, as listed in the assembly table, are available.

Thoroughly read all instructions.

This product or its fasteners must not be modified in any way.

These instructions are accurate as at the revision date and do not take into account any changes made by the vehicle manufacturer to vehicle design after the revision date or other accessories that are or have been fitted to the vehicle. Piak cannot be held responsible for such changes and appropriate enquiries should be made before installation.

Before installing, inspecting and/or maintaining the VFPS, the work space should be safe and clear of fuel, debris, electrical or other components.

During installation :

It is the responsibility of the installer to confirm correct operation/clearance of all components. All holes drilled shall have all burrs and swarf removed then coated with a suitable rust preventative paint.

Ensure that all hardware is fastened to torque list as detailed in these instructions.

## MAINTENANCE AND CARE :

To ensure continued safety and correct operation of the product, the VFPS must be routinely inspected and regularly serviced (including bolt torque checked for correct tension) by an appropriately qualified or experienced person.

The high tensile fasteners supplied with this product were used to achieve the specified rating. If replacement of the fasteners is required, fasteners of the same rating and quality must be used.

If this VFPS is fitted with a hinged number plate bracket, extra care must be taken when returning back to public roads following the use of the winch or conducting a deep water crossing.

The driver must ensure that the number plate bracket is returned back to the down position allowing full visibility of the number plate when returning to public roads.

## EQUIPMENT :

These safety products should, at a minimum, be used when fitting or working on the product.



Protective Glasses



Hearing Protection

**Installation in accordance with these instructions and adherence to warnings will ensure compliance with relevant regulatory and safety standards as at the revision date.**

**Failure to adhere to these instructions may affect the roadworthiness of the vehicle or cause personal injury, death or damage to property.**

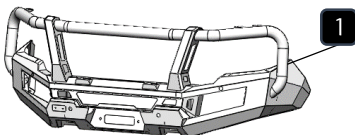
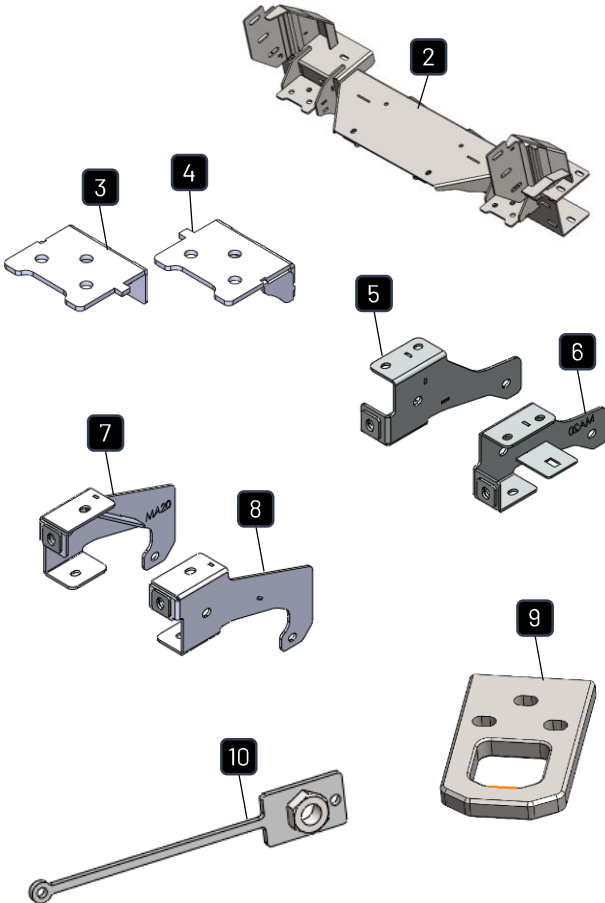
**BY USING THIS PRODUCT YOU ACKNOWLEDGE AND AGREE THAT TO THE EXTENT PERMITTED BY LAW PIAK WILL NOT ACCEPT LEGAL OR OTHER LIABILITY FOR ANY LOSS, INJURY OR DAMAGE CAUSED BY INCORRECT OR INAPPROPRIATE INSTALLATION OR USE OF THE PRODUCT.**

## TOOLS REQUIRED

- |                               |                            |                                      |
|-------------------------------|----------------------------|--------------------------------------|
| 1.Metric Socket and Spanners  | 2.2" Masking tape          | 3.Marking pen                        |
| 4.Drill and metric drill bits | 5.Test lamp or multi-meter | 6.Phillip and flat head screw driver |
| 7.Torque wrench               | 8.Air saw                  |                                      |

## PART LIST

Important : Check contents of fitting kit before commencing fitment and report any discrepancies.

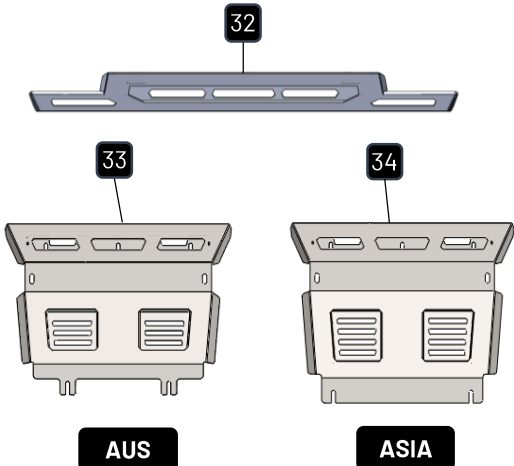
STEEL BULL BAR			
ITEM	COMPONENT NAME	Q'ty	REMARKS
1	PIAK Genesis Loop Bar	1	
MOUNTING BRACKET			
ITEM	COMPONENT NAME	Q'ty	REMARKS
2	Chassis Mounting Bracket	1	
3	Recovery Point Bracket RH	1	
4	Recovery Point Bracket LH	1	
5	Chassis Support RH	1	
6	Chassis Support LH	1	
7	Chassis Support Inside RH	1	
8	Chassis Support Inside LH	1	
9	Recovery Point	2	
10	Plate Nut M10 x 1.5P	4	
11	Hex Bolt M10x35x1.5	16	
12	Spring Washer M10	16	
13	Flat Washer M10	28	
14	Hex Nut M10x1.5	12	
15	Hex Bolt M10x35x1.5 EDP	6	
16	Spring Washer M10 EDP	10	
17	Flat Washer M10 EDP	16	
18	Hex Nut M10x1.5 EDP	6	
19	Hex Bolt M10x35x1.25 EDP	4	
20	Hex Bolt M12x55x1.5 Gr.10.9 EDP	6	
21	Spring Washer M12 EDP	6	
22	Flat Washer M12 EDP	12	
23	Hex Nut M12x1.5 Gr.10.9 EDP	6	

## PART LIST

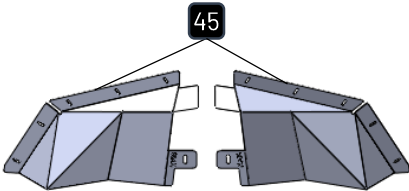
## BAR TO MOUNTING BRACKET

ITEM	COMPONENT NAME	Q'ty	REMARKS
24	Hex Bolt M10x35x1.25	4	
25	Spring Washer M10	4	
26	Flat Washer M10 OD20	8	
27	Flange Nut M10x1.25	4	
28	Hex Bolt M12x1.5x35	6	
29	Spring Washer M12	6	
30	Flat Washer M12	12	
31	Hex Nut M12x1.5	6	

## PROTECTION PLATE (RADIATOR PIATE)

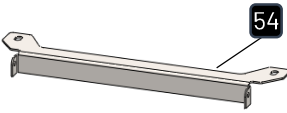
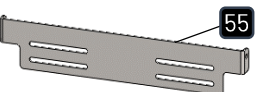
ITEM	COMPONENT NAME	Q'ty	REMARKS
32	Top Protection Plate center	1	
33	bottom Protection Plate center AUS Version	1	
34	bottom Protection Plate center ASIA Version	1	
36	Hex Bolt M6x20x1.0	3	
37	Spring Washer M6	3	
38	Flat Washer M6	3	
39	Cage Nut M6x1.0x3T	3	
40	Hex Bolt M10x30x1.25	4	
41	Hex Bolt M10x30x1.5	5	
42	Spring Washer M10	9	
43	Flat Washer M10	12	
44	Hex Nut M10x1.5	3	

## PROTECTION PLATE (SIDE PLATE)

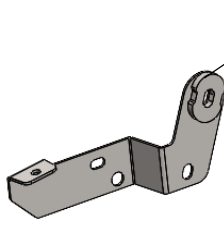
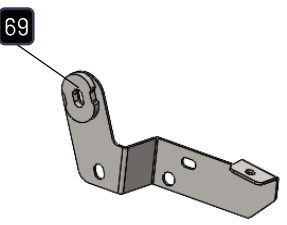
ITEM	COMPONENT NAME	Q'ty	REMARKS
45	Side Plate (LH/RH)	2	
46	Hex Bolt M6x20x1.0	10	
47	Spring Washer M6	10	
48	Flat Washer M6	10	
49	Cage Nut M6x1.0x3T	10	
50	Hex Bolt M8x30x1.25	2	
51	Spring Washer M8	2	
51	Flat Washer M8	2	
53	Cage Nut M8x1.25x3.2T	2	

## PART LIST

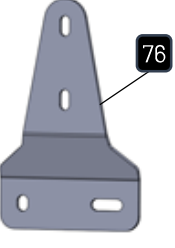
## LICENSE PLATE BRACKET

ITEM	COMPONENT NAME	Q'ty	REMARKS
54	License Plate Bracket (Inner)	1	 
55	License Plate Bracket (outer)	1	
56	Hex Bolt M6x20x1.0	2	
57	Spring Washer M6	2	
58	Flat Washer M6	4	
59	Flange Nut M6x1.0	2	
60	Button Head Bolt M6x20x1.0 (SUS)	2	
61	Nyloc Nut M6x1.0	2	
62	Nylon Washer M6	4	
63	Flat Washer M6 OD14 (SUS)	4	
64	Hex Bolt M8x20x1.25	2	
65	Spring Washer M8	2	
66	Flat Washer M8	4	
67	Flange Nut M8x1.25	2	


## HEADLIGHT &amp; FRONT GRILL BRACKET

ITEM	COMPONENT NAME	Q'ty	REMARKS
68	Light Support Bracket RH	1	 
69	Light Support Bracket LH	1	
70	Hex Bolt M6x20x1.0	4	
71	Hex Bolt M6x25x1.0	2	
72	Spring Washer M6	6	
73	Flat Washer M6 OD14	4	
74	Flat Washer M6	6	
75	Flange Nut M6x1.0	4	

## WINCH CONTROL PLATE

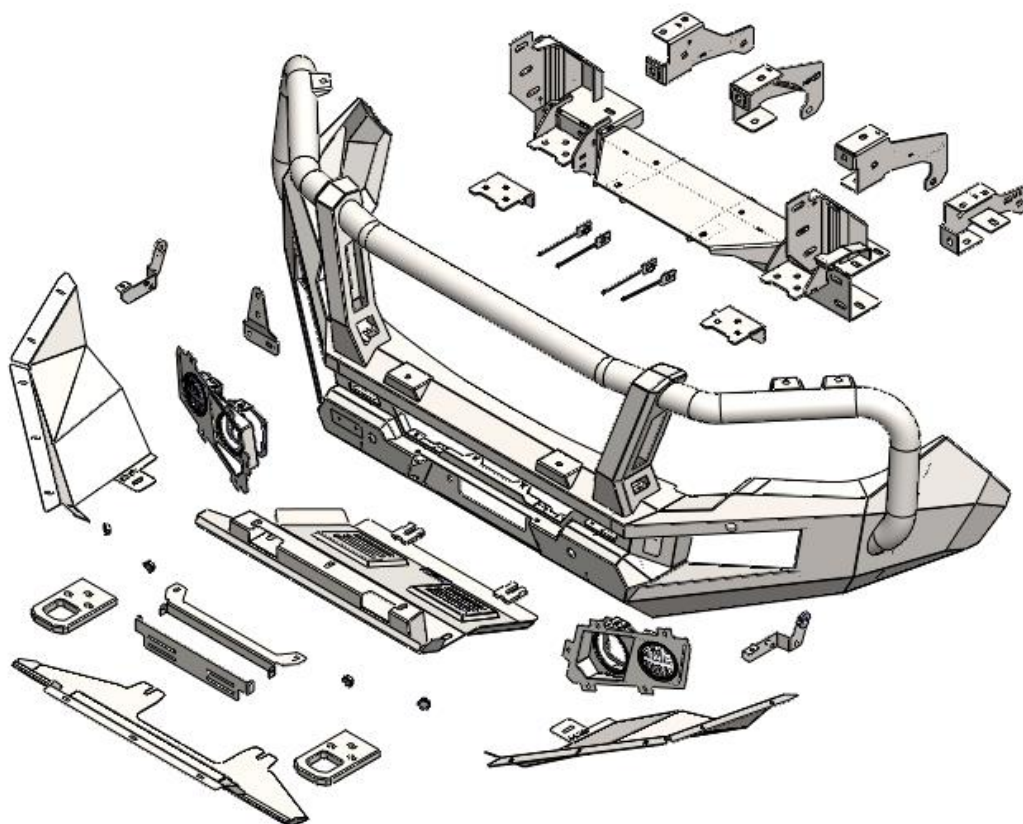
ITEM	COMPONENT NAME	Q'ty	REMARKS
76	Winch Control Plate	1	
77	Hex Bolt M6x20x1.0	1	
78	Spring Washer M6	1	
79	Flat Washer M6	1	
80	Hex Bolt M8x25x1.25	1	
81	Spring Washer M8	1	
82	Flat Washer M8	2	
83	Flange Nut M8x1.25	1	

**PART LIST**

ACCESSORIES			
ITEM	COMPONENT NAME	Q'ty	REMARKS
84	Sensor Plug 20.6 mm.	4	
85	Cable Tie (L=150 mm)	6	
86	Electro Tap	6	



## COMPONENTS OVERVIEW



## TORQUE SETTING OF FASTENER

Mounting bolts must be tightened to torque's specified following ;

Bolt Diameter (mm.)	Class 8.8		Class 10.9	
	Torque ( Nm. )	Torque ( ft-lb. )	Torque ( Nm. )	Torque ( ft-lb. )
M6	10.5	7.7	15	11.1
M8	25.5	18.8	36.5	26.9
M10	50.5	37.2	72.2	53.3
M12	88	64.9	126	92.9
M14	140	103	200	148

**FITTING PROCEDURE**

- 1 Locate the vehicle in a suitable position.



- 2 Remove the clips that retain the grille cover .  
Remove the grille cover at the grille.

**\*Keep for re-fitment of grille.**



- 3 Remove the clips that retain the grille at the top.

**\*Keep for re-fitment of grille.**



- 4 Remove the OEM Plastic radiator cover the front of car.

**\*Keep for re-fitment of grille.**

**FITTING PROCEDURE**

- 5 Remove bolte that retain the grille as shown.

**\*Keep for re-fitment of grille.**



- 6 Remove and discard the screws retaining the lower section of the bumper.



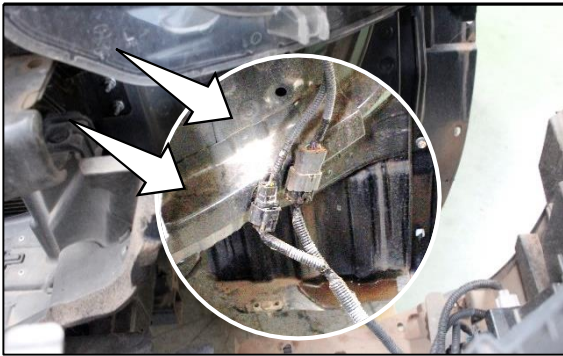
- 7 Remove the screws retaining the bumper bar in the wheel arch (Both sides).



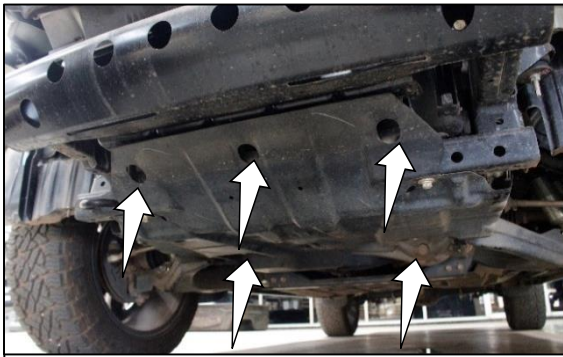
- 8 Carefully remove the bumper from the vehicle.

If unsure about bumper removal refer to the workshop manual.



**FITTING PROCEDURE**

- 9 Disconnect cable parking sensor and Fog light.



- 10 Remove the underbody OE .as shown

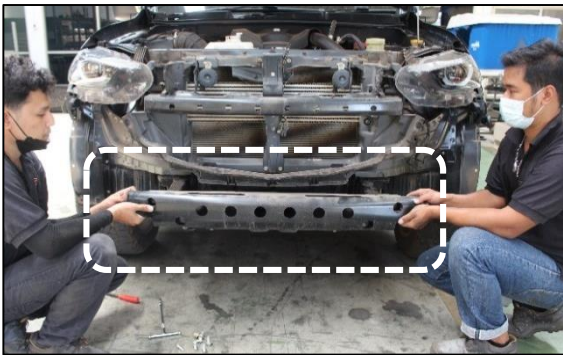


- 11 Remove and discard the bumper support brackets both sides. as shown.



**FITTING PROCEDURE**

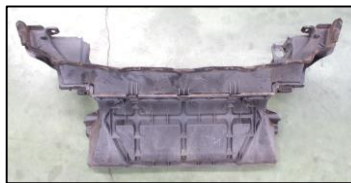
- 12 Remove and discard the outer bumper clips from the front guards. as shown



- 13 Remove and discard the impact beam. as shown.



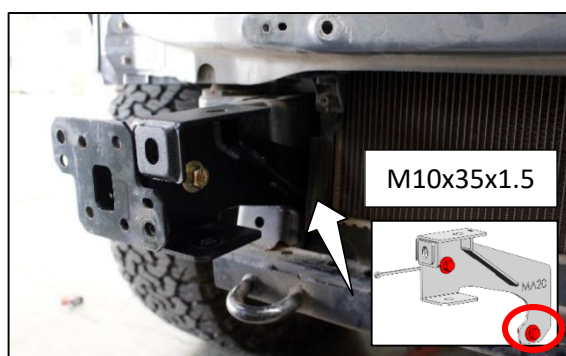
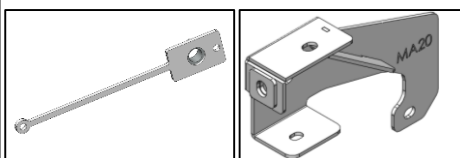
- 14 Remove and discard the front plastic cover. as shown.



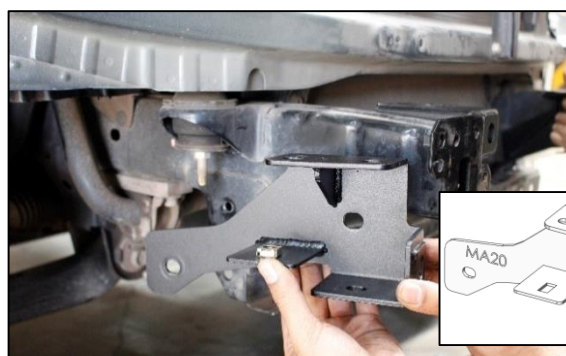
## FITTING PROCEDURE



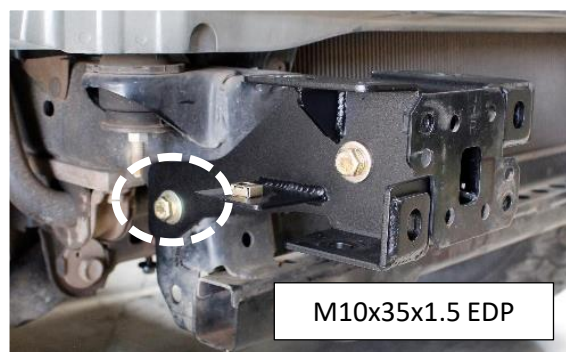
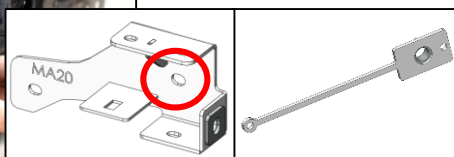
- 15** Insert Plate Nut M10 x 1.5P on the hole of the chassis. Secure the Chassis Support Inside. Secure hex bolt (M10x35x1.5), spring washer, flat washer and Plate Nut.



- 16** Secure hex bolt (M10x35x1.5), spring washer, flat washer and hex nut.



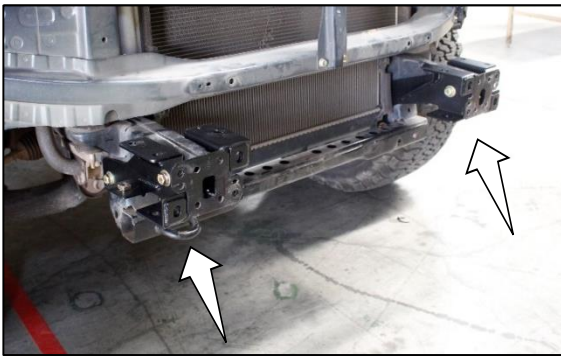
- 17** Insert Plate Nut M10 x 1.5P on the hole of the chassis. Secure the Chassis Support Inside (RH). Secure hex bolt (M10x35x1.5), spring washer, flat washer and Plate Nut.



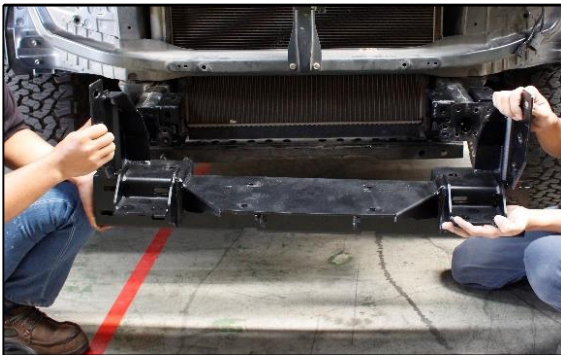
- 18** Secure hex bolt (M10x35x1.5), spring washer, flat washers and hex nut.

**\*\*\* Repeat for the opposite side.**



**FITTING PROCEDURE**

- 19 Already fit chassis support bracket (RH&LH) to the vehicle.



- 20 Lift the chassis mounting bracket onto the chassis of vehicle.



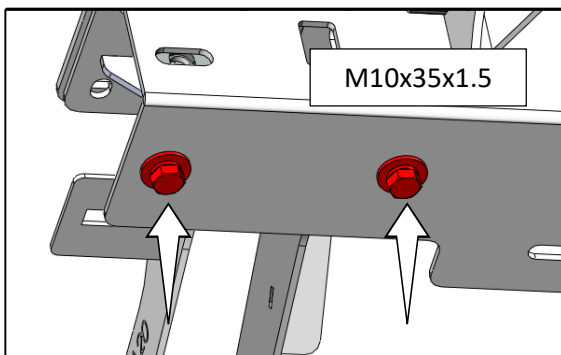
- 21 Secure with one hex bolts (M10x35x1.25), spring washers and flat washers as shown.



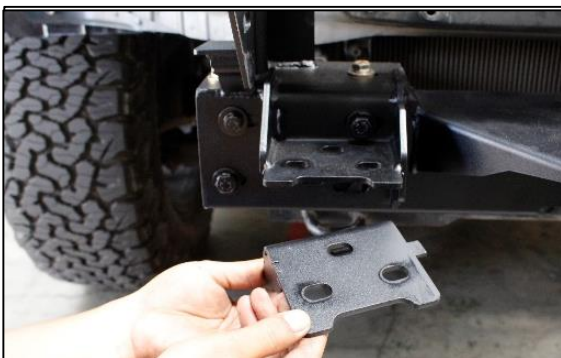
- 22 Secure with two hex bolts (M10x35x1.5), spring washers, flat washers and hex nuts as shown.

**FITTING PROCEDURE**

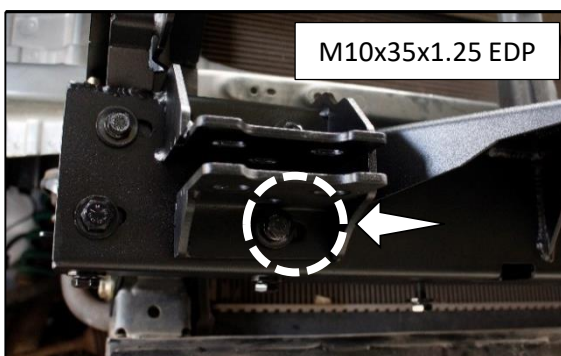
- 23** Secure with three hex bolts (M10x35x1.5), spring washers and flat washers and hex nuts as shown.



- 24** Secure with two hex bolts (M10x35x1.5), spring washers, flat washers and hex nuts as shown.



- 25** Secure the Recovery Point Bracket (RH) at location as shown.



- 26** Secure with one hex bolts (M10x35x1.25), spring washers and flat washers as shown.

**\*\*\* Repeat for the opposite side**



## FITTING PROCEDURE

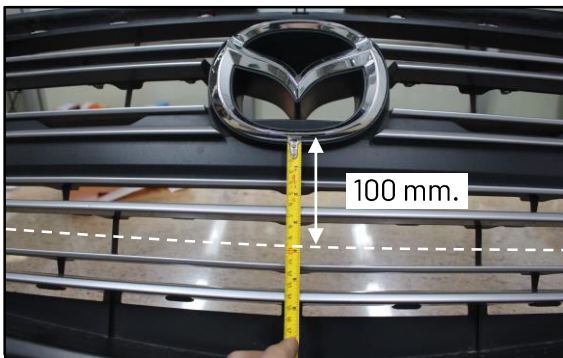


- 27 Secure the Recovery Point (RH) at location as shown.

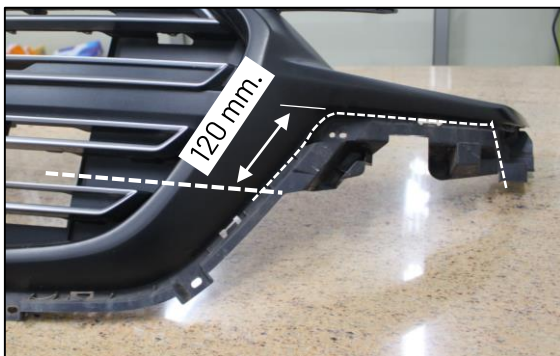


- 28 Secure with three hex bolts Gr10.9 (M12x55x1.5), spring washers, flat washers and hex nuts as shown.

**\*\*\* Repeat for the opposite side**

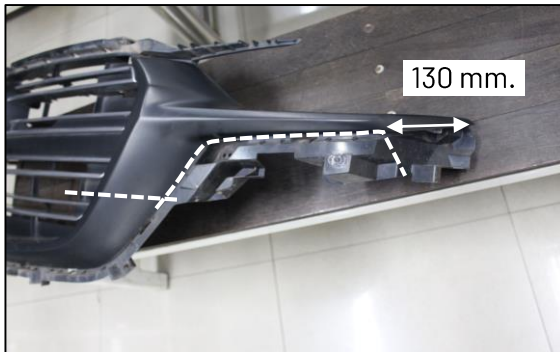


- 29 Measure the front grill according to the distance shown in the picture and mark it.



- 30 Measure the front grill according to the distance shown in the picture and mark it.

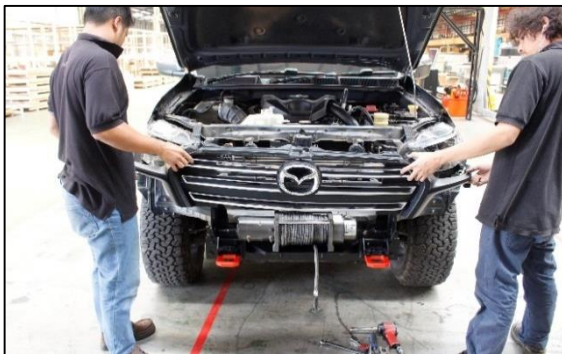
## FITTING PROCEDURE



- 31** Measure the front grill according to the distance shown. Marks along the front grille. Leave space on the back for Location of Headlight Front Grill Bracket.



- 32** Cut the front grill along the marked cutting line using air saw.



- 33** Re-install the front grill to the vehicle by using original bolts.

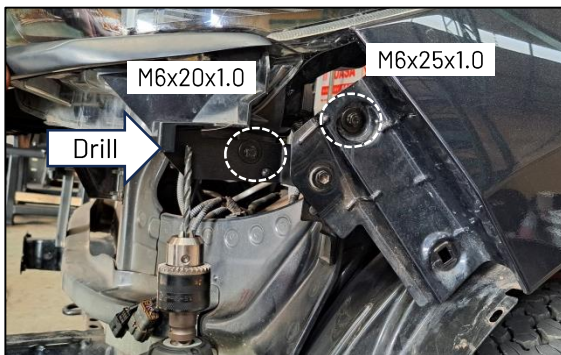
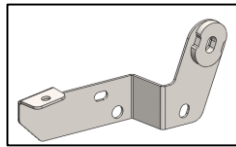


- 34** Location of Headlight Front Grill Bracket. Remove Bolt M6 OE.

## FITTING PROCEDURE



- 35** Attach the Headlight & Front Grill Bracket to the vehicle. using bolt OE.



- 36** Secure the Headlight & Front Grill Bracket to the vehicle. using one hex bolts M6x25x1.0, spring washers, flat washers and hex nuts as shown.

Secure the Headlight & Front Grill Bracket to the Headlight. using one hex bolts M6x20x1.0, spring washers and flat washers as shown.



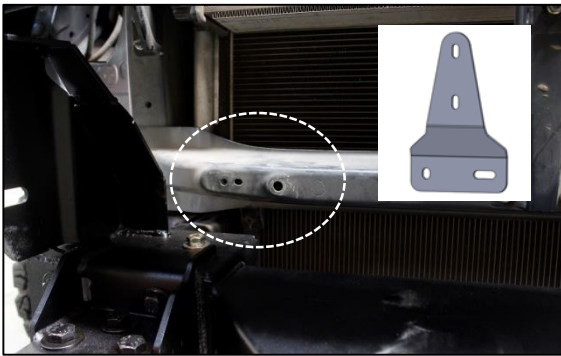
- 37** Mark position for drill holes to secure the grille to the bracket. Drill Front grill (D 6 mm.)

Using one hex bolts M6x20x1.0, spring washers, flat washers and hex nuts as shown.



- 38** Location of winch on the chassis mount bracket.



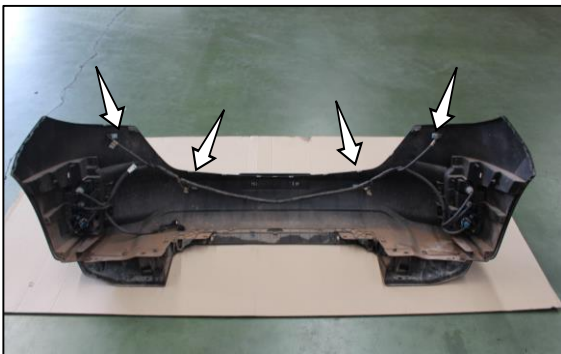
**FITTING PROCEDURE**

- 39 Secure the Winch Control Plate at location as shown.

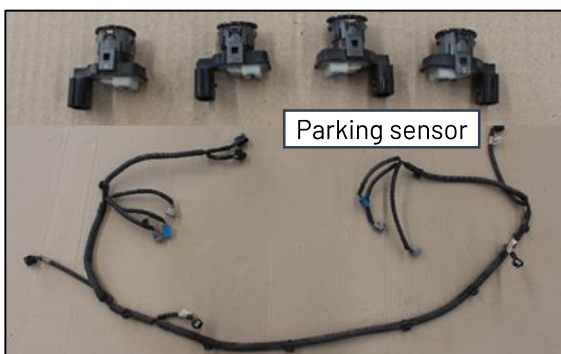


- 40 Secure hex bolts (M6x20x1.0), spring washers and flat washers as shown.

Secure hex bolts (M8x25x1.25), spring washers, flat washers and flange Nut as shown.



- 41 The location of parking sensor wires (where fitted) at the bumper bar.



- 42 Remove parking sensor and wiring harness from the original bumper.

**\*Keep for re- fitment of bumper.**

**\*Do it carefully.**

**FITTING PROCEDURE**

Original Fog light

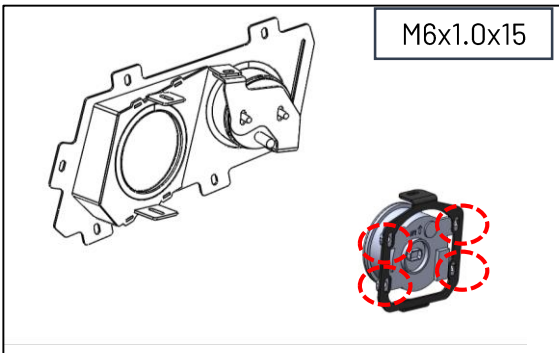


- 43** Remove fog light from original bumper.

**\*Keep for re- fitment of bumper.**

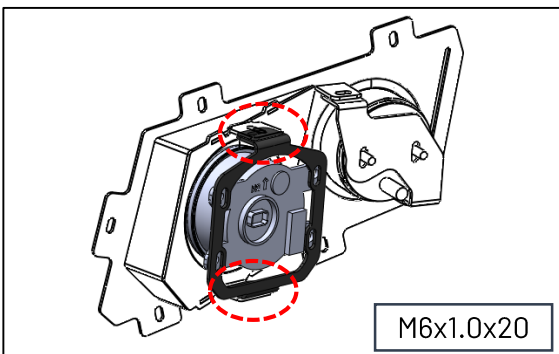
**\*Do it carefully.**

M6x1.0x15

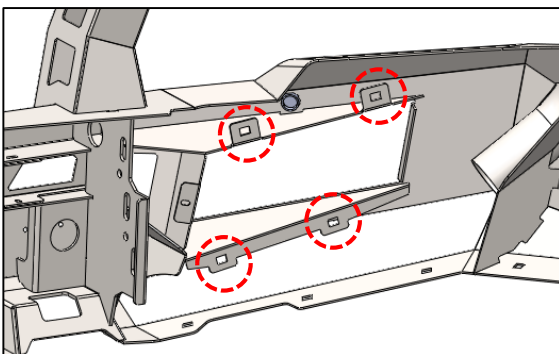


- 44** Fit fog light on the fog light bracket. Using four M6 bolts (M6x1.0x15) flat washers and flange nuts as shown.

M6x1.0x20

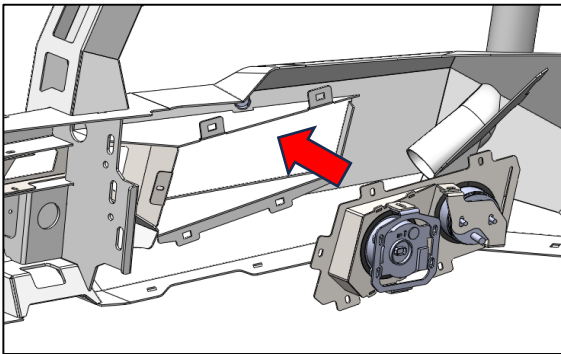


- 45** Fit fog light bracket on the light frame. Using two M6 bolts (M6x1.0x20) flat washers and flange nuts as shown.

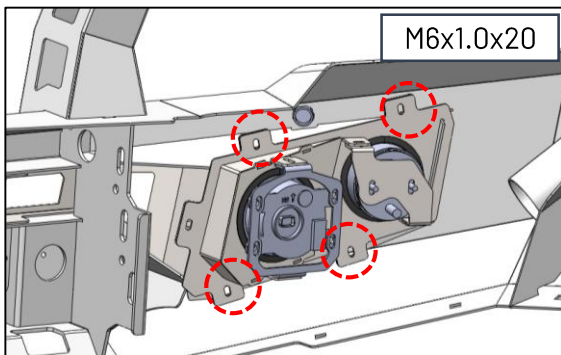


- 46** Insert four M6x1.0x3T cage nuts onto the bumper bar as shown.

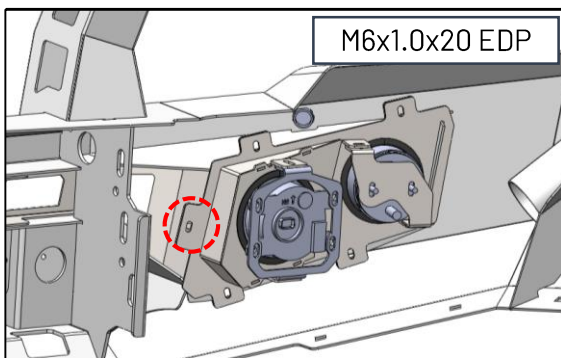
## FITTING PROCEDURE



- 47 Fit light frame on the bumper bar.

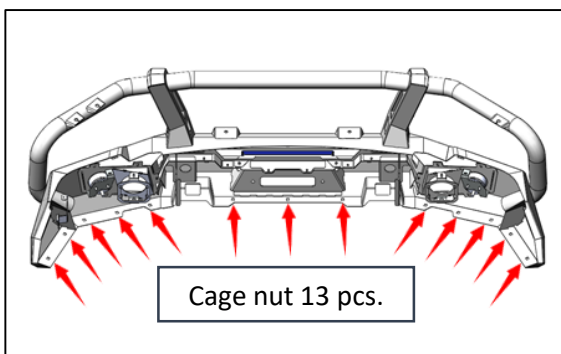


- 48 Using four M6 (M6x1.0x20) bolts Spring Washer and flat washers.

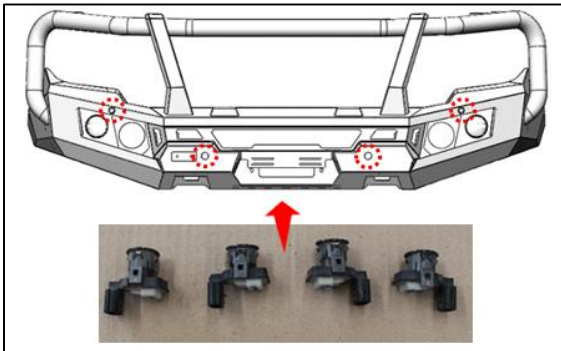


- 49 Using one M6 (M6x1.0x20) bolts Spring Washer ,flat washers and flange nuts.

**\*Repeat for the opposite side.**



- 50 Insert cage nuts (M6x1.0x3T) onto the bumper bar as shown.

**FITTING PROCEDURE**

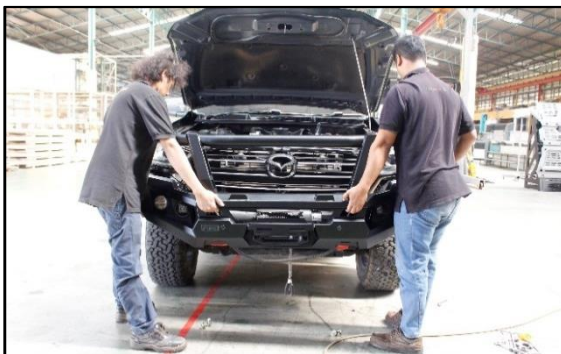
- 51** Re-install the parking sensors to the bumper bar.



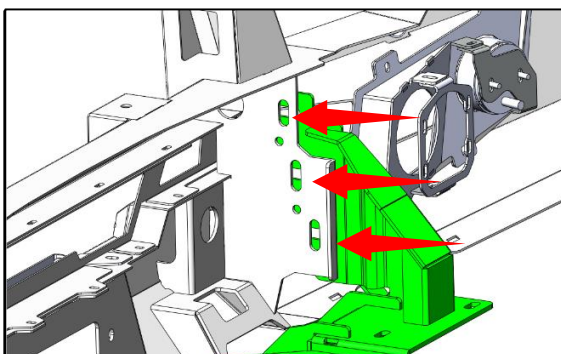
- 52** Re-install wiring harness . connect Fog light , Indicator& Parking light and parking sensors .using electro tap connect the Indicator& Parking light.

PIAK LED Harness codes

- Indicator Yellow
- Park brown
- Earth White



- 53** Lift the bumper bar onto the vehicle.



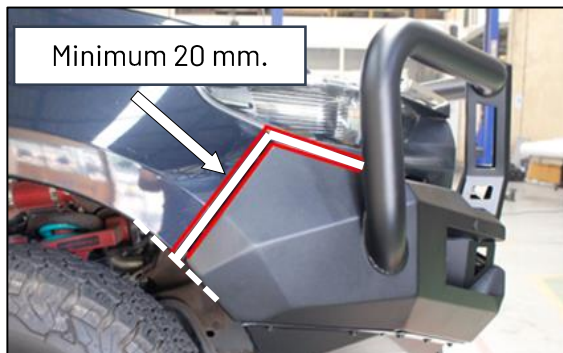
- 54** Secure bumper bar onto the chassis mounting bracket by using three M12 bolts (M12x1.5x35), spring washers, flat washers and hex nuts.

**\*Repeat for the opposite side.**

**\*Do not tighten.**



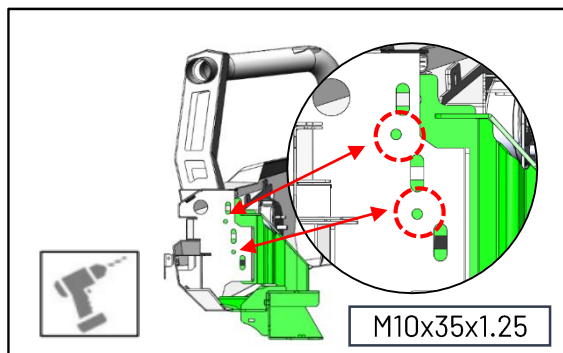
## FITTING PROCEDURE



55

Position bar onto vehicle, make sure that it is located on center, parallel with the wheel arch and has a 20 mm. gap between the quarter panel and the wing of the bar. If the bar does not sit centrally across the front of the vehicle, loosen the chassis mount and adjust accordingly.

**\*Repeat for the opposite side**



56

Drill two 10 mm holes through the chassis mount bracket by using holes on the bull bar as a guide and painted with rustproof paint.

Secure with two M10 bolts (M10x35x1.25) spring washers, flat washers and flange nuts.

**\*Tighten all bolts to the correct torque.**



57

Lift the Top Protection Plate center onto the chassis of the vehicle as shown.



58

Secure three hex bolts (M6x1.0x20), Spring washers and flat washers. two hex bolts (M10x30x1.5), spring washers and flat washers as shown.

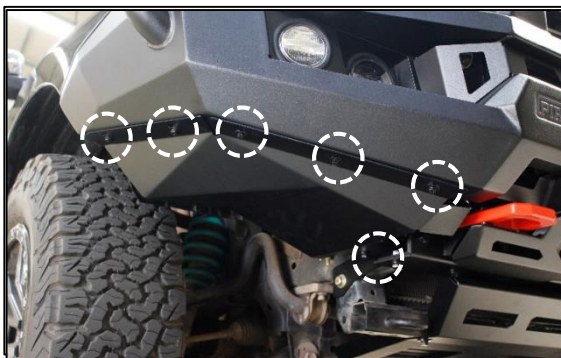


**FITTING PROCEDURE**

- 59** Lift the bottom Protection Plate onto the chassis of the vehicle as shown.



- 60** Secure three hex bolts (M10x30x1.5), Spring washers, flat washers and hex nuts. four hex bolts (M10x30x1.25), spring washers and flat washers as shown.



- 61** Secure five hex bolts (M6x1.0x20), spring washers and flat washers as shown.

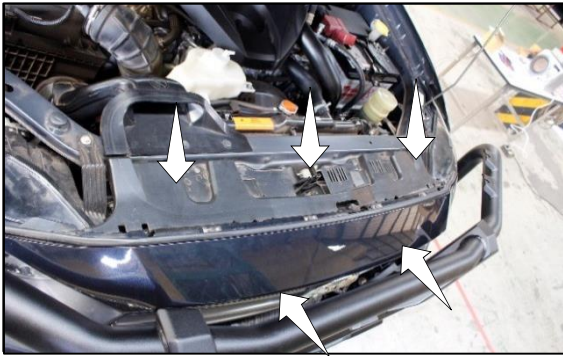
Secure hex bolts (M8x1.25x20), spring washers and flat washers as shown.

**\*Repeat for the opposite side.**

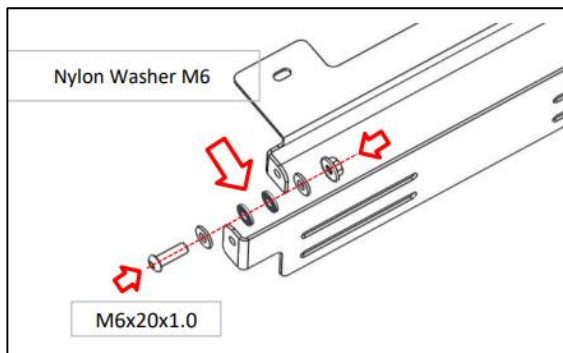


- 62** Using the side plates as a template cut the inner wheel liner.

**\*Repeat for the opposite side.**

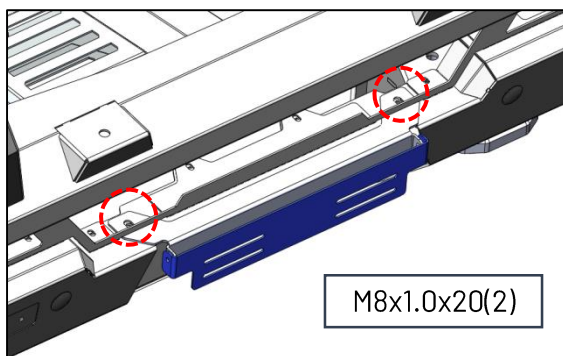
**FITTING PROCEDURE**

- 63** Re-install the clips to the OEM Plastic radiator cover and grille cover .



- 64** Assemble License plate bracket by using two M6 button head bolts, flat washers, Nylon Washers and nyloc nuts as shown.

Do not fully tighten.



- 65** Fit an assembled License plate bracket to the bull bar. using M8 bolts (M8x20x1.0), spring washer, flat washer and flange nut.

**FITTING PROCEDURE**