

INSTALLATION MANUAL

PRODUCT: FRONT ALUMINUM BUMPER

MODEL: TOYOTA HILUX (2021-)

PART NO: 2D.5722.2-NL



CAUTION!

To reduce the risk of serious injury or damage, please read and understand all instructions and procedures before attempting to install or use this product. Safety glasses must be worn at all times during installation or maintenance of this product. Ensure all mounting bolts are tensioned after 400 km and periodically thereafter.

NOTICE

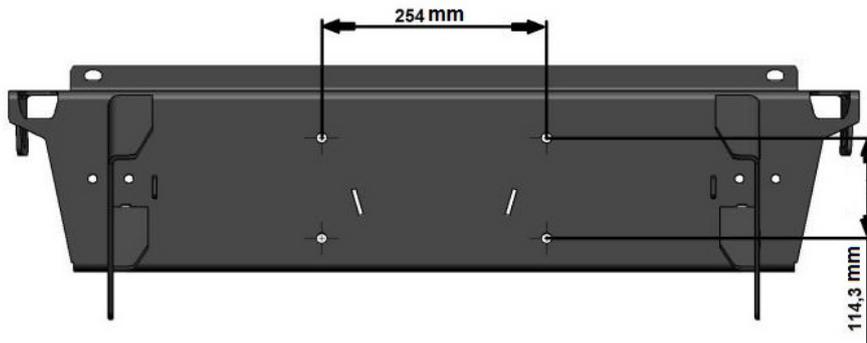
Whilst the bumper adds additional protection to your vehicle, precautionary measures still need to be taken to avoid damage. Always drive to the conditions and your surroundings.

ADR69 COMPATIBLE
AIR BAG COMPLIANT

*WINCH INSTALLATION

A winch with a pull capacity of up to 12000 lbs can be installed with the RIVAL Bumper. It is not advisable to exceed this pulling capacity since damage, injury or death may occur where the 12000 lbs recommended capacity is exceeded.

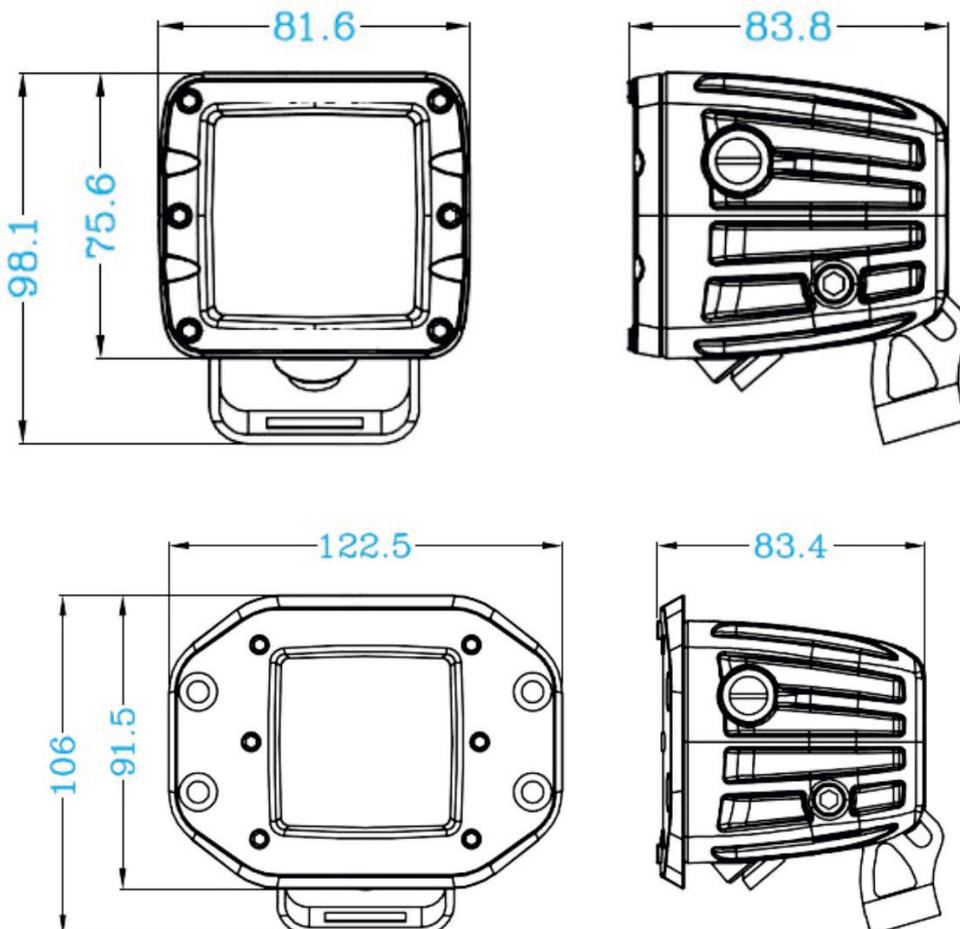
Winch measurements:



Winch size limits:

L 645 x W 200 mm x H 265 mm

*COMPATIBLE LIGHTS



*RECOVERY POINTS



WARNING

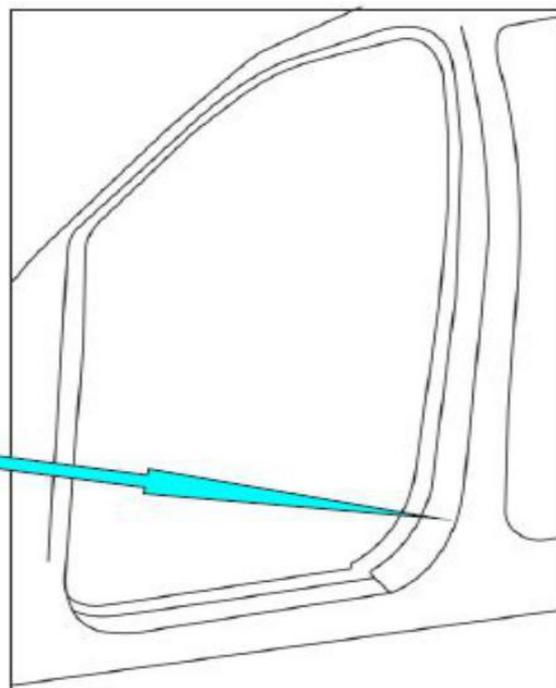
Do not exceed the Working Load Limit of these recovery points or shackle.

INSPECTION AND SAFETY

Recovery of stuck vehicles can be dangerous. Always inspect the shackle and recovery points before each use. Do not use if there are visible signs of damage or wear including cracking (or elongation). Always stay a safe distance away from the recovery area - at least 1.5 times the length of the recovery strap. Incorrect use of receivers equipment can result in serious injury or death.

Always use recovery points as a matched pair teamed with an equalising bridle during any recovery situation.

Please attach this "Warning" label to the door aperture.



FRONT BUMPER



Part number: 2D.5722.2-NL

Suited to vehicle: TOYOTA HILUX (2021-)

Material: Aluminum / Steel



SAFETY NOTICE

- * The RIVAL Bumper is designed to compliment the use and design of the specified vehicle under conditions specified by the vehicle manufacturer.
- * While driving the vehicle at any speed, collision with any other vehicle, animal or object must always be avoided.
- * Following any collision with any other vehicle, animal or object, the RIVAL Bumper and the vehicle must be inspected by a specialized or suitably qualified vehicle repairer for possible damage to the components and assemblies in order to confirm suitability for further use of the vehicle.
- * It is strongly recommended that you do not operate a vehicle with a damaged bumper or its components. In the case of damage, please contact the nearest RIVAL dealer. Vehicle, or where the bumper has been damaged, is extremely dangerous and must be avoided at all cost.
- * The operation of a vehicle where the bumper is not properly attached and fastened to the vehicle, or where the bumper has been damaged, is extremely dangerous and must be avoided at all cost.
- * It is recommended that you carry out regular inspections of all the bumper elements such as all bolts, wires, connectors.
- * A winch with a pull capacity of up to and including 12000 lb can be installed with the RIVAL Bumper. It is not advisable to exceed this pulling capacity since damage, injury or death may occur where the 12000lb recommended capacity is exceeded. The Rival bumper provides standard 4 1/2"x10" mounting holes.

INSTALLATION NOTICE

- * Personal safety during the installation process must be adhered to at all times.
- * Estimated time for installation: 4 hours.
- * The RIVAL Bumper must be mounted and affixed to the vehicle according to this installation manual and the use of personal safety equipment is highly recommended.
- * Do not install this bumper on vehicle models other than those allowed in this manual.
- * Check state and local highway safety laws regarding permitted bumper types and heights.

NOTE: if the bumper is to be color coded it is advised to test fit before color coding. RIVAL is not liable for color coding cost, it is the installers' responsibility to check the fitment and alignment before color coding.

ADR69 AND AIR BAG SYSTEM

The Rival bumper has been tested and certified to be compatible with ADR69 and will not affect the operation of the Air bag System on this vehicle. This product or mounting brackets must not be modified in any way, and must be fitted in accordance with the installation instructions.

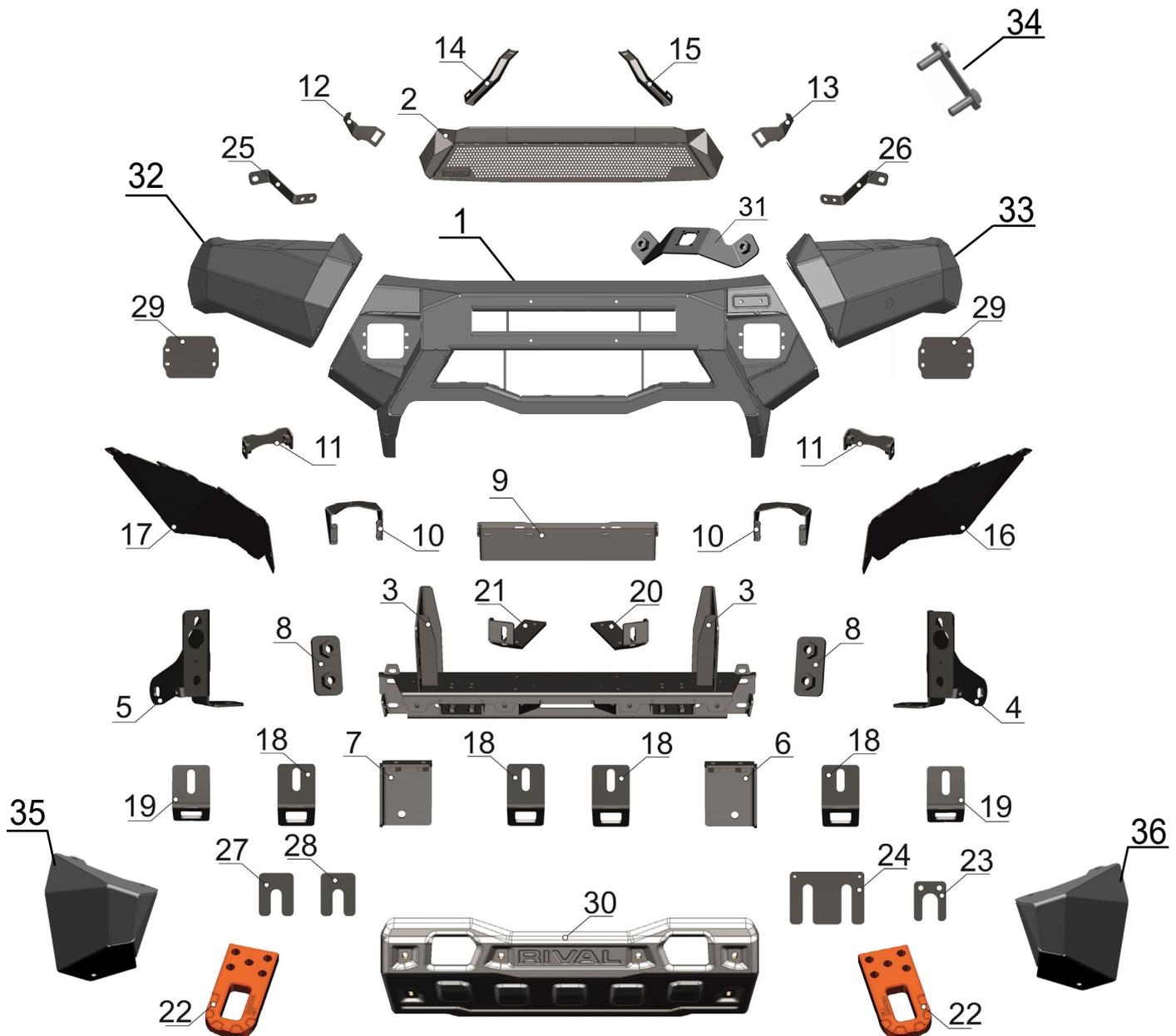
REQUIRED TOOLS

- * Basic tool kit
- * Torque wrench
- * Crosspoint and flat head screwdriver

TORQUE SETTING

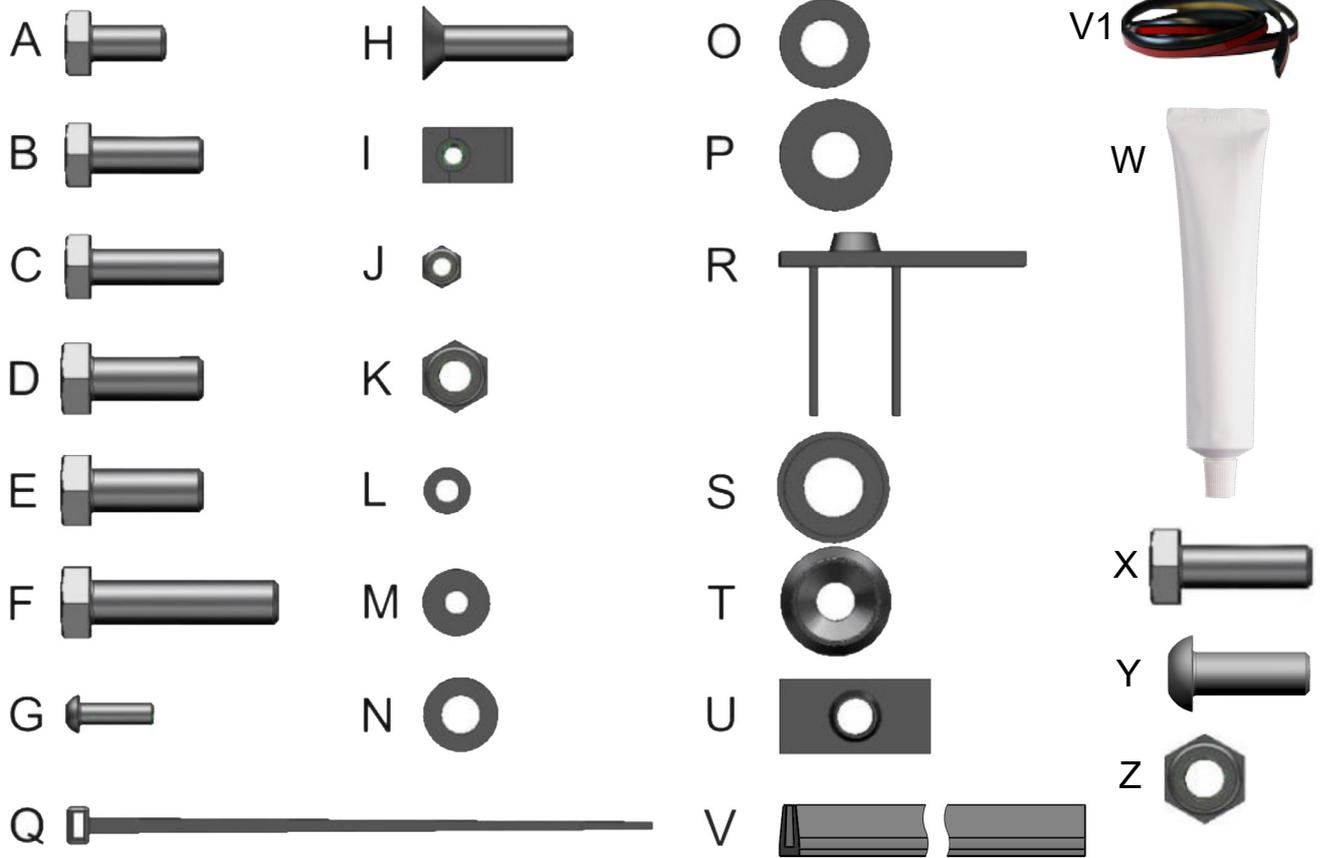
- * M6 - 9 N·m
- * M10 - 30 N·m
- * M12 - 77 N·m

PARTS LISTING



- | | | | |
|---|-------|--|--------|
| 1. Aluminum bumper body..... | Qty 1 | 19. Rear bash plate bracket..... | Qty 2 |
| 2. Grille..... | Qty 1 | 20. Left winch hawse bracket..... | Qty 1 |
| 3. Winch bracket..... | Qty 1 | 21. Right winch hawse bracket..... | Qty 1 |
| 4. Support bracket left..... | Qty 1 | 22. Recovery points..... | Qty 2 |
| 5. Support bracket right..... | Qty 1 | 23. Adjusting plate | Qty 12 |
| 6. Left bash plate bracket..... | Qty 1 | 24. Recovery points adjusting plate..... | Qty 6 |
| 7. Right bash plate bracket..... | Qty 1 | 25. Right headlight washer bracket..... | Qty 1 |
| 8. M12 nut plate..... | Qty 2 | 26. Left headlight washer bracket..... | Qty 1 |
| 9. License plate bracket..... | Qty 1 | 27. Adjusting plate 2mm..... | Qty 6 |
| 10. LED bracket..... | Qty 2 | 28. Adjusting plate 4mm..... | Qty 6 |
| 11. Parking sensor holding bracket..... | Qty 2 | 29. LED light cap..... | Qty 2 |
| 12. Right side grille bracket..... | Qty 1 | 30. Bash plate..... | Qty 1 |
| 13. Left side grille bracket..... | Qty 1 | 31. Camera bracket..... | Qty 1 |
| 14. Right top side grille bracket..... | Qty 1 | 32. Right end cap..... | Qty 1 |
| 15. Left top side grille bracket..... | Qty 1 | 33. Left end cap..... | Qty 1 |
| 16. Flap left..... | Qty 1 | 34. Inside bolt..... | Qty 4 |
| 17. Flap right..... | Qty 1 | 35. Right fender flare..... | Qty 1 |
| 18. Front bash plate bracket..... | Qty 4 | 36. Left fender flare..... | Qty 1 |

PARTS LISTING



| | | | |
|--------------------------------------|--------|------------------------------------|--------|
| A. Bolt M10x20..... | Qty 2 | N. Washer 10mm..... | Qty 38 |
| B. Bolt M10x30..... | Qty 12 | O. Washer 12mm..... | Qty 20 |
| C. Bolt M10x35..... | Qty 6 | P. Washer penny 12mm..... | Qty 2 |
| D. Bolt M12x1,25x30..... | Qty 2 | Q. Cable tie..... | Qty 12 |
| E. Bolt M12x30..... | Qty 4 | R. Inner plate M10 with wires..... | Qty 6 |
| F. Bolt M12x60..... | Qty 8 | S. Parking sensor washer..... | Qty 2 |
| G. Screw M6x20 round-head..... | Qty 46 | T. Countersunk washer..... | Qty 10 |
| H. Screw M10x40 countersunk-head.... | Qty 10 | U. M10 nut plate..... | Qty 2 |
| I. U-nut M6..... | Qty 16 | V. Weatherstrip..... | Qty 1 |
| J. Nut M6..... | Qty 28 | V1. Weatherstrip..... | Qty 2 |
| K. Nut M10..... | Qty 18 | W. Sealant..... | Qty 1 |
| L. Washer 6mm..... | Qty 56 | X. Bolt M12x40..... | Qty 8 |
| M. Washer penny 6mm..... | Qty 10 | Y. Screw M6x16 round-head..... | Qty 6 |
| | | Z. Nut M12..... | Qty 8 |

Preparation for installation



Fig.1

1. Open the hood. Disconnect terminal "-" from the vehicle battery (Fig.1).



Fig.2

2. Remove the plastic pad clips. Dismantle the clips (Fig.2).

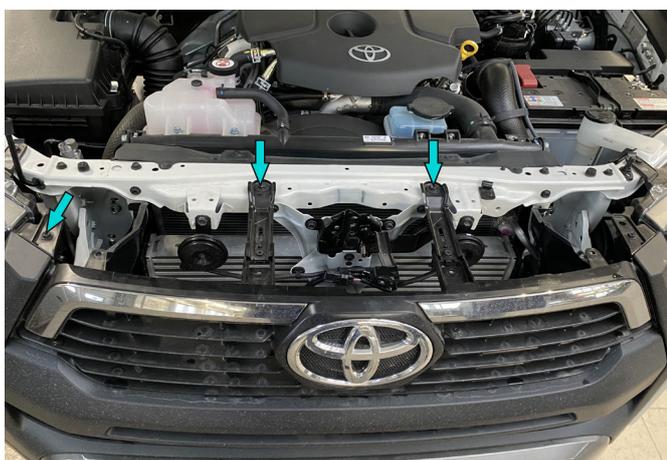


Fig.3

3. Remove upper grille retaining screws (Fig.3).



Fig.4

4. Unscrew the screws fixing the bumper in the central part (Fig.4).



Fig.5

5. Bend the edges of the bumper in the area of the headlights (Fig.5).



Fig.6

6. Remove the screws in the area of the headlights (Fig.6).

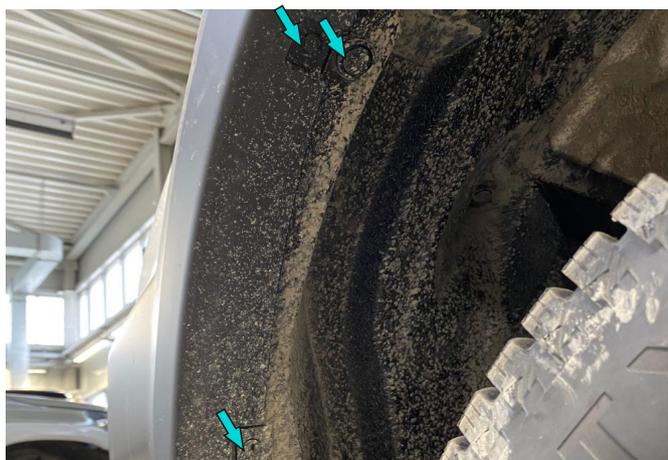


Fig.7

7. Remove all scrivets retaining bumper along inside edge of wheel arches (Fig.7).



Fig.8

8. Remove the screws securing the lower side of the bumper (Fig.8).

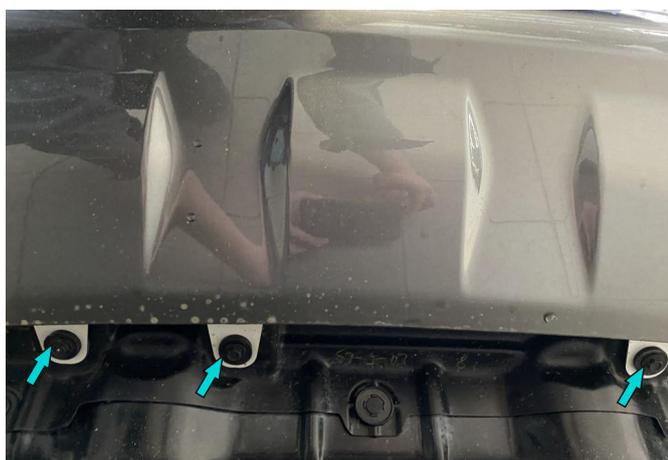


Fig.9

9. Remove the screws securing the lower center part of the bumper (Fig.9).



Fig.10

10. Unfasten the sides of the bumper (Fig.10).



Fig.11

11. Disconnect the connectors of the fog lights and parking sensors (Fig.11).



Fig.12

12. Remove factory bumper (Fig.12).



Fig.13

13. Forcefully pull the plastic crush absorber towards you and remove it. Remove plastic side deflectors (Fig.13).



Fig.14

14. Remove 4xM10 bolts fixing crash beam to chassis. Set aside for re-use later on. Remove crash beam (Fig.14).



Fig.15

15. Remove M6 bolts and scrivets. Remove plastic side fittings (Fig.15).



Fig.16

16. Screw bolt in to fix light (Fig.16).

Winch bracket installation



Fig.17

17. Place M12 nut plates (item 8) inside the frame (Fig.17).



Fig.18

18. Fit support mounting brackets (item 4,5) through the holes in frame to M12 nut plates (item 8), using bolts M12x30 (item E) and washers 12mm (item O). And use bolts M12x1,25x30 (item D) with penny washers 12mm (item P) to fix to factory mounting points in frame (Fig.18).

***Do not tighten yet.**

INSTALLATION PROCEDURE



Fig.19

19. Place winch bracket (item 3) to the vehicle body (Fig.19).

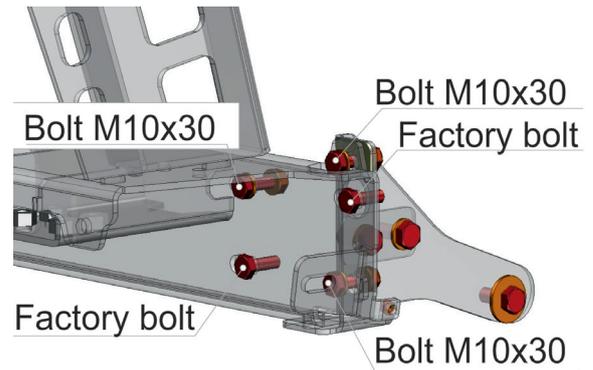


Fig.20

20. Fix winch bracket (item 3), using bolts M10x30 (item B) with washers 10mm (item N), nuts M10 (item K) and factory bolts (Fig.20).
***Do not tighten yet.**



Fig.21

21. Fix support mounting brackets (item 4,5) to winch bracket, using M10 nut plates (item U), bolts M10x20 (item A) and washers 10mm (item N) (Fig.21). ***Do not tighten yet.**

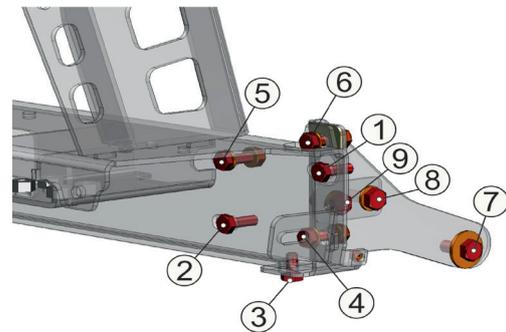


Fig.22

22. Align the winch bracket and tighten the bolts in the specified order (Fig.22).



Fig.23

23. Install left and right bash plate brackets (item 6,7), using bolts M10x30 (item B) and washers 10mm (item N) (Fig.23).
***Tighten hardware after that.**



Fig.24

24. Install recovery points (item 22), using bolts M12x40 (item X), washers 12mm (item O) and nuts M12 (item Z). For installation on a vehicle with non-LED headlights, put 3 recovery points adjusting plates (item 24) between recovery points and the winch bracket and fix, using bolts M12x60 (item F), washers 12mm (item O) and nuts M12 (item Z) (Fig.24).
***Tighten hardware after that.**

Steps 25-26 (if winch is to be installed).



Fig.25

25. Fix left and right winch fairlead brackets (item 20,21) on winch bracket (Fig.25).

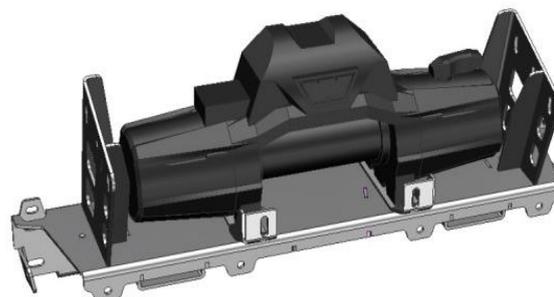


Fig.26

26. Install winch on winch fairlead brackets (Fig.26).

Installing fender flare process (If there are front bumper fender 68 mm).



Fig.27

27. Glue the weatherstrip (item V1) to the left fender flare (item 36), as shown in fig.27.



Fig.28

28. Install the left fender flare (item 36) on the left end cap and fix it using bolts M6x16 (item Y) and nuts M6 (item J) (Fig.28). Do the same on the other side.

***Tighten hardware after that.**

Steps 29-34 for installation on vehicle with LED headlamps.



Fig.29

29. Remove the seal from the bumper. Pay attention to the slots in the brackets (Fig.29).

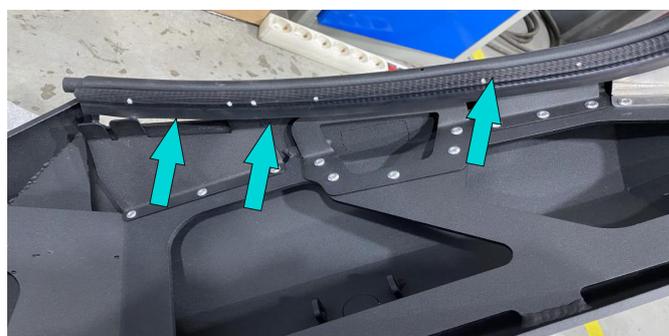


Fig.30

30. Mark the spots for cutting in front of the slots in brackets (Fig.30).

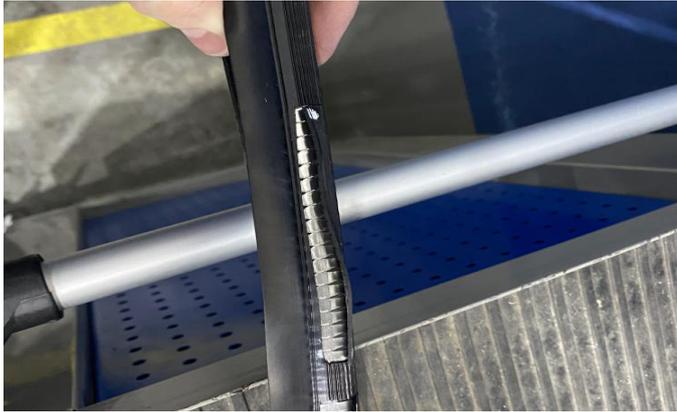


Fig.31

31. Make the cuts following the marked spots (Fig.31).



Fig.32

32. Bend the reinforcement of the seal where cut (Fig.32).



Fig.33

33. Remove the reinforced section of the seal (Fig.33).



Fig.34

34. Put the seal on the bumper (Fig.34).

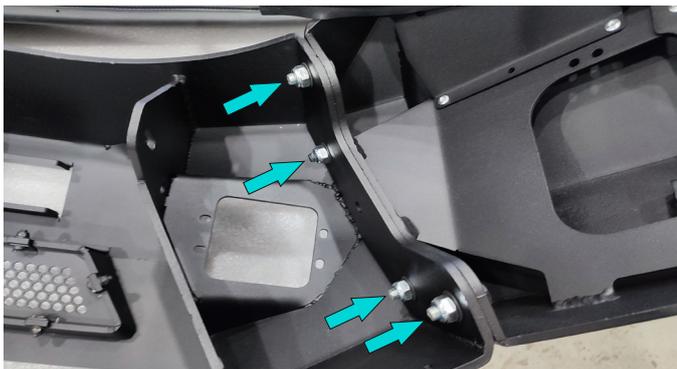


Fig.35

35. Connect the bumper body (item 1) and the end caps (item 32, 33), using inside bolts (item 34), nuts M10 (item K) and washers 10 (item N) (Fig.35).

***Tighten hardware after that.**

Steps 36-39 (if there are parking sensors).



Fig.36

36. Remove parking sensors from factory bumper (Fig.36).



Fig.37

37. Locate knock-outs for parking sensors on the bumper body (item 1) and knock them out by a hammer (Fig.37).



Fig.38

38. Install countersunk washers (item S) in parking sensor holes on the bumper body (item1) (Fig.38).



Fig.39

39. Put parking sensors in the bumper body a and fix them, using parking sensors holding brackets (item 11), screws M6x20 (item G) and washers 6mm (item L). Fix wires using cable ties (item Q) (Fig.39).

***Tighten hardware after that.**

Steps 40-43 (if there are headlight washer).



Fig.40

40. Remove headlight washers from the factory bumper (Fig.40).



Fig.41

41. Locate knock-outs for headlight washers on the end caps(item 32, 33) and knock them out by a hammer (Fig.41).

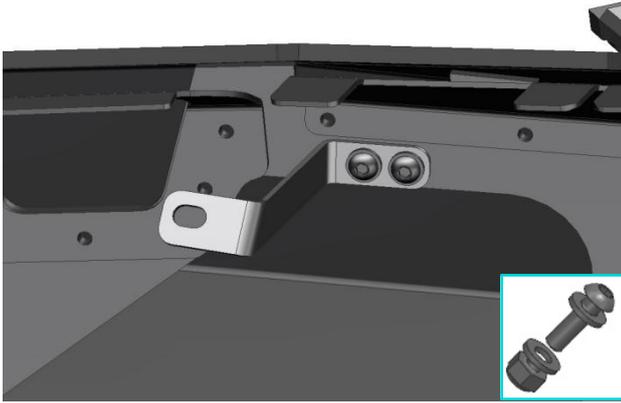


Fig.42

42. Install headlight washer brackets (item 25,26) on bumper body, using screws M6x20 (item G), nuts M6 (item J) and washers 6mm (item L) (Fig.42).

***Tighten hardware after that.**

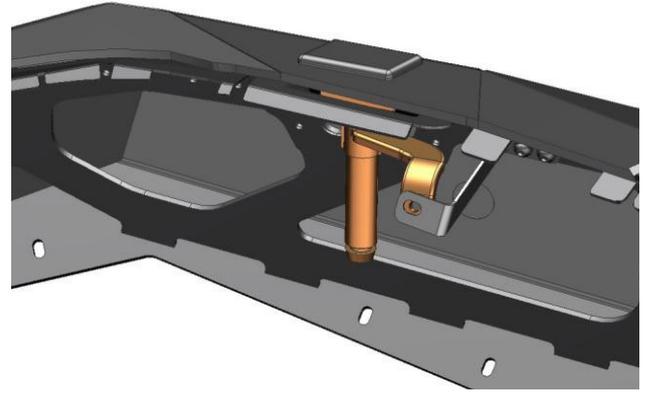


Fig.43

43. Fix headlight washer to brackets (item 25,26), using factory bolts. Attach wires using cable ties (item Q) (Fig.43).



Fig.44

44. Attach license plate bracket (item 9) to bumper body, using screws M6x20 (item G) nuts M6 (item J) and washers (item L) (Fig.44).

Bumper body installation



Fig.45

45. Install bumper body (item 1) onto the winch bracket (item 3) (Fig.45).

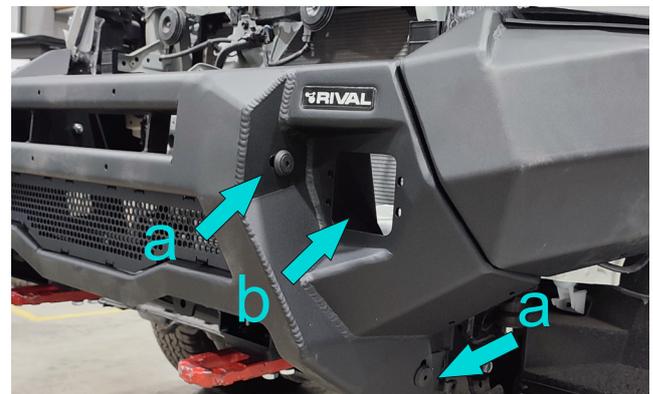


Fig.46

46. Fix bumper body using:
 a - screws M10 (item H), countersunk washers (item T), washers 10 (item N), nuts M10 (item K);
 b - bolts M10 (item B), washers 10 (item N) and nuts M10 (item K). Align the bumper body with the vehicle. Tighten all the hardware (Fig.46).

INSTALLATION PROCEDURE

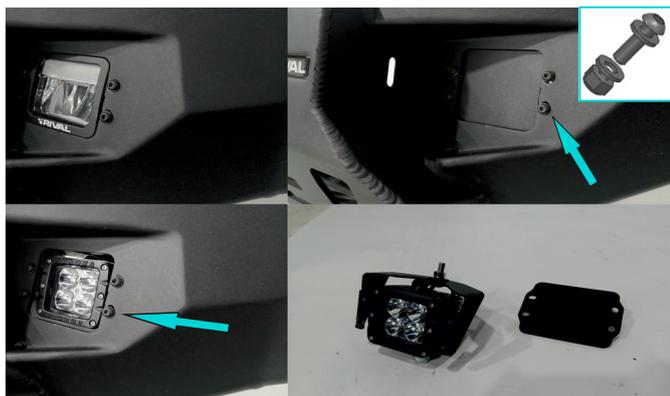


Fig.47

47. Fix your aftermarket LED cubic lights to brackets (item 10). Rival flush mount LED lights are installed without the brackets (Rival LED lights purchased separately). Install LED lights or LED caps (item 29), using screws M6x20 (item G), nuts M6 (item J) and washers 6mm (item L). Attach wires using cable ties (item Q) (Fig.47).

***Tighten hardware after that.**



Fig.48

48. Fit U-nuts M6 (item I) on flaps (item 16,17) (Fig.48).

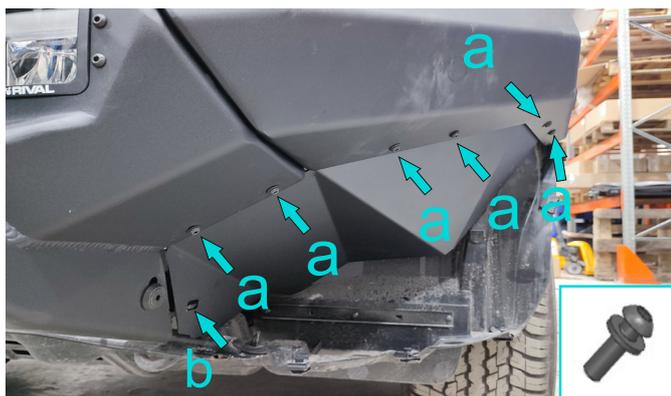


Fig.49

49. Install flaps (item 16,17), using
a - screws M6x20 (item G) and washers 6mm (item L);

b - screws M6x20 (item G) and washers penny 6mm (item M) (Fig.49).



Fig.50

50. Push the flaps to plastic fenders and mark future cutting line. Cut plastic fenders following the marked cutting line, using jig-saw or shears (Fig.50).

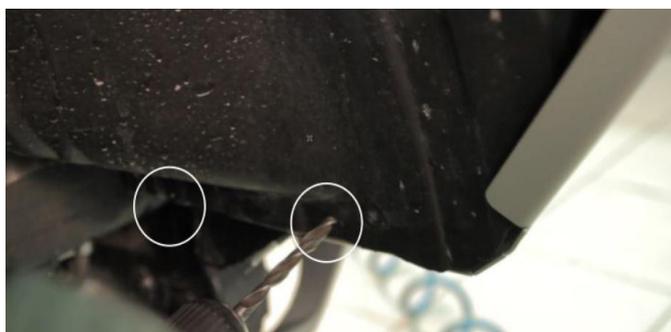


Fig.51

51. Mark and drill 2 holes in plastic fenders according with holes in flaps. Attach flaps to plastic fenders, using screws M6x20 (item G) and washers 6mm (item L) (Fig.51).

Bash plate installation.

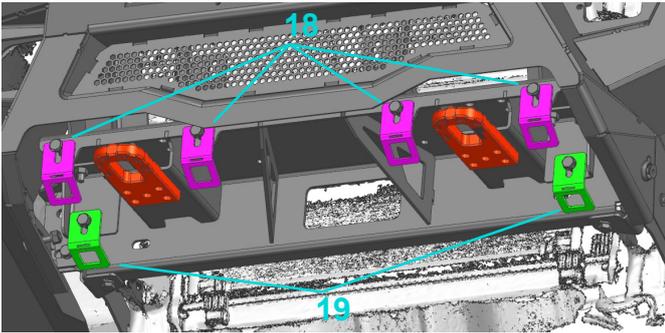


Fig.52



Fig.53

52. Fit front bash plate brackets (item 18) on winch bracket, using bolts M10x35 (item C) and washers 10mm (item N). Fit rear bash plate brackets (item 19) on winch bracket, using bolts M10x35 (item C), nuts M10 (item K) and washers 10mm (item N). For installation if there are LED headlights, put 2 adjusting plates (item 23) between each bash plate brackets (item 18,19) and the winch bracket (Fig.52, 53).

***Tighten hardware after that.**



Fig.54



Fig.55

53. Put inner plates M10 with wires (item R) on bash plate bracket. Straighten fixed elements (Fig.54, 55).



Fig.56

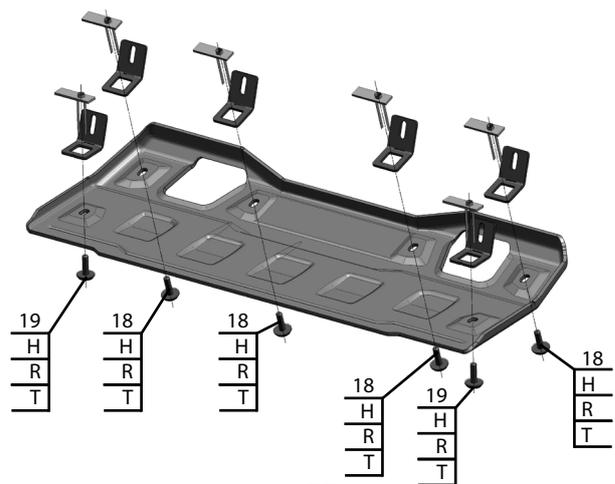


Fig.57

54. Install bash plate (item 30) on mounting brackets, using screws M10x40 (item H) and washers (item T) (Fig.56, 57).

***Tighten hardware after that.**

Steps 55-58 (if winch is to installed).



Fig.58

55. Push hawse to lower grille on bumper. Align the mounting holes with winch hawse brackets (Fig.58).



Fig.59

56. Mark contour line of hawse on grille (Fig.59).

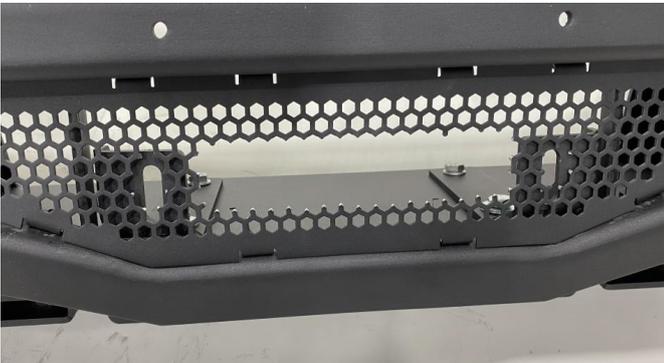


Fig.60

57. Make a cutout at 5-10 mm above the marked line (Fig.60).



Fig.61

58. Install the winch hawse on the bumper using its own fasteners (Fig.61).

Steps 59-62 (if there is camera).



Fig.62

59. Remove camera from factory bumper (Fig.62).



Fig.63

60. Attach camera to camera bracket (item 31) and fix using factory screws (Fig.63).

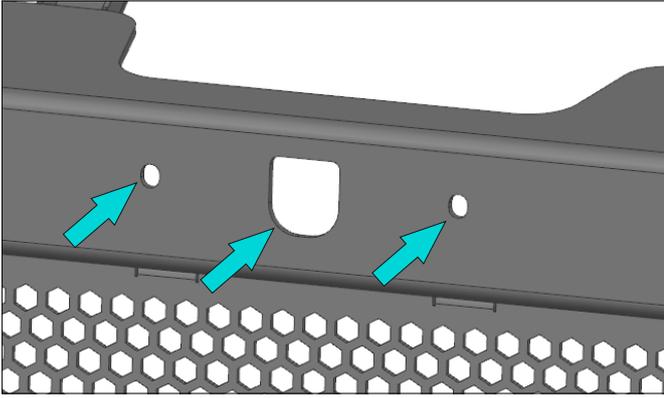


Fig.64

61. Locate knock-outs for camera on the grille (item 2) and knock them out by a hammer (Fig.64).



Fig.65

62. Install the camera bracket (item 31) to the grille (item 2) using screws M6x20 (item G) and washers 6mm (item L). Fix wires using cable ties (item Q) (Fig.65).

***Tighten hardware after that.**

Steps 63-66 (for emblem badge without the radar).

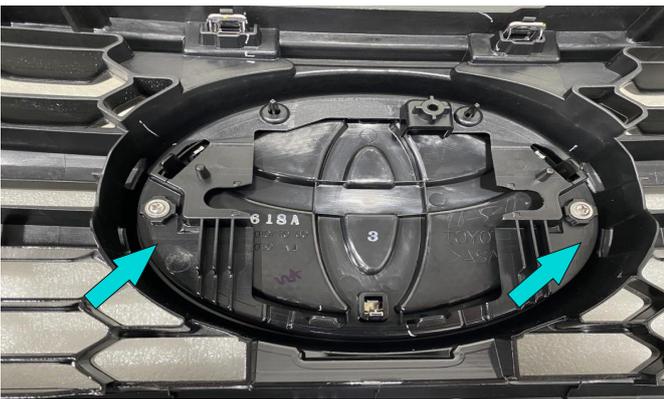


Fig.66

63. Remove the screws securing the emblem badge (Fig.66).



Fig.67

64. Remove the emblem badge (Fig.67).



Fig.68

65. Trim the protruding parts from the emblem badge (Fig.68).



Fig.69

66. Install the emblem badge on grille surface (item 2) using OE screws (Fig.69).

Steps 67-75 (for emblem badge with the radar).



Fig.70

67. Remove the emblem badge and the radar (Fig.70).



Fig.71

68. Mark center line of grille (item 2) and badge (Fig.71).

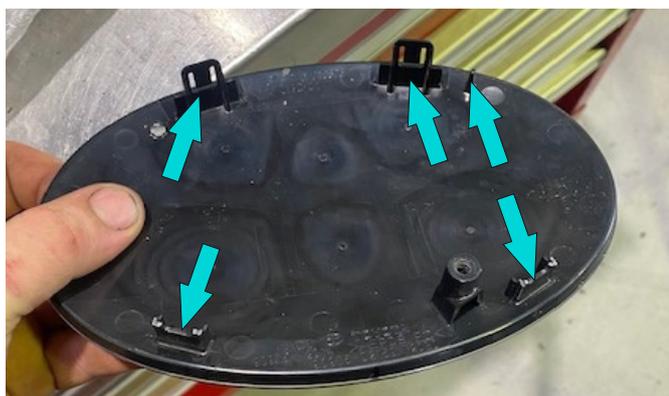


Fig.72

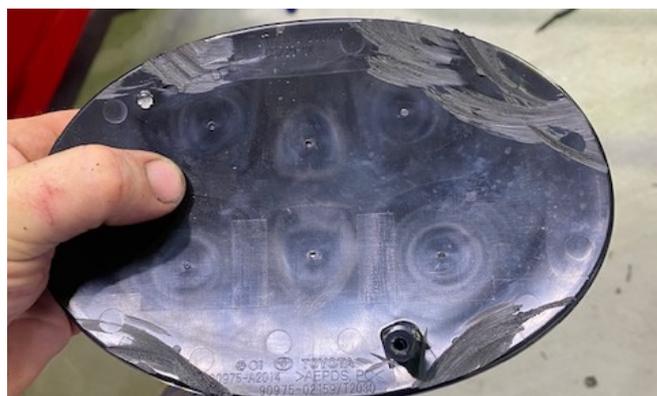


Fig.73

69. Cut off 4 outer tabs and clearance single mount post (Fig.72, 73).



Fig.74

70. Attach the emblem badge on grille (item 2), mark cut section for fixation (Fig.74).



Fig.75

71. Cut grille (Fig.75).



Fig.76

72. Install the emblem badge and the radar on grille (item 2). Mark cut section for radar (Fig.76).

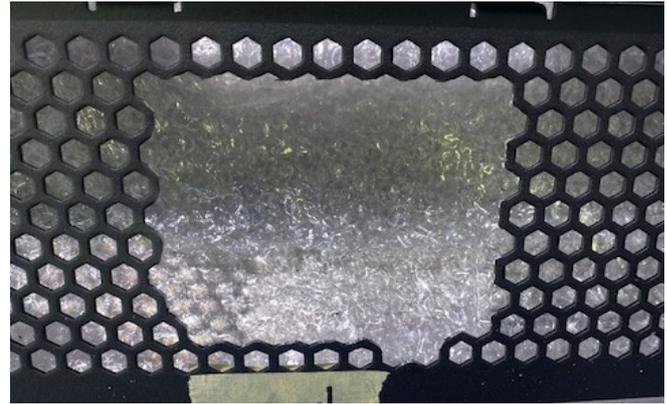


Fig.77

73. Cut grille (Fig.77).

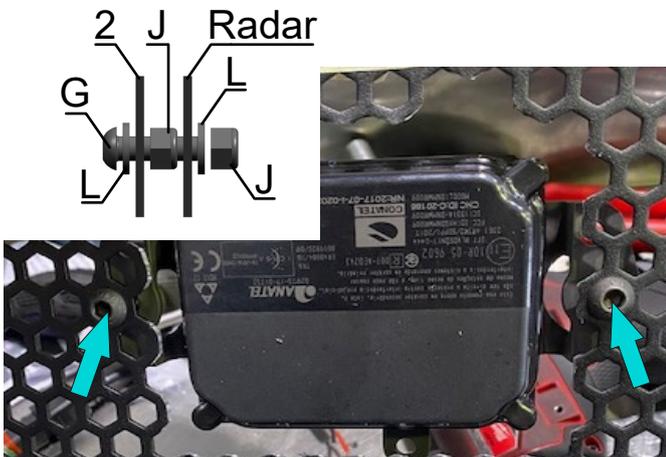


Fig.78

74. Fix radar to back of the grille (item 2) using screws M6x20 (item G), nuts M6 (item J) and washers 6mm (item L).

***Tighten all the hardware (Fig.78,79).**



Fig.79



Fig.80

75. Fix emblem to front of radar and grille with OE bolt sand sealant (item W). Tighten all the hardware. Attach wires using cable ties (item Q) (Fig.80).

Grille installation.



Fig.81

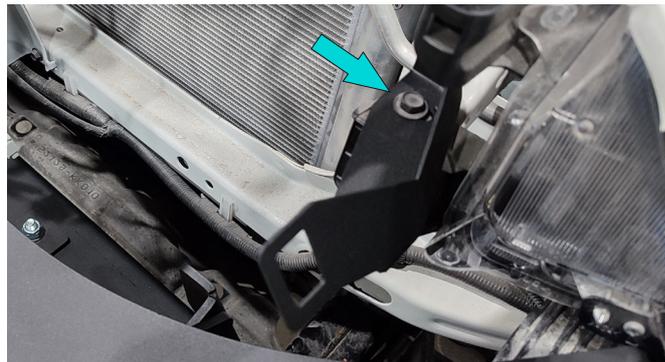


Fig.82

76. Remove the left and right headlight mounting screws and install the grille brackets (item 12,13) using the factory screws (Fig.81, 82).

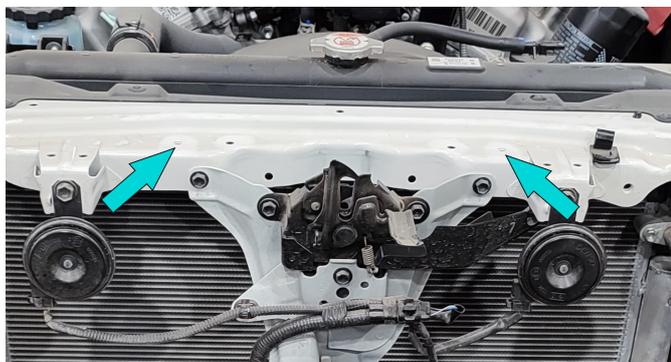


Fig.83

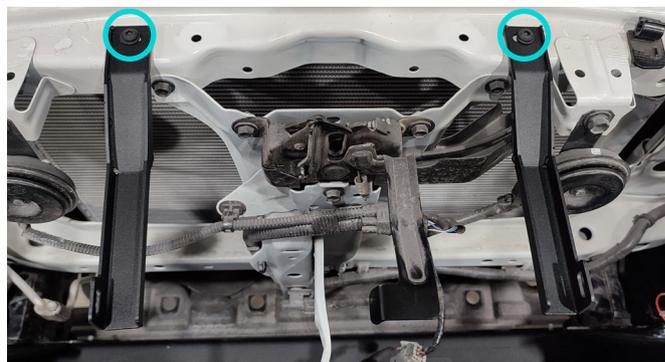


Fig.84

77. Install the grille brackets (item 14,15), using screws M6x20 (item G) and washers 6 mm (item L) (Fig.83, 84).



Fig.85

78. Apply glue onto inside of weatherstrip (item V) (Fig.85).



Fig.86

79. Stick weatherstrip (item V) on the bottom part of grille (Fig.86).



Fig.87

80. Install the grille (item 2) on the brackets (item 12-15), using screws M6x20 (item G), washers penny 6mm (item M) and nuts M6 (item J) (Fig.87).

***Tighten hardware after that.**



Fig.88

81. Connect terminal "-" of battery (Fig.88).

INSTALLATION PROCEDURE



Before operating a vehicle fitted with RIVAL Bumper 2D.5722.2-NL:

- make sure all fittings are tightened
- check winch operation
- check all electrical wiring attached to lights

