

### **INSTALLATION MANUAL**

PRODUCT: FRONT ALUMINUM BUMPER

MODEL: TOYOTA LAND CRUISER 300 (2021 - PRESENT)

PART NO: 2D.5723.1-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 there after.

### 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

Ver. 1 www.rival4x4.com

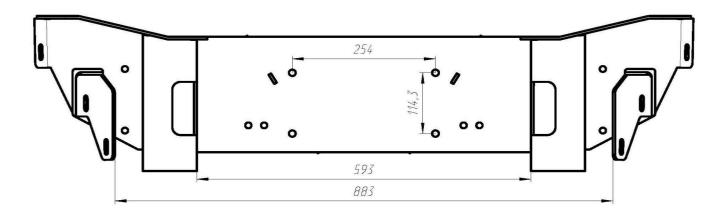
### **TECHNICAL INFORMATION**



#### \*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:

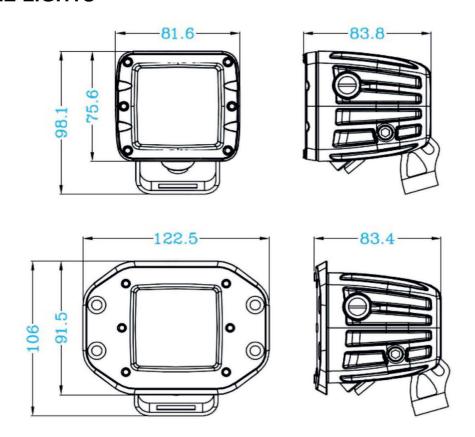


#### Winch size limits:

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L 640 x W 175 mm x H 220 mm

#### **COMPATIBLE LIGHTS**



## **TECHNICAL INFORMATION**



#### \*RECOVERY POINTS



#### WARNING

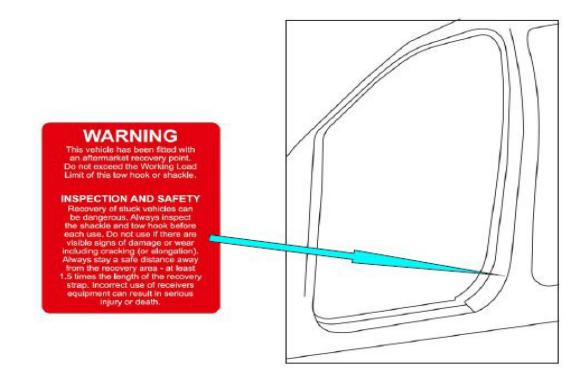
Do not exceed the Working Load Limit of these recovery points or shackle.

#### **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.5723.1-NL

Suited to vehicle: TOYOTA LAND CRUISER 300

(2021 - PRESENT)

Material: Aluminum / Steel

Compatibility: RIVAL 9559 Underbody Armour



## 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 dangeous 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.

<u>NOTE</u>: 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**

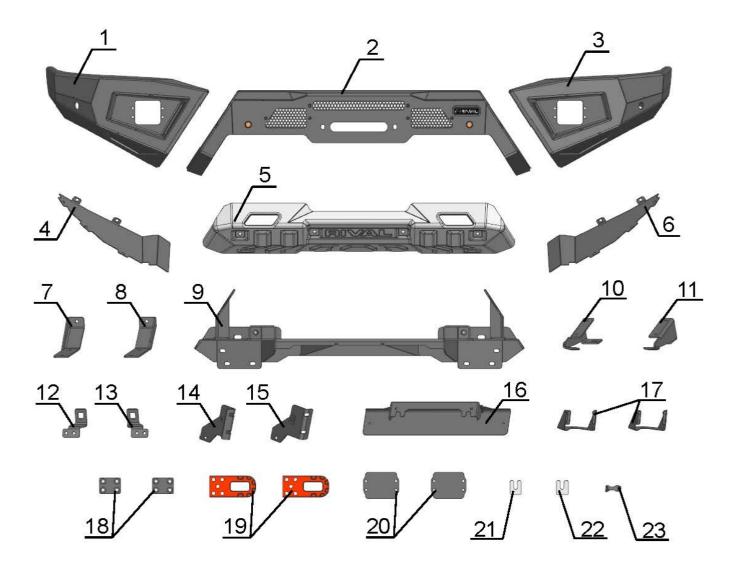
# **TORQUE SETTING**

- \* Basic tool kit
- \* Torque wrench
- \* Crosspoint and flat head screwdriver
- \* Marker
- \* Angle grinder
- \* Drill

- \* M6 9 N·m
- \* M8 24 N·m
- \* M10 44 N·m
- \* M12 77 N·m

# **PARTS LISTING**



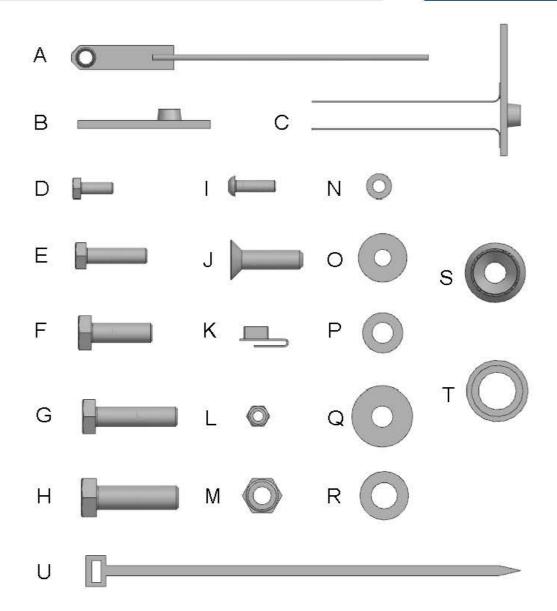


1. Right bumper end cap Qty 1	14. Support bracket right Qty 1
2. Bumper body Qty 1	15. Support bracket left Qty 1
3. Left bumper end cap Qty 1	16. License plate bracket Qty 1
4. Flap rightQty 1	17. LED bracket Qty 2
5. Bash plateQty 1	18. Recovery points bracketQty 2
6. Flap left Qty 1	19. Recovery pointsQty 2
7. Left winch hawse bracket Qty 1	20. LED light cap Qty 2
8. Right winch hawse bracket Qty 1	21. Adjusting plate 2mm Qty 6
9. Winch bracket Qty 1	22. Adjusting plate 3mm Qty 6
10. Right bash plate bracket Qty 1	23. Parking sensor holding bracket Qty 4
11. Left bash plate bracket Qty 1	24. Weatherstrip Qty 1
12. Front right bash plate bracket Qty 1	25. Template rightQty 1
13. Front left bash plate bracket Qty 1	26. Template left Qty 1

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# **PARTS LISTING**





A. Insert nut IVI8 with cable	Qty	2
B. Insert nut M10	Qty	2
C. Insert nut M10 with cable	Qty	6
D. Bolt M6x16	Qty	8
E. Bolt M8x30	Qty	2
F. Bolt M10x30	Qty	26
G. Bolt M10x40	Qty	6
H. Bolt M12x40	Qty	8
I. Screw M6x20	Qty	18
J. Screw M10x30 countersunk-head	Qty	6
K. U-nut M6	Qty	10

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L. Nut M6	Qty 8
M. Nut M10	
N. Washer 6	Qty 26
O. Washer penny 8	Qty 2
P. Washer 10	Qty 34
Q. Washer penny 10	Qty 24
R. Washer 12	Qty 8
S. Countersunk washer	Qty 6
T. Parking sensor washer	Qty 4
U. Cable tie	Qty 10



### **Preparation for installation**



Fig.1

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



Fig.2

2. Remove the plastic pad clip. Dismantle the clips (fig.2).

\*Set aside for re-use later on.

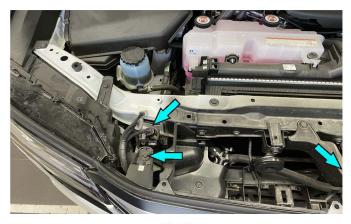


Fig.3

3. Unscrew OE bolt, dicsonnect OE wiring connector, as shown in fig.3.





Fig.4

4. Unscrew OE bolt, disconnect LED washer pump pipe as shown in fig.4.

\*Set aside for re-use later on.



Fig.5

5. Remove plastic clips on both sides of the vehicle as shown in fig.5.

\*Set aside for re-use later on.

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Fig.6

6. Remove plastic clips on both sides of the vehicle as showin in fig.6.

\*Set aside for re-use later on.





Fig.7

7. Remove OE fenders on both sides of the vehicle (fig.7).

\*Set aside for re-use later on.



Fig.8

8. Unscrew OE screws shown in fig.8 on both sides of the vehicle. Remove OE plastic plate after that.



Fig.9

9. Unscrew OE screws shown in fig.9 on both sides of the vehicles.



Fig.10

10. Remove OE bumper (fig.10).

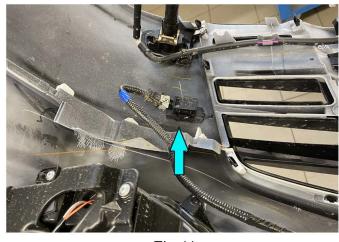
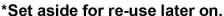


Fig.11

11. Disconnect connector and remove parking sensor as shown in fig.11. Do the same with rest 3 sensors.



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Fig.12

12. Remove OE plastic damper (fig.12).





13. Remove plastic crush absorber (fig.13).

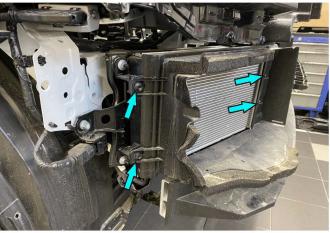


Fig.14

14. Remove OE plastic cover on both sides of the vehicle (fig.14).

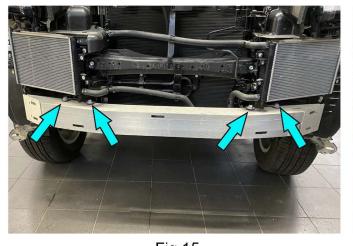


Fig.15 15. Remove OE beam (fig.15).



Fig.16 16. Remove OE grill (fig.16).

### Winch bracket installation procedure

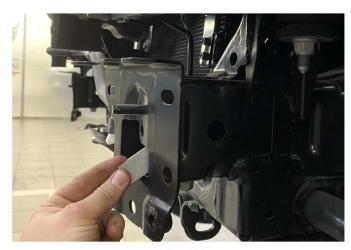


Fig.17

17. Install insert nuts M10 (item B) into hole of OE frame as shown in fig.17, on both sides of the vehicle.



Fig.18

18. Fix support brackets (item 14, 15) on insert nut M10 using bolts M10x30 (item F) and washers 10 (item Q) (fig.18).

\*Do not tighten yet.





Fig.19

19. Install insert nuts M8 (item A) into hole of OE frame as shown in fig.19, on both sides of the vehicle.

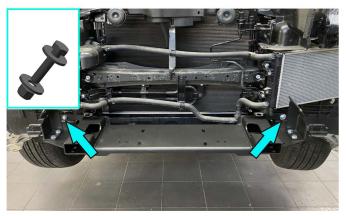


Fig.21

21. Install winch bracket (item 9) and fix on support brackets using bolts M10x30, washers 10, nut M10 (item F, Q, M) (fig.21).

#### \*Do not tighten yet.

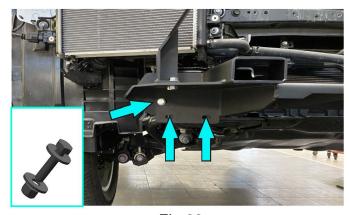


Fig.23

23. Fix winch bracket (item 9) on both sides of the vehicle using bolts M10x30(item F), washers 10 (item P), nuts M10 (item M) and OE bolts as shown in fig.23.

\*Tighten hardware after that.

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Fig.20

20. Fix support brackets to insert nuts M8 (item A) using bolts M8x30, washers 8 (item E, O) (fig.20).

#### \*Do not tighten yet.

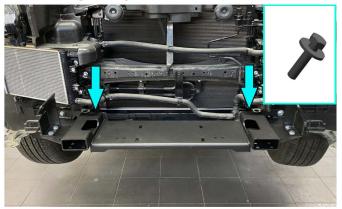


Fig.22

22. Fix winch bracket (item 9) on both sides of the vehicle using bolts M10x30(item F), washers 10 (item Q) as shown in fig.22.

\*Do not tighten yet.

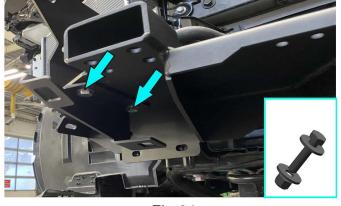


Fig.24

24. Fix bash plate brackets (item 10, 11) on both sides of the vehicle, using bolts M10x30 (item F), washers 10 (item P), nut M10 (item M) (fig.24).

\*Tighten hardware after that.



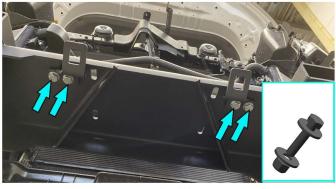


Fig.25

25. Fix front bash plate brackets (item 12, 13) using bolts M10x30, washers 10, nut M10 (item F, P, M) (fig.25).

\*Tighten hardware after that.

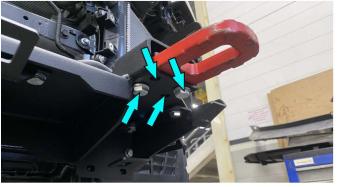


Fig.26

26. Fix recovery points on both sides of vehicle (item 19) using recovery points brackets (item 18), bolts M12x40 (item H), washers 12 (item R) (fig.26).

\*Tighten hardware after that.

### Steps 27-28 (if winch is to installed)



Fig.27

27. Install left and right winch hawse brackets (item 7, 8) on winch bracket (fig.27).



Fig.28

28. Fix winch on winch fairlead brackets (fig.28).

\*Tighten hardware after that.

### Steps 29-31 (if there are parking sensors)



Fig.29

29. Locate 4 knock-outs for parking sensors on the bumper body and knock them out by a hammer (fig.29).

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Fig.30

30. Install countersunk washer (item T) (fig.30).



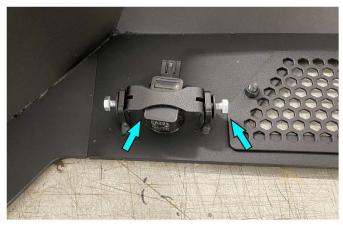


Fig.31

31. Put 4 parking sensors in bumper body and fix them using parking sensor holding brackets (item 23), bolts M6x16, washer 6 (item D, N) (fig.31).

\*Tighten hardware after that.



Fig.31

32. Connect bumper end caps and bumper body (item 1, 2, 3) using bolts M10x30, washers 10, nuts M10 (item F, P, M) (fig.32). \*Tighten hardware after that.

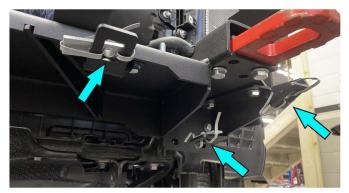


Fig.33

33. Install insert nuts M10 with cable (item C) into holes of brackets (item 10-13) as shown in fig.33, on both sides of the vehicle.



Fig.34

34. Fix bash palte (item 5) using screws M10x30 countersunk-head, countersunk washers (item J, S) (fig.34).

\*Do not tighten yet.

### **Bumper body pre assembling**

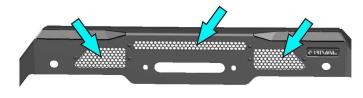


Fig.35

35. It is acceptable to remove pre installed grills shown in fig. 35.

\*Set aside for re-use later on.



Fig.36

36. To install lightbar: fix the lightbar on brackets inside the bumper body, as shown in fig. 36.

\*Tighten hardware after that.



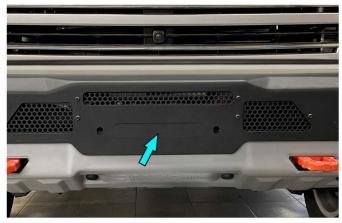


Fig.37

37. Hummer our the fairlead hole shown in fig 37, in case if you will install winch.



Fig.38

38. Install bumper on brackets using bolts M10x40, penny washers 10, nuts M10 (item G, Q, M) (fig.38).

\*Do not tighten yet.



Fig.39

39. Align the bumper body with the vehicle. Add adjusting plate 2mm (item. 21) or adjusting plate 3mm (item. 22) if it's necessary, between bumper body and winch bracket in fixation points (fig.39).





Fig.40

40. Fix your aftermarket LED cubic lights to brackets (item 17). These brackets are not compatible with flush mount LED lights (part number 2D.0041.1, purchased separately) (fig.40).

\*Tighten hardware after that.



Fig.41

41. Install LED lights or LED Light caps (item 20), using screw M6x20, washer 6 and nuts M6 (item I,L, N) (fig.41).



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Fig.42

42. Prepare templates (item 25. 26) and stick it on OE bumper, as shown in fig.42.



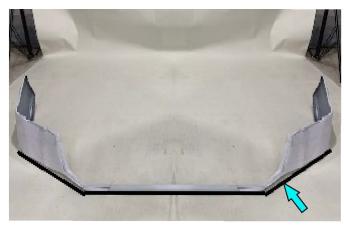


Fig.43 43. Mark cutting lines using template (fig.43).



Fig.44
44. Cut OE bumper following marked lines (fig.44).



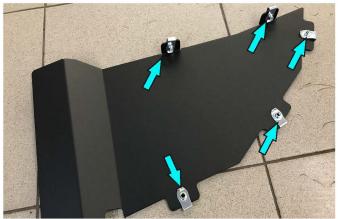
Fig.45 45. Install weatherstrip (item 24) on the edge of bumper (fig.45).



Fig.46
46. Install OE bumper on the vehicle, connect OE wiring on OE and Rival bumper and fix it using cableties (item U) (fig. 46).



47. Install OE grill (fig.47).



 $\label{eq:Fig.48} \text{48. Fit U-nut M6 (item K) on flaps (item 4, 6)} \\ \text{(fig.48)}.$ 



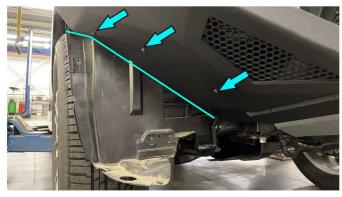


Fig.49

49. Install flaps (item 4, 6) using screw M6x20, washer 6 (item I, N) onto the bumper body on each side. \*Tighten hardware after that. Push the flap to plastic fender and mark future cutting line. Cut plastic fender following marked cutting line using jig-saw or shears (fig. 49).



Fig.50

50. Mark and drill 2 holes in plastic fender according with holes in flap on each side of the vehicle. Fix flaps and fenders using screw M6x20, washer 6 (item I, N) (fig. 50).



Fig.51

51. Try OE fender on the vehicle, mark cutting line following Rival bumper edge and cut merked line. Install OE fender after that, same way you removed it on steps 5-7 (fig. 51).

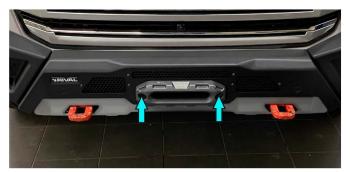


Fig.52

52. Install the fairled on the bumper, in case if you installed the winch, fasteners supplied with fairled. (fig. 52).

\*Do not tighten yet.



Fig.53

53. Install license plate bracket (item 16). If you use winch: Install license plate bracket between bumper body and fairlead; If you don't use winch: fix lucense plate bracket using bolts M10x30, washers 10 (item F, P) (fig. 53).



Fig.54

54. Connect terminal "-" on the battery (fig.54).

\*Tighten hardware after that.

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Before operating a vehicle fitted with RIVAL Bumper 2D.5723.1-NL:

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



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