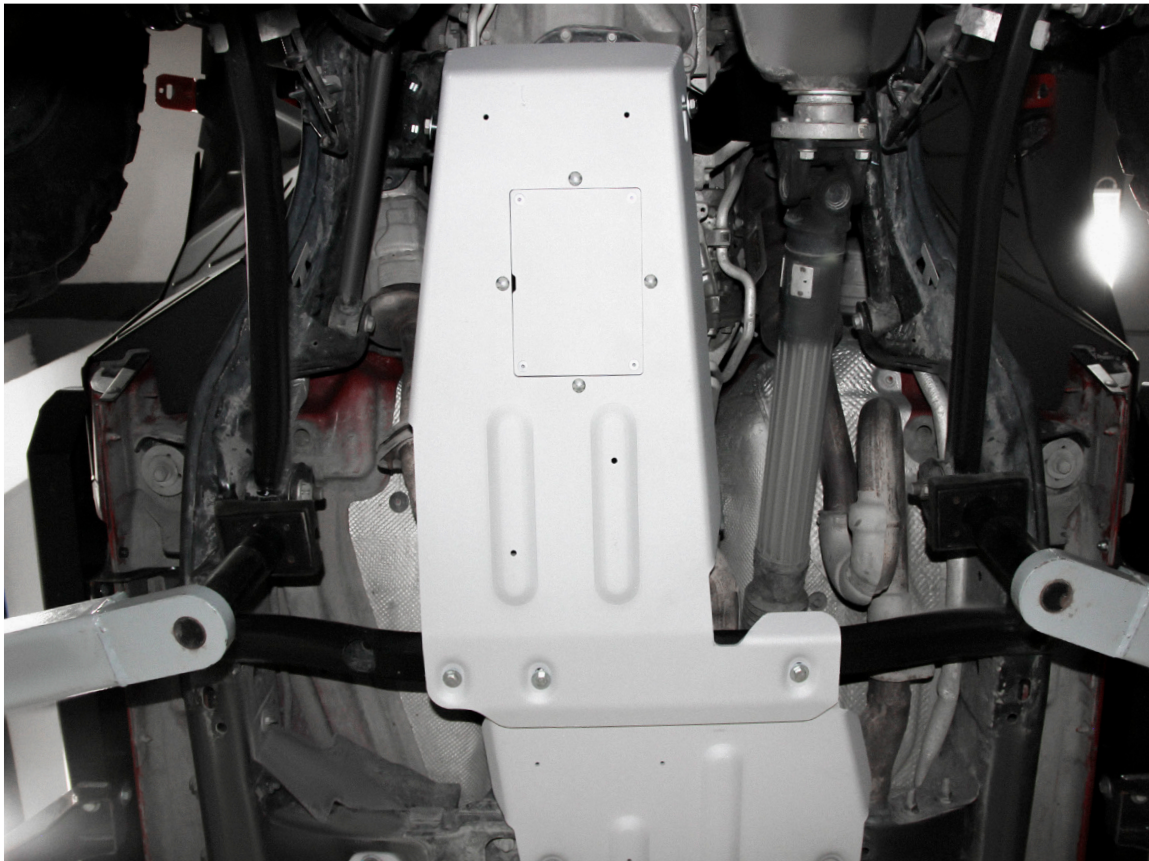


# INSTALLATION MANUAL

PRODUCT: ALUMINUM ENGINE SKID PLATE

APPLICATION: JEEP WRANGLER (2018-2021)

PART NO: 2333.2744.1.6



## CAUTION!

To reduce the risk of serious injury or damage to property: Before you start installing and using this product, read the full instructions, pay special attention to the conditions of safe use and recommendations for installation! When installing or maintaining this product, it is necessary to use protective goggles. Check the integrity of the structure and the moment the fastening is tightened every 250 miles (400 kms) of mileage. Do not use this product if there is damage to the structure or fasteners!

## NOTICE

Engine skid plate is an additional protection, but it can not guarantee to protect against all possible damage in collisions. When driving, be careful of objects and terrain that may damage sensitive parts of the vehicle.

# ENGINE SKID PLATE



Part number 2333.2744.1.6

Suited to vehicle: JEEP WRANGLER (2018-2021), 2.0L, 3.6L

Material: Aluminum / Steel



## SAFETY NOTICE

- \* The RIVAL engine skid plate is designed to complement 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 engine skid plate 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 engine skid plate or its components. In the case of damage, please contact the nearest RIVAL dealer. Vehicle, or where the skid plate has been damaged, is extremely dangerous and must be avoided at all cost.

## INSTALLATION NOTICE

- \* The RIVAL engine skid plate must be mounted and affixed to the vehicle according to this installation manual.
- \* Personal safety during the installation process must be adhered to at all times.
- \* Do not install this skid plate on vehicle models other than those allowed in this manual.
- \* Estimated time for installation: 1 hour.

## REQUIRED TOOLS

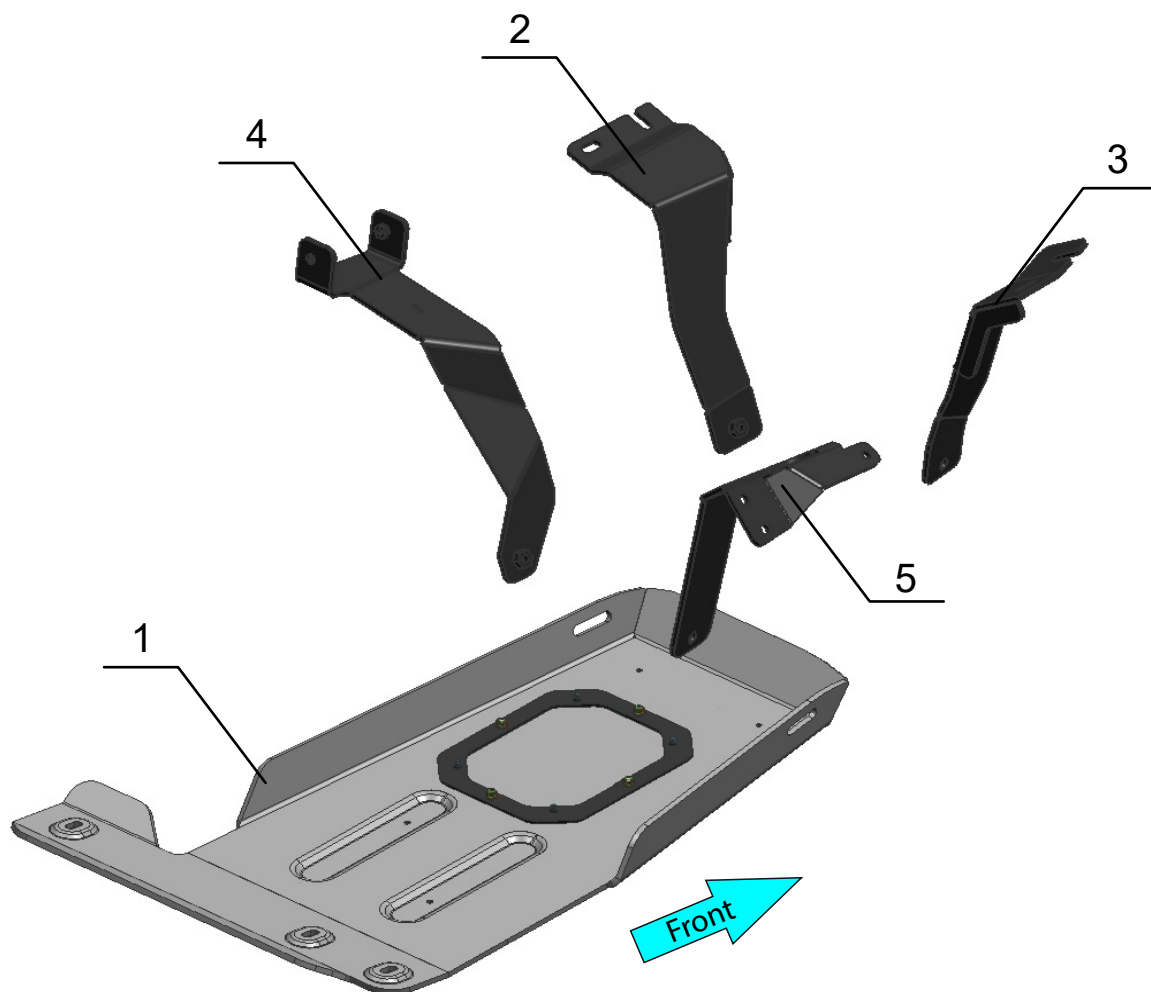
- \* Ratchet \* 13 mm, 17 mm.

## TORQUE SETTING

- \* M8 - 23 H·m (16.9 lb/ft)
- \* M10 - 30 H·m (22.1 lb/ft)

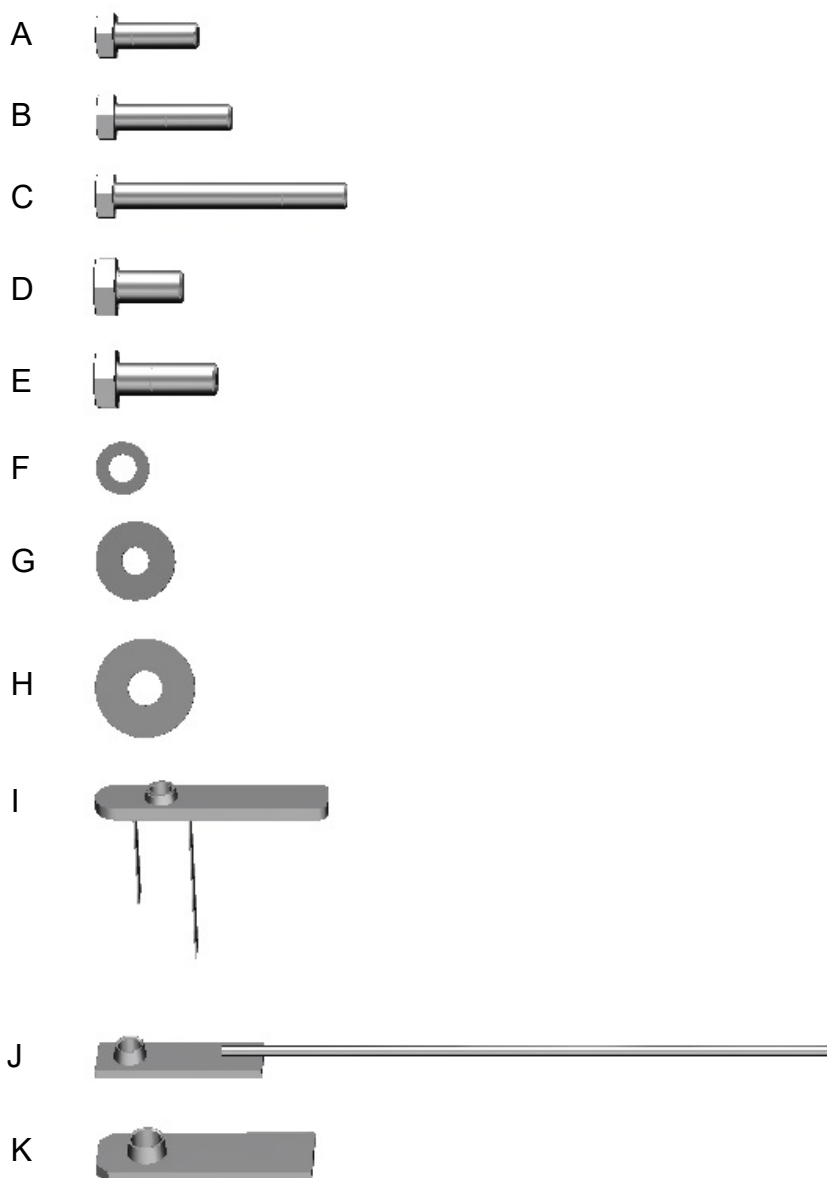


# PARTS LISTING



- |                           |       |
|---------------------------|-------|
| 1. Engine skid plate..... | Qty 1 |
| 2. Mount bracket 1.....   | Qty 1 |
| 3. Mount bracket 2.....   | Qty 1 |
| 4. Mount bracket 3.....   | Qty 1 |
| 5. Mount bracket 4.....   | Qty 1 |

# PARTS LISTING



A. Bolt M8x25.....	Qty 3
B. Bolt M8x35.....	Qty 3
C. Bolt M8x70.....	Qty 2
D. Bolt M10x20.....	Qty 4
E. Bolt M10x30.....	Qty 2
F. Washer 8.....	Qty 2
G. Washer penny 8.....	Qty 6
H. Washer penny 10.....	Qty 6
I. Insert nut M8 with wires.....	Qty 3
J. Insert nut M8.....	Qty 3
K. Insert nut M10.....	Qty 4

# INSTALLATION PROCEDURE



\*Installation on vehicle engine 3.6



Fig.1



Fig.2



Fig.3

1. Install insert nut M10 (pos.K) into the frame from both sides (fig.1, 2, 3).



Fig.4



Fig.5

2. Screw bolt M10x20 (pos.D) and washer 10 (pos.H) in insert nut M10 on both sides of the vehicle (pos.K) (fig.4, 5). \*Do not tighten yet.



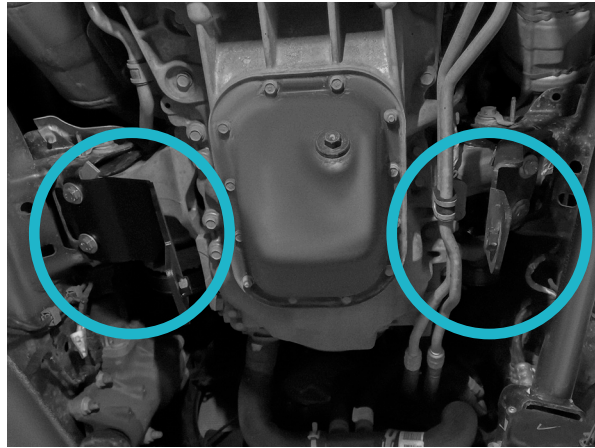


Fig.6

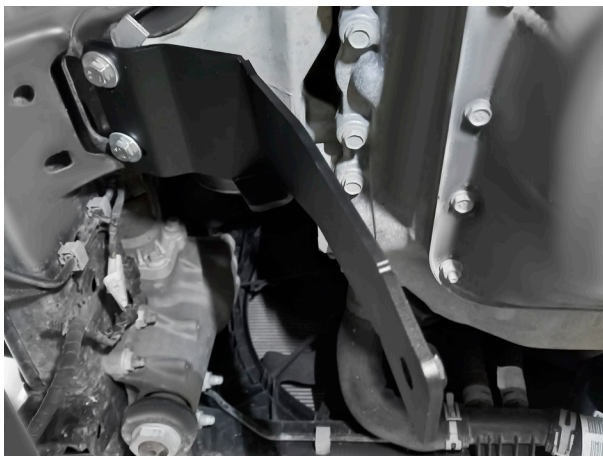


Fig.7



Fig.8

3. Install mount bracket 1 (fig. 7) and mount bracket 2 (fig. 8) (pos.2, 3) using bolts M10x20 (pos.D), washers 10 (pos.H) and insert nut M10 (pos.K) (fig.6). \*Do not tighten yet.

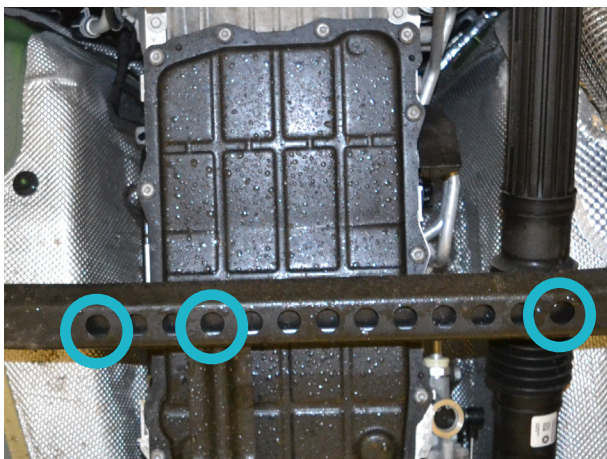


Fig.9

4. Install insert nut M8 with wires (pos.I) into vehicle crossbar (fig.9).

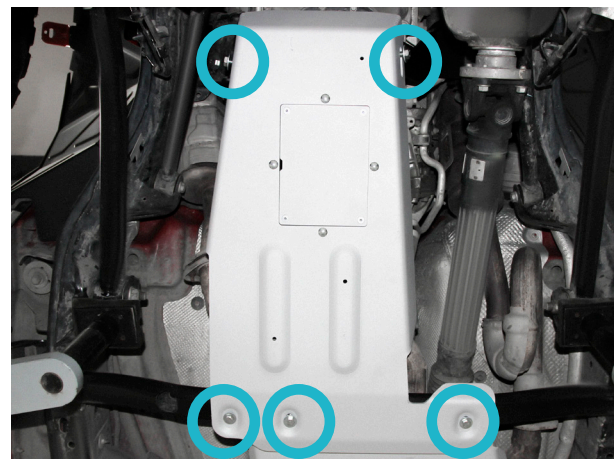


Fig.10

5. Install engine skid plate (pos.1) fixing its front end with bolts M10x30 (pos.D), washers 10 (pos.H) to mount bracket (pos.2, pos.3). Fix rear end with bolts M8x35 (pos.B), washers 8 (pos.G) to insert nut M8 with wires (pos.I) (fig.10).

6. Tighten all the hardware that attaches skid plate to brackets and to vehicle.



# INSTALLATION PROCEDURE



\*Installation on vehicle engine 2.0

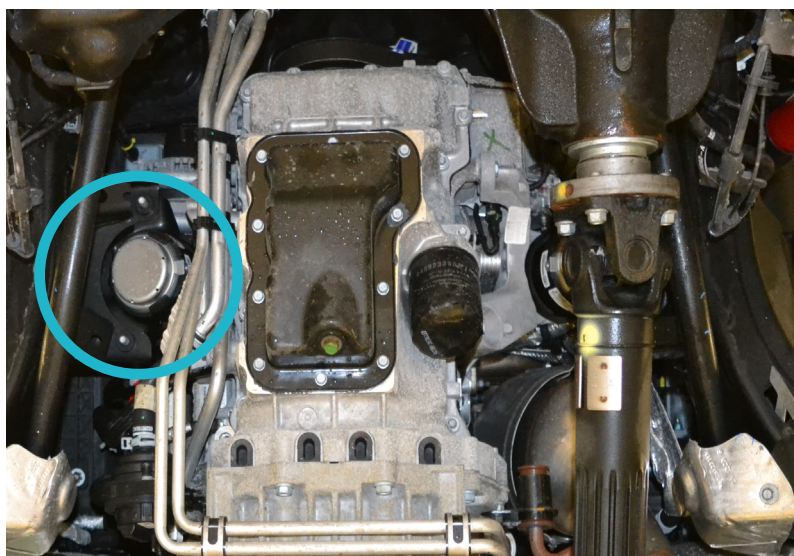


Fig.11

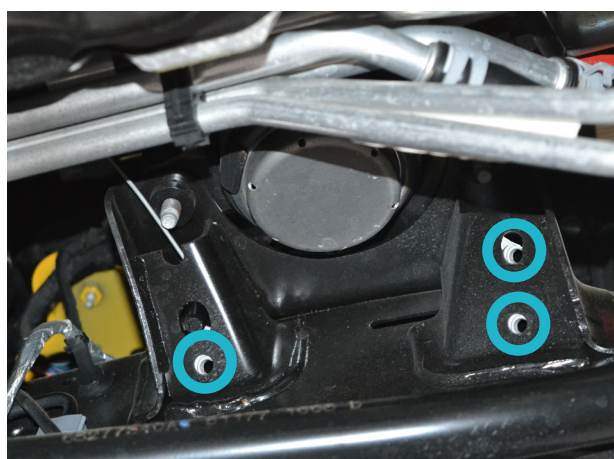


Fig.12

7. Install insert nut M8 (pos.J) into the frame (fig.12).



Fig.13

8. Install mount bracket 4 (pos. 5) using bolts M8x25 (pos.D), washers 8 (pos.F) and washers penny 8 (pos.G) (fig.13). \*Do not tighten yet.



Fig.14



Fig.15

9. Install mount bracket 3 (pos. 4) using bolts M8x70 (pos.C) and washers penny 8 (pos.G) (fig.15). \*Do not tighten yet.

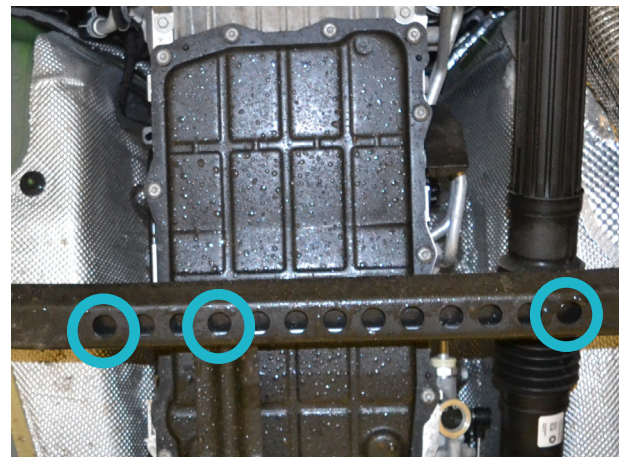


Fig.16

10. Install insert nut M8 with wires (pos.I) into vehicle crossbar (fig.9).

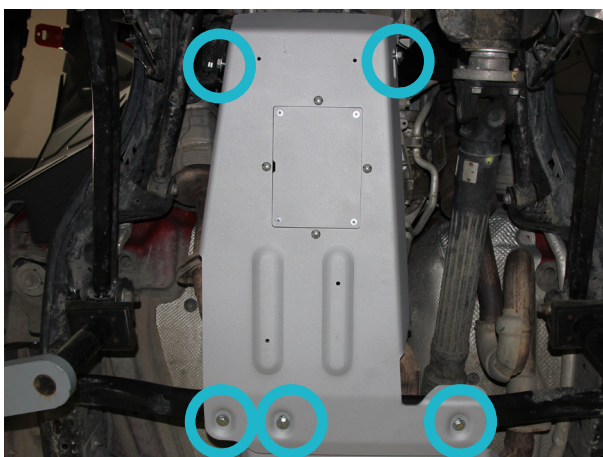


Fig.17

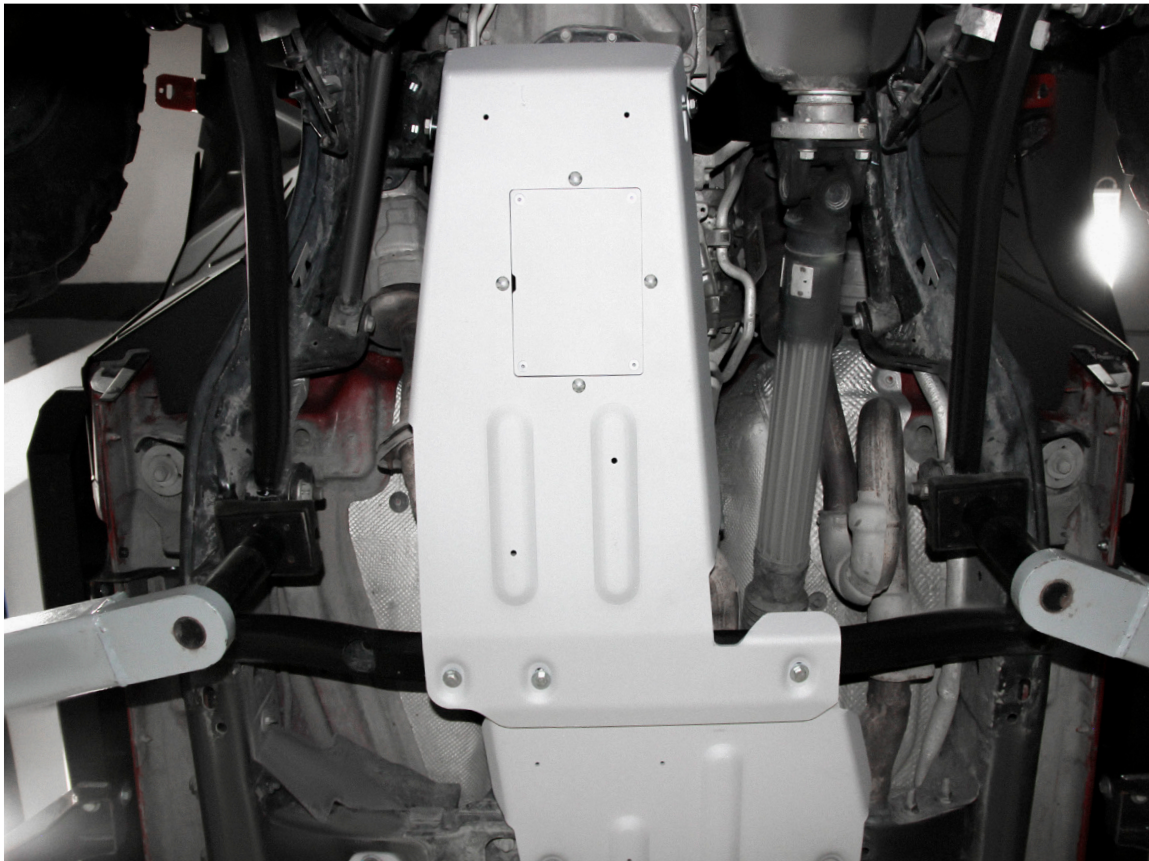
11. Install engine skid plate (pos.1) fixing its front end with bolts M10x30 (pos.D), washers 10 (pos.H) to mount bracket (pos.2, pos.3). Fix rear end with bolts M8x35 (pos.B), washers 8 (pos.G) to insert nut M8 with wires (pos.I) (fig.10).

12. Tighten all the hardware that attaches skid plate to brackets and to vehicle.



Before operating a vehicle fitted with RIVAL Skid Plate:

- make sure all fittings are tightened;
- ensure the integrity of the structure and its components.

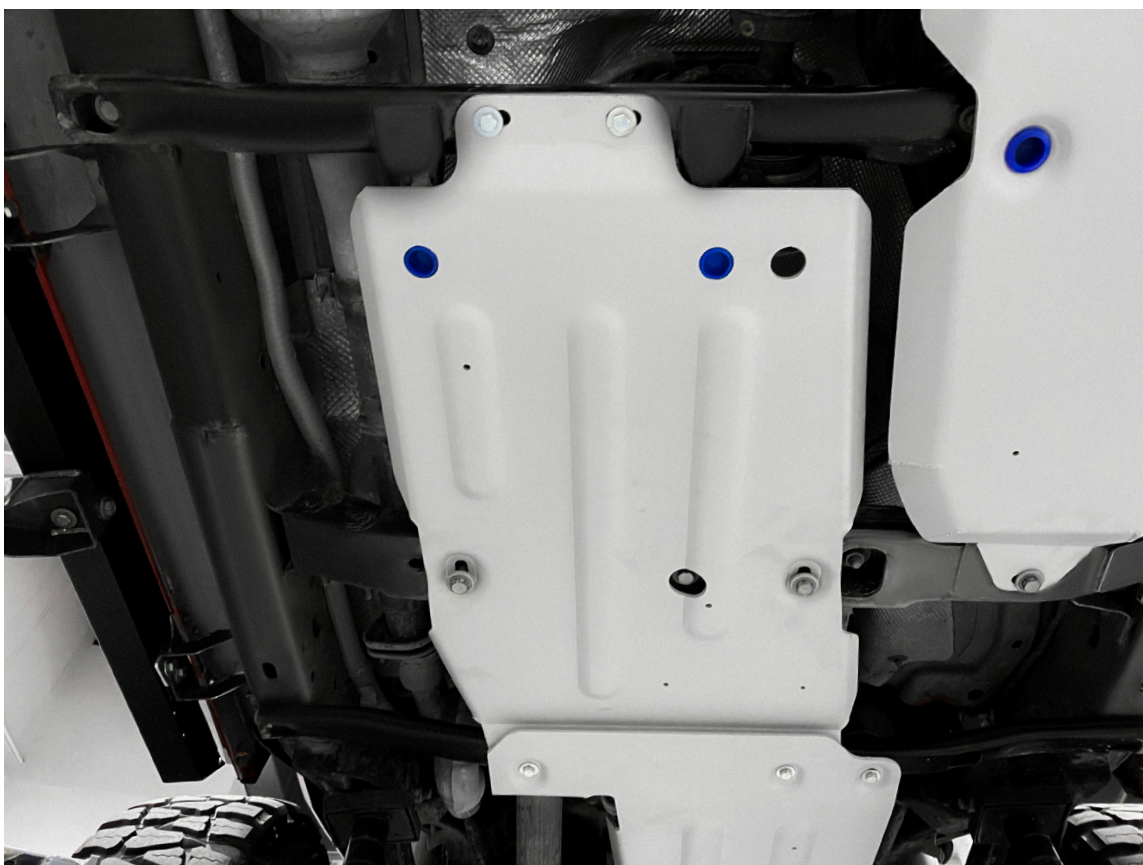


# INSTALLATION MANUAL

PRODUCT: ALUMINUM GEARBOX SKID PLATE

APPLICATION: JEEP WRANGLER (2018-); JEEP GLADIATOR JT (2019-)

PART NO: 2333.2745.1.6



## CAUTION!

To reduce the risk of serious injury or damage to property: Before you start installing and using this product, read the full instructions, pay special attention to the conditions of safe use and recommendations for installation! When installing or maintaining this product, it is necessary to use protective goggles. Check the integrity of the structure and the moment the fastening is tightened every 250 miles (400 kms) of mileage. Do not use this product if there is damage to the structure or fasteners!

## NOTICE

Gearbox skid plate is an additional protection, but it can not guarantee to protect against all possible damage in collisions. When driving, be careful of objects and terrain that may damage sensitive parts of the vehicle.



# GEARBOX SKID PLATE



Part number 2333.2745.1.6

Suited to vehicle: JEEP WRANGLER (2018-), 2.0L, 3.6L, 2.2D  
JEEP GLADIATOR JT (2019-) 3.6L

Material: Aluminum / Steel



## SAFETY NOTICE

- \* The RIVAL gearbox skid plate is designed to complement 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 gearbox skid plate 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 gearbox skid plate or its components. In the case of damage, please contact the nearest RIVAL dealer. Vehicle, or where the skid plate has been damaged, is extremely dangerous and must be avoided at all cost.

## INSTALLATION NOTICE

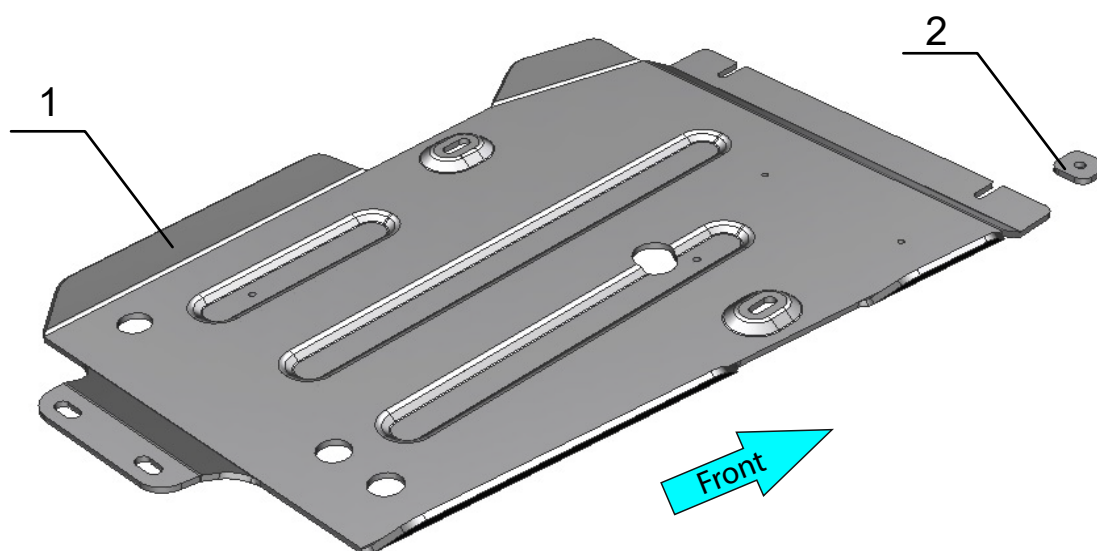
- \* The RIVAL gearbox skid plate must be mounted and affixed to the vehicle according to this installation manual.
- \* Personal safety during the installation process must be adhered to at all times.
- \* Do not install this skid plate on vehicle models other than those allowed in this manual.
- \* Estimated time for installation: 1 hour.

## REQUIRED TOOLS

- \* Ratchet \* 13 mm.

## TORQUE SETTING

- \* M8 - 23 H·m (16.9 lb/ft).



- 1. Gearbox skid plate..... Qty 1
- 2. Adjusting plate.....Qty 1

# PARTS LISTING



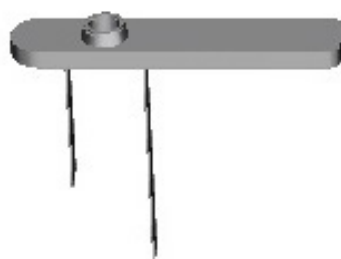
A



B



C



A. Bolt M8x25.....	Qty 4
B. Washer 8.....	Qty 4
C. Insert nut M8 with wires.....	Qty 2

# INSTALLATION PROCEDURE



\*If you purchased RIVAL Gearbox Skid Plate 2333.2745.1.6 with RIVAL Engine Skid Plate 2333.2744.1.6 follow step 5.

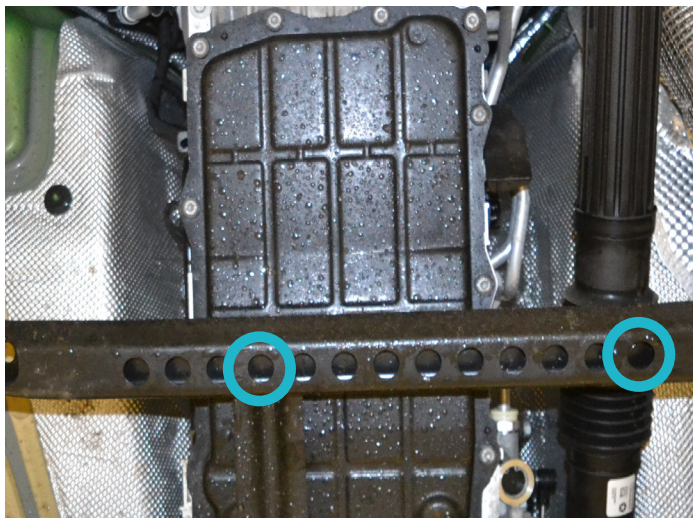


Fig.1

1. Install insert nut M8 with wires (pos.C) into vehicle crossbar (fig.1).

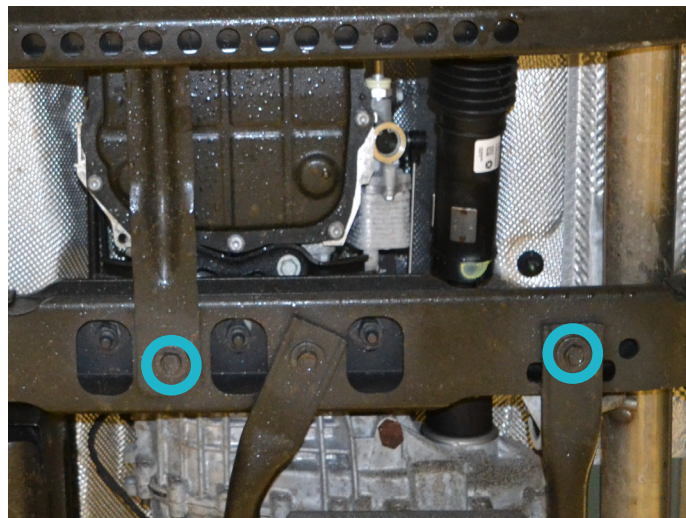


Fig.2

2. Unscrew OE bolts (fig.2).

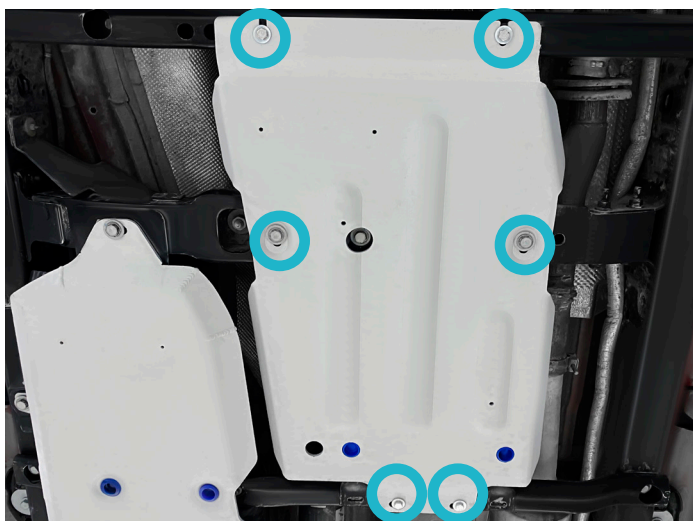


Fig.3

3. Install gearbox skid plate (pos.1). Fix it using bolts M8x25 (pos.A), washers 8 (pos.B) and OE bolts (fig.3).

4. Tighten all the hardware that attaches skid plate to brackets and to vehicle.



# INSTALLATION PROCEDURE

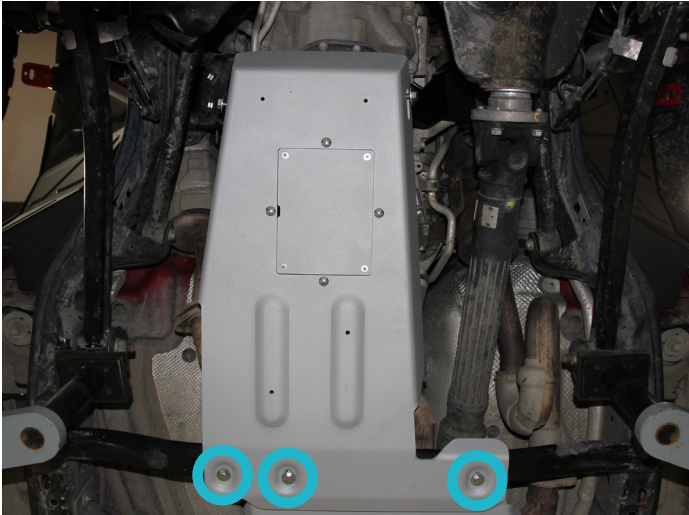


Fig.5

5. Unscrew rear bolts of RIVAL Engine skid plate 2333.2744.1.6 (fig.5).

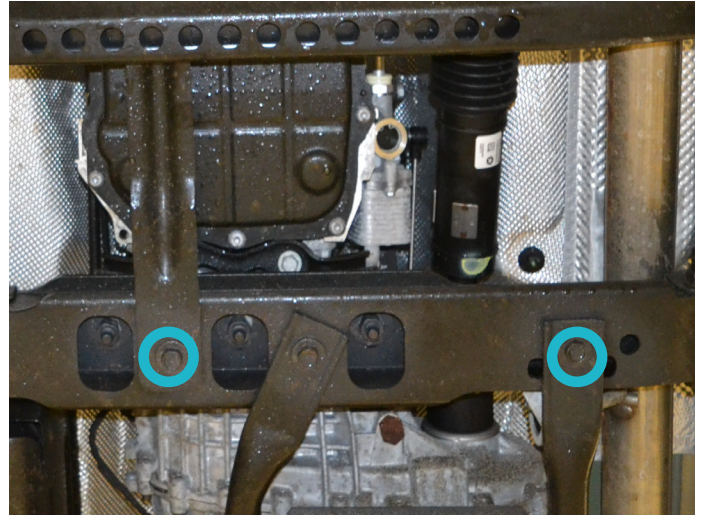


Fig.6

6. Unscrew OE bolts (fig.6).



Fig.7

7. Install gearbox skid plate (pos.1) under RIVAL Engine skid plate 2333.2744.1.6. Fix it using bolts M8x25 (pos.A), washers 8 (pos.B), OE bolts and bolts from RIVAL Engine skid plate 2333.2744.1.6 (fig.7).

\*Do not tighten yet.



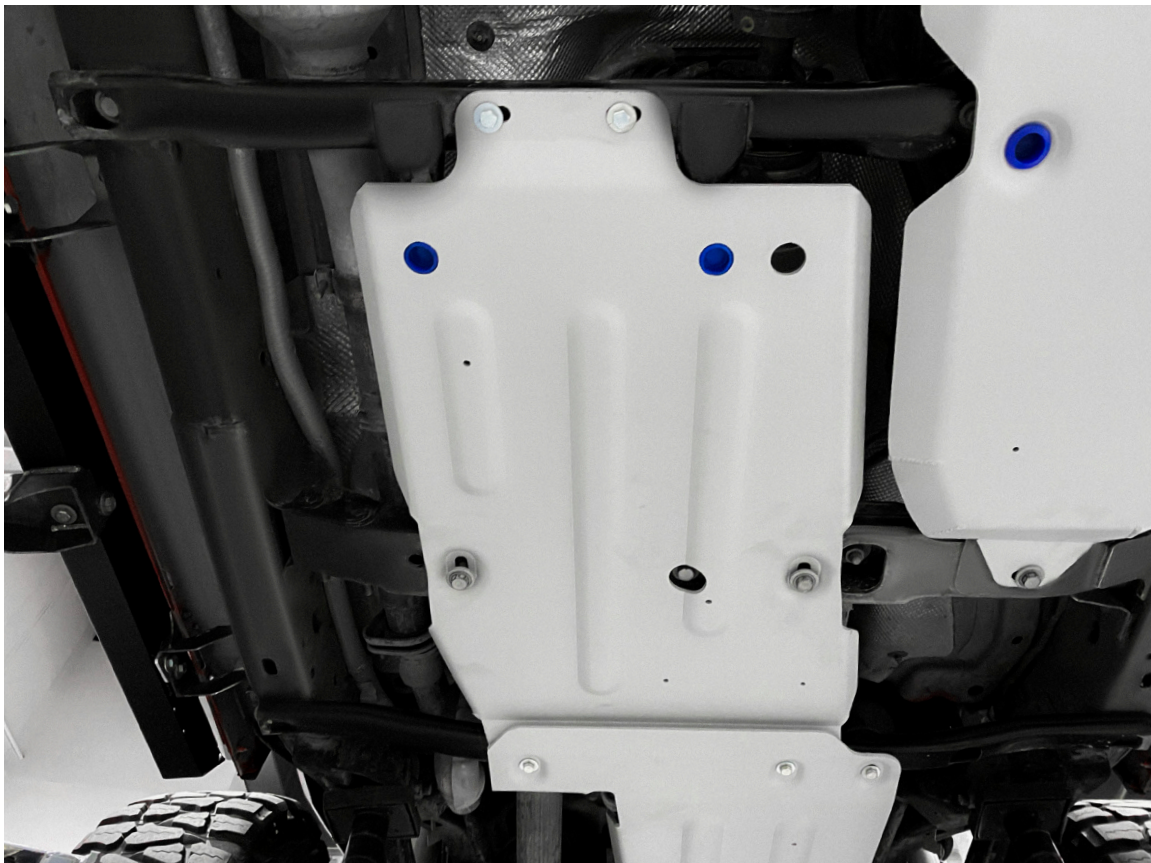
Fig.8

8. Install adjusting plate (pos.2) between gearbox skid plate (pos.1) and beam of the vehicle ( fig.8).

9. Tighten all the hardware that attaches skid plate to brackets and to vehicle.

Before operating a vehicle fitted with RIVAL Skid Plate:

- make sure all fittings are tightened;
- ensure the integrity of the structure and its components.





# INSTALLATION MANUAL

PRODUCT: ALUMINUM MUFFLER SKID PLATE

APPLICATION: JEEP WRANGLER (2018-)

PART NO: 2333.2750.1.6



## CAUTION!

To reduce the risk of serious injury or damage to property: Before you start installing and using this product, read the full instructions, pay special attention to the conditions of safe use and recommendations for installation! When installing or maintaining this product, it is necessary to use protective goggles. Check the integrity of the structure and the moment the fastening is tightened every 250 miles (400 kms) of mileage. Do not use this product if there is damage to the structure or fasteners!

## NOTICE

Muffler skid plate is an additional protection, but it can not guarantee to protect against all possible damage in collisions. When driving, be careful of objects and terrain that may damage sensitive parts of the vehicle.

# MUFFLER SKID PLATE



Part number 2333.2750.1.6

Suited to vehicle: JEEP WRANGLER (2018-), 2.0L, 3.6L

Material: Aluminum / Steel



## SAFETY NOTICE

- \* The RIVAL muffler skid plate is designed to complement 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 muffler skid plate 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 muffler skid plate or its components. In the case of damage, please contact the nearest RIVAL dealer. Vehicle, or where the skid plate has been damaged, is extremely dangerous and must be avoided at all cost.

## INSTALLATION NOTICE

- \* The RIVAL muffler skid plate must be mounted and affixed to the vehicle according to this installation manual.
- \* Personal safety during the installation process must be adhered to at all times.
- \* Do not install this skid plate on vehicle models other than those allowed in this manual.
- \* Estimated time for installation: 1 hour.

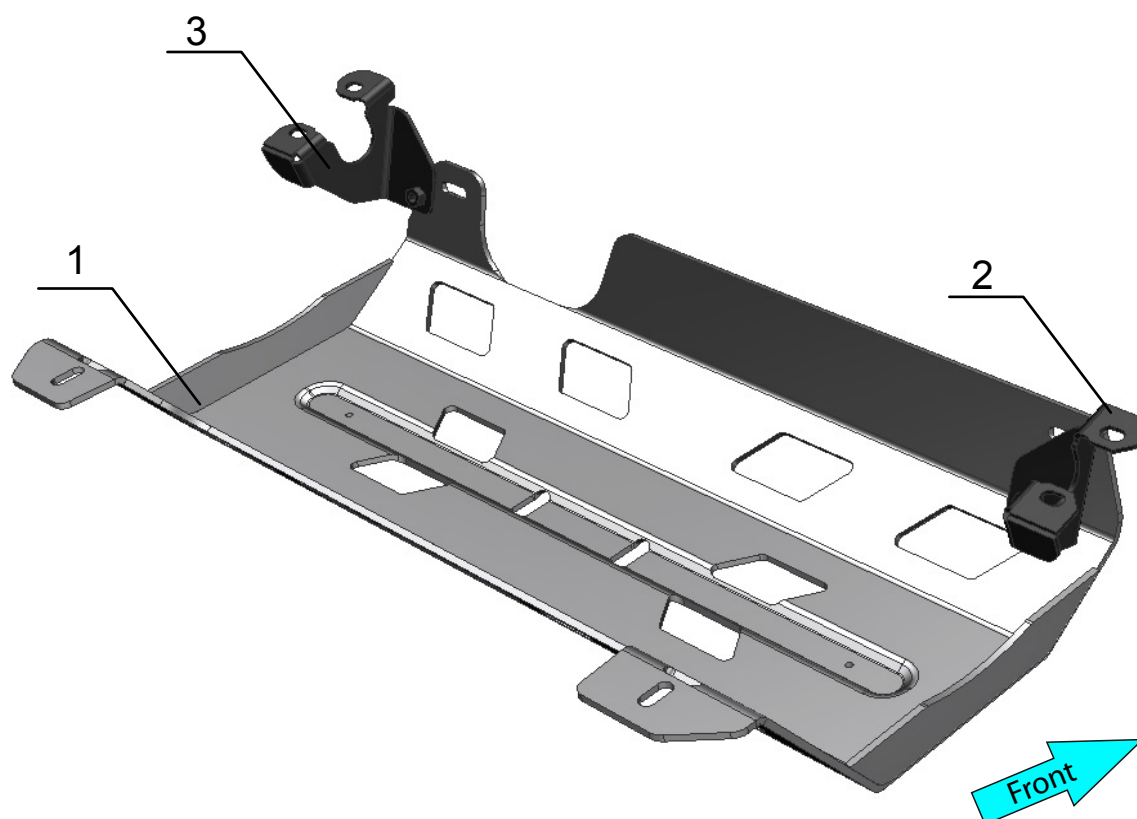
## REQUIRED TOOLS

- \* Ratchet \* 17 mm.

## TORQUE SETTING

- \* M10 - 30 H·m (22.1 lb/ft).





- 1. Muffler skid plate..... Qty 1
- 2. Mount bracket Driver's side..... Qty 1
- 3. Mount bracket Passenger's side..... Qty 1

# PARTS LISTING



A. Bolt M10x25.....	Qty 4
B. Washer 10.....	Qty 4
C. Washer 10 penny.....	Qty 4
D. Insert nut M10.....	Qty 2

# INSTALLATION PROCEDURE

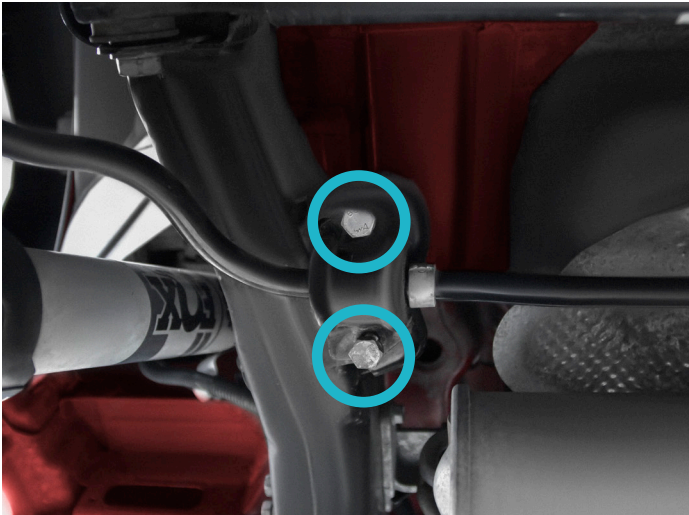


Fig.1

1. Unscrew sway bar mounting brackets bolts on both sides of the vehicle (fig.1).



Fig.2

2. Place passenger's side mount bracket (pos.3) underneath the vehicle sway bar mounting bracket. Fix the bracket using OE bolts (fig.2).  
**\*Do not tighten yet.**



Fig.3

3. Place driver's side mount bracket (pos.2) underneath the vehicle sway bar mounting bracket. Fix the bracket using OE bolts (fig.3).  
**\*Do not tighten yet.**



Fig.4

4. Install insert nut M10 (pos.D) into the passenger's side of rear frame crossmember ( fig.4). Align the holes of inner nut plate with outer holes of rear frame crossmember, as shown in fig. 4.



Fig.5

5. Install inner nut M10 (pos.D) into the driver's side of rear frame crossmember ( fig.5). Align the holes of inner nut plate with outer holes of rear frame crossmember, as shown in fig. 5.

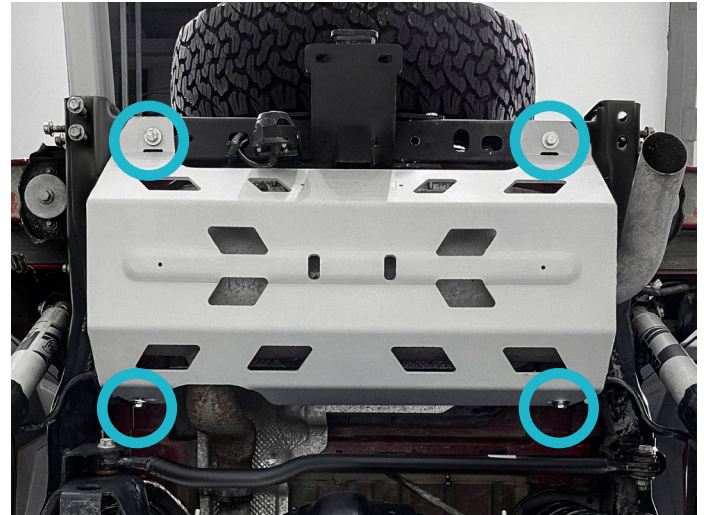


Fig.6

6. Install muffler skid plate (pos.1) on the Driver's side and Passenger's side brackets (pos. 2 and 3) and inner nuts (pos. D) using bolts M10x25 (pos.A), washers 10(pos.B) and penny washers 10 (pos.C) (fig.6).

7. Tighten all the hardware that attaches skid plate to brackets and to vehicle.



Before operating a vehicle fitted with RIVAL Skid Plate:

- make sure all fittings are tightened;
- ensure the integrity of the structure and its components.



**EN**

**UNDERBODY ARMOUR INSTALLATION MANUAL  
(FUEL TANKS)**

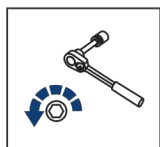
**DE**

**MONTAGEANLEITUNG FÜR UNTERBODENSCHUTZSYSTEM  
(TANKSCHUTZ)**

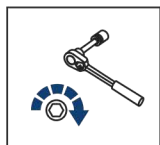


**Underbody Armour for:  
Jeep Wrangler JL (2017- )**

2333.2746.1  
2333.2746.1.6



EN Regular fasteners  
DE Originale montageile



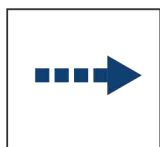
EN Regular fasteners  
DE Originale montageile



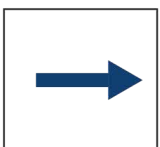
EN Screw a several turns  
DE Für wenigen Umdrehungen befestigen



EN Loosen bolts  
DE Bolzen lockern



EN Movement Arrow  
DE Bewegungsrichtung



EN Location/Position Arrow  
DE Amordnung/Positionsrichtung



EN Screw Arrow  
DE Drehungsrichtung



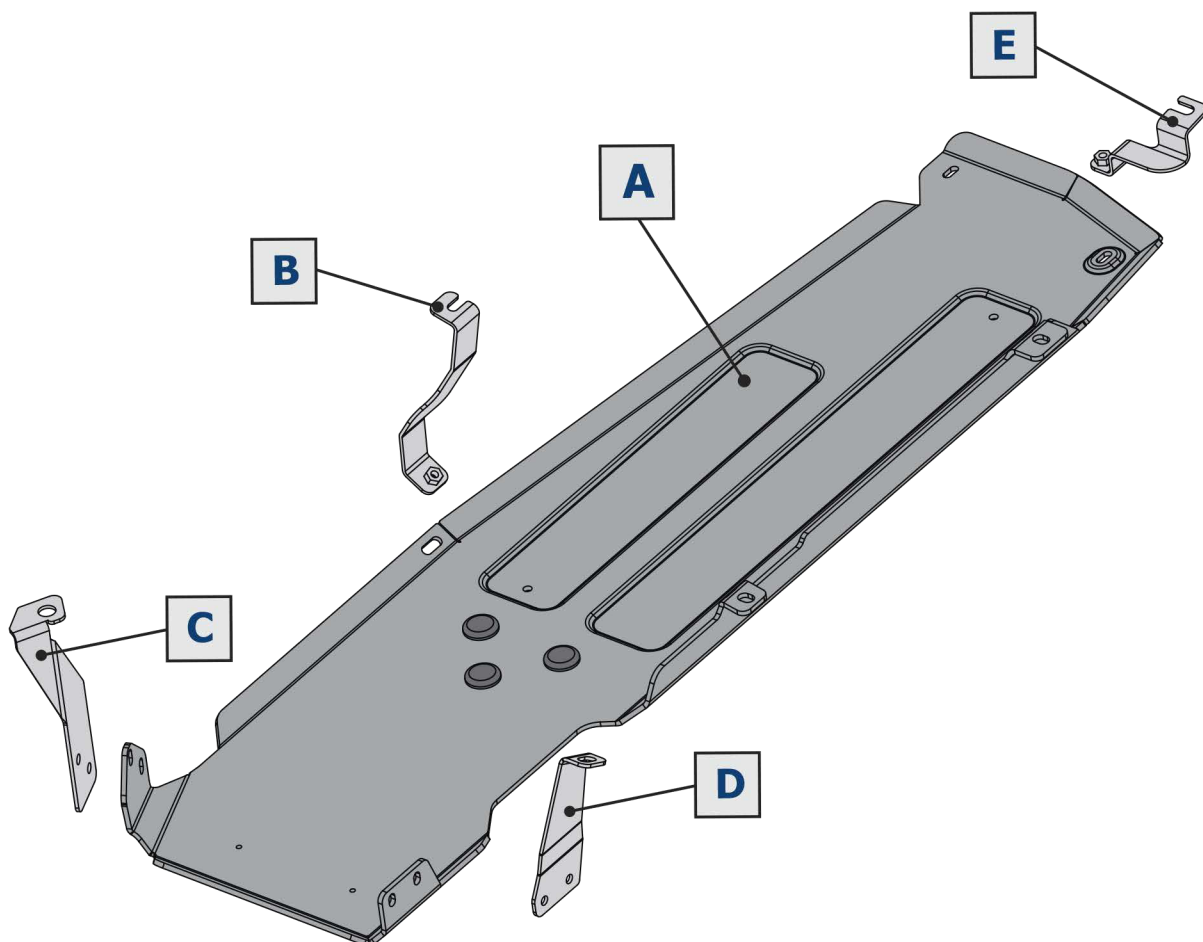
EN Ratchet  
DE Ratsche



S - 17



EN Office Knife  
DE Büromesser



**1**



M10x20

x4

**2**



M10

x4

**3**



Ø10

x6

**4**



M10x25

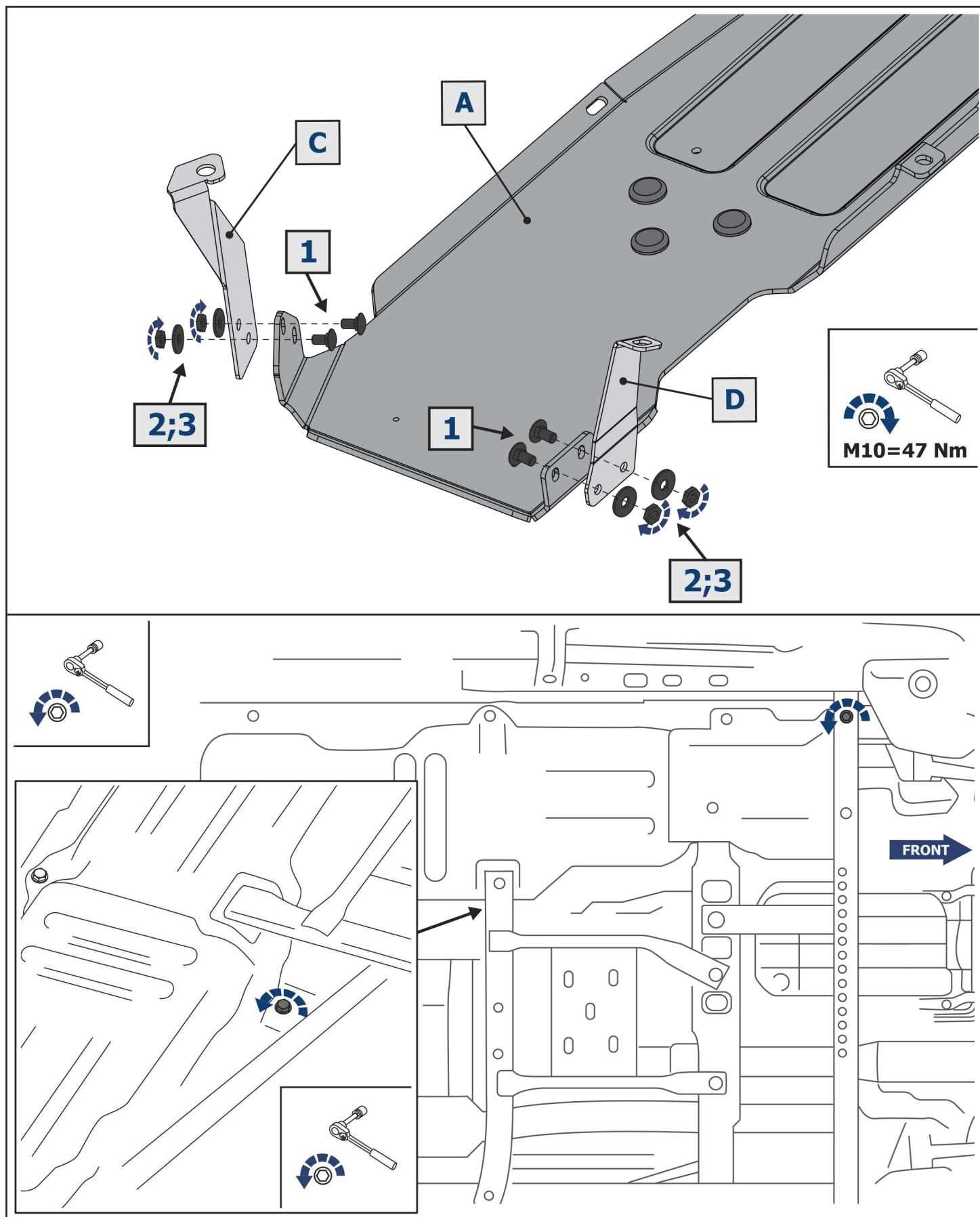
x2

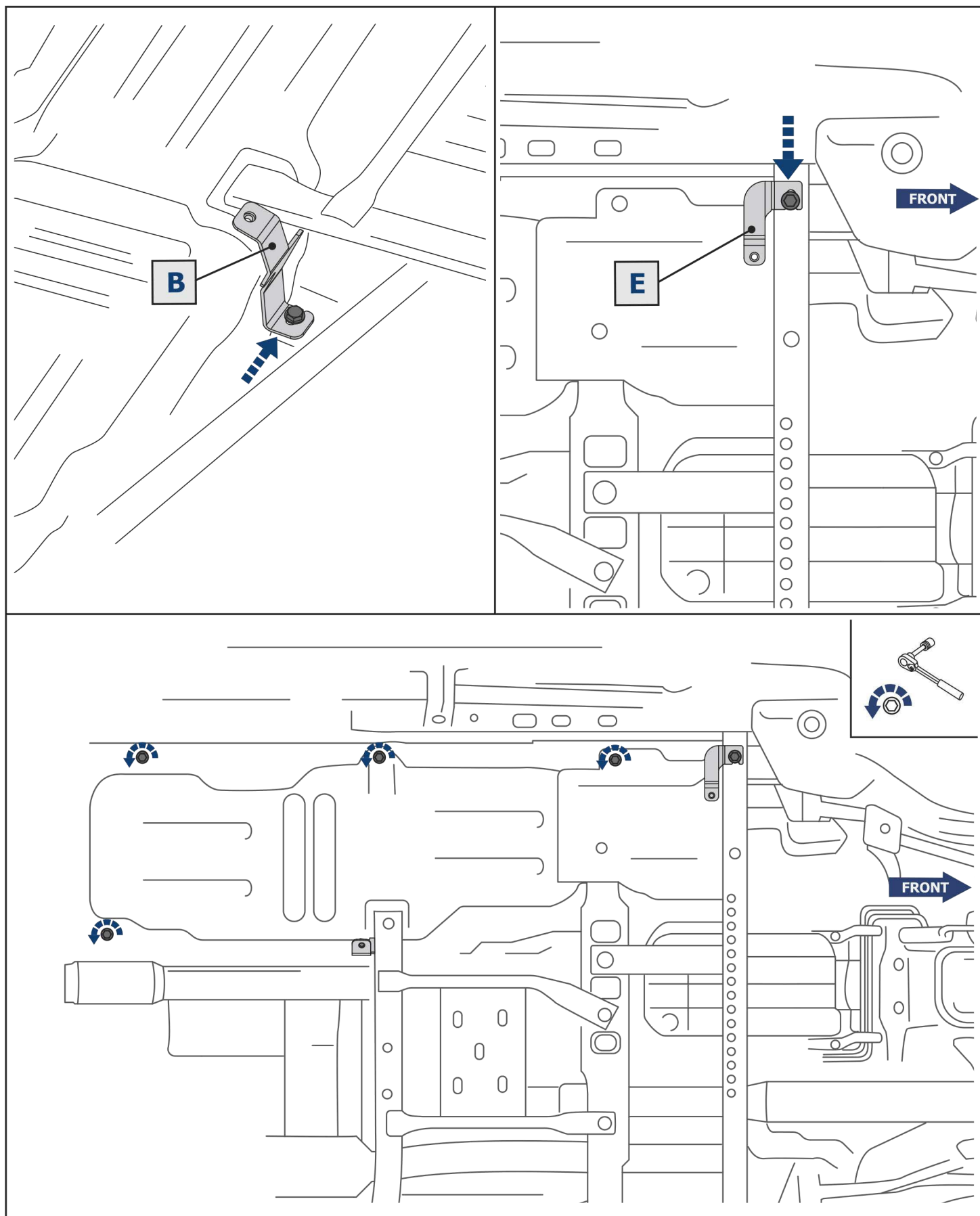
**5**

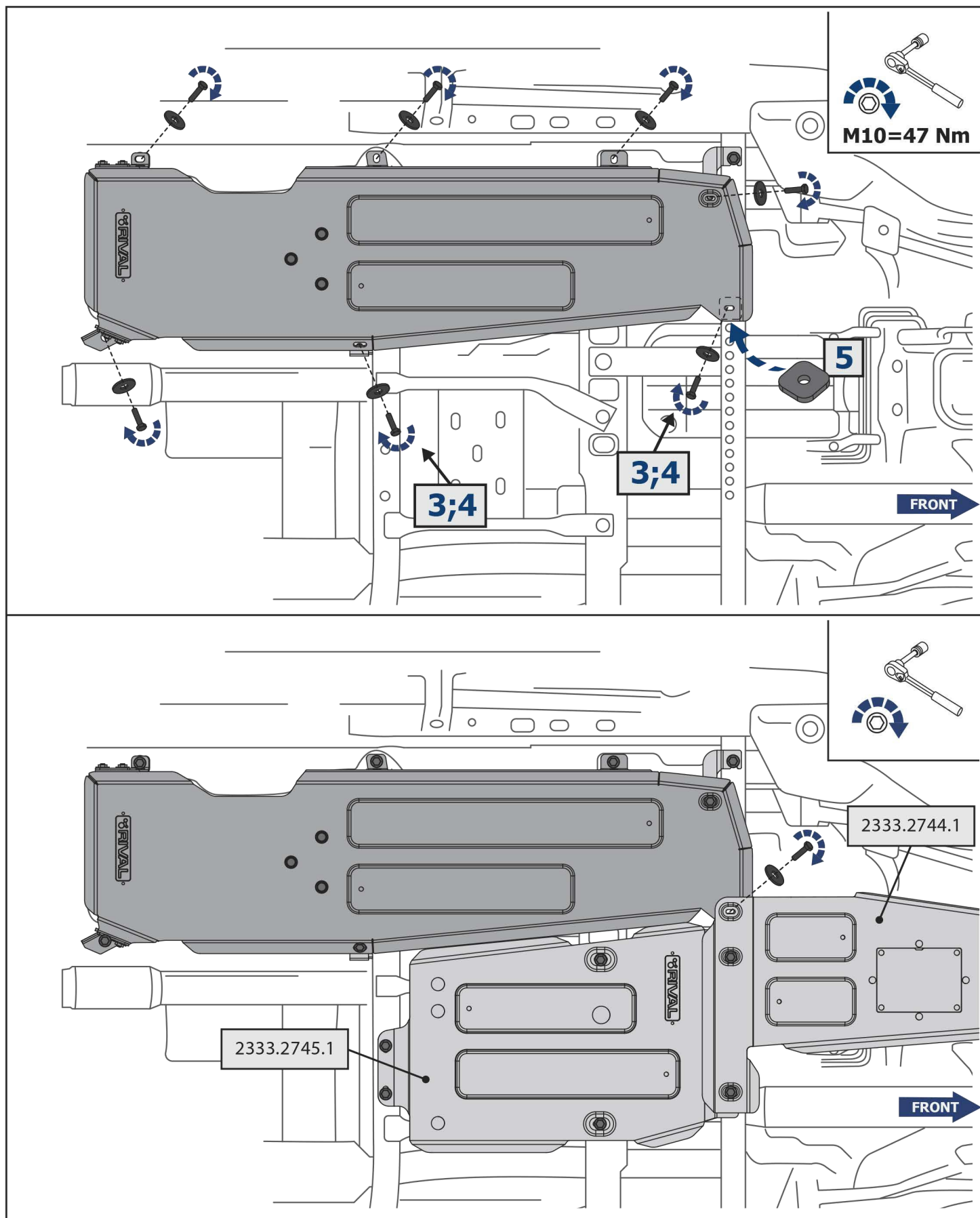


x2











### **(EN) Mounting requirements:**

Underbody Armour is developed individual for each car model.

Underbody Armour must be mounted according to installation manual by an authorized car dealer or by a special car repair stations.

Underbody Armour is to be installed to original points and holes of the power units of the car.

Installed properly Underbody Armour doesn't scrape another parts and assembly of the car.

### **(DE) Montageanleitung:**

Der Unterfahr-/Unterbodenschutz wurde für jedes Fahrzeug individuell entwickelt. Der Unterfahr-/Unterbodenschutz ist gemäß Installationsanleitung des Herstellers bei einer autorisierten Werkstatt oder Autohändler zu montieren. Der Unterbodenschutz wird an den originalen Befestigungsbohrungen der Karosserie montiert. Bei Montage gemäß Herstellervorgaben werden keine anderen Karosserieteile beschädigt oder in Mitleidenschaft gezogen.

### **(EN) Working requirements:**

Underbody Armour is designed for use and drive of the vehicle in conditions considere by the car manufacture.

While driving the carat speed, cases of collisions with large obstacles and objects need to be excluded.

In the case of a collision with an obstacle Underbody Armour and the vehicle must be inspected in a specialized car repair stations for damage of the components and assemblies and suitability for further use.

### **(DE) Herstellervorgaben:**

Der Unterfahr-/Unterbodenschutz ist gemäß den Vorgaben des Fahrzeugherstellers zu verwenden. Das Befahren und Zusammenstoßen von/mit Hindernissen und großen Objekten ist zu unterlassen. Nach erfolgtem Zusammenstoß muss die Funktionsfähigkeit des Fahrzeuges und/oder entstandene Mängel von einer autorisierten Werkstatt überprüft werden.

**(EN) Warranty:**

Warranty period - 12 months.

**(DE) Gewähr:**

Die Dauer der Gewährleistung beträgt 12 Monate.

**(EN) Warranty terms and conditions:**

Underbody Armour is installed on the car, with good condition of the body and the assembly parts (the car, that was not involved in the accident).

Absence of mechanical damages of the Underbody Armour caused by a head-on crush;

Compliance with all installation requirements;

Absence of powder coating damages of the Underbody Armour;

The manufacturer is not liable for any damage caused to the vehicle, the life and health of people in the event of breach of the installation and using of Underbody Armour. The manufacturer has the right to change the design of Underbody Armour.

**(DE) Gewährleistung:**

Der Unterfahr-/Unterbodenschutz muss ohne Beschädigung und/oder Änderungen an Karosserie montiert worden sein. Es dürfen keine Schäden durch die Kollision mit Hindernissen/Gegenständen entstanden sein. Die Vorgaben der Montageanleitung müssen exakt eingehalten werden. Es dürfen keine Schäden/Kratzspuren an der Pulverbeschichtung vorhanden sein. Der Hersteller übernimmt keine Haftung für Fahrzeugschäden jedweder Art und gesundheitliche Gefährdungen durch fehlerhafte Montage und Nutzung des Unterbodenschutzes. Der Hersteller behält sich vor, Design und Konstruktionsänderungen des Unterbodenschutzes zu ändern.

**All products are certified**  
**Alle Produkte sind zertifiziert**

