911 992 GT3 RS Manthey Racing Kit

Revision:

Version	Date	Change
0	01/30/2025	▪ First publication
1	04/17/2025	▪ Update of graphic for Front and rear axle spring struts adjustment dimensions

Vehicle Tpe: **992 GT3 RS**

Model Year: **As of 2023**

Cause: **Retrofitting**

NOTICE

Goodyear tire information

- **Due to the high downforce, only tires from the manufacturers Michelin (Pilot Sport Cup 2/R) and Pirelli (P Zero Corsa/Trofeo RS) are approved. This applies to both race track and road operation of the vehicle.**

NOTICE

- **The components have been tested and approved in combination. TEQ is different: The available individual options can be requested via TEQ.**
- **The Manthey Performance Kit for the 992 GT3 RS may be used following approval of the change in accordance with Sec. 19 Para. 3 StVZO (Straßenverkehrszulassungsverordnung [Road Traffic Licensing Act]) on public roads in Germany**

Information

Please pass all this information on to the customer.

In addition, provide the customer with the Race Circuit brochure included with the scope of parts.

Parts Info **Kit complete**

992.044.855.20	992 GT3 RS Manthey Kit for vehicles with front axle lift and magnesium rims
992.044.855.21	992 GT3 RS Manthey Kit for vehicles without front axle lift and magnesium rim
992.044.855.22	992 GT3 RS Manthey Kit for vehicles with front axle lift and aluminium rims
992.044.855.23	992 GT3 RS Manthey Kit for vehicles without front axle lift and aluminium rims
992.044.855.13	992 GT3 RS Manthey aerodynamics kit for magnesium alloys
992.044.855.14	992 GT3 RS Manthey aerodynamics kit for aluminium rims

Kit for individual chassis scope

992.044.857.20	992 GT3 RS chassis package for vehicles with front axle lift
992.044.857.30	992 GT3 RS chassis package for vehicles without front axle lift

Parts to be ordered additionally:

9GT.898.533	1 x	Locking rings set
9GT.898.533.H	1 x	Fitted bolts with washer set
9GT.898.533.G	1 x	Bearing sleeve set
PAF.108.749	8x	Hexagon flange bolt
PAF.007.957	2x	Hex shoulder nut
N.107.847.02	2x	Hexagon flange bolt
PAF.003.923	12x	Hexagon nut
PAF.009.057	2x	Hexagonal fit bolt
9A7.007.483.00	8x	External hexalobular screw
PAF.100.829	3x	Hexagon-head bolt, M6 x 16, for rear diffuser
PAF.910.423	5x	Inside hexagon round pan-head screw, M6 x 16, for rear diffuser
PAF.104.513	2x	Cheese head bolt with internal multiple-tooth head, M12 x 1.5 x 55
PAF.912.572	6x	Hexagon flange bolt M8 x 22
PAF.909.664	4x	Hexagon collar nut, self-locking
N.102.723.02	2x	Hexagon collar nut, M10, for connecting rod

9A7.007.755.00	2x	Cheese head bolt securing seat belt to seat
000.043.305.38	1 x	Adhesive

Suspension alignment: Intermediate plates may be required for adjusting the camber values on the front axle. Order the required intermediate plates accordingly:

9F1.401.443.H	2 x 2.0 mm intermediate plate

Information

- An external laptop is required to install the kit.
- This is used for commissioning and fault finding for the chassis.
- No vehicle data is read or written; this process is specific to the chassis and is therefore decoupled from the entire vehicle.

Work Pocedure:

WARNING

Preloaded or pressurized components

- **Squashing or bruising**

⇒ **Do not reach into the danger area.**

⇒ **Relieve tension on components before starting work.**

⇒ **Secure components to prevent them from becoming detached suddenly.**

NOTICE

Incorrect line routing

- **Damage to lines and hoses**
- **Malfunction and fault memory entry on control units**

⇒ **Avoid small bending radii when routing lines.**

⇒ **File down edges and burrs in the routing area or mask them with adhesive tape.**

⇒ **Maintain a sufficient distance from components subjected to high temperatures while driving.**

Information

- Some of the repair illustrations show only one side of the vehicle or a similar component.
- Naturally, some steps also have to be performed on the opposite side of the vehicle as well.

Information

- All required small parts/screws are included in the correct number of the respective work steps and are packed for the parts to be installed.

Information

- For the individual scope, refer to the section on “Installing wire harness for chassis and shock absorbers“.
- Refer to “Vehicle measurement“ chapter for measuring.
- Charge the respective working hours listed below for the individual scope of the chassis.
- Aerodynamic package does **NOT** require the chassis to be installed.
- Charge the respective working hours listed below for the individual scope of the aerodynamic package.

Information

PCNA has released Brake Caliper Pins that support, retain and guide the brake caliper when working on or around the brake systems. These tools can be used while completing a MANTHEY Racing alignment. Please see: https://ppn.porsche.com/portal/docs/DOC-504101

Table of contents:

13. Rear axle Aerodisc
14. Installing door entry adhesive label
15. Coding and chassis commissioning
16. Suspension alignment

1 **Preparatory work/bonding carbon rear window plate**

1.1 Disconnect the battery.

1.2 Remove and install wheels with central bolt. ⇒ *Workshop Manual 'Remove and install wheel with central bolt'*.

1.3 Remove front apron ⇒ *Workshop Manual 'Remove and install front apron'*.

1.4 Remove front central air guide.

1.5 Remove seats ⇒ *Workshop Manual 'Remove and install front seat (sports bucket seat)'*.

1.6 Remove roll-over bar. ⇒ *Workshop Manual 'Remove and install roll-over bar'*.

1.7 Remove rear side trim panel. ⇒ *Workshop Manual 'Remove and install rear side trim panel'*.

1.8 Remove rear cover ⇒ *Workshop Manual 'Remove and install rear cover'*.

1.9 Remove rear window ⇒ *Workshop Manual 'Remove and install rear window'*.

1.10 Proceed with carbon rear window plate as per Porsche specifications like with a “normal“ rear window.

1.11 Remove door entry guard. ⇒ *Workshop Manual 'Remove and install door entry guard'*.

1.12 Remove rear diffuser ⇒ *Workshop Manual 'Remove and install lower part of rear spoiler (diffuser)'*.

1.13 Remove front spring strut ⇒ *Workshop Manual 'Remove and install front spring strut'*.

1.14 Remove rear spring strut ⇒ *Workshop Manual 'Remove and install rear spring strut'*.

2 **Chassis assembly**

For this work step, work steps 1.12 and 1.13 MUST be completed. The NON-lift variant is already delivered assembled and installation can be started straight away. The lift variant must be converted as described in the following work steps.

Torque shock absorbers

Location	**Torque**
Nut on piston rod	40 Nm (29.50 ftlb)
Grub screw on spring plate	1 Nm (0.74 ftlb)
Mounting ring on bellows	15 Nm (11.06 ftlb)

Lift system lock nut	66 Nm (48.7 ftlb)
Front brake line screw connection	10 Nm (7.4 ftlb)
Rear brake line screw connection	10 Nm (7.4 ftlb)

2.1 Disassemble front spring strut

2.1.1 Disassemble spring strut. ⇒*Workshop Manual '408537 Disassemble and assemble front spring strut'*

2.1.2 Remove front axle lift
Only for vehicles with front axle lift system.
The tool for the lock nut supplied with the kit must be used. The general height of the lift unit is indicated by dimension X; however, during installation, the unit should be aligned such that the lift connection is aligned with the valve block.

2.1.3 Remove height-adjusting nut ⇒*Front axle spring strut with lift* **-2-** and lock nut ⇒*Front axle spring strut with lift* **-3-**.

2.1.4 Screw the front axle lift ⇒*Front axle spring strut with lift* **-4-** up until the dust boot detaches ⇒*Front axle spring strut with lift* **-1-** and remove dust boot ⇒*Front axle spring strut with lift* **-1-**.

2.1.5 Remove front axle lift ⇒*Front axle spring strut with lift* **-4-** and lock nut ⇒*Front axle spring strut with lift* **-5-** from the spring strut ⇒*Front axle spring strut with lift* **-6-** (use open-ended spanner 700 17 171 and open-ended spanner 700 17 184).

Front axle spring strut with lift

1 – Dust boot
2 – Height-adjusting nut
3 – Lock nut
4 – Front axle lift system
5 – Lock nut
6 – Spring strut

2.2 Assemble new front spring strut **with** front axle lift

2.2.1 Install lock nut⇒*Front axle spring strut with lift overview* **-16-** and lift system ⇒*Front axle spring strut with lift overview* **-12-** on the spring strut.
Do **not** tighten to the specified torque yet.

2.2.2 Install plastic cap ⇒*Front axle spring strut with lift overview* **-15-** on the shock absorber housing (use impact sleeve 700 17 169 and a plastic hammer).

2.2.3 Push spring plate, ⇒ *Front axle spring strut with lift overview* **-9-** coil spring, ⇒ *Front axle spring strut with lift overview* **-8-** intermediate ring ⇒ *Front axle spring strut with lift overview* **-7-** and helper spring ⇒ *Front axle spring strut with lift overview* **-6-** onto the piston rod.
Then mount the bellows ⇒ 2.2.4 .
Install rubber stop ⇒ *Front axle spring strut with lift overview* **-3-** and supporting mount ⇒ *Front axle spring strut with lift overview* **-2-** on the piston rod and tighten nut ⇒ *Front axle spring strut with lift overview* **-1-** (use special tool KW 685 10 179).
Ensure that the rubber stops ⇒ *Front axle spring strut with lift overview* **-3-** are installed correctly: Pointed tapered end must be facing upwards as shown ⇒ *Front axle spring strut with lift overview*. **Tightening torque 40 Nm** + Loctite 243.

Front axle spring strut with lift overview

1 – Nut
2 – Support bearing - 19A.491.13 (LH)/19A.491.14 (RH)
3 – Rubber stop
4 – Bellows
4.1 – Mounting ring on bellows
4.2 – Upper spring plate
5 – Upper ring on bellows
6 – Auxiliary spring
7 – Intermediate ring
8 – Coil spring
9 – Lower spring plate (install distance of 10 mm from the lift system)
12 – Spring strut
15 – Plastic cap
16 – Lock nut
— – Ventilation discs 2x (not shown)

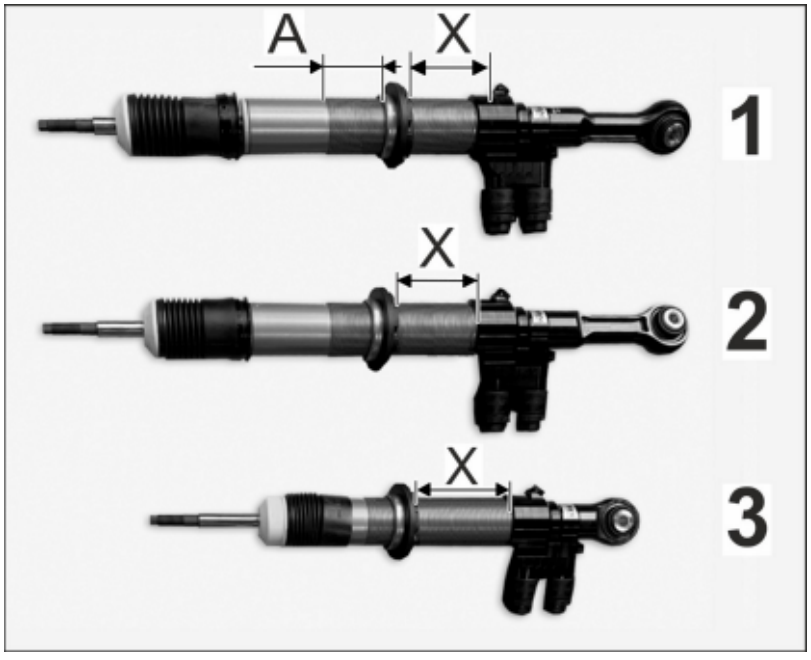
2.2.4 Bellows assembly:
Check the type of bellows. Different types are available: **with** and **without** retaining ring.

Assembly of bellows mounting ring: Secure lift unit against turning by fully screwing down lower spring plate ⇒*Front axle spring strut with lift overview* **-9-** and securing with grub screw. **Tightening torque 1 Nm**
Tighten mounting ring for bellows ⇒*Front axle spring strut with lift overview* **-4.1-** (use hook spanner 685 11 296), countering at lower spring plate ⇒*Front axle spring strut with lift overview* **-9-** (use hook spanner 685 11 295). **Tightening torque 15 Nm**

Install bellows mounting ring ⇒*Front axle spring strut with lift overview* **-4.1-** at short end of the bellows ⇒*Front axle spring strut with lift overview* **-4-**, install upper spring plate ⇒*Front axle spring strut with lift overview* **-4.2-** on bellows ⇒*Front axle spring strut with lift overview* **-4-** and secure with upper bellows ring ⇒*Front axle spring strut with lift overview* **-5-**.

The bellows ⇒*Front axle spring strut with lift overview* **-4-** is clipped onto the plastic cap when the spring strut is completely installed.

2.3 Adjust the relevant dimension X.
On vehicles with a lift system, ensure that the lift system line is aligned with the center of the damping force adjustment wheel (A).



Front and rear axle spring struts adjustment dimensions

1 – Front axle with front axle lift
2 – Front axle without front axle lift
3 – Rear axle

Front axle **with front axle lift**	Dimension A
Lower edge of spring seat to shoulder of lift unit	11 mm

Front axle **with front axle lift**	Dimension X
Lower edge of lift unit lock nut to shoulder of shock absorber-valve foot	84 mm

Front axle **without front axle lift**	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	103 mm

Rear axle	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	72 mm

2.4 Tighten spring plate grub screws.
Tightening torque 1 Nm

2.5 Only for spring strut **with lift system**: Tighten lift system lock nut (use open-ended spanner 700 17 171 and open-ended spanner 700 17 184).
Tightening torque 66 Nm

2.6 Replace rear spring strut

2.6.1 Remove rear spring strut. ⇒ *Workshop Manual '427119 Remove and install spring strut, rear'*

2.6.2 Check height dimension X and adjust if necessary.

Rear axle	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	72 mm

The adjustment dimensions are used for presetting.

Do not yet complete the vehicle interior.

3 **Assembly of brake pads and steel flex lines**

WARNING

Personal injury and material damage from brake fluid

- **Poisonous if swallowed**
- **Irritation and damage to skin**

- **Dissolving paint surfaces**

⇒ **Only store brake fluid in suitable, labelled containers**

⇒ **Wear protective gloves and goggles**

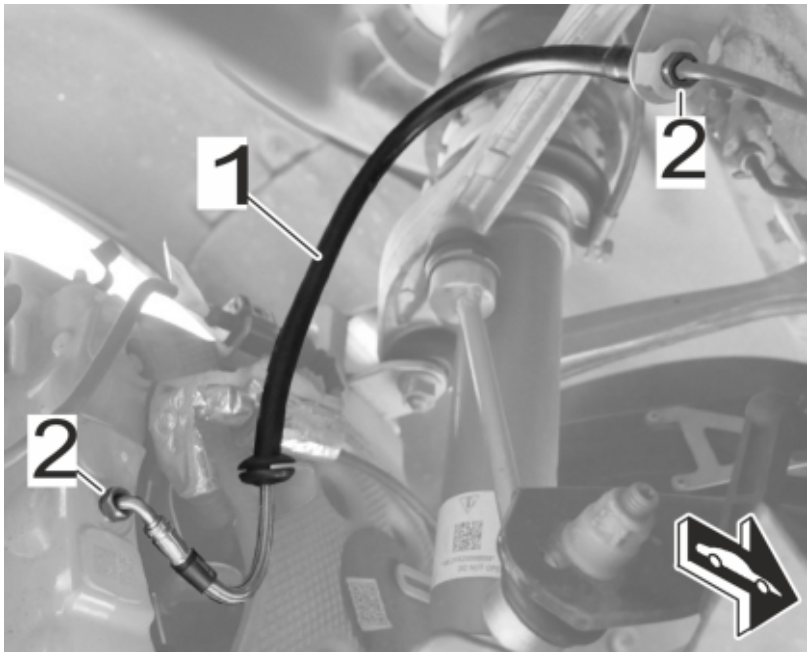
⇒ **In the event of contact (eyes or skin), wash immediately with water**

⇒ **If contact is made with paint surfaces, wash off immediately with water, do not wipe off**

3.1 Replace front brake pads ⇒ *Workshop Manual '427119 Replace front disc brake pads'*.

3.2 Replace rear brake pads ⇒ *Workshop Manual '427119 Replace rear disc brake pads'*.

3.3 Replace front brake lines (part)



Front axle brake line assembly

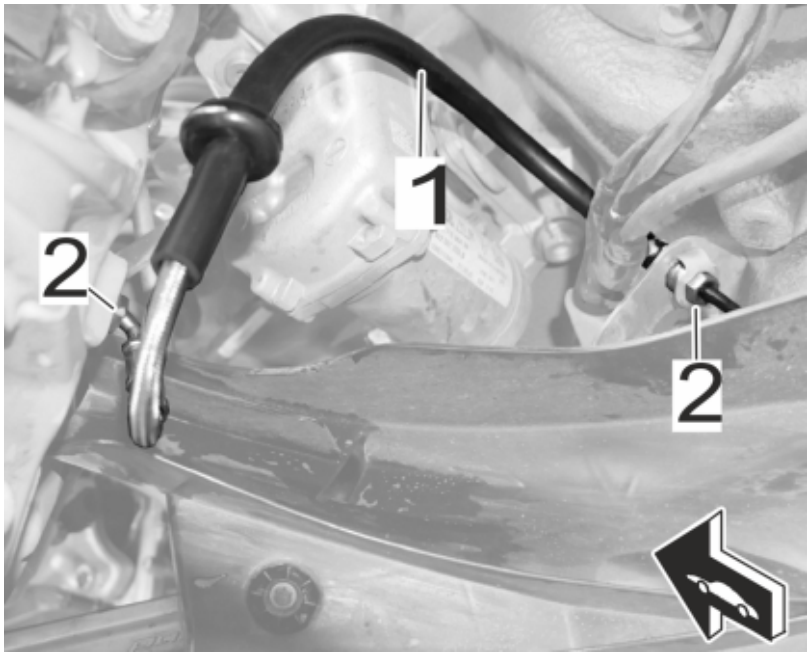
1. – Loosen threaded connections ⇒ *Front axle brake line assembly* **-2-** and remove brake line ⇒ *Front axle brake line assembly* **-1-**.

2. – Install new brake line ⇒ *Front axle brake line assembly* **-1-** without tension and ensure that no abrasion occurs.

3. – Tighten threaded connections ⇒ *Front axle brake line assembly* **-2-**. Line routing downwards approx. 45 degrees. **Tightening torque: 10 Nm (7.4 ftlb)**

4. – Clean adjacent components of any brake fluid that may have leaked out.

3.4 Replace rear brake lines (part)



Rear axle brake line assembly

5. – Loosen brake line threaded connection ⇒ *Rear axle brake line assembly* **-2-** and remove brake line ⇒ *Rear axle brake line assembly* **-1-**.

6. – Route the new brake line ⇒ *Rear axle brake line assembly* **-1-** in the same way as the standard brake line and tighten the threaded connection ⇒ *Rear axle brake line assembly* **-2-**

7. – Clean adjacent components of any brake fluid that may have leaked out.

3.5 Bleed the brake system ⇒ *Workshop Manual '427119 Bleed the brake system'*.

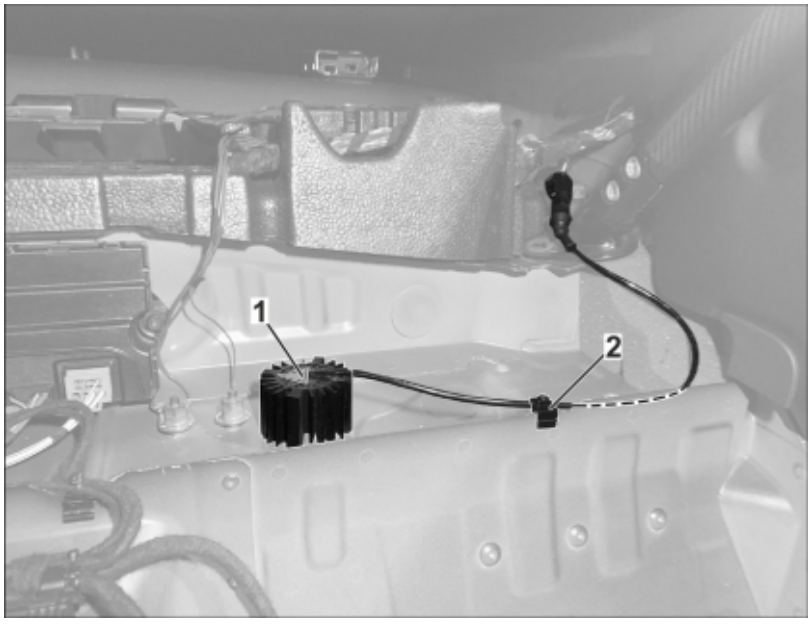
4 **Installing wire harness and resistors (chassis)**

Information

- Stickers, general adhesive surfaces and adhesive tape only reach their full adhesive strength after 72 hours.
- The vehicle must not come into contact with water, splash water or a car wash within 72 hours.

Installing rear right resistor

1. – Clean adhesive surface on the vehicle and make it grease-free. **Rear right part number: 670.108.10**
2. – Pull off protective film on the adhesive surface from the resistor and ⇒*Installing rear right resistor* **-1-** bond resistor as shown in the diagram.
3. – Secure the cable with the cable tie clamp. ⇒*Installing rear right resistor* **-2-**



Installing rear left resistor

4. – Clean adhesive surface on the vehicle and make it grease-free. **Rear left part number: 670.107.29**

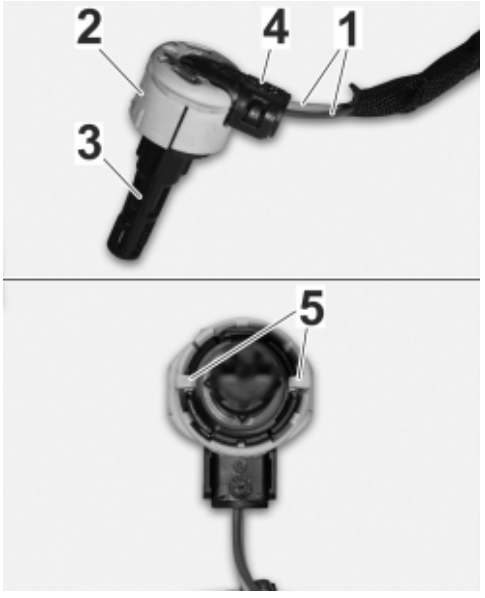
5. – Pull off protective film on the adhesive surface from the resistor and ⇒*Installing rear left resistor* **-1-** bond resistor as shown in the diagram.

6. – Connect resistor to the vehicle wire harness (PASM plug) and ⇒*Installing rear left resistor* **-2-** secure the cable with the cable tie clamp.

For the front axle, please observe the following work steps; **convert both original plugs from the wire harness:**

Release safety cap ⇒*10* **-2-** on locking lugs ⇒*10* **-5-**.
Release fuse ⇒*10* **-4-** on connector ⇒*10* **-3-**.

1 – Electric lines
2 – Locking cap
3 – Connector
4 – Fuse
5 – Locking lugs



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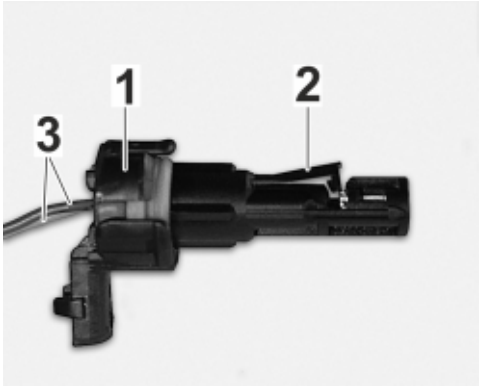
Release fuse ⇒*11* **-2-** on connector ⇒*11* **-1-** and unpin electric lines ⇒*11* **-3-**.

1 – Connector
2 – Fuse
3 – Electric lines

Remove safety cap ⇒*12* **-2-** (no longer required).



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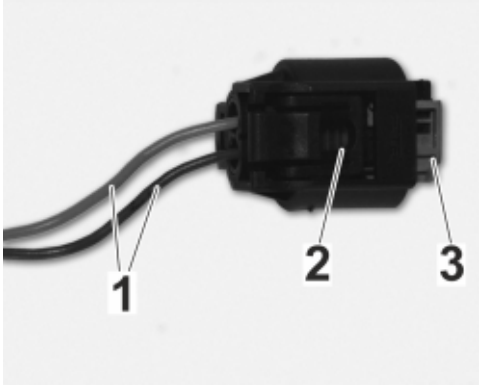
Plug electric lines ⇒ *12* **-1-** into new connector ⇒ *12* **-2-** and lock fuse ⇒ *12* **-3-**.

1 – Electric lines
2 – Connector
3 – Fuse



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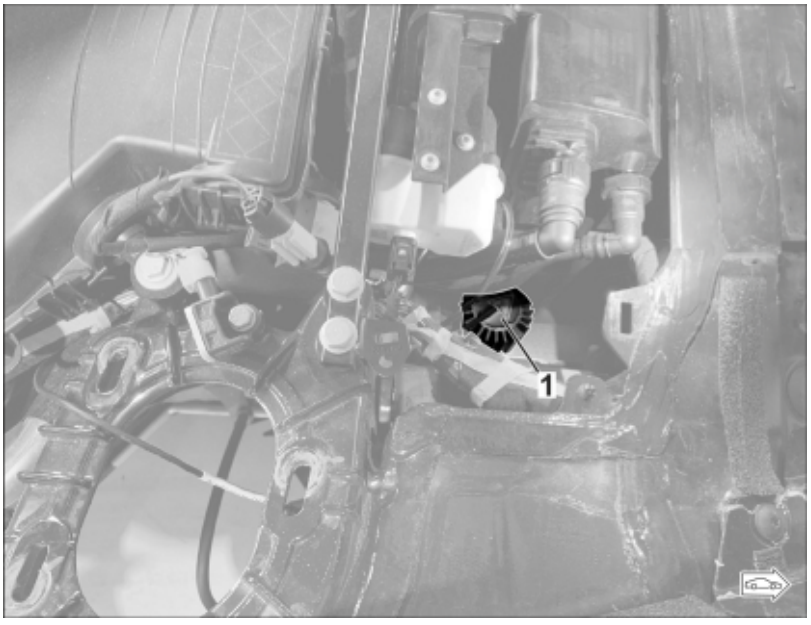
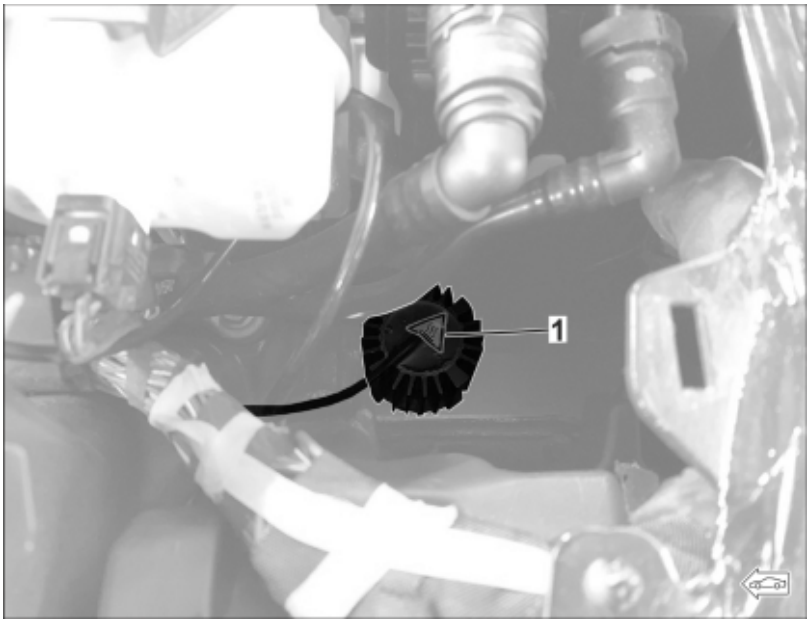


Installing front left resistor

7. – Clean adhesive surface on the vehicle and make it grease-free. **Front axle part number: 670.107.85**

8. – Pull off protective film from the resistor on the adhesive surface and ⇒*Installing front left resistor* **-1-** bond the resistor as shown in the diagram.

9. – Connect resistor to vehicle wire harness (PASM plug).

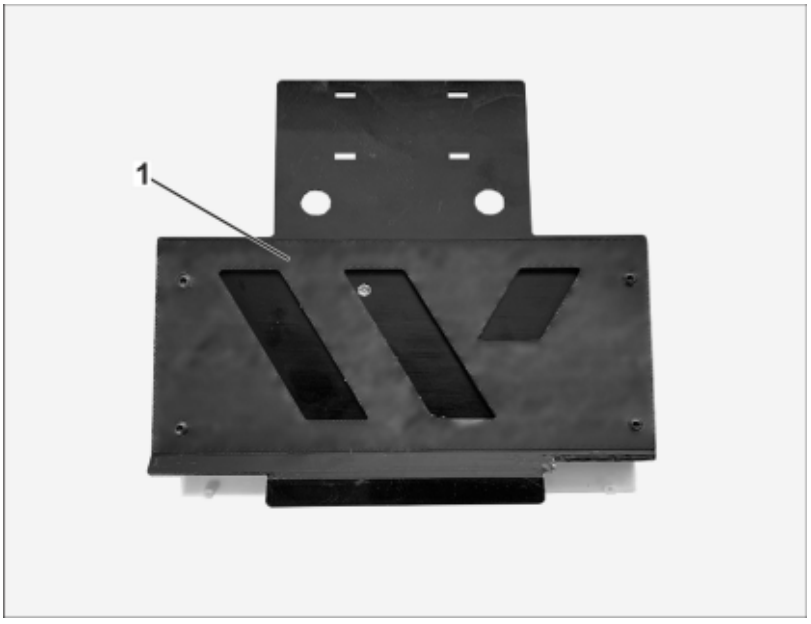


Installing front right resistor

10. – Clean adhesive surface on the vehicle and make it grease-free. **Front axle part number: 670.107.85**

11. – Pull off protective film from the resistor on the adhesive surface and ⇒*Installing rear right resistor* **-1-** bond the resistor as shown in the diagram.

12. – Connect resistor to vehicle wire harness (PASM plug).

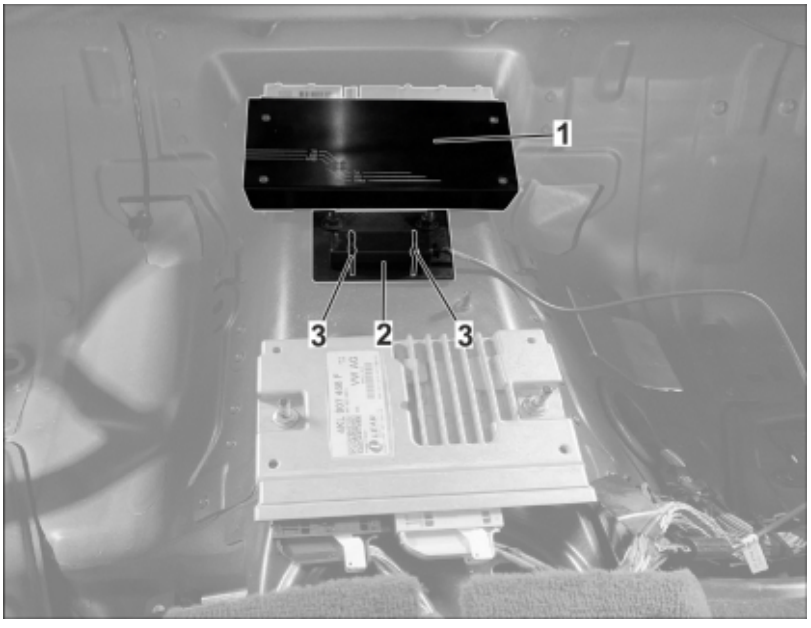


Install holder on control unit

13. – Install holder ⇒*Install holder on control unit* **-1-** on control unit. Tighten screws (4x).
Tightening torque: 2.6 Nm (1.92 ftlbs)

Preparing control unit

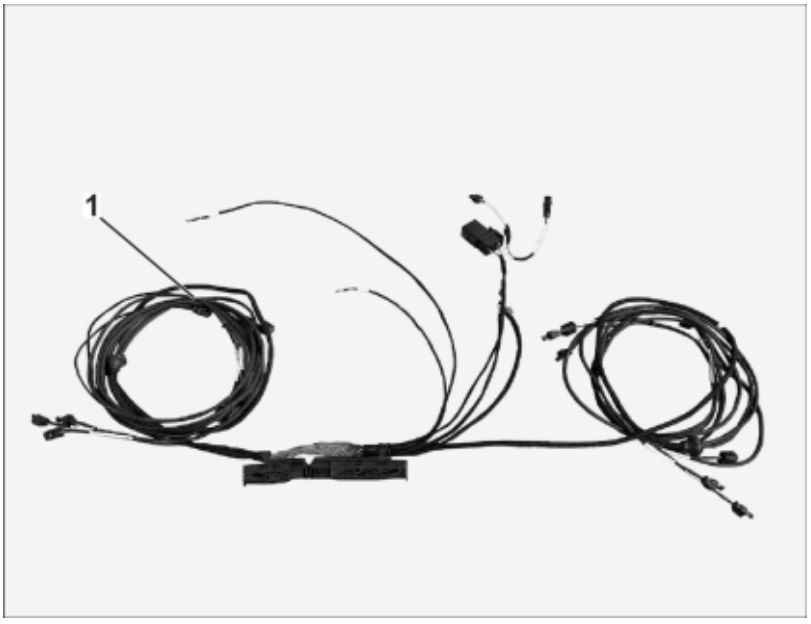
14. – Attach cable ties on the left and right ⇒*Preparing control unit* **-1-** to the holder (do not pull).



Installing control unit and CAN clip

15. – Install control unit ⇒*Installing control unit and CAN clip* **-1-**.

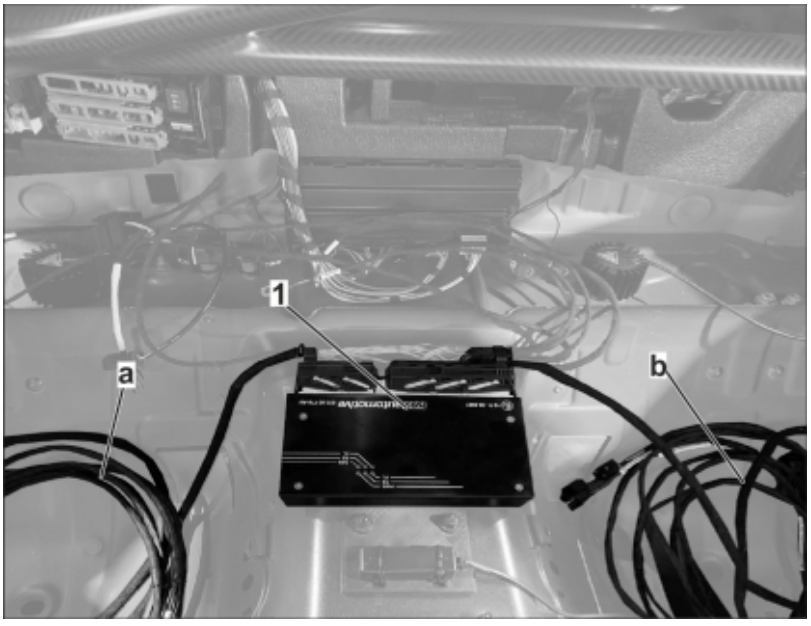
16. – Install and align CAN Clip module ⇒*Installing control unit and CAN clip* **-2-** and tighten both cable ties ⇒*Installing control unit and CAN clip* **-3-**. Cut off surplus cable ties.



Preparation of wire harness

17. – Prepare wire harness on the workbench as shown.

18. – Install relay ⇒*Preparation of wire harness* **-1-**.



Lay out wire harness in the vehicle and connect

19. – Place wire harness in the vehicle as shown and connect plug connection ⇒*Lay out wire harness in the vehicle and connect* **-1-** on the control unit.

20. – Place the wire harness running outside the vehicle into the vehicle recess on the left and right ⇒*Lay out wire harness in the vehicle and connect* **-a and b-**

Can Clip assembly

21. – Uncover wire harness at the place shown ⇒*Can Clip assembly* **-1-**. Drill twisted cable color **Blue (Can High)** and **Brown (Can Low)** up approximately 5 cm, spinning out would also be possible.

22. – Insert CAN line into the respective guide of the CAN Clip module **(see CAN High and CAN Low lettering).** Connect CAN Clip line to wire harness.

Cable routing in interior area of control unit

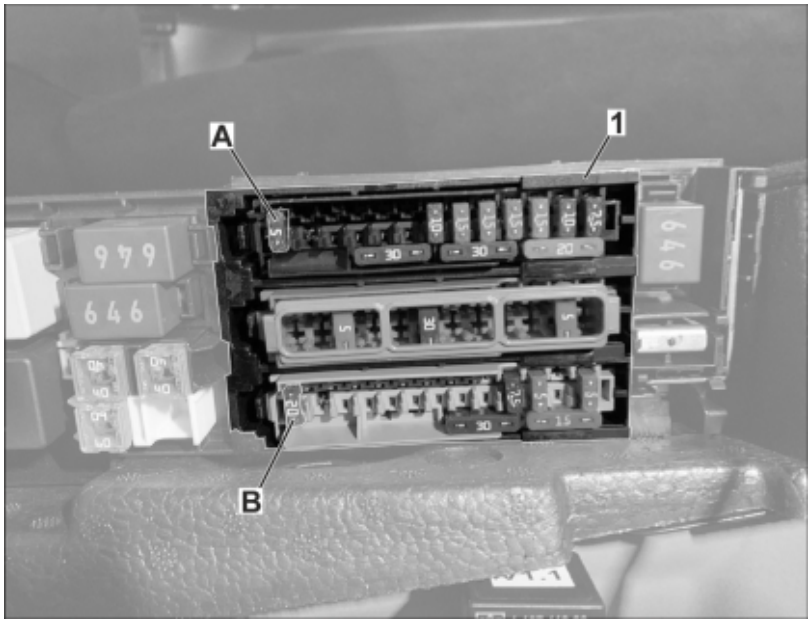
23. – Fix the left and right wire harness using the cable tie clamp ⇒*Cable routing in interior area of control unit* **-1-** as shown.

24. – Loosen ground pin (2x) ⇒*Cable routing in interior area of control unit* **-2-** and mount and tighten acceleration sensor ⇒*Cable routing in interior area of control unit* **-3-**, connect acceleration sensor ⇒*Cable routing in interior area of control unit* **-3-**. Observe installation direction, otherwise possible collision with carpet.

25. – Remove ground bolt (unoccupied bolt) ⇒*Cable routing in interior area of control unit* **-4-** nut and mount ground line from the new wire harness on the threaded bolt. **Tightening torque: 13 Nm (9.5 ftlb)**⇒*Cable routing in interior area of control unit* **-4-**

26. – Thoroughly clean and grease-free adhesive surface for relays ⇒*Cable routing in interior area of control unit* **-5-**. Glue Velcro adhesive strips on the vehicle side and then fix relay using Velcro ⇒*Cable routing in interior area of control unit* **-5-**. Plug in rear right resistor on relay.

27. – Lay power supply (2 lines with pins) to the fuse box ⇒*Cable routing in interior area of control unit* **-6-**. Connect surplus cables to the vehicle wire harness using cable ties, paying attention to kinks and potential chafing points.



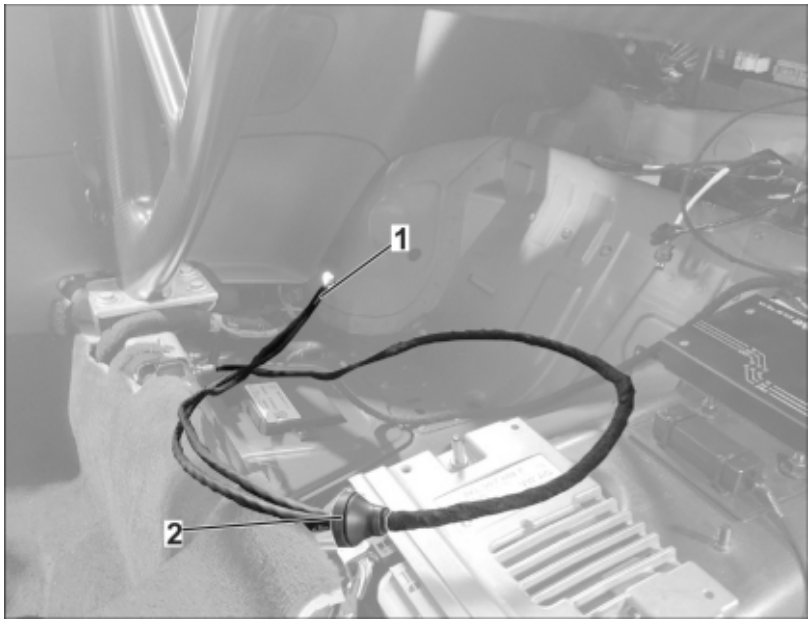
Power supply fuse box

28. – Pull fuse box ⇒*Power supply fuse box* **-1-** in the direction of travel.

29. – Insert "smaller" pin in upper fuse box (black) from the rear and insert fuse 5A terminal 15.
Slot:⇒*Power supply fuse box* **-A-**

30. – Insert "larger" pin in lower fuse box (beige) from behind and insert fuse 20A terminal 30.
Slot:⇒*Power supply fuse box* **-B-**

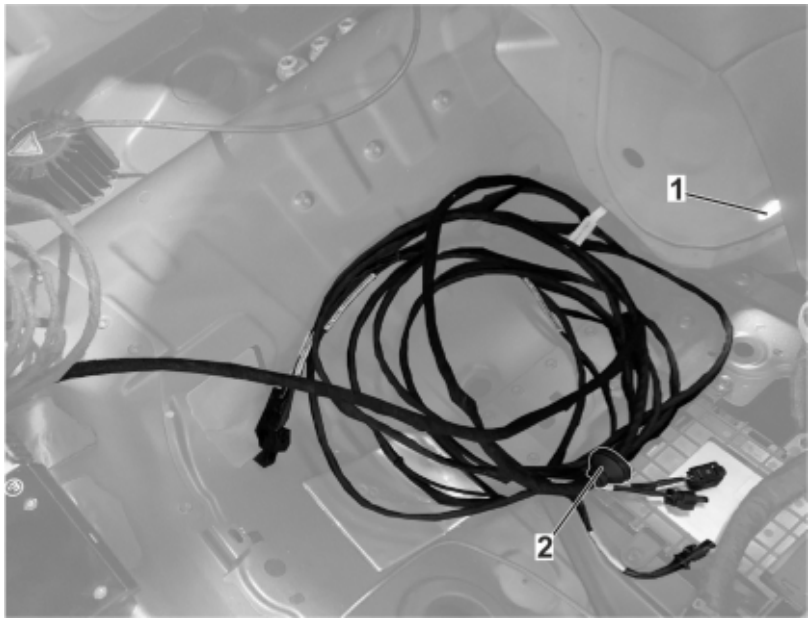
31. – Insert fuse box ⇒*Power supply fuse box* **-1-** in assembly location and make sure cable is laid properly.



Rear right passenger compartment line routing

32. – Remove spout that is installed as standard ⇒*Rear right passenger compartment line routing* **-1-**

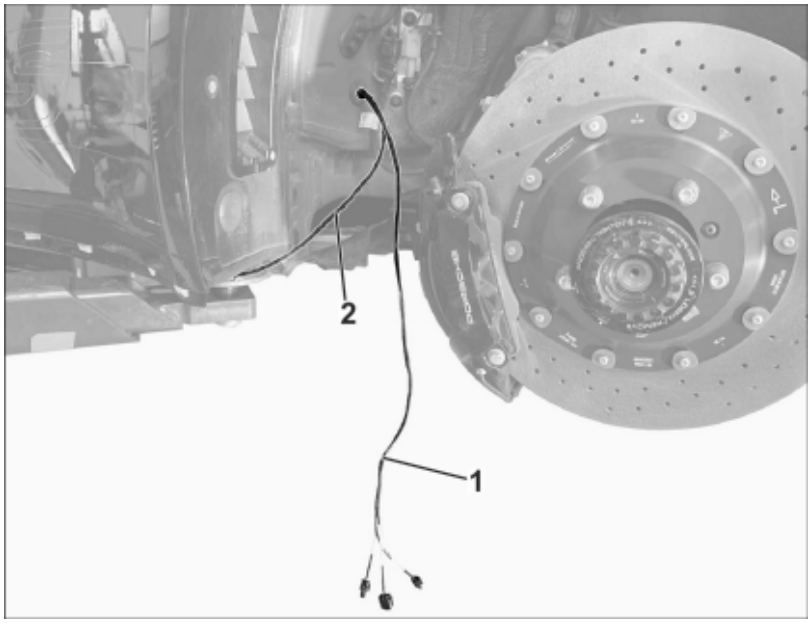
33. – Guide wire harness through body opening ⇒*Rear right passenger compartment line routing* **-1-** and install grommet ⇒*Rear right passenger compartment line routing* **-2-**. Ensure correct seating.



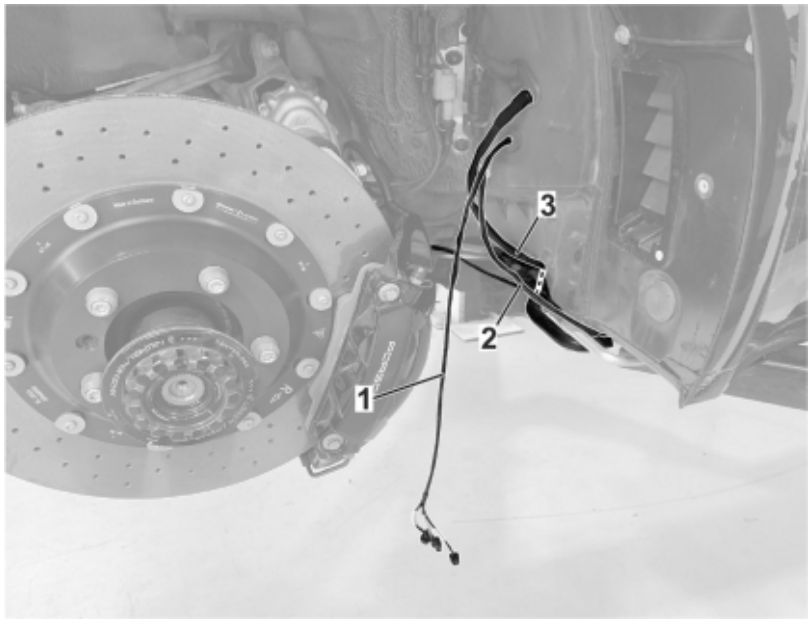
Rear left passenger compartment line routing

34. – Remove spout that is installed as standard ⇒*Rear left passenger compartment line routing* **-1-**

35. – Guide wire harness through body opening ⇒*Rear left passenger compartment line routing* **-1-** and install grommet⇒*Rear left passenger compartment line routing* **-2-** . Ensure correct seating.



Rear left wheel housing line routing

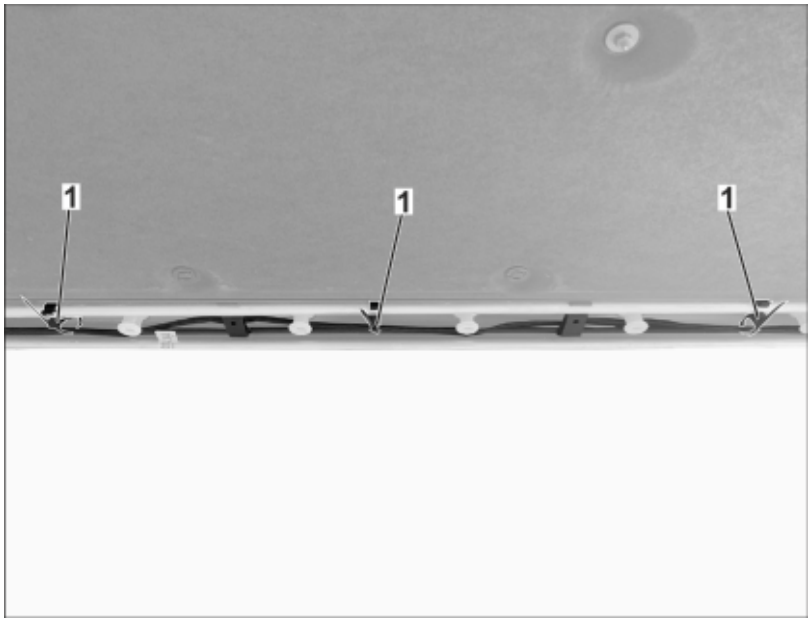


Rear right wheel housing line routing

36. – **Important: Only fix wire harness finally when plugs on the damper are wired, start and prepare the damper; this applies to all four dampers**. Align wire harness, short wire harness ⇒ *Rear left wheel housing line routing* **-1-**/⇒ *Rear right wheel housing line routing* **-1-**/with three plugs remaining in the rear wheel housing.

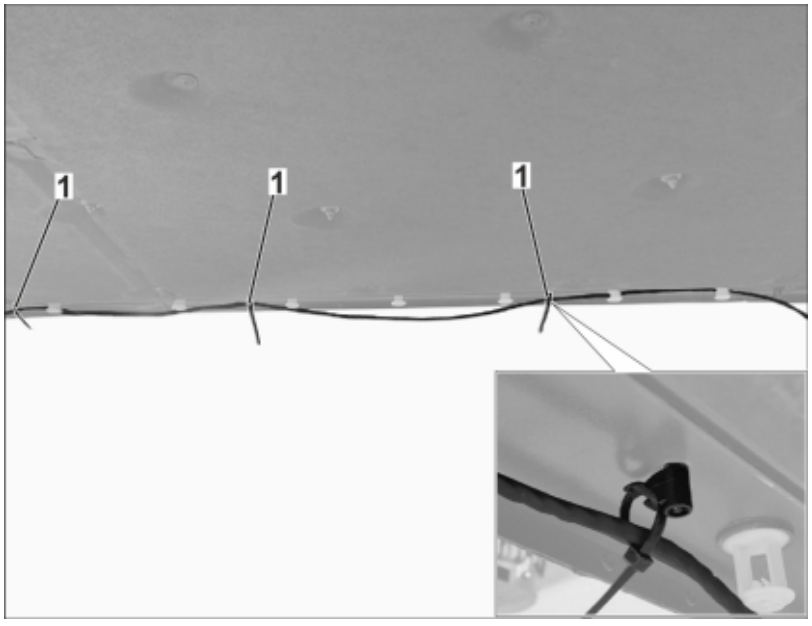
37. – Lay long wire harness ⇒ *Rear left wheel housing line routing* **-2-**/⇒ *Rear right wheel housing line routing* **-2-** towards front of vehicle in the area of the sill and fix it to air conditioning line with pipe cuffs and cable ties ⇒ *Rear left wheel housing line routing* **-3-**/⇒ *Rear right wheel housing line routing* **-3-**.

38. – Repeat this work step on the other side (rear left wheel housing).



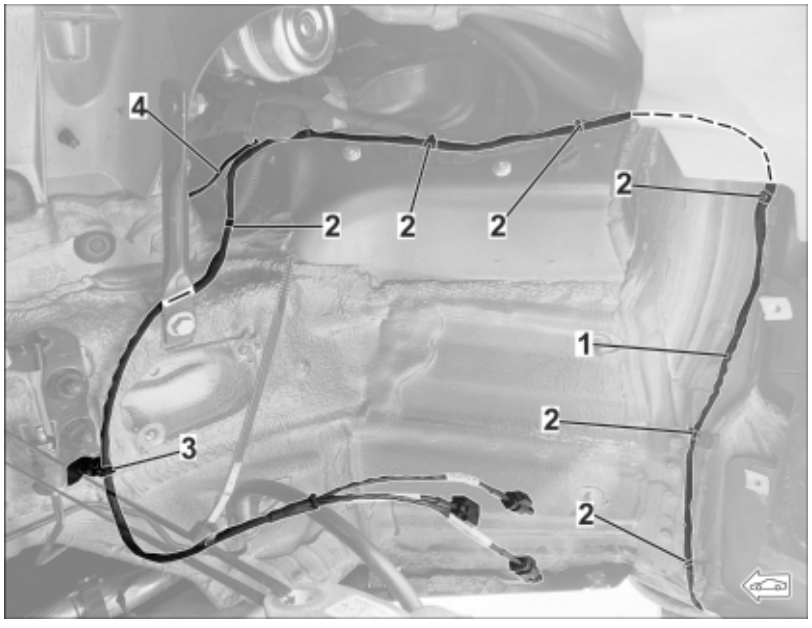
Line routing of sill on right side

39. – Fix wire harness to the air conditioning line as shown using cable ties and pipe cuffs ⇒ *Line routing of sill on right side* **-1-**



Line routing of sill on left side

40. – Fix wire harness to the tucker bolt as shown using cable ties ⇒ *Line routing of sill on left side* **-1-**



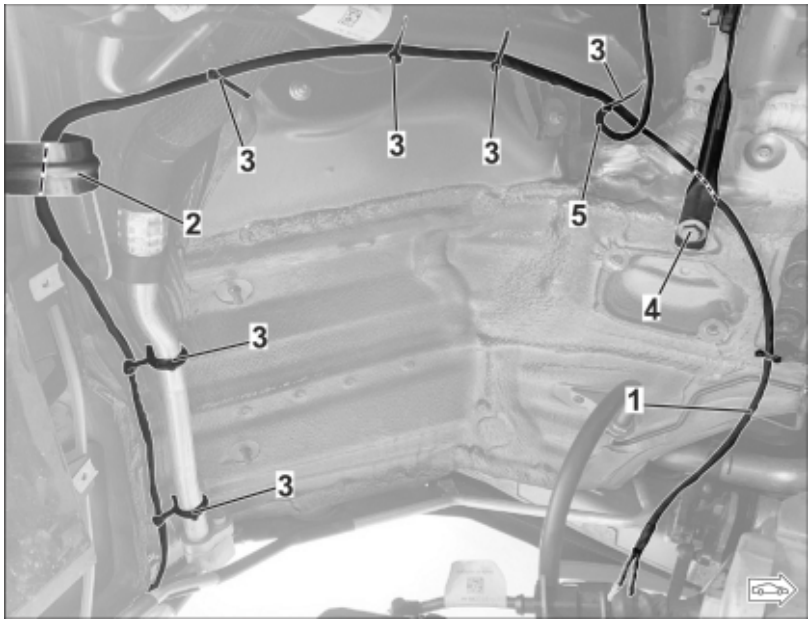
Line routing from front left wheel housing to shock absorber

41. – Lay wire harness behind wiper water tank and fix it to the body using three cable tie clamps ⇒ *Line routing from front left wheel housing to shock absorber* **-1-**

42. – Connect wiring harness to the standard wire harness ⇒ *Line routing from front left wheel housing to shock absorber* **-2-**

43. – Fix wire harness to the tumbler bolt with cable tie ⇒*Line routing from front left wheel housing to shock absorber* **-3-**

44. – Place cable labelled "Accelerometer" in the area of the plenum panel through the rear opening ⇒*Line routing from front left wheel housing to shock absorber* **-4-** and pull upwards in the area of the dome bearing.



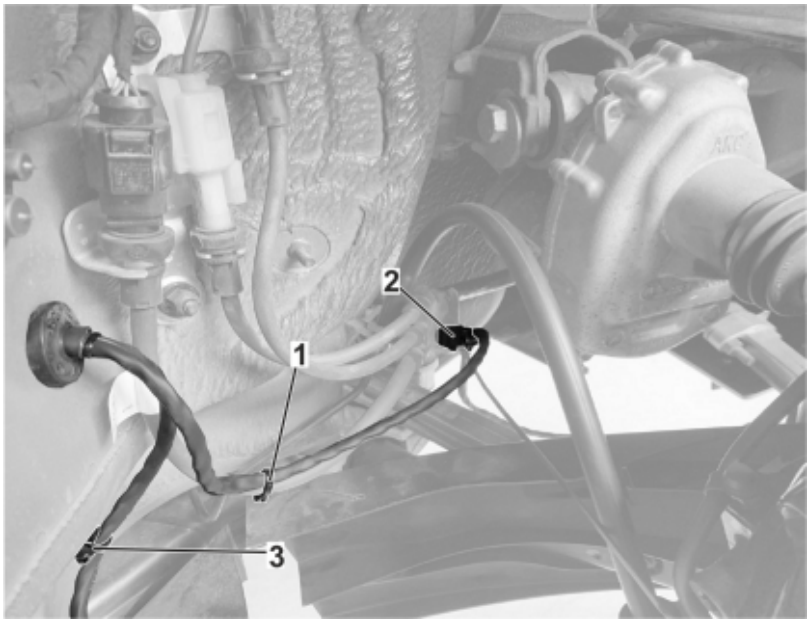
Line routing from front right wheel housing to shock absorber

45. – Fix wire harness to air conditioning line as shown ⇒*Line routing from front right wheel housing to shock absorber* **-1-** and lay it behind silver bracket ⇒*Line routing from front right wheel housing to shock absorber* **-2-**

46. – Connect wire harness from silver bracket ⇒*Line routing from front right wheel housing to shock absorber* **-2-** with cable tie to the water line and tank filling neck ⇒*Line routing from front right wheel housing to shock absorber* **-3-**.

47. – Lay wire harness behind black bracket ⇒*Line routing from front right wheel housing to shock absorber* **-4-**.

48. – Place cable labelled "Accelerometer" in the area of the plenum panel through the rear opening ⇒*Line routing from front right wheel housing to shock absorber* **-5-** and pull upwards in the area of the dome bearing.

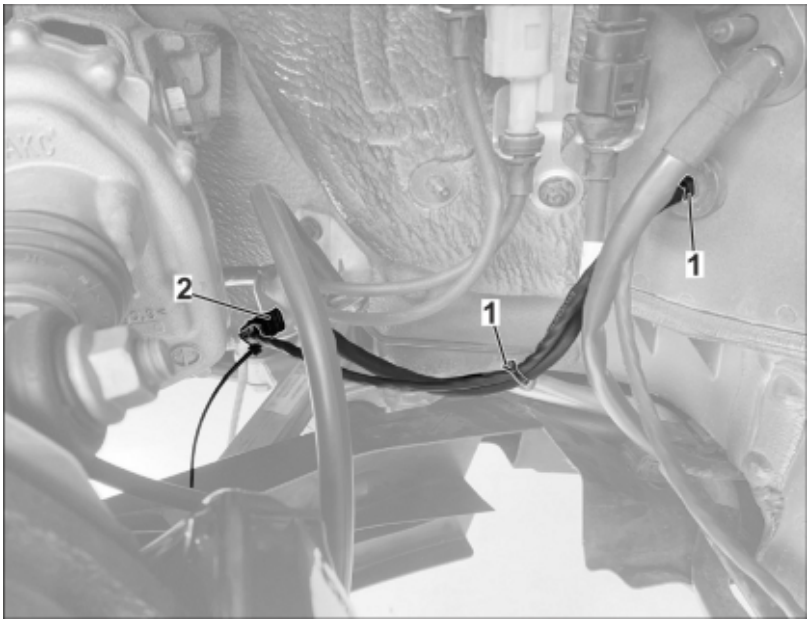


Line routing from rear left wheel housing to shock absorber

49. – Lay wire harness in the direction of the rear axle and fix it to the standard wiring harness using cable ties ⇒*Line routing from rear left wheel housing to shock absorber* **-1-**

50. – Fix additionally to holder for standard wire harness using cable tie clamp ⇒*Line routing from rear left wheel housing to shock absorber* **-2-**

51. – Fasten wire harness that runs forward to the body using cable tie clamp ⇒*Line routing from rear left wheel housing to shock absorber* **-3-**



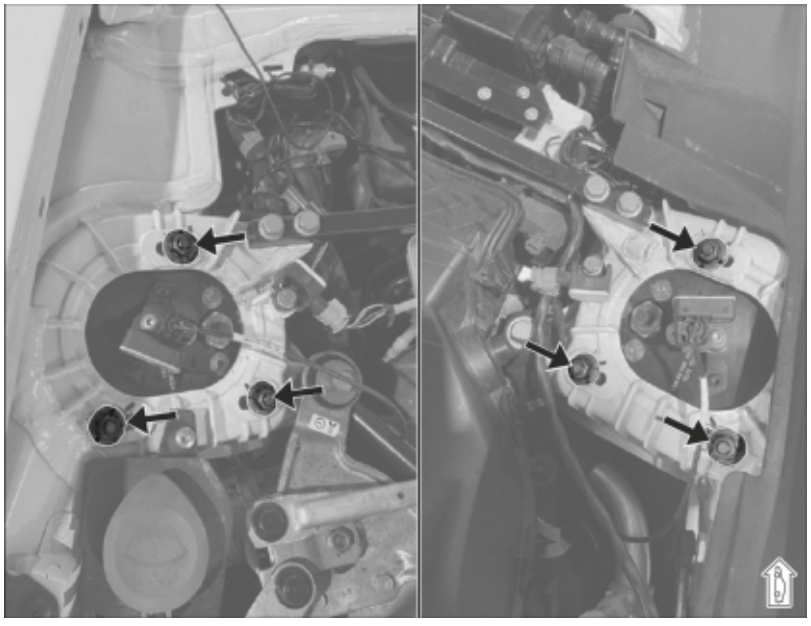
Line routing from rear right wheel housing to shock absorber

52. – Lay wire harness in the direction of the rear axle and fix it to the standard wiring harness using cable ties ⇒*Line routing from rear right wheel housing to shock absorber* **-1-**

53. – Fix additionally to holder for standard wire harness using cable tie clamp ⇒*Line routing from rear right wheel housing to shock absorber* **-2-**

4.1 Install front spring strut. ⇒*Workshop Manual '408519 Remove and install front spring strut'*
Ensure the lift system line is not twisted or under strain.

When installing the spring strut, slide the strut bearing plate in the body connection as far as possible towards the outside of the vehicle.



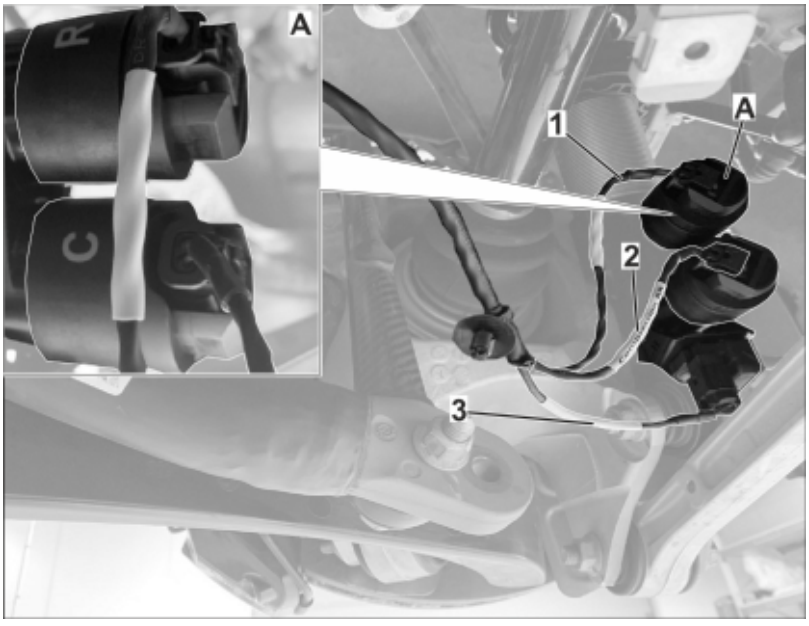
Observe installation position for dome bearing

54. – Picture on left "front left" on the front axle, the support bearing plate must be pushed outwards to a maximum to ensure free movement between spring and body.

55. – Picture on the right "front right" on the front axle, the support bearing plate must be pushed outwards to a maximum to ensure free movement between spring and body.

4.2 Install the rear spring strut. ⇒*Workshop Manual '427119 Remove and install spring strut, rear'*

The following work step (connecting the shock absorbers on the underside) is only shown on one damper and must be carried out on ALL four shock absorbers.



Applying contact to shock absorber

56. – The shock absorber has two solenoid valves ⇒*Applying contact to shock absorber* **-A-** with an R and a C.

57. – Insert plug connection as follows: Rebound plug ⇒*Applying contact to shock absorber* **-1-** in valve **R**. Compression plug ⇒*Applying contact to shock absorber* **-2-** in valve **C**.

58. – Insert plug connection at the bottom as follows: Connect Accelerometer plug at the bottom of the damper ⇒*Applying contact to shock absorber* **-3-**.

Observe cable guide on the valve blocks

59. – Install cable guide to valve blocks as shown. Two cable ties including cable for wheel acceleration sensor for each valve block.

Rear left and right brake air guide wire harness

60. – This work step is only shown on one side and must be repeated on the other side.

61. – Install newly supplied brake air guide ⇒ *Rear left and right brake air guide wire harness* **-1-** on the left and right at the rear.

62. – Clip round-hole cable clips into the brake air duct ⇒ *Rear left and right brake air guide wire harness* **-2-** and fix them in place.

Connect front left acceleration sensor

63. – Connect front left accelerator sensor ⇒*Connect front left acceleration sensor* **-1-** together. Cable ties on the sensor to fix the guided cable downwards.

Connect front right acceleration sensor

64. – Connect front right acceleration sensor⇒*Connect front right acceleration sensor* **-1-**. Cable ties on the sensor to fix the guided cable downwards.

65. – All lines that are surplus in the entire vehicle must be connected. Make sure that no line is kinked and that it is not connected to moving parts.

5 **Rear wing conversion**

5.1 Remove rear spoiler (wing active) and replace with new active wing, use new screws ⇒ *Workshop Manual '427119 Remove and install rear spoiler (wing active)'*.

5.2 Replace wing plates (left and right), use new screws + Loctite 243 ⇒*Sideplate screws* and ⇒*Wing plate spacer* install additional spacers ⇒ *Workshop Manual '427119 Remove and install rear spoiler (wing plate)'*. **Tightening torque: 9.8 Nm (7.23 ftlb).**

Sideplate screws

5.3 – Use new snap ring during assembly, on the left and right.

Wing plate spacer

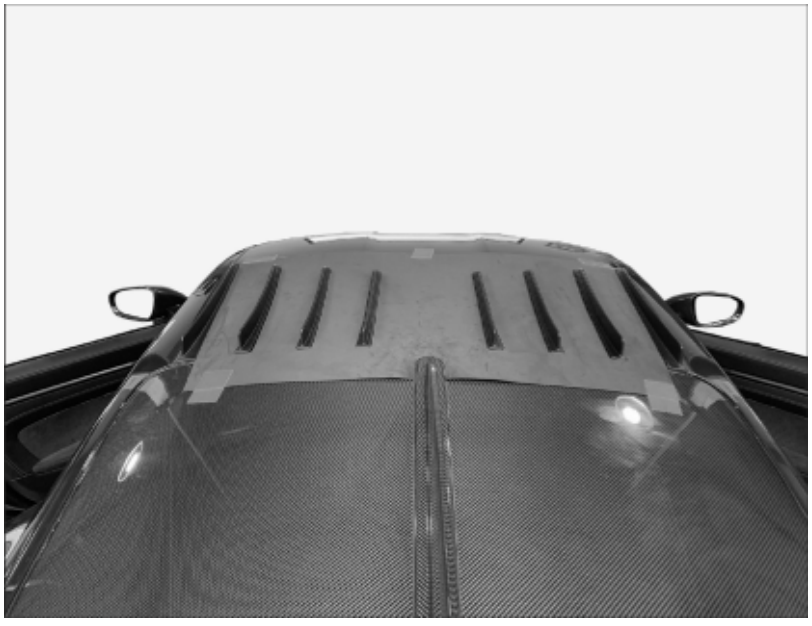
Side plates

5.4 – Install and screw in side plates on the left and right, first attach all screws and align tray, then tighten. 10 screws per sideplate ⇒*Side plates* **-1-**. **Tightening torque: 6 Nm (4.4 ftlb).**

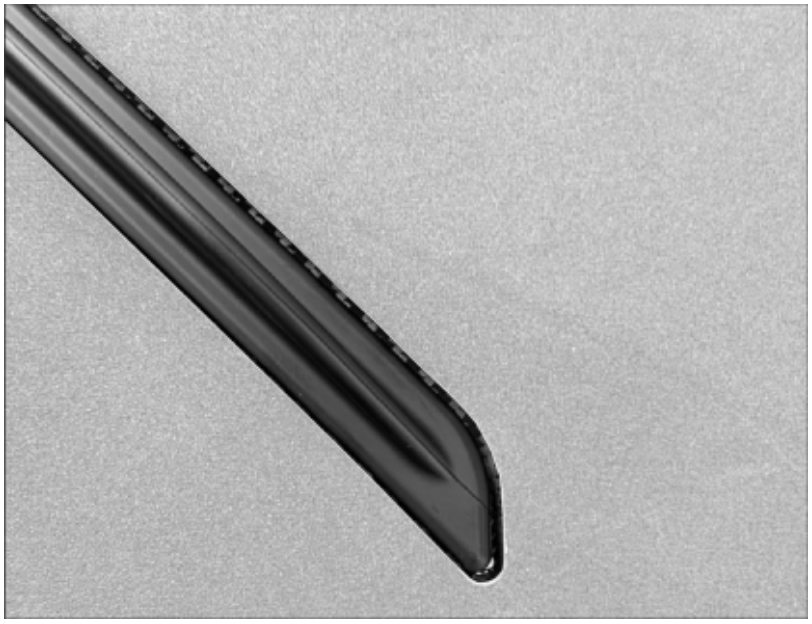
6 **Roof fin assembly**

Information

Check for correct flap/flick alignment. The alignment **cannot** be corrected afterwards.

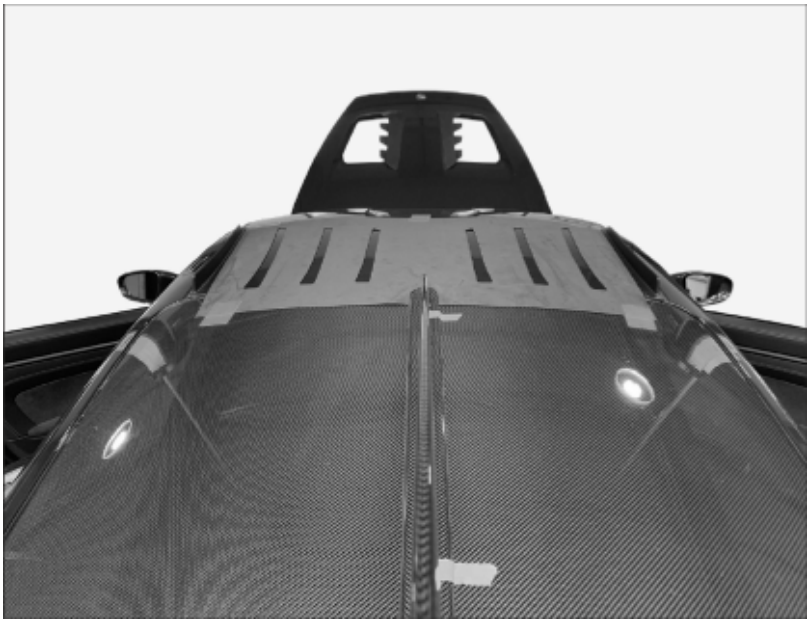


Overview of roof fins



Additional information for installation of roof fins

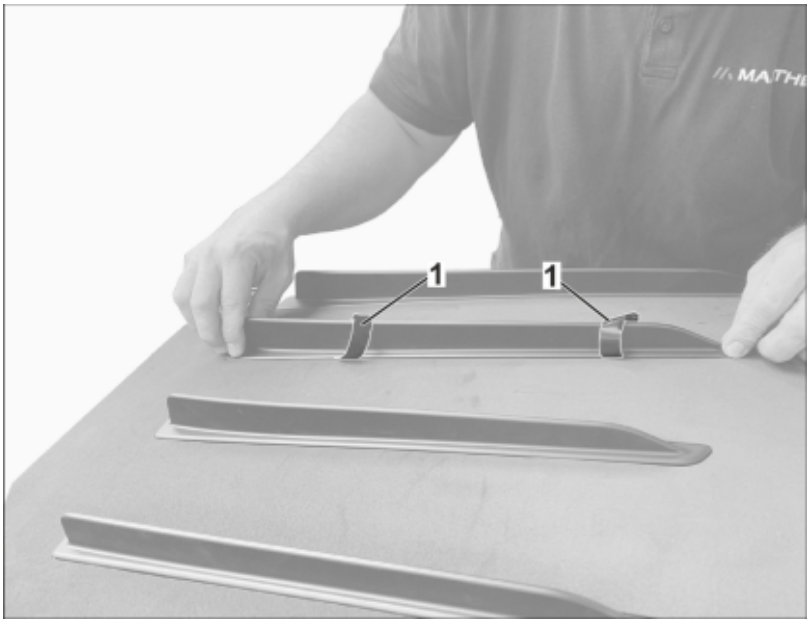
1. – Fins must always be placed against the rear edge and outwards on the template.



Template for roof fins

2. – Before attaching the template, make the adhesive surface dust and grease-free.

3. – Place the template as ⇒ *Template for roof fins* shown in the picture, position the template between the already installed fins (template specification).



Roof fin assembly

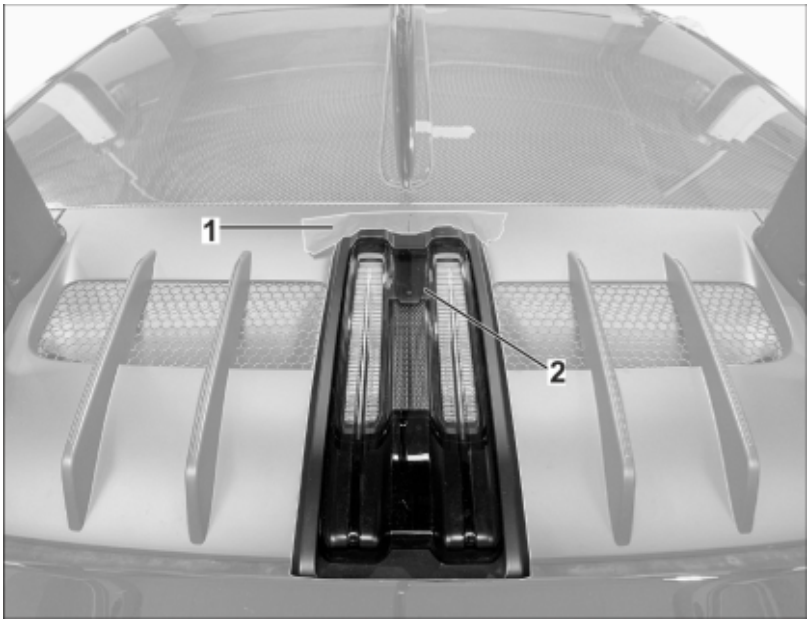
4. – Loosen adhesive strips ⇒ *Roof fin assembly* **-1-** on the left and right.

5. – Installing fins **(install the fins as specified by the template so that the intended air flow is directed outwards through the fins).**

6. – Press fins on the left and right, completely remove adhesive strips ⇒ *Roof fin assembly* **-1-** and press on the fins.

7 **Installing shark fin**

Two mechanics are required for this work step and work step 1.10 MUST be completed.



Hints for attaching the shark fin

1. – Attach adhesive strip above the third brake light ⇒ *Hints for attaching the shark fin* **-1-**.

2. – Extend line between the two brake lights ⇒ *Hints for attaching the shark fin* **-2-** and transfer to adhesive strips.

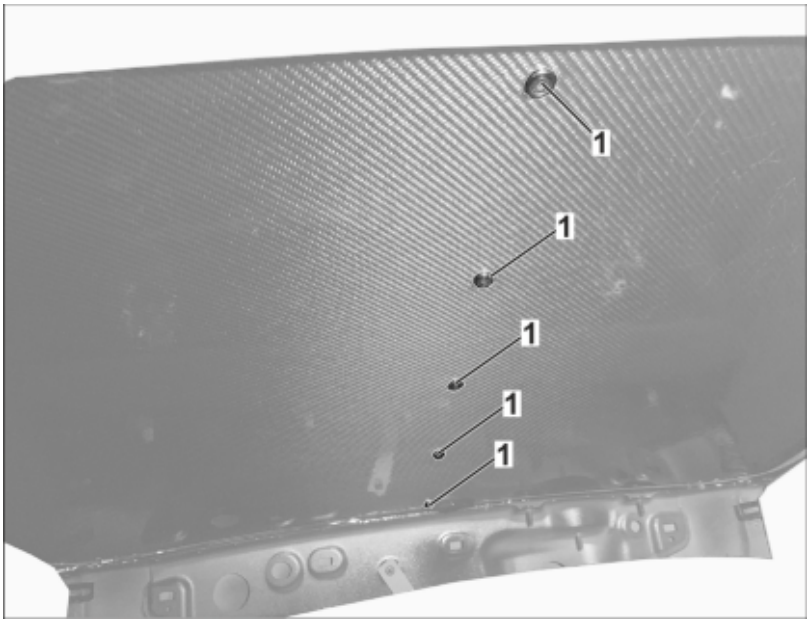
Installing shark fin

3. – Position laser from measuring wheel system ⇒ *Installing shark fin* **-1-** behind the vehicle in the center.

4. – Align the laser line in the center so that the letter S is crossed in the Porsche logo and aligned with the line between the two brake lights and the auxiliary line on the adhesive strip.

Shark fin seal

5. – Align/install shark fin seal so that the drainage bore ⇒ *Shark fin seal* is located at the bottom of the shark fin.



Shark fin attachment

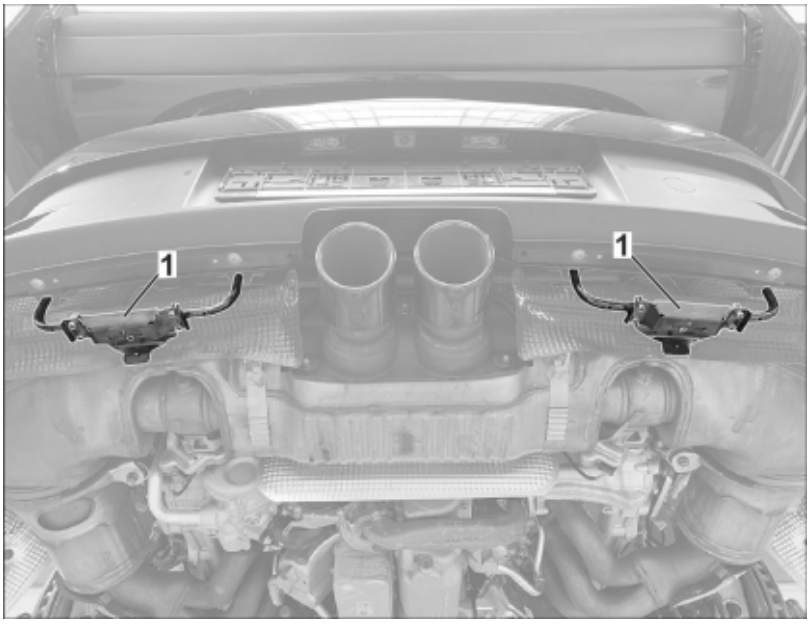
5. – Install shark fin, ensuring that outer gasket is in the correct position and ⇒*Shark fin attachment* **-1-** lightly attach it with screws including wall flange (4x) so that the shark fin can still be moved from outside.

6. – Align shark fin with the laser line from the outside using a second mechanic.

7. – Screw in shark fin after alignment ⇒*Shark fin attachment* **-1-**. **Tightening torque: 5 Nm (3.7 ftlb)**

8 **Rear diffuser assembly**

This work step can only be performed after 1.12.

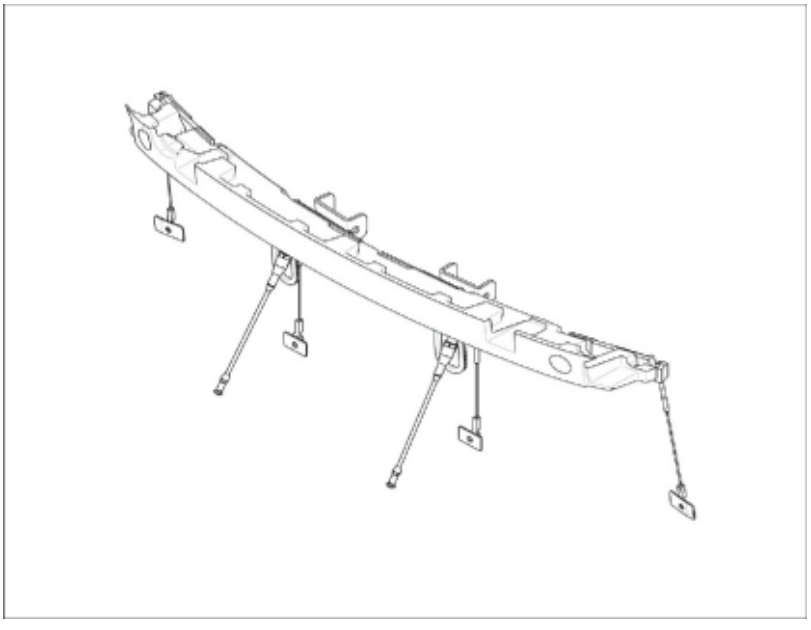


Diffuser assembly

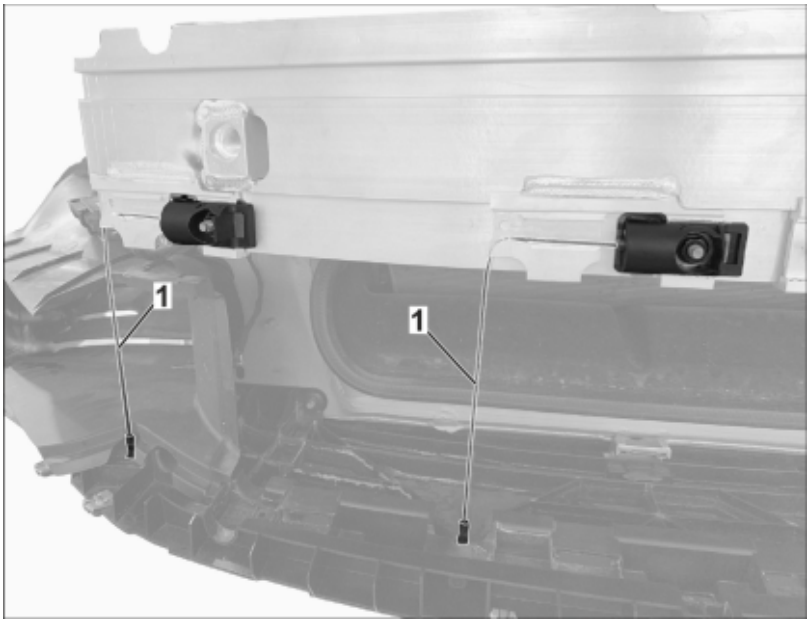
1. – Replace installed holders with new holders (kit scope), heat protection must be bent/adjusted somewhat ⇒ *Diffuser assembly* **-1-**. **Tightening torque: 8 Nm (6 ftlb)**.

2. – Install new diffuser according to Porsche specifications ⇒ *Workshop Manual '427119 Remove and install rear spoiler lower (diffusor)'*.

9 **Front diffuser front apron, front spoiler lip, front underbody**

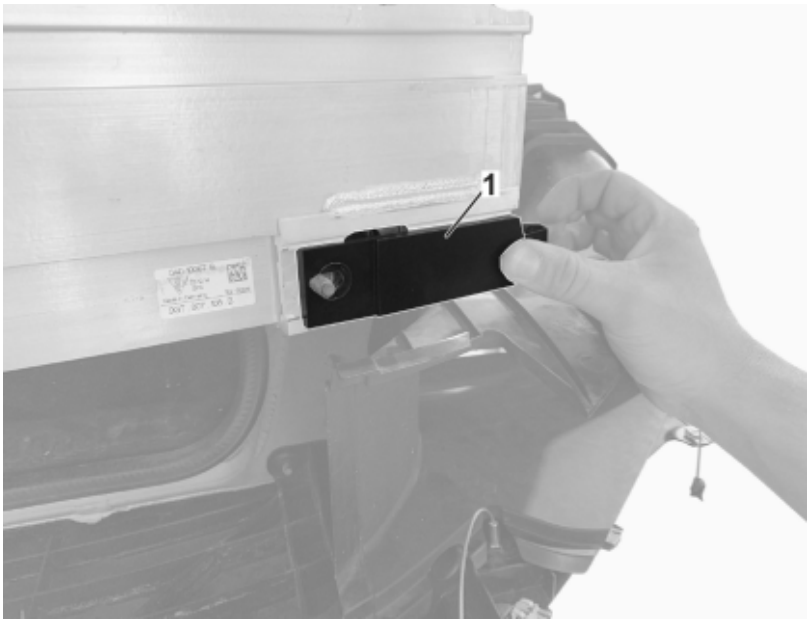


Overview of fastening points



Front traction cables (standard) splitter

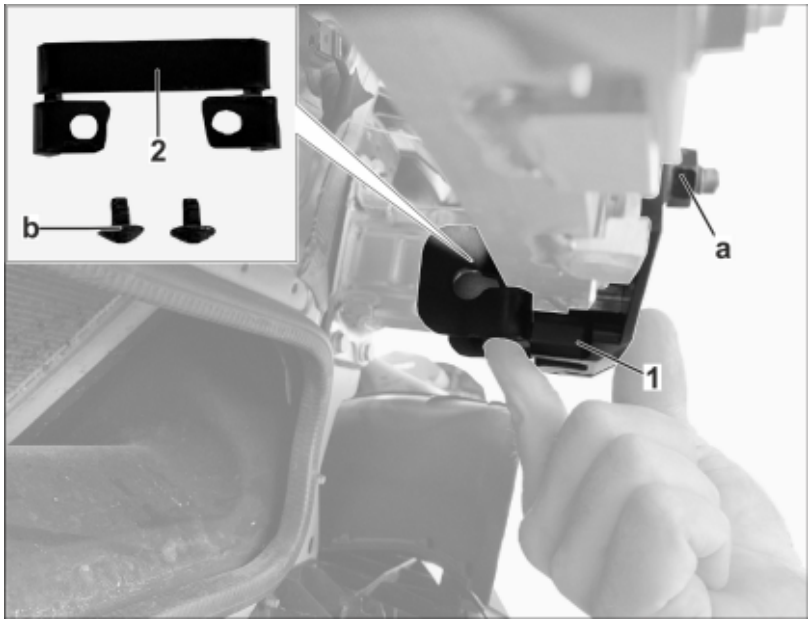
1. – Remove standard front diffuser (4x) ⇒ *Front traction cables (standard) splitter* **-1-** cables.



Left and right retaining plates (2x)

2. – **Additional information for assembly: Long rope on the outside, short rope on the inside**. Position retaining plates on the left and right ⇒ *Left and right retaining plates (2x)* **-1-** and push threaded bolts in the direction of the guide.

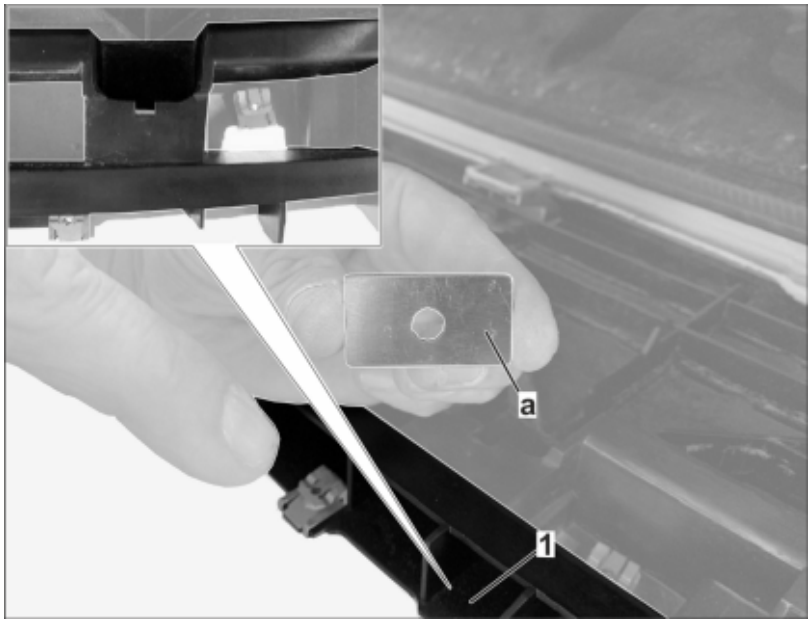
3. – Perform this process on the outer right side of the bumper, then screw in retaining plates. **Tightening torque: 25 Nm (18.4 ftlb)**.



Central retaining plates (2x) including reinforcement

4. – Place retaining plate in the center⇒*Central retaining plates (2x) including reinforcement* **-1-**, on the left and right and screw it in ⇒*Central retaining plates (2x) including reinforcement* **-a-**. **Tightening torque: 25 Nm (18.4 ftlb)**.

5. – Install reinforcement in center⇒*Central retaining plates (2x) including reinforcement* **-2-**, on the left and right and screw it in from behind using two M6 screws ⇒*Central retaining plates (2x) including reinforcement* **-b-**each. **Tightening torque: 6 Nm (4.4 ftlb)**.

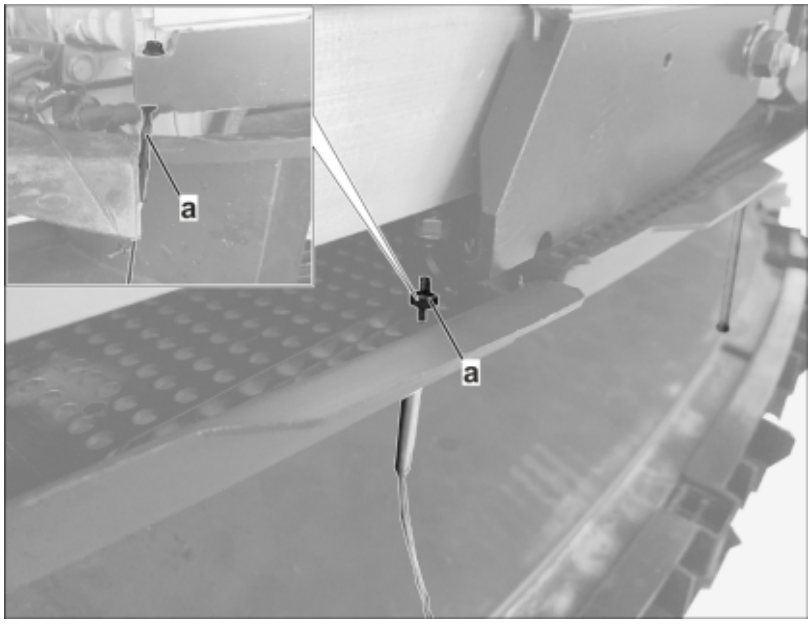


Spacer for traction cables in the center on the left and right

6. – Alignment of reinforcement plates: Bent outwards, straight in the middle and hole downwards. Attach reinforcement plates for traction cables in the center on the left and right at the designated position (notch in the air guide for traction cable ⇒*Spacer for traction cables in the center on the left and right* **-a-**). Install center air guide.

Attaching lower traction cable (4x)

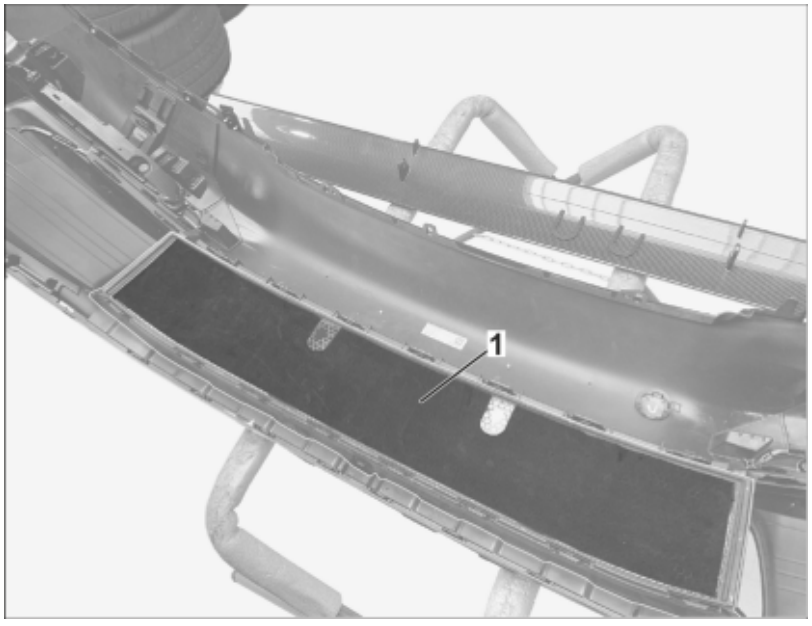
7. – Install all four traction cables at the assembly points at the bottom provided for this purpose, flat side must face forward (see diagram). **Tightening torque: 5 Nm (3.6 ftlb)**.



Fastening of traction cable upper (4x)

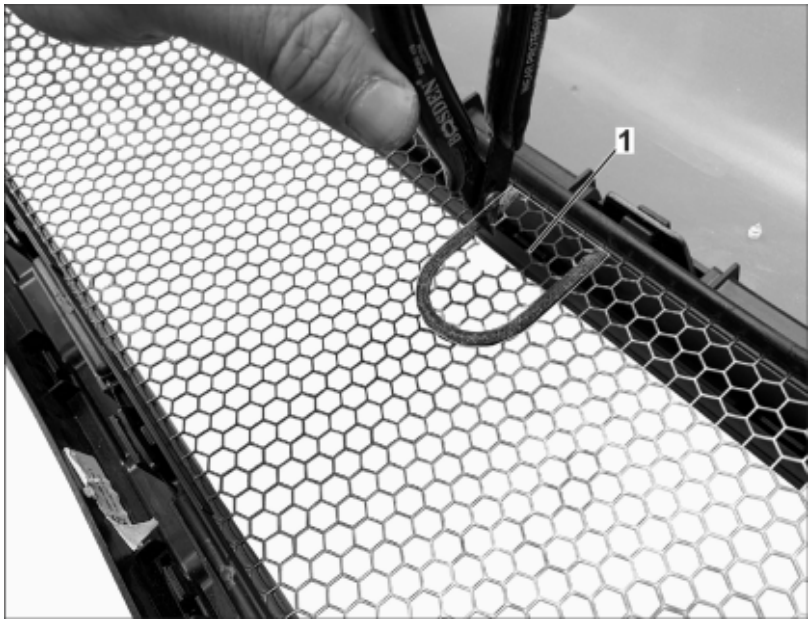
8. – Screw the left and right outer traction cables to the top retaining plate ⇒*Fastening of traction cable upper (4x)* **-a-**. **Tightening torque: 5 Nm (3.6 ftlb)**. Screw traction cables on the outside on the left and right so that the threaded rod at the top of the retaining plate is "flush" with the nut as shown ⇒*Fastening of traction cable upper (4x)* **-a-**.

9. – Install traction cables in the center on the left and right through the air guide on the retaining plate. **Tightening torque: 5 Nm (3.6 ftlb)**. The tension of the traction cables in the middle is determined by adjusting the outer traction cables. **Important:** All traction cables must have the same clamping force. Then mount **new supplied** foam part on the crash carrier.



Rework front apron protective grille

10. – Place the template on the protective grille ⇒*Rework front apron protective grille* **-1-** (from inside) and align it in the center. Draw recesses for front lip rods. Cut-out must be made at the top of the grid.



Finish front apron protective grille

11. – Position the template (included in the kit) ⇒*Finish front apron protective grille* **-1-** on the marked position and use a side cutter to cut the left and right grid on a line with the frame. Repeat this procedure on the other side.

12. – Installing frame parts for pull rods recess. No grille may protrude over the edges. Remove protective film from counterpart. Stick counterpart on opposite side.

Assembly of front lip rods

13. – Pull front rods (2x) apart. **Union nut must never be completely released from the clamping sleeve/must remain on the clamping sleeve.**

Assembly of front lip rods

14. – Install front lip rod upper ⇒*Assembly of front lip rods* **-1-** left and right (2x) to the holder. **Tightening torque: 1.6 Nm (1.2 ftlb)**.

15. – Remove standard Air curtains from the left and right outer front apron. Install front apron ⇒ *Workshop Manual '427119 Remove and install front apron*'.

16. – Push the lower part of the two front lip rods back on.

Assembly of front lips and front lip rods

17. – First mount front lips on the outside ⇒*Assembly of front lips and front lip rods* **-1-**, making sure that all clips/retaining tabs engage, and additionally make the adhesive surface of the already pre-assembled 3M adhesive tape free of grease in the area of the adhesive surface on the front apron.

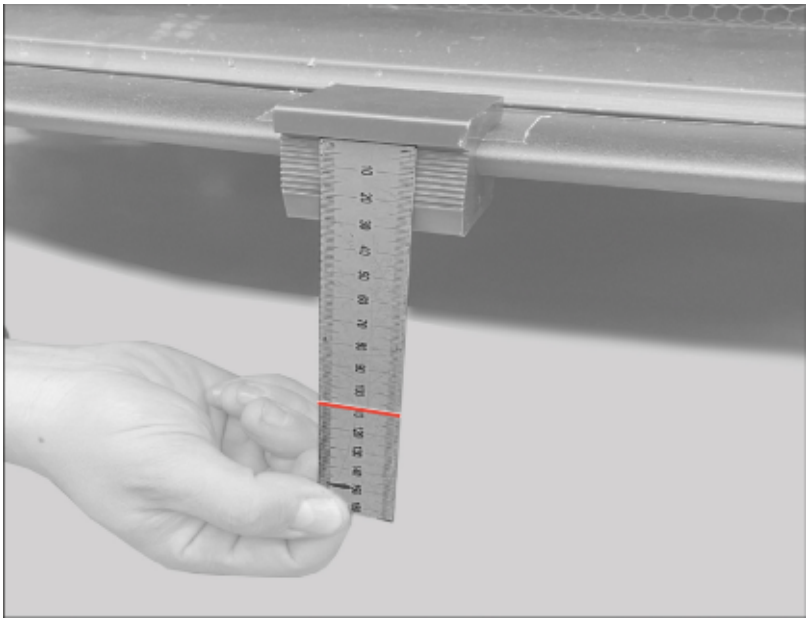
18. – Install front lip in the middle⇒*Assembly of front lips and front lip rods* **-2-**, making sure that all clips/retaining tabs engage.

19. – Position front lip retaining rods ⇒*Assembly of front lips and front lip rods* **-3-** on the center of the front lip in a ⇒*Assembly of front lips and front lip rods* **-2-** hand-tight manner.

Work steps 20 and 21 are only carried out after/during vehicle alignment.

Front lip retaining rods assembly

20. – Fix plastic part by hand while it is being tightened. Lift drawer to prevent damage to original seal. **Tightening torque: 4.5 Nm (3.3 ftlb)**



Tightening the front lip rods

21. – The final tightening of the CFRP rods on the front lip can only take place **after** the vehicle has been measured and is on measuring wheels. For adjustment, if the union nut is tightened by hand, it is sufficient to set the end suit only after the measurement and adjustment of the correct height. Guide plastic wedge over front lip and use measuring tape to determine the

height as shown. Laser target height: 114 mm. Use of Porsche special tool: T10395/5 or HAZET – E49/MA. **Tightening torque: 13 Nm (9.6 ftlb).**

Installing front underbody

22. – Push ⇒ *Installing front underbody* **-1-** in front underbody (in direction of travel), lift up underbody so that the original seal is not damaged.

23. – Screw in the underbody using original screws. **Tightening torque: 3.2 Nm (2.3 ftlb)**

10 **Assembly of front apron left and right flicks/flaps**

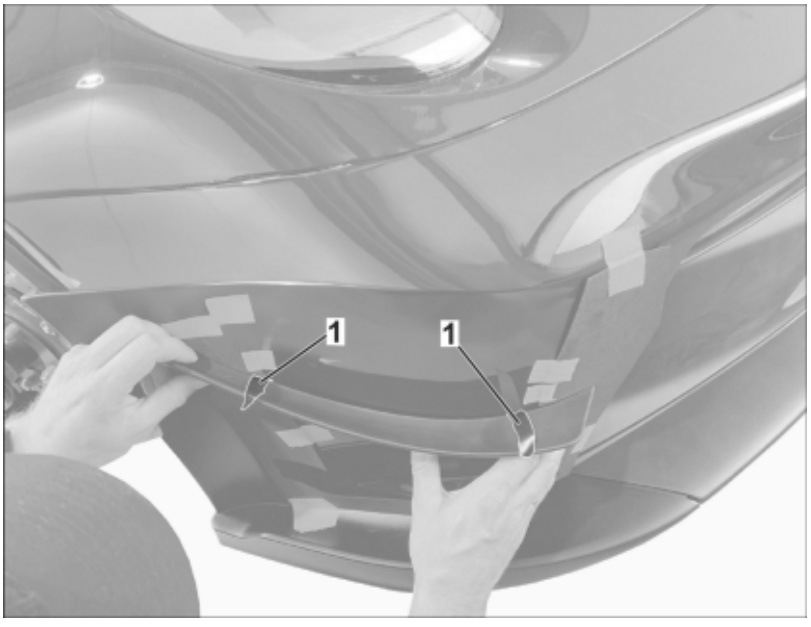
Information

Check for correct flap/flick alignment. The alignment **cannot** be corrected afterwards.

Template for front apron flicks

1. – Before attaching the template, make the adhesive surface dust and grease-free.

2. – Place template as shown in the picture ⇒ *Template for front apron flicks*.



Front apron flicks installing

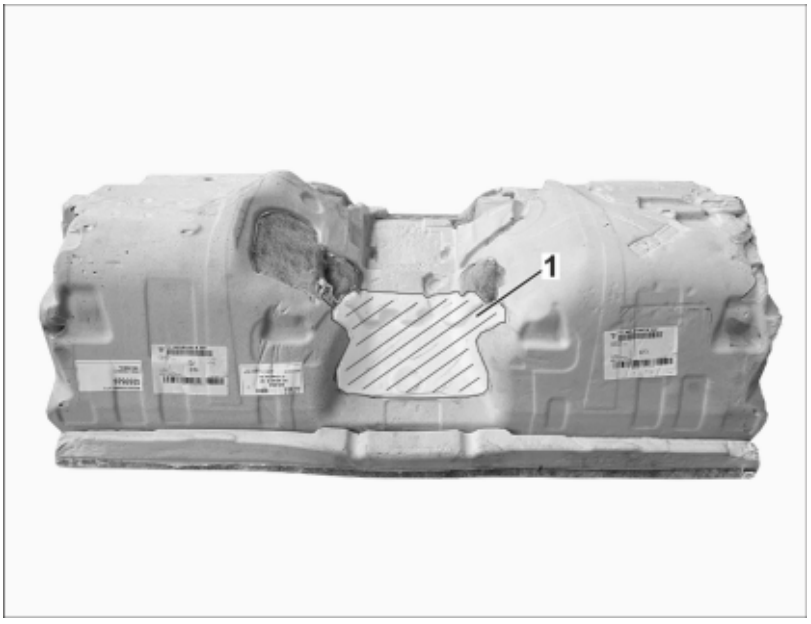
3. – Loosen adhesive strips ⇒ *Front apron flicks installing* **-1-** on the left and right.

4. – Install in Flick **(long Flick top, short Flick bottom, wide front section, narrow rear section).**

5. – Press flick on the left and right, remove adhesive strips ⇒ *Front apron flicks installing* **-1-** completely and press flick.

11 **Rear carpet cut-out for chassis control unit**

Due to the modified height of the control unit for the chassis, the rear carpet must be reworked.



Cut-out in carpet

1. – Mark the cut-out as shown ⇒ *Cut-out in carpet* **-1-** and make the cut-out approx. 3 cm deep. Then perform install check and rework if necessary.

12 **Subsequent work/Complete the vehicle**

12.1 Install rear side trim panel ⇒ *Workshop Manual '427119 Remove and install rear side trim panel'*.

12.2 Installing rear cover ⇒ *Workshop Manual '427119 Remove and install rear cover'*.

12.3 Install roll-over bar ⇒ *Workshop Manual '427119 Remove and install roll-over bar'*.

12.4 Install seats ⇒ *Workshop Manual '427119 Remove and install front seat (sports bucket seat)'*.

12.5 Install door entry guard ⇒ *Workshop Manual '427119 Remove and install door entry guard'*.

12.6 Install wheels with central bolt ⇒ *Workshop Manual '427119 Remove and install wheel with central bolt'*.

12.7 Connect the battery.

13 **Rear axle Aerodisc**

Aerodisc

1. – Position Aerodisc and screw it in using new screws⇒*Aerodisc* **-1-**. **Tightening torque: 15 Nm (11.06 ftlb)**

2. – Repeat this procedure on the other side.

3. – Install wheel trim cover.

14 **Installing door entry adhesive label**

Installing tire pressure adhesive label

1. – Make adhesive surface grease-free.

2. – Glue new adhesive label as shown ⇒ *Installing tire pressure adhesive label*.

Tool: **P90999 - P90999 - PIWIS Tester 4**

15 Code/program Manthey Kit SON

Information
The function is **ONLY** available when the Tester is online.

Information
The **PIWIS Tester** instructions take precedence since the description may be different with later Tester releases.

The procedure described here has been structured in general terms. Different text or additional information may appear on the **PIWIS Tester**.

NOTICE

Voltage drop

- **Irreparable damage to control unit**
- **Damage to control unit**
- **Error entries in control unit**
- **Control unit coding aborted**
- **Malfunctions in the control unit, even during programming**

⇒ **Switch off the ignition and remove ignition key before disconnecting the control unit.**

⇒ **Make sure that the power supply is not interrupted during programming.**

⇒ **Connect a battery charger with a current rating of at least 90 A to the vehicle battery.**

NOTICE

Control unit programming will be aborted if the Wi-Fi connection is unstable.

- **An unstable Wi-Fi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.**

⇒ **During control unit programming, always connect the PIWIS Tester to the vehicle communication module (VCI) via the USB cable.**

15.1 Preparatory work – Coding

15.1.1 Connect **P90999 - P90999 - PIWIS Tester 4** to the vehicle and switch it on.

15.1.2 Switch on ignition **AND** hazard warning lights on the vehicle.

15.1.3 Select the "Diagnostics" menu item on the PIWIS Tester.

15.1.4 If **P90999 - P90999 - PIWIS Tester 4** is connected correctly, a connection to the vehicle will be established: Model line "911" is detected.

15.1.5 Press F12 to go to the control unit search screen.

15.1.6 Question: "Should an FAP be created?" If "Yes", press F12 to confirm.

15.1.7 Select "KD-FAP" in the next menu item and press F8 to start.

15.2 Enter the new vehicle equipment in the vehicle data using "PIWIS Online"

15.2.1 Press F7 in the control unit overview to switch to the "Additional menu".

15.2.2 Select the "Maintain vehicle data with PIWIS-ONLINE" function.

A message appears informing you that the "Actual" (vehicle) data and "Required" (PIWIS Online) data will be compared.

Press F12 to continue.

15.2.3 Confirm the message "The vehicle data was compared with PIWIS Online. Significant differences were found" with F12 .

15.2.4 In the "Family" column, search for the "SON control coding Manthey Kit" option.

Mark value at the rear column with a check mark (click button).

15.2.5 A table containing the coding value and the columns "new value" and "old value" is displayed in the overview. Press F8 to continue.

15.2.6 Data is then written/saved. The following messages appear one after the other:

- Transfer vehicle data to PIWIS Online.
- Write and transfer vehicle data to the vehicle.
- Vehicle order was written successfully.
- A check was performed in order to check whether control units have to be coded or programmed as a result of the changes that were made.

15.3 Code/program the new vehicle equipment.

15.3.1 Confirm the table containing a list of control units that must be coded/programmed, by pressing F12 .

15.3.2 Individual data records will be loaded, depending on the number of control units to be coded/programmed.

Information "Creating backup documentation." Please wait ... and "Coding was completed successfully". Press F12 to continue.

Repeat the process for other control units if necessary.

15.3.3 Wait for the “Adaptation of the control units is complete.“ Wait and check the coding status of the control units in the displayed table.

Continue by pressing F12 to return to the control unit overview.

15.4 Read out the fault memory of all systems, work through any existing faults and erase the fault memory. ⇒*Workshop Manual '0335IN Diagnostics maintenance: Diagnostic system and maintenance inter...'*

15.5 Switch off ignition and disconnect **P90999 - P90999 - PIWIS Tester 4**.

15.6 Disconnect battery charger ⇒*Workshop Manual '2X00IN Battery trickle charging'*.

15.7 Drive the vehicle off the lifting platform.

NOTICE

Vehicle and driver weight

- **Before starting the alignment process, please ensure the following conditions are met:**

⇒ **Fuel tank is completely full**

⇒ **Driver's weight (incl. helmet and racing suit) has been determined or requested and is placed on the driver's seat with an equivalent weight**

16 **Suspension alignment**

16.1 Measure vehicle with measuring wheel system ⇒*Installation and Conversion Instructions '440000 Measuring wheel system'*. Here, observe and perform work steps 20 and 21 from the chapter “Front diffuser front apron, front spoiler lip, front underbody“.

0913 23 66: 911 GT3 RS Manthey Kit complete — Labor time: **1400 TU**
Includes: 911 GT3 RS Manthey Performance Kit installed, vehicle aligned and adjusted.

0913 23 67: Individual chassis scope — Labor time: **1100 TU**
Includes: Chassis installed, align and adjust vehicle.

0913 23 66: Single scope of aerodynamic package. — Labor time: **800 TU**
Includes: Install aerodynamic components.