

911 GT3 Touring Manthey Performance Kit

Vehicle Type: **911 GT3 Touring**

Model Year: **As of 2021**

Information: **Retrofitting**

The Manthey Performance Kit for the 911 GT3 RS (type 992) was developed in close collaboration between the Porsche Development Center in Weissach and Manthey Racing GmbH.

The Tequipment range is targeted to motor sports enthusiasts and amateur motor sports drivers.

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NOTICE

- **The individual components of the 911 GT3 Touring Manthey Performance Kit are in perfect harmony. For this reason, they must only be installed together on the vehicle. Individual offers are shown separately.**

Parts Info:	992.044.855.06	911 GT3 Touring (type 992) Manthey performance kit For vehicles with a front axle lift system (order no. 2UH)
	992.044.855.07	911 GT3 Touring (type 992) Manthey performance kit For vehicles without a front axle lift system (order no. 2UH)
	992.044.855.12	911 GT3 Touring (type 992) Manthey aerodynamics kit

Parts to be ordered separately:

PAF.108.749	8 x	⇒ Hexagon flange bolt, M8 x 42, for upper axle guide
N 102.723.02	2 x	⇒ Hexagon collar nut, M10, for connecting rod
N 107.847.02	2 x	⇒ Hexagon flange bolt, M12 x 1.5 x 85, for lower axle guide
PAF.003.923	12 x	⇒ Hexagon nut, M8, for upper strut bearing
9A7.007.755.00	2 x	⇒ Cheese head bolt securing seat belt to seat
9A7.007.483.00	4 x	⇒ Outside hexagon round-head bolt, M10 x 28, to seat rail
PAF.910.423	2 x	⇒ Inside hexagon round/pan-head screw, M6 x 16, for rear diffuser
PAF.100.829	3 x	⇒ Hexagon-head bolt, M6 x 16, for rear diffuser
PAF.104.513	2 x	⇒ Cheese head bolt with internal multiple-tooth head, M12 x 1.5 x 55
PAF.912.572	6 x	⇒ Hexagon flange bolt M8 x 22

PAF.908.088	2 x	⇒ Hexagon flange bolt, M12 x 1.5
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	⇒ Intermediate plate, 2.0 mm
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NOTICE

Vehicle and driver weight

- Before starting the alignment, 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



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.



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.

Content:

1. Preparatory work
2. Installing the door entry guards
3. Installing the door projectors
4. Chassis assembly
5. Installing brake lines
6. Installing front spoiler
7. Installing the air control elements on the underbody
8. Installing rear diffusor
9. Affixing stickers
10. Concluding work
11. Performing suspension alignment of the vehicle
12. Only for race track use: Installing towing loops



Information

Check that the decorative film is aligned correctly. The alignment **cannot** be corrected afterwards.



Information

The decorative films must also be ordered in the desired color. These are available from 01/2023.

Assembly:

- 1 Preparatory work
 - 1.1 Connect battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charge'*

- 2 Installing the door entry guards

Set – Door entry guards (left and right) -
992.044.856.17

1 – Door entry guard

- 2.1 Remove ⇒ **1-1-** door entry guard. ⇒
Workshop Manual '680719 Removing and installing cover moulding'

- 2.2 Install illuminated door entry guard ⇒ **1-1-**.
⇒ *Installation and Conversion Instructions '680700 Door-sill guards, illuminated ADY / ATX'*



1

- 3 Installing the door projectors

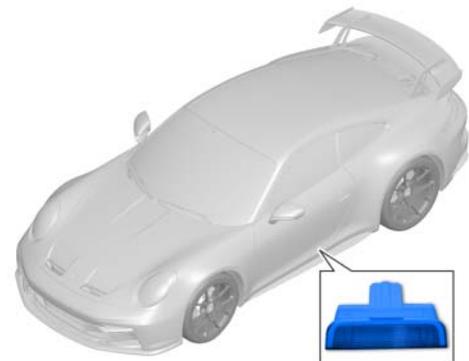
Set – Door projectors (left and right) -
992.044.856.16

- 3.1 Remove door guard light. ⇒ *Workshop Manual '961619 Remove and install door guard light'*

- 3.2 Remove door panel. ⇒ *Workshop Manual '705919 Removing and installing front door panel'*

- 3.3 Install new door projector ⇒ **3-1-**.
Ensure correct installation position and engagement.

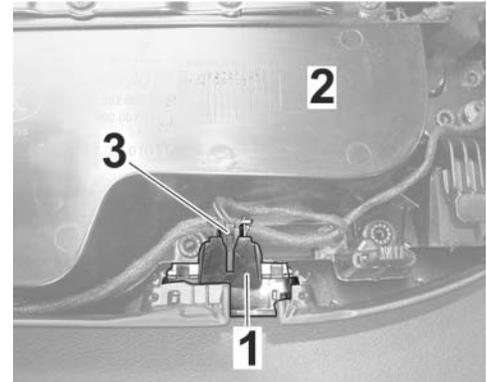
- 3.4 Connect electric plug connection ⇒ **3-3-**.
The electric plug connection must engage perceptibly.



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3.5 Install the door panel ⇒ 3-2-. ⇒ *Workshop Manual '705919 Removing and installing front door panel'*

- 1 – Door projector
- 2 – Door panel
- 3 – Electric plug connection



3

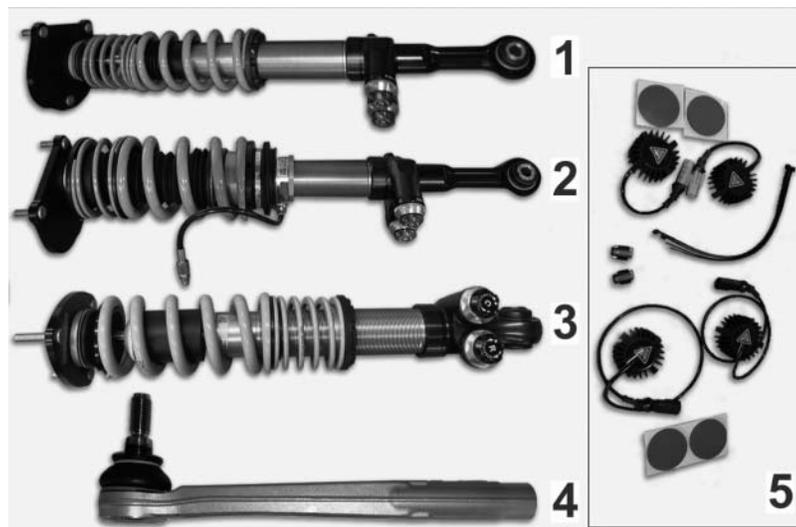
WARNING

Preloaded or pressurized components

- Risk of squashing or bruising
- ⇒ Do not reach into the danger area.
- ⇒ Relieve tension on components before starting work.
- ⇒ Secure components to prevent them from loosening suddenly.

4 Chassis assembly

Leave all four wheels removed as described in the Chassis section.



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Kit with front axle lift – 4 dampers / springs / strut bearings including PASM deactivation kit - 992.044.856.10

Kit without front axle lift – 4 dampers / springs / strut bearings including PASM deactivation kit - 992.044.856.13

- 1 – Front-axle spring strut **without front axle lift** - 992.044.856.14 (LH) / 992.044.856.34 (RH)
- 2 – Front-axle spring strut **with front axle lift** - 992.044.856.11 (LH) / 992.044.856.31 (RH)
- 3 – Rear-axle spring strut - 992.044.856.12 (LH) / 992.044.856.32 (RH)
- 4 – Tie-rod end - 992.044.856.30
- 5 – PASM deactivation it

4.1 Remove all four wheels. ⇒ *Workshop Manual '440519 Removing and installing wheel with central bolt'*

4.2 Replace original tie-rod ends with tie-rod ends ⇒ 4-4-. ⇒ *Workshop Manual '488119 Remove and install tie-rod end'*

There is no need to replace the tie-rod ends if the chassis package without aerodynamic components is installed. Brake cooling spoiler cannot be removed. Do not align suspension yet. Do not install wheels yet.

4.3 Removing front spring strut. ⇒ *Workshop Manual '408519 Removing and installing front spring strut'*

4.4 Disassembling front spring strut

4.4.1 Disassembling spring strut. ⇒ *Workshop Manual '408537 Disassembling and assembling front spring strut'*

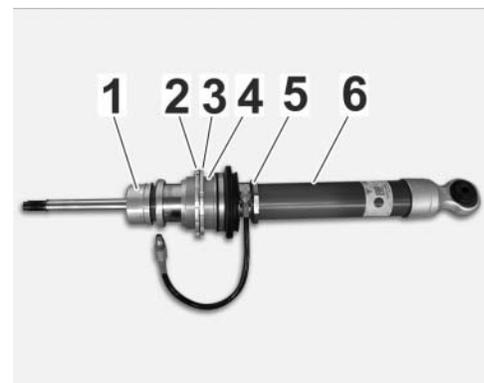
4.4.2 Remove front axle lift
Only for vehicles with front axle lift system.
The tool for the lock nut supplied with the kit must be used!

4.4.3 Remove height-adjusting nut ⇒ 5-2- and lock nut ⇒ 5-3-.
 Use a **P90026 - P90026 - hook spanner** for this purpose.

4.4.4 Screw the front axle lift ⇒ 5-4- up until the dust boot detaches ⇒ 5-1- and remove dust boot ⇒ 5-1-.

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

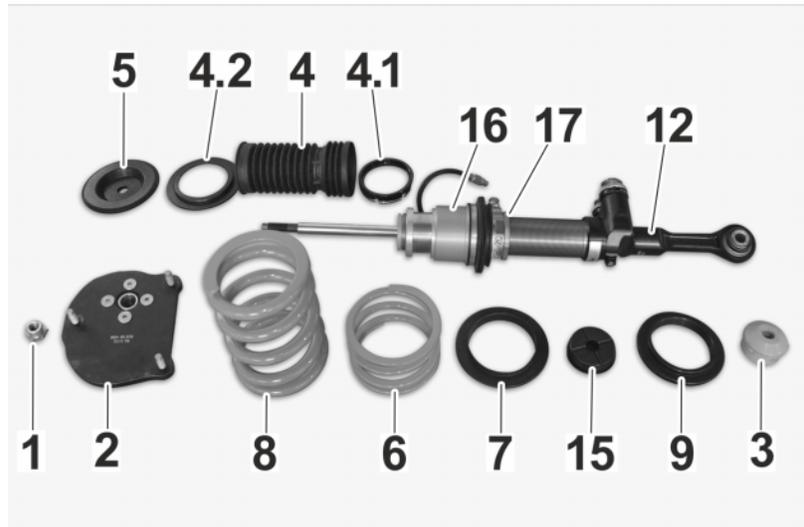
- 1 – Dust boot
- 2 – Height-adjusting nut
- 3 – Lock nut
- 4 – Front axle lift system
- 5 – Lock nut
- 6 – Spring strut



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4.5 Assembling new front spring strut **with** front axle lift

- 4.5.1 Mount lock nut ⇒ 6-17- and lift system ⇒ 6-16- on the spring strut ⇒ 6-12-. Do **not** tighten to the specified torque yet.
- 4.5.2 Install plastic cap ⇒ 6-15- on the shock absorber housing (use impact sleeve 700 17 169 and a plastic hammer).
- 4.5.3 Push spring plate ⇒ 6-9-, coil spring ⇒ 6-8-, intermediate ring ⇒ 6-7- and helper spring ⇒ 6-6- onto the piston rod. Then mount the bellows ⇒ 4.5.4. Install rubber stop ⇒ 6-3- and supporting mount ⇒ 6-2- on the piston rod and tighten nut ⇒ 6-1- (use special tool KW 685 10 179). Ensure that the rubber stops ⇒ 6-3- are installed correctly: Pointed tapered end must be facing upwards as shown ⇒ 6. **Tightening torque 40 Nm**



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- 1 – Nut
- 2 – Supporting mount - 65A.49.376 (LH) / 65A.49.377 (RH)
- 3 – Rubber stop
- 4 – Bellows
- 4.1 – Mounting ring on bellows
- 4.2 – Spring plate, upper
- 5 – Upper ring on bellows
- 6 – Auxiliary spring
- 7 – Intermediate ring
- 8 – Coil spring
- 9 – Lower spring plate (install with a distance of 10 mm from the lift system)
- 12 – Spring strut
- 15 – Plastic cap
- 16 – Lift system (carried over from standard chassis)
- 17 – Lock nut

4.5.4 Mounting bellows:
Check the type of bellows. Different types are available: **with** and **without** retaining ring.

Installing bellows mounting ring: Secure lift unit to prevent turning by fully screwing down lower spring plate ⇒ 6-9- and securing with grub screw. **Tightening torque 1 Nm**

Tighten mounting ring for bellows ⇒ 6-4.1- (use hook spanner 685 11 296), countering at lower spring plate ⇒ 6-9- (use hook spanner 685 11 295). **Tightening torque 15 Nm**

Install bellows mounting ring ⇒ 6-4.1- at short end of the bellows ⇒ 6-4-, install upper spring plate ⇒ 6-4.2- on bellows ⇒ 6-4- and secure with upper bellows ring ⇒ 6-5-.

The bellows ⇒ 6-4- is clipped onto the plastic cap when the spring strut is completely installed.

4.6 Assembling new front spring strut **without** front axle lift



Information

The new front spring strut **without** front axle lift comes pre-mounted. The assembly instructions are provided for the sake of completeness.

4.6.1 Install spacers ⇒ 7-14- on the piston rod.
Install components ⇒ 7-9-2- on piston rod and tighten nut ⇒ 7-1- (use special tool KW 685 10 179).

Medium-strength Loctite is to be used. Tightening torque 40 Nm



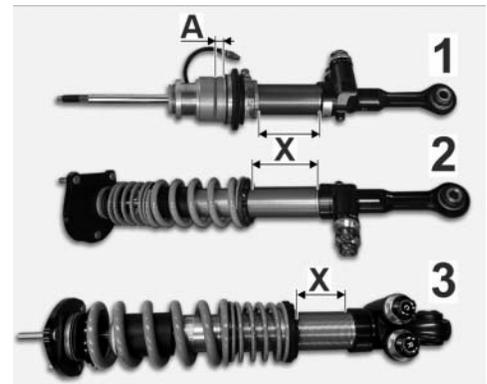
7

- 1 - Nut
- 2 - Supporting mount - 65A.49.376 (LH) / 65A.49.377 (RH)

- 3 - Rubber stop
- 4 - Bellows
- 5 - Spring plate, upper
- 6 - Auxiliary spring
- 7 - Intermediate ring
- 8 - Coil spring
- 9 - Spring plate, lower
- 13 - Spring strut
- 14 - Spacers

4.7 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).

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



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Front axle with front axle lift	Dimension A
Lower edge of spring seat to shoulder of lift unit	10 mm

Front axle with front axle lift	Dimension X
Lower edge of lift unit lock nut to shoulder of shock absorber-valve foot	103 mm

Front axle without front axle lift	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	140 mm

Rear axle	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	96 mm

4.8 Tighten spring plate grub screws.
Tightening torque 1 Nm

- 4.9 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

- 4.10 Install front spring strut. ⇒ *Workshop Manual '408519 Removing and installing 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.

- 4.11 Replacing rear spring strut

- 4.11.1 Remove rear spring strut. ⇒ *Workshop Manual '427119 Removing and installing spring strut, rear'*

- 4.11.2 Check height dimension X and adjust if necessary.

Rear axle	Dimension X
Lower edge of spring seat to shoulder of damper-valve foot	96 mm

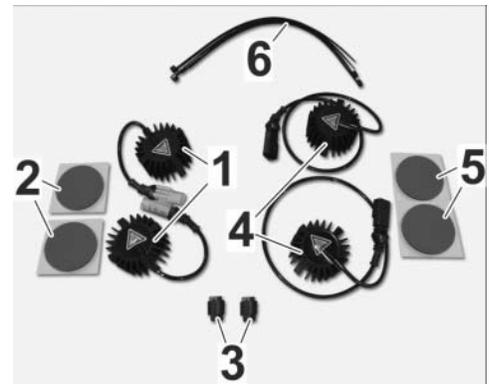
- 4.11.3 Install rear spring strut. ⇒ *Workshop Manual '427119 Removing and installing spring strut, rear'*

Do not complete the vehicle interior.

- 4.12 Install front-axle deactivation set. **Proceed right-hand drive in a mirror-inverted manner.**

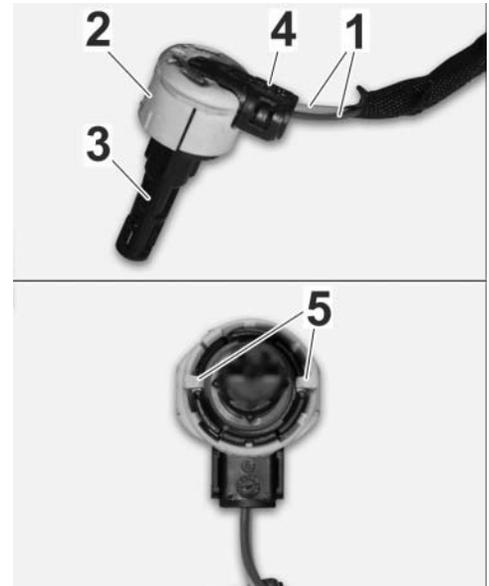
Use a suitable pin removal tool to replace the electric wiring harness.

- 1 – Front axle resistors
- 2 – Adhesive pads
- 3 – Plug
- 4 – Rear axle resistors
- 5 – Adhesive pads
- 6 – Cable tie



- 4.12.1 Replacing both original wiring harness connectors:
Release safety cap ⇒ 10-2- on locking lugs ⇒ 10-5-.
Release connector ⇒ 10-4- lock ⇒ 10-3-.

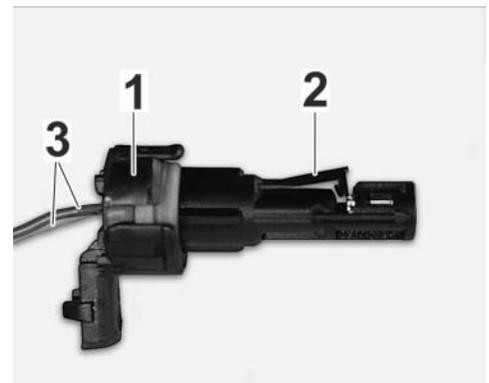
- 1 - Electric lines
- 2 - Locking cap
- 3 - Plug
- 4 - Fuse
- 5 - Locking lugs



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- 4.12.2 Release connector ⇒ 11-2- lock ⇒ 11-1- and unpin electric lines ⇒ 11-3-.

- 1 - Plug
- 2 - Fuse
- 3 - Electric lines



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- 4.12.3 Remove safety cap ⇒ 10-2- (no longer required).

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

- 1 - Electric lines
- 2 - Plug
- 3 - Fuse



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- 4.12.5 Installing front-axle deactivation set on the **right vehicle side**:
Bring new connector ⇒ 13-1- into contact with vehicle connector ⇒ 13-2-.
Affix resistor ⇒ 13-4- on a level surface using the supplied adhesive pads.
Route the electric wire harness ⇒ 13-3- without tension and secure with a cable tie.

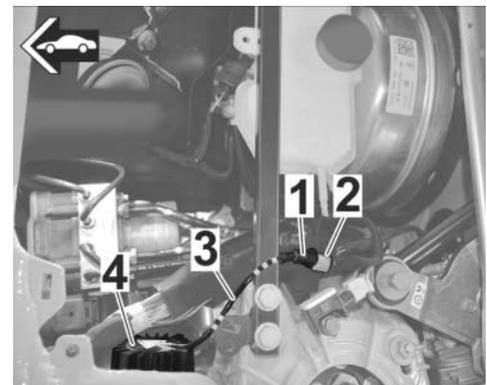
- 1 – New connector
- 2 – Vehicle connector
- 3 – Electric wiring harness
- 4 – Resistance



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- 4.12.6 Installing front-axle deactivation set on the **left vehicle side**:
Connect new plug connection ⇒ 14-1- with vehicle plug connection ⇒ 14-2-.
Affix resistor ⇒ 14-4- on a level surface using the supplied adhesive pads.
Route the electric wire harness ⇒ 14-3- without tension and secure with a cable tie.

- 1 – New connector
- 2 – Vehicle connector
- 3 – Electric wiring harness
- 4 – Resistance

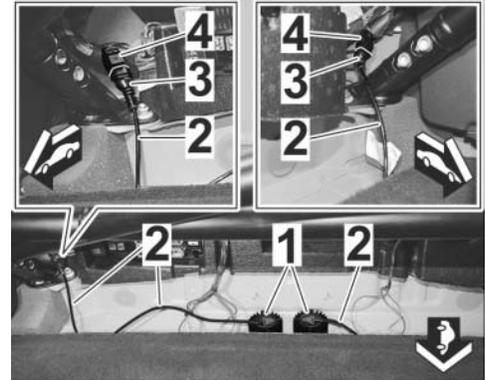


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- 4.13 Install rear-axle deactivation set. **Proceed right-hand drive in a mirror-inverted manner.**

- 4.13.1 Bring new connectors ⇒ 15-3- into contact with vehicle connectors ⇒ 15-4-.
Isolate wiring harness ⇒ 15-2- from power supply and secure with cable tie.
Affix resistors ⇒ 15-1- on a level surface in the middle of the vehicle using the supplied adhesive pads.

- 4.14 Complete the vehicle interior. ⇒ *Workshop Manual '427119 Removing and installing rear spring strut - "Subsequent work" section'*



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⚠ WARNING

Personal injury and material damage from brake fluid

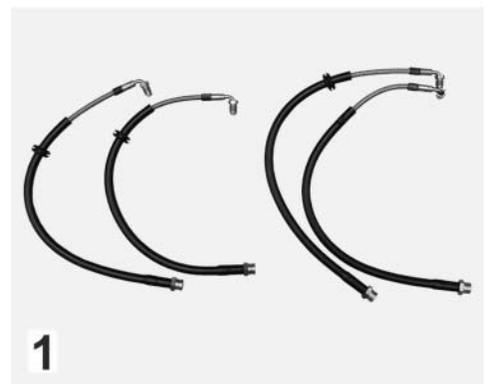
- **Poisonous if swallowed**
 - **Irritation and damage to skin**
 - **Detachment of paint surfaces**
- ⇒ **Only store brake fluid in suitable, labelled containers**
- ⇒ **Wear protective gloves and goggles**
- ⇒ **In the event of contact (eyes or skin), wash immediately with water**
- ⇒ **In the event of contact with paint surfaces, wash off immediately with water, do not wipe off**

5 Installing brake lines

- 1 – Brake line sections (steel braided), front axle and rear axle - 992. 044. 856.15

5.1 Conversion of front axle area
Longer section is installed on the front axle.

- 5.1.1 Loosen threaded connections ⇒ 17-2- and remove brake line ⇒ 17-1-.
- 5.1.2 Install new brake line ⇒ 17-1- without tension and ensuring that no abrasion occurs.
- 5.1.3 Tighten threaded connections ⇒ 17-2-.



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Tightening torque 10 Nm

- 1 – Brake line
- 2 – Threaded connection

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

5.2 Conversion of rear axle area

5.2.1 Loosen brake line threaded connection ⇒ 18-2- and remove brake line ⇒ 18-1-.

5.2.2 Route the new brake line ⇒ 18-1- in the same way as the standard brake line and tighten the threaded connection ⇒ 18-2-.

Tightening torque 10 Nm

- 1 – Brake line
- 2 – Threaded connection

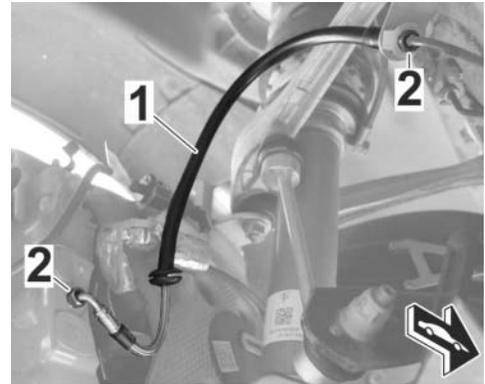
5.2.3 Clean adjacent components of any brake fluid that may have leaked out.

5.3 Bleed the brake system. ⇒ *Workshop Manual '470107 Bleeding brake system'*

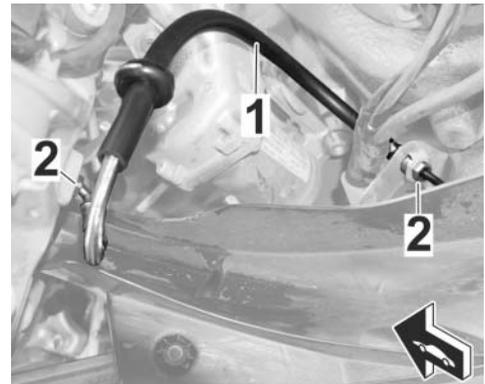
6 Installing front spoiler

- 1 – Front spoiler - 992.044.856.03

Mounting parts set: – Reinforcement plates with screws - 9A7.007.517.00



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1 – Front spoiler reinforcement plate

6.1 Remove front spoiler. ⇒ *Workshop Manual '66031925 Removing and installing front spoiler (centre)'*

6.2 Installing new front spoiler ⇒ 19-1-. ⇒ *Workshop Manual '66031925 Removing and installing front spoiler (centre)'*

6.3 Remove screws ⇒ 21-1- (no longer needed).

1 – Screws

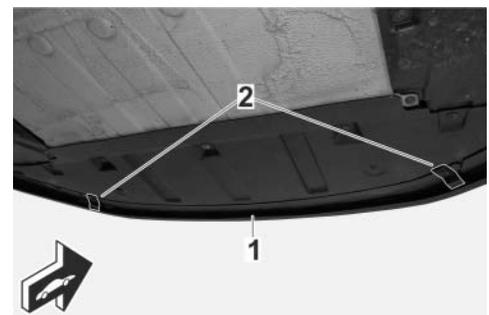


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6.4 Install reinforcement plates ⇒ 22-3- on front spoiler ⇒ 22-1- and secure with new screws from the fastening parts set. **Tightening torque 3.2 Nm**

1 – Front spoiler

2 – Reinforcement plates



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7 Mounting the air control elements on the underbody

- 1 – Left air-guide element - 992.044.856.05
- 2 – Right air-guide element - 992.044.856.06

Mounting parts set: – Screw - 999.073.297.A2
with hexagon nut - 999.076.071.02

7.1 Mount the respective air-guide element ⇒ 24 -1- on the underbody cover ⇒ 24 -4- with underbody cover ⇒ 24 -2- screws.

7.2 Transfer center air-guide element bore ⇒ 24 -3- to underbody cover ⇒ 24 -4-.

7.3 Remove air-guide element ⇒ 24 -1-.

7.4 Remove underbody cover ⇒ 24 -4-. ⇒ *Workshop Manual '519219 Remove and install front cover'*

- 1 – Air-guide element
- 2 – Screw
- 3 – Center bore on air-guide element
- 4 – Underbody cover

7.5 Drill a Ø 6.5 mm hole at the center bore marking on the air-guide element.

7.6 Mount air-guide element ⇒ 25 -1- on the underside of the underbody cover ⇒ 25 -3- using a new screw and nut ⇒ 25 -2- from the fastening parts set.

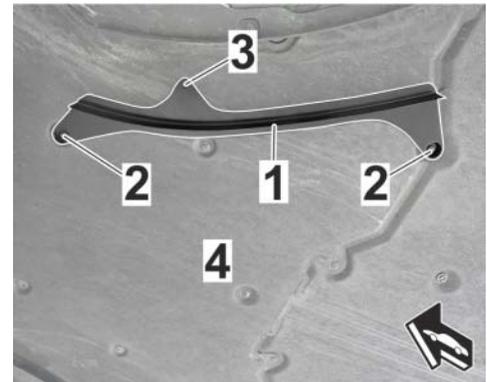
Tightening torque 10 Nm

- 1 – Air-guide element
- 2 – Screw - 999.073.297.A2 with hexagon nut - 999.076.071.02
- 3 – Underbody cover (removed)

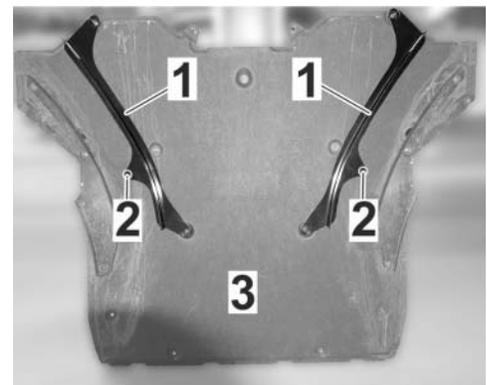
7.7 Install underbody cover. ⇒ *Workshop Manual '519219 Remove and install front cover'*



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8 Installing rear diffuser

1 – Rear diffuser - 992.044.856.04

8.1 Remove rear diffuser ⇒ 27-1-. ⇒ *Workshop Manual '66591925 Removing and installing rear spoiler, lower part (diffuser)'*



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8.2 Install new rear diffuser ⇒ 27-1-. ⇒ *Workshop Manual '66591925 Removing and installing rear spoiler, lower part (diffuser)'*

1 – Rear diffuser



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9 Affixing stickers

**Information**

The stickers are to be ordered in the color of the customer's choice (black or white).

9.1 Carefully remove GT3 logo and adhesive residue.

9.2 Thoroughly clean the surfaces to be adhered, with isopropanol (alcohol). The adhesive surfaces must be free from dust, dirt and grease of any kind.

**Information**

The stickers can also be affixed wet. After removing the backing film, spray a little water or a mixture of water and washing-up liquid onto the sticker and the surface to be affixed.

9.3

Remove backing sheet from the respective sticker, align the protective film on the sticker flush at the front and bottom of the door and stick it on, then remove the protective film on the sticker.



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10 Concluding work

- 10.1 Read out the fault memory of all systems, work through any existing faults and erase the fault memory. ⇒ *Workshop Manual '033500 Fault memory for on-board diagnosis'*
- 10.2 Disconnect the battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charge'*

11 Perform suspension alignment.

- 11.1 Measure vehicle with standard values (as-delivered state). To do this, see the repair instructions ⇒ *Workshop Manual '2X00IN Adjustment values for suspension alignment'*.
- 11.2 Measure vehicle with the performance setup recommended by Manthey (race circuit driving). Adjustment via the Manthey measuring wheel system in Conversion Instructions for ⇒ *Installation and Conversion Instructions '440000 measuring wheel system'*

11.3 Measuring criteria:

- Tank capacity: **Full**
- Driver ballast: **Driver weight**

Damper clicking Performance	Front axle	Rear axle
Rebound stage (R) LowSpeed (Black)	7	7
Rebound stage (R) HighSpeed (gold)	8	6
Pressure stage (C) LowSpeed (Black)	7	7
Pressure level (C) HighSpeed (Gold)	9	9
Steel anti-roll bar	Center position = medium	Center position = medium

Ride height on tyres	104.0 mm	247.0 mm
Driving height on measuring wheel system	90 mm (offset: -14 mm)	240 mm (offset: -7 mm)

Damper clicking Comfort	Front axle	Rear axle
Rebound stage (R) LowSpeed (Black)	9	10
Rebound stage (R) HighSpeed (gold)	9	12
Pressure stage (C) LowSpeed (Black)	10	10
Pressure level (C) HighSpeed (Gold)	10	11
Steel anti-roll bar	Center position = medium	Center position = medium
Ride height on tyres	104.0 mm	247.0 mm
Driving height on measuring wheel system	90 mm (offset: -14 mm)	240 mm (offset: -7 mm)

11.4 Measurement log:

Measurement log (executing PORSCHE Center)			
Wheel alignment values (worldwide)	Initial readings	Setpoint values	Final measurement
Front axle			
Toe unpressed (total)		- 2 mm	
Camber with wheels in straight-ahead position		- 2.6°	
Rear axle			
Toe per wheel		+ 2 mm	
Camber		- 2.6°	
Installed on:	Mechanic:	Acceptance:	Stamp:
(Date)	(First Name)	(Name of Foreman)	(Porsche Center)

12 Installing towing loops

**Information**

The towing loops are **not** approved for use on public roads.

Race Track only.

- 1 – Front towing loop
- 2 – Rear towing loop
- 3 – Small spacer
- 4 – Medium spacer
- 5 – Large spacer

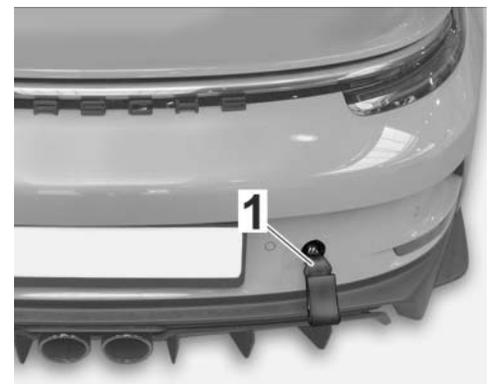
- 12.1 Remove both towing hook covers (front and rear).



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- 12.2 Screw the respective towing loop ⇒ 32-1- into the device provided in order to check the positions of the towing loop.

- 1 – Rear towing loop

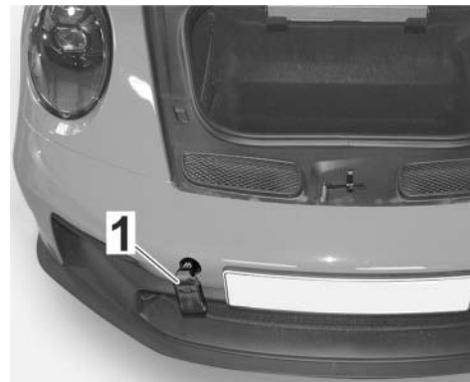


32

- 12.3 Depending on position, install one or more of the three supplied wheel spaces ⇒ 31-3, 4, 5- on the respective towing loop ⇒ 33-1- and screw in again.

The logo on the respective towing lug ⇒ 33-1- must face straight up.

- 1 – Front towing loop



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Labor time: 911 GT3 Touring Manthey Performance Kit
Includes: Install 911 GT3 Manthey Performance Kit.

Labor time: **1050 TU**

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