

ASSEMBLY INSTRUCTIONS

TECHART Power-Kit 091 TA / T2 for 991 Turbo

TECHART Power-Kit 091 TA / T2.1 for 991 Turbo (S)

Part-no. 091.300.680.009

Part-no. 091.300.700.009

Part-no. 091.300.720.009

Part-no. 091.300.750.009

for Porsche 991 Turbo from MY 17

for GTstreet based on Porsche 991 Turbo from MY 17

for Porsche 991 Turbo S from MY 17

for GTstreet based on Porsche 991 Turbo S from MY 17

Version 01 – 04/2017





ASSEMBLY INSTRUCTIONS


















TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

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I Important safety information











All of the necessary work must be performed by qualified persons with an appropriate level of expertise.

	<div data-bbox="651 562 952 618" data-label="Section-Header"> <p> WARNING</p> </div> <p>Vehicle lifts with an insufficient lifting capacity can collapse under the weight of the vehicle and crush any persons standing underneath.</p> <p>Compare the weight of the vehicle with the lifting capacity of your vehicle lift. The weight of the vehicle must not exceed the lifting capacity of your vehicle lift. The weight of the vehicle can be found in the vehicle operating manual.</p>	
	<div data-bbox="651 864 952 920" data-label="Section-Header"> <p> WARNING</p> </div> <p>Risk of injury from electric current.</p> <p>Switch off the ignition and disconnect the battery when working on the vehicle electrical/electronics systems.</p>	
   	<div data-bbox="651 1111 952 1167" data-label="Section-Header"> <p> WARNING</p> </div> <p>Risk of fire and explosion from ignition of windshield cleaning agents/antifreeze and their vapors.</p> <p>Risk of poisoning from ingesting windshield cleaning agents/antifreeze and breathing in their vapors.</p> <p>Risk of injury due to irritation caused by windshield cleaning agents/antifreeze coming into contact with eyes, skin and other parts of the body.</p> <p>Wear protective clothing and safety glasses. Avoid naked flames, fire and sources of ignition. Avoid contact with eyes, skin and other parts of the body. Do not eat, drink or smoke when handling windshield cleaning agents/antifreeze. Do not breathe in vapors and ensure adequate ventilation. Keep windshield cleaning agents/antifreeze only store them in sealable original containers.</p> <div data-bbox="587 1648 1086 1783">    </div>	  



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TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

 	 CAUTION	 
	<p>Risk of injury from hands and arms being crushed, cut or lacerated when working with sharp-edged and bulky objects.</p> <p>Wear protective clothing and protective gloves. Keep limbs out of narrow and inaccessible areas of the vehicle and/or avoid dangerous situations by using special tools and suitable aids.</p>	
	 CAUTION <p>Risk of injury to back, muscles, joints, tendons and ligaments from lifting and carrying heavy and/or bulky objects.</p> <p>Lift and transport heavy and/or bulky objects with the help of other people and/or with suitable aids.</p>	
	NOTICE <p>Before starting the assembly procedure, carefully read the assembly instructions in full and pay attention to the safety information and sequence of the individual operation steps.</p>	
	NOTICE <p>All body parts must be prepared and painted in accordance with the attached painting guide.</p>	

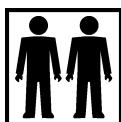


ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

II Preparation

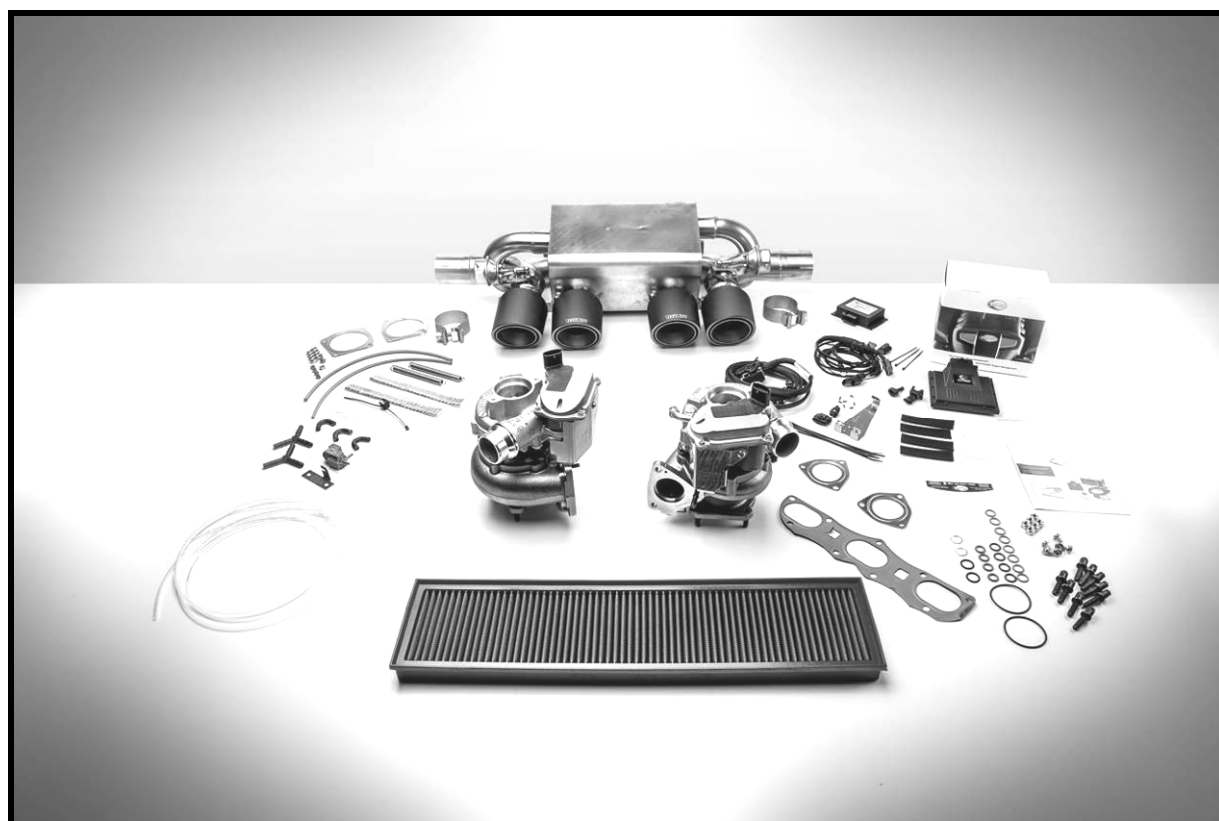
Number of people required



For the installation of this product at least two persons are needed.

Help and support

If you have any technical queries, please contact us immediately:
support@techart.de





ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

Quantity	Part number	Part designation
1	091.300.680.009	Power-kit TA 091 / T2 for 991 Turbo MY17
Consisting of:		
1	091.300.750.309	Sport air filter for 991 Turbo

1	091.310.650.009	Exhaust system „Sport“ valve controlled
Consisting of:		
1	091.310.650.100	Rear muffler “Sport“
1	091.310.650.099	Valve exhaust system assembly kit
1	091.310.300.330	Valve control unit incl. wiring harness

1	091.300.750.200	Data status 091 / T2.1 PDK
1	000.300.010.102	Techtronic ICP3
1	B95.300.100.200-01	Cable set Techtronic
1	000.300.102.OKT	Octane 100 decal
1	091.300.750.100	Turbo charger T35 VTG right cylinder 4-6
1	091.300.750.101	Turbo charger T35 VTG left cylinder 1-3

1	091.300.750.150	Assembly kit VTG charger
Consisting of:		
4	99970761240	O-Ring
8	99970759740	O-Ring
4	99970761340	O-Ring
2	99970738740	O-Ring
6	9990732360A	Fillister head screw
2	99970756440	O-Ring
1	99711110731	Gasket
2	99711121570	Gasket
9	99907358901	Hexagon screw
6	0089003698	Hexagon nut
2	90012317320	Gasket



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

optional

Quantity	Part number	Part designation
1	+91.300.700.100	Air intake hood paintable
Consisting of:		
1	091.100.785.100	Air intake hood, blank
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black Tube 70ml

or

1	+91.300.700.110	Air intake hood Carbon high-gloss
Consisting of:		
1	091.121.785.100G	Air intake hood, Carbon high-gloss
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black tube 70ml

or

1	+91.300.700.120	Air intake hood Carbon matt
Consisting of:		
1	091.121.785.100M	Air intake hood, Carbon matt
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black tube 70ml



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

Quantity	Part number	Part designation
1	091.300.700.009	Power-kit TA 091 / 2 for GTstreet R based on 991 Turbo MY17
Consisting of:		
1	091.300.750.309	Sport air filter for 991 Turbo

1	091.310.700.009	Exhaust system "Sport" valve controlled
Consisting of:		
1	091.310.700.100	Rear muffler "Sport"
2	091.310.750.101	Exhaust tail pipe titanium with Carbon trim
2	091.310.750.100	Exhaust tail pipe titanium with Carbon trim
2	091.310.700.301	Exhaust retaining spring
1	091.310.750.340	Valve exhaust system assembly kit
1	091.310.750.330	GTstreet valve control unit incl. wiring harness

1	091.300.750.200	Data status 091 / T2.1 PDK
1	000.300.010.102	Techtronic ICP3
1	B95.300.100.200-01	Cable set Techtronic
1	000.300.102.OKT	Octane 100 decal
1	091.300.750.100	Turbo charger T35 VTG right cylinder 4-6
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1	99711110731	Gasket
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6	0089003698	Hexagon nut
2	90012317320	Gasket



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

Quantity	Part number	Part designation
1	091.300.720.009	Power-kit TA 091 / T2.1 for 991 Turbo MY17
Consisting of:		
1	091.300.750.309	Sport air filter for 991 Turbo

1	091.310.650.009	Exhaust system "Sport" valve controlled
Consisting of:		
1	091.310.650.100	Rear muffler "Sport"
1	091.310.650.099	Valve exhaust system assembly kit
1	091.310.300.330	Valve control unit incl. wiring harness

1	091.300.750.200	Data status 091 / T2.1 PDK
1	000.300.010.102	Techtronic ICP3
1	B95.300.100.200-01	Cable set Techtronic
1	000.300.102.OKT	Octane 100 decal
1	091.300.750.100	Turbo charger T35 VTG right cylinder 4-6
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ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

optional

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Consisting of:		
1	091.100.785.100	Air intake hood, blank
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black tube 70ml

or

1	+91.300.700.110	Air intake hood Carbon high-gloss
Consisting of:		
1	091.121.785.100G	Air intake hood Carbon high-gloss
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black tube 70ml

or

1	+91.300.700.120	Air intake hood Carbon matt
Consisting of:		
1	091.121.785.100M	Air intake hood , Carbon matt
3	0039003913A2	Collar screw Torx 3.9x13
2	00091089010031	Bond + seal black tube 70ml



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

Quantity	Part number	Part designation
1	091.300.750.009	Power-kit TA 091 / 2.1 for GTstreet R based on 991 Turbo S MY17

1	091.300.750.309	Sport air filter for 991 Turbo
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1	091.310.700.009	Exhaust sytem "Sport" valve controlled
Consisting of:		
1	091.310.700.100	Rear muffler "Sport"
2	091.310.750.101	Exhaust tail pipe titanium with Carbon trim
2	091.310.750.100	Exhaust tail pipe titanium with Carbon trim
2	091.310.700.301	Exhaust retaining spring
1	091.310.750.340	Valve exhaust system assembly kit
1	091.310.750.330	GTstreet valve control unit incl. wiring harness

1	091.300.750.200	Data status 091 / T2.1 PDK
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2	90012317320	Gasket



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

-  The power-kit may optionally be installed in combination with one of the following TECHART exhaust systems.

In combination with original rear apron:

- 091.310.650.009

In combination with TECHART rear apron GTstreet R:

- 091.310.700.009

For this use the separate and specific assembly instructions of the according TECHART exhaust system.

Exhaust systems deviating from this list may cause power decrease and or lead to malfunctions of the power-kit (e. g. engine failure, overheating, ride disturbance, etc.).

Please use the table to check whether all of the required parts are present.

Once parts have been removed from their original packaging, ensure that they are properly handled and stored.



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

III Installation

1 Prepare vehicle



Before starting work, check that the vehicle is free of defects. Use the PIWIS system tester to read out all of the fault memories of the individual vehicle components and first rectify any faults displayed.

- 1 Raise vehicle at the factory-fitted jacking points.







ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

2 Detach original parts

2.1 Detach original PDK control unit

-  Please note the required security advice of the manufacturer and the local applicable law and regulations on occupational safety and accident prevention!
-  The PDK control unit has to be dismantled and has to be sent to the TECHART plant to input the new data.
-  Switch off the ignition and disconnect the battery when working on the vehicle's electrical system.
-  There will be no change of gears possible after dismantling the PDK control unit. TECHART recommends engaging gear N prior to the dismantling to enable the vehicle to be rolled, if necessary. The vehicle has to be professionally secured against rolling away.

- 1 The PDK control unit is located in driving direction in front of the right backseat below the carpet trim.

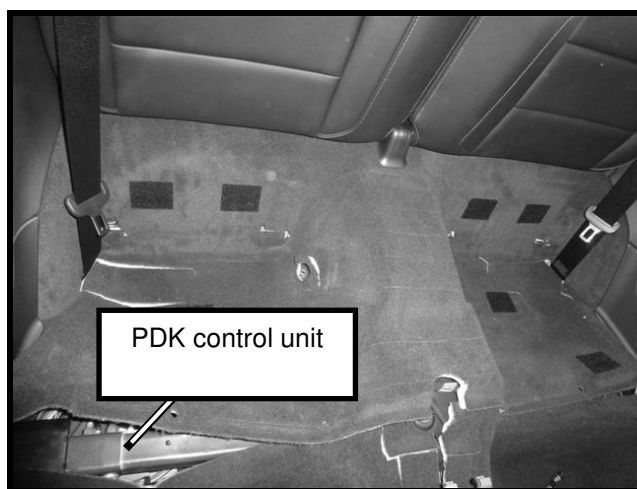


Fig. 01

- 2 Make sure that the battery is disconnected.
- 3 Dismantle the PDK control unit according to the manufacturer's specifications.

-  Mark the original control unit PDK with VIN-number as well as the order number and send to the following address:

TECHART Automobil design GmbH
Wareneingang
Roentgenstrasse 47
71229 Leonberg
GERMANY



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

2.2 Dismantle original exhaust turbo charger



Please not the required security advice of the manufacturer and the local applicable law and regulations on occupational safety and accident prevention!



- 1 Dismantle rear apron as well as heat protection sheets, bumper beam and intercooler according to the manufacturer's specifications.
- 2 Exchange the air filter insert with the TECHART Sport air filter insert according to the manufacturer's specifications.

2.3 Dismantle original parts rear



Caution, exhaust system may be hot!

- 1 Dismantle the original exhaust according to the manufacturer's specifications.



Caution: Care for absolute cleanliness when dismantling the exhaust turbo charger!

Motor oil and coolant may run out, please collect it in a suitable receptacle!

- 2 Loosen exhaust turbo charger at the manifold flange.
- 3 Dismantle the oil return at the catch-tank. Dismantle the exhaust temperature sensors.
- 4 Dismantle the coolant and oil lines (4 lines on each turbo charger).
- 5 Separate the electrical connection at the boost-pressure control.
- 6 Loosen the plastic suction tube at the compressor housing.
- 7 Remove the screws at the retaining brackets of the exhaust turbo charger and remove exhaust turbo charger.
- 8 Dismantle catch-tanks from the turbo chargers.



Catch-tanks will be reused.

Original exhaust turbo chargers are no longer required.



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

3 Install TECHART parts

3.1 Install TECHART turbo charger

 **Caution: Care for absolute cleanliness when installing the exhaust turbo charger!**

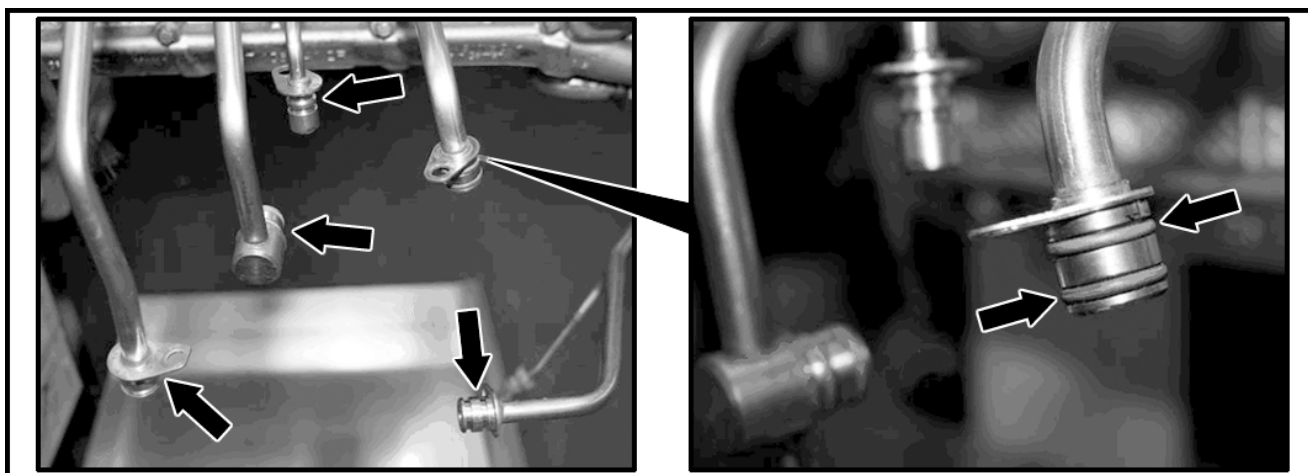


Fig. 02 & 03

- 1 Exchange all sealing rings at the water and oil lines with the supplied sealing rings (see arrows).
- 2 Install catch tanks at the exhaust turbo charger. Use new gasket.
- 3 Attach TECHART exhaust turbo charger and tighten the screws to the retaining bracket (see arrow).

 **Part-number TECHART exhaust turbo charger right: 091.300.750.100**

Part-number TECHART exhaust turbo charger left: 091.300.750.101

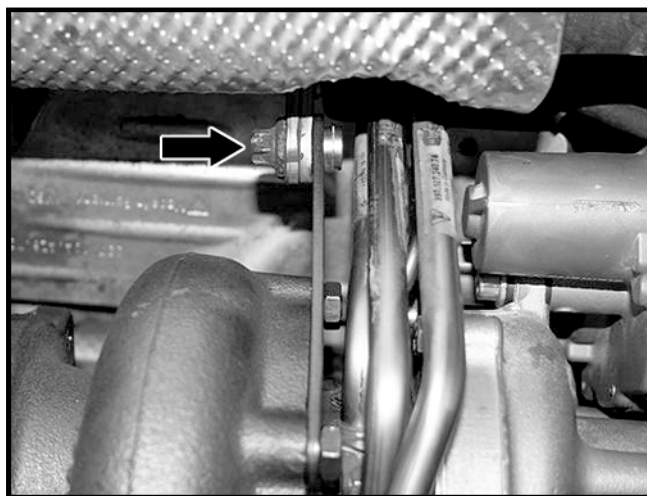


Fig. 04

- 4 Install the coolant and oil lines (4 lines on each turbo charger).

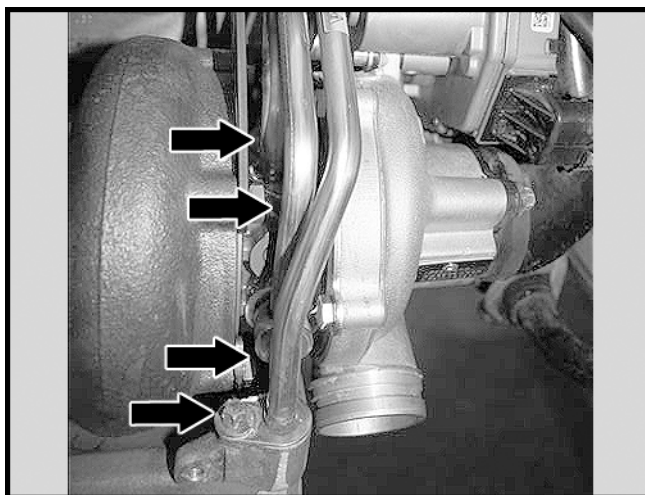


Fig. 05

- 5 Install the oil return (5) to the catch tanks.
- 6 Install the exhaust temperature sensors (6).

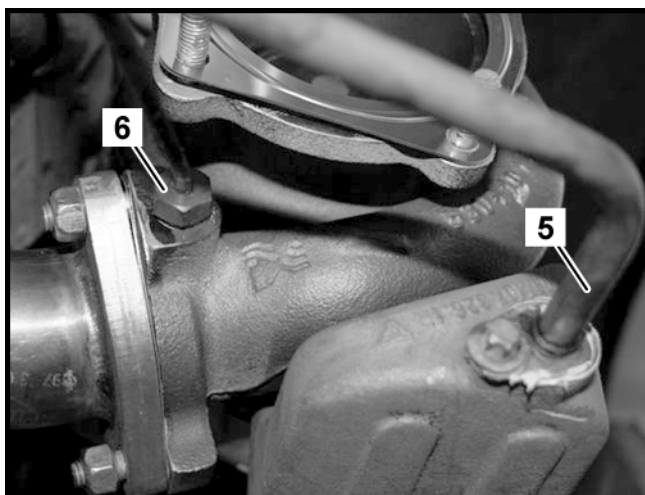


Fig. 06

- 7 Connect the electrical connection (7) to the boost-pressure control.
- 8 Install the plastic suction tube to the compressor housing.

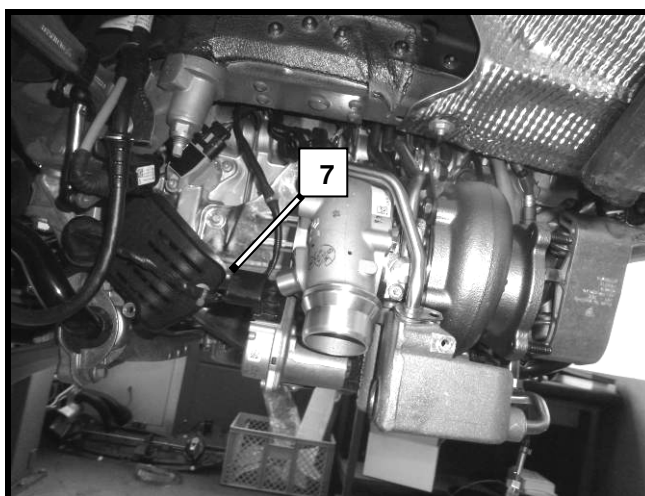



Fig. 07



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

- 9 Pre-assemble and install TECHART exhaust system according to the separate assembly instructions. See fig. 08 (pictures shows exemplary the assembly instructions for the TECHART valve exhaust system 091.310.650.099)

 The assembly of the TECHART GTstreet R exhaust system 091.310.700.009 is described in the GTstreet R assembly instructions 091.100.060.099.

 Just attach the clamping screws, do not tighten!

 Please make sure not to mix up the Lambda sensors for pre- and after-the catalytic converter.

- 10 Figure shows exhaust system 091.310.700.009

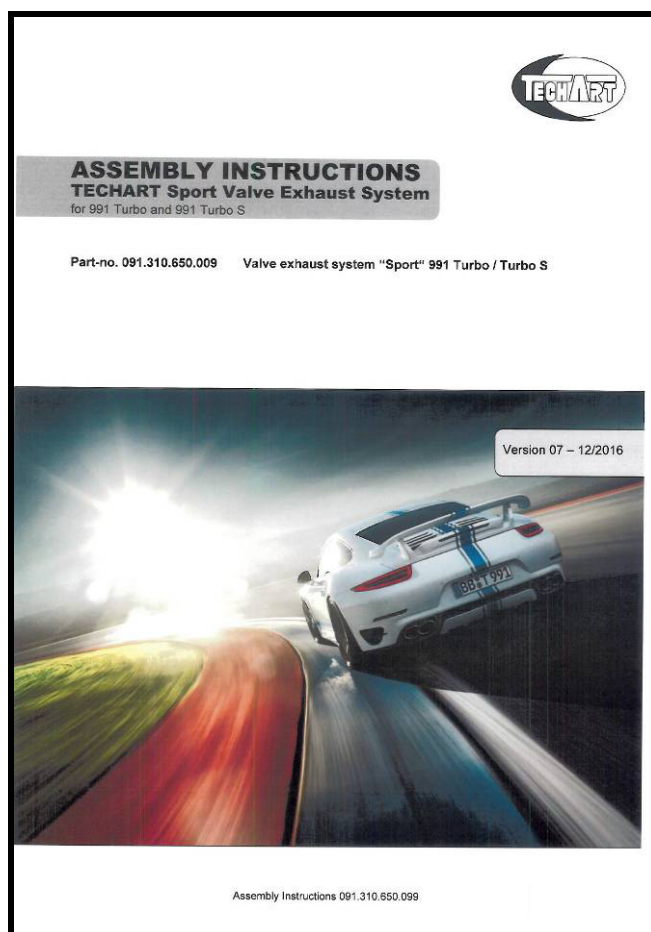


Fig. 08

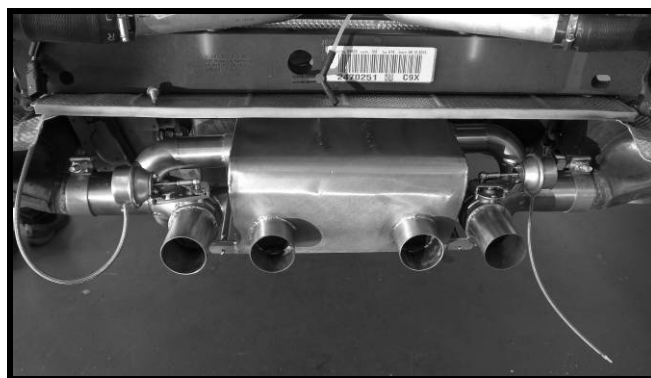


Fig. 09



Install all screws and nuts with some aluminum paste to the thread.



Fig. 10

- 11 Align the complete exhaust system. Figure shows exhaust system 091.310.650.009.



Fig. 11

- 12 Fasten all nuts M8 at the exhaust turbo chargers as well as the fixation of the rear mufflers.
- 13 Attach the tail pipes and align.
- 14 Again, check the alignment of the exhaust system and readjust, if necessary.
- 15 Install rear apron, heat protection sheet, bumper beam and intercooler according to the manufacturer's specifications.



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

3.2 Install TECHART auxiliary control unit

- 1 Install the auxiliary control unit according to the separate assembly instructions 091.300.640.099.

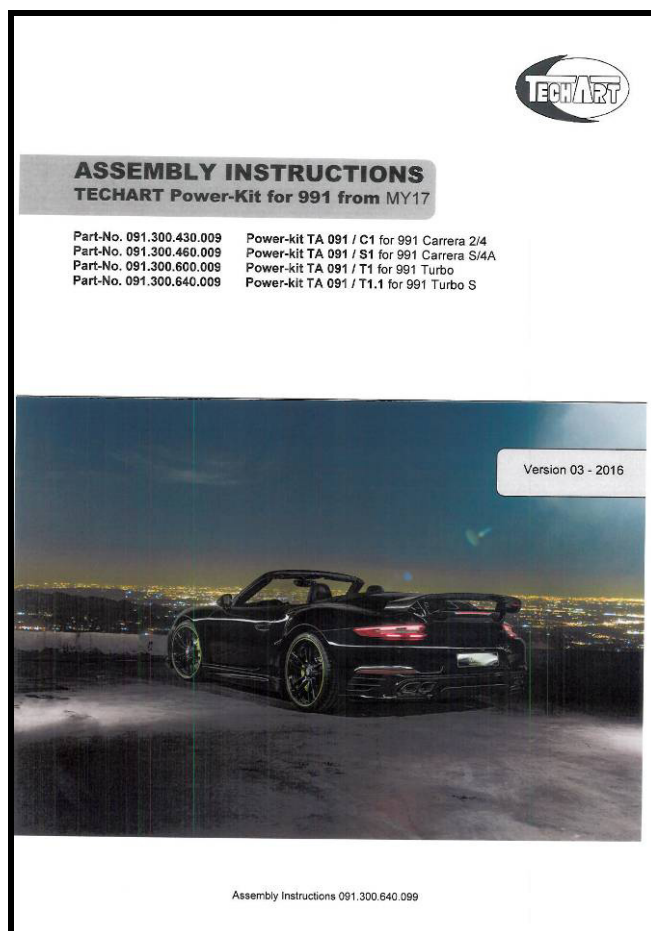


Fig. 12



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

3.3 Install PDK control unit

- 1 Install and connect the PDK control unit according to the manufacturer's specifications.



Fig. 13



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

4 Install TECHART air intake hood



The bonding surfaces on the TECHART air intake hood and original panel air grille must be dry and free from dust and paint spray mist.

Use cleaning agent to thoroughly degrease bonding surfaces on the TECHART air intake hood and original panel air grille.

Do not touch the surfaces after they have been cleaned.

Remove any PU adhesive that escapes using a cleaning agent.

- 1 Dismantle the original panel air grille from the rear cover (at the cabriolet: convertible-top compartment lid).

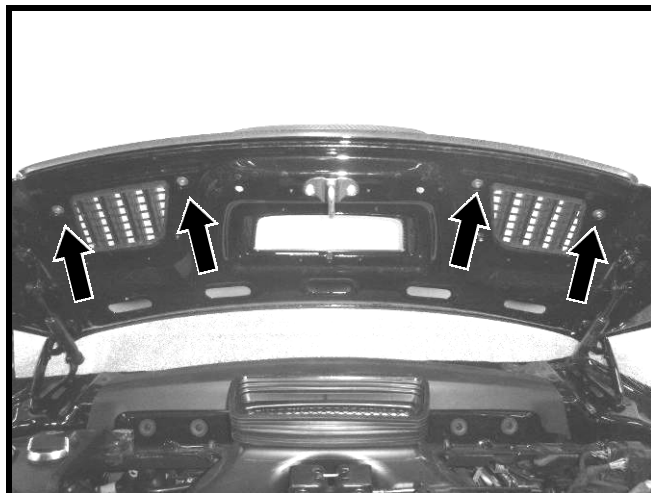


Fig. 14

- 2 Unclip the 3 air intake panels.
- 3 Reinstall the original panel air grilles.



Air intake panels are no longer needed.

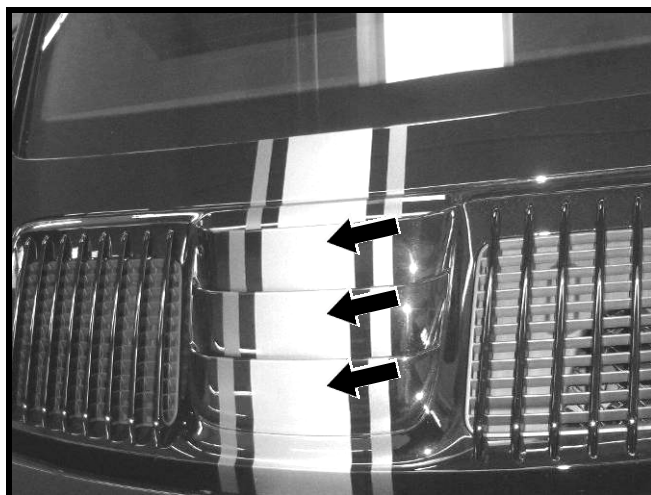


Fig. 15

ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

- 4 Apply PU-adhesive to the bonding surfaces of the TECHART air intake hood 091.121.785.100 (9).
- 5 Glue the TECHART air intake hood (9) to the original panel air grille.

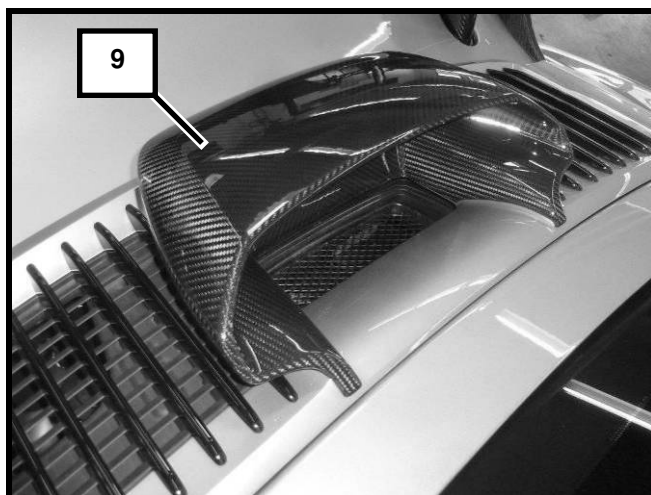


Fig. 16

- 6 Tighten the TECHART air intake hood with the screws 3.9x13 to the original panel air grille, for that pre-drill Ø 3mm.

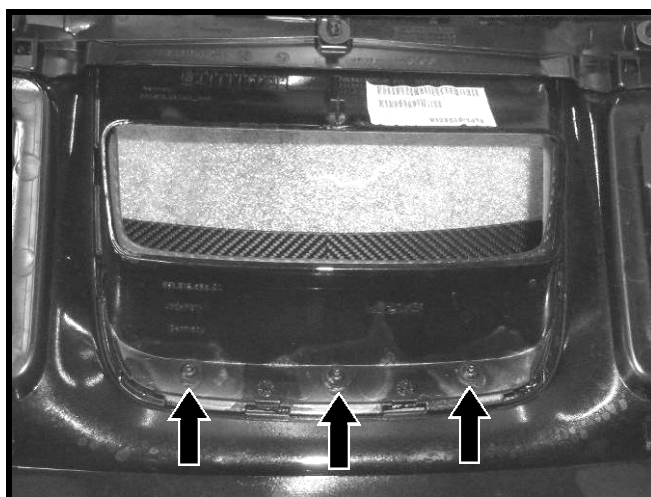




Fig. 17

-  **Press on firmly in areas coated with adhesive. Check for an accurate fit – Immediately remove any PU adhesive that escapes using a cleaning agent and fix it in place with adhesive tape.**
-  **Allow to dry for at least 12 hours. Remove the adhesive tape afterwards.**



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

5 Final check

- 1 Complete vehicle.
- 2 Refill coolant, thoroughly ventilate cooling circuit.
- 3 Check oil-level and correct it if necessary.
- 4 Use the PIWIS system tester to read out all of the fault memories and rectify.
- 5 Warm up the engine, check the engine oil-level and perform a leakage test.
- 6 Finally carry out a test drive and then read out the fault memories again.
- 7 Check all operating liquids.



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

6 Tightening torques

Location	Description	Type	Basic value	Tolerances
Oil- and coolant lines at the turbo charger	Outer- and inner Torx M6	Tightening torque	10 Nm	
Oil return line at the exhaust turbo charger	Outer Torx M6x12	Tightening torque	10 Nm	
Cap nut exhaust temperature sensor at the exhaust turbo charger	M12 (SW 14), grease with Optimol MF paste	Tightening torque	35 Nm	+/- 3 Nm
Retaining clamp oil suction line at the tandem pump	Outer Torx M6x16	Tightening torque	10 Nm	
Exhaust turbo charger at the exhaust manifold	Locking nut M8	Tightening torque	25 Nm	
Screw bracket exhaust turbo charger	Outer Torx M8x16	Tightening torque	23 Nm	
Suction tube at the exhaust turbo charger	Outer Torx M6x20	Tightening torque	10 Nm	
Protection plate at the exhaust turbo charger	Collar nut M6	Tightening torque	10 Nm	
Screws exhaust manifold at the cylinder head	Hexagon screw M8x25	Tightening torque	23 Nm	
Drain plug coolant	Exchange sealing ring	Tightening torque	10 Nm	+5 Nm

7 Schematic diagram exhaust valve and power increase

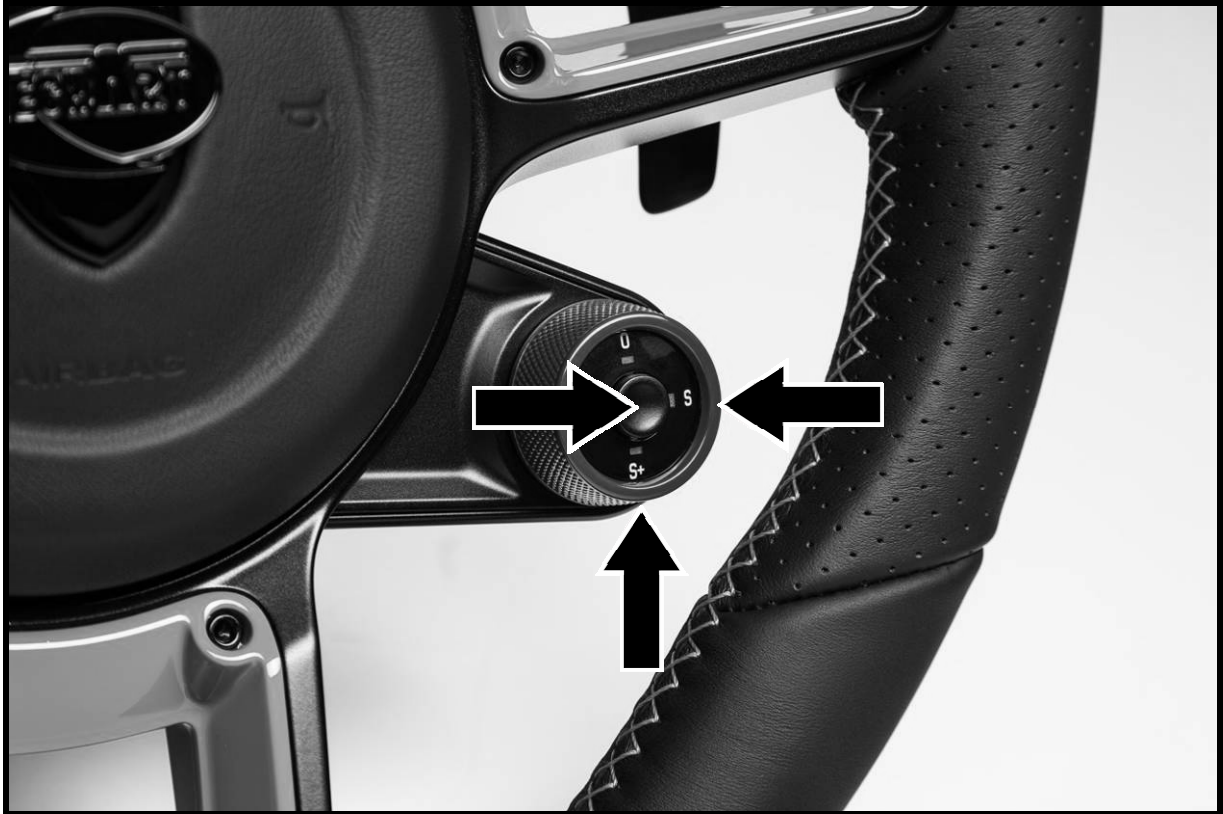


Fig. 18

Travel mode 0: The valve is closed permanently and only opens at a boost pressure of 0.6 bar. Power increase is active by 50%.

Travel mode S; "Mode Sport" is displayed at the combination instrument: The exhaust valve is only closed within the noise emission relevant range. Power increase is completely active.

Travel mode S+; "Mode Sport Plus" is displayed at the combination instrument: The exhaust valve is only closed within the noise emission relevant range. Power increase is completely active.


Sport Response button; "Sport Response" is displayed at the combination instrument: The exhaust valve is only closed within the noise emission relevant range for only 20 seconds. Power increase is completely active during the time span.


Auto Start-Stop button pressed; LED is set: The exhaust valve is only closed within the noise emission relevant range. This button stands hierarchically above the Sport and the Sport Plus buttons! Consequently when the Auto Start-Stop button is pressed the Sport (Plus) buttons are irrelevant regarding to the exhaust valve control.



ASSEMBLY INSTRUCTIONS

TECHART Power-kit TA 091/T2(.1) for 991 Turbo (S) from MY17

-  Depending on country-specific variant it is possible that the Auto Start-Stop function can be deactivated permanently (even after restart); then the exhaust valve control with the Sport (Plus) button will only be available after the driver activates the Auto Start-Stop function.

-  When using travel mode “Individual“ one may activate the exhaust valve for the individual mode by choosing the parameter Sport, Sport Plus or Auto Start Stop. The power increase will be activated by choosing the parameter Sport or Sport Plus.



ASSEMBLY INSTRUCTIONS

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