



## ASSEMBLY INSTRUCTIONS

TECHART "Sport" valve exhaust system  
for 997 standard rear apron

Part no. 097.310.320.009  
Part no. 097.310.321.009

"Sport" valve exhaust system tailpipes, shiny chrome  
"Sport" valve exhaust system tailpipes, black chrome





# ASSEMBLY INSTRUCTIONS











TECHART "Sport" valve exhaust system

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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.

	<p style="text-align: center;"><b>WARNING</b></p> <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>	
	<p style="text-align: center;"><b>WARNING</b></p> <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>	
 	<p style="text-align: center;"><b>CAUTION</b></p> <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>	
	<p style="text-align: center;"><b>CAUTION</b></p> <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>	
	<p style="text-align: center;"><b>NOTICE</b></p> <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>	



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TECHART "Sport" valve exhaust system

## II Preparation

### Number of people required



At least two people are required to install this product.

### Help and support

If you have any technical queries, please contact us immediately:  
[support@techart.de](mailto:support@techart.de)

### Check the TECHART parts kit for completeness

Item	Quantity	Part number	Part name
1	1	097310320009	"Sport" valve exhaust system for 997 tailpipes in shiny chrome
Consisting of:			
2	1	097310320100	Right "flap-valve system" muffler
2	1	097310320101	Left "flap-valve system" muffler
2	1	097310100320	Flap-valve control unit incl. wiring harness
1	1	097310302000	Flap-valve control assembly kit
Consisting of:			
2	2	99711001600	Braided steel hose
2	1	99711198930	Retaining plate
2	2	92857372705	Y-piece
2	2	92857471705	Molded hose
2	2	99923904240	Hose
2	2	99950707540	Cable support
2	1	99950790240	Cable support
2	2	99918185240	Vacuum pipe
2	1	99660512301	Reversing valve
2	2	99711111330	Seal
2	6	90091000303	Hexagon nut
2	2	000.590.561.6662	Cable duct
2	10	000.590.540.271	Cable tie with fastening clip
2	2	000901SJ3541	Velcro strip
2	1		Keypad adapted to the vehicle version with exhaust flap button



# ASSEMBLY INSTRUCTIONS

TECHART "Sport" valve exhaust system

Item	Quantity	Part number	Part name
<b>1</b>	<b>1</b>	<b>097310965009-01</b>	<b>TECHART exhaust tailpipes in shiny chrome</b>
Consisting of:			
2	1	097310965100-01	Right TECHART exhaust tailpipe in shiny chrome
2	1	097310965101-01	Left TECHART exhaust tailpipe in shiny chrome
<b>1</b>	<b>1</b>	<b>097310321009</b>	<b>"Sport" valve exhaust system for 997 tailpipes in black chrome</b>
Consisting of:			
2	1	097310320100	Right "flap-valve system" muffler
2	1	097310320101	Left "flap-valve system" muffler
2	1	097310100320	Flap-valve control unit incl. wiring harness
<b>1</b>	<b>1</b>	<b>097310302000</b>	<b>Flap-valve control assembly kit</b>
Consisting of:			
2	2	99711001600	Braided steel hose
2	1	99711198930	Retaining plate
2	2	92857372705	Y-piece
2	2	92857471705	Molded hose
2	2	99923904240	Hose
2	2	99950707540	Cable support
2	1	99950790240	Cable support
2	2	99918185240	Vacuum pipe
2	1	99660512301	Reversing valve
2	2	99711111330	Seal
2	6	90091000303	Hexagon nut
2	2	000.590.561.6662	Cable duct
2	10	000.590.540.271	Cable tie with fastening clip
2	2	000901SJ3541	Velcro strip
2	1		Keypad adapted to the vehicle version with exhaust flap button
<b>1</b>	<b>1</b>	<b>097310966009-01</b>	<b>TECHART exhaust tailpipes in black chrome</b>
Consisting of:			
2	1	097310966100-01	Right TECHART exhaust tailpipe in black chrome
2	1	097310966101-01	Left TECHART exhaust tailpipe in black chrome

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

Contact us immediately if any parts are missing: [support@techart.de](mailto:support@techart.de)

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

### III Installation

#### 1 Preparing the vehicle

**i** Before starting work, check that the vehicle is working without problem. Use the PIWIS system tester to read out all the fault memories of the individual vehicle components and first rectify any faults displayed.

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

#### 2 Removing original parts



- 1 Detach the rear apron as per manufacturer's instructions.
- 2 Detach the right and left heat shields as per manufacturer's instructions.
- 3 Detach the original rear mufflers on right and left and the central muffler as per manufacturer's instructions.

**i** The central muffler is no longer needed

- 1 Remove the brackets of the original mufflers and attach to the TECHART mufflers (1).

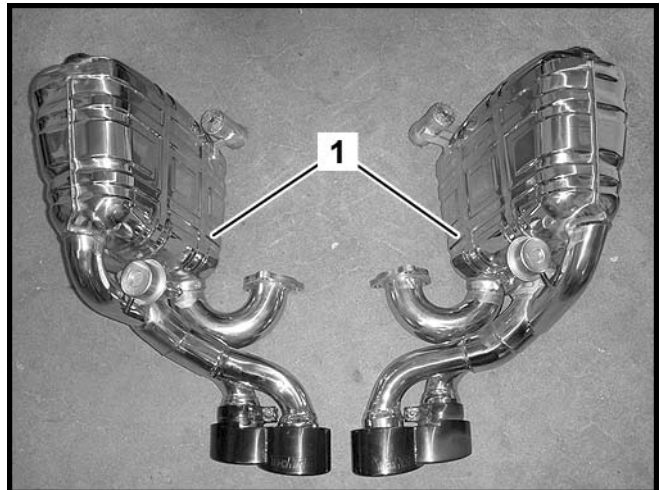


Fig. 01

### 3 Installing TECHART parts

#### 3.1 Installing the TECHART valve exhaust system



- 1 Push the TECHART muffler (1) onto the studs of the original catalytic converters and insert 3 nuts M8 (2) for each stud.



**Use the supplied seals.**

**Do not yet tighten the M8 nuts.**

- 2 Align the entire TECHART exhaust.
- 3 Tighten all M8 nuts on the original catalytic converters as well as both brackets.

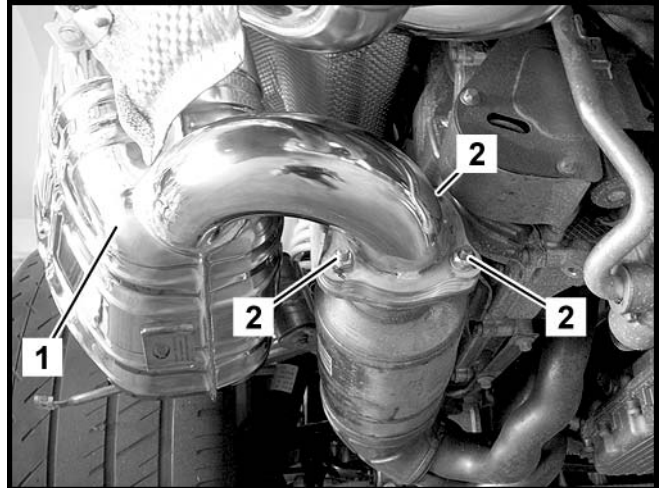


Fig. 02



**Tightening torque 24 Nm.**

**Check the alignment of the exhaust system again and adjust if necessary.**

- 4 Drill holes of  $\varnothing$  10 mm in the heat shields (3) (see arrow) for routing the vacuum pipe to the vacuum unit.
- 5 Temporarily attach the rear apron and align and tighten tailpipes and the exhaust system.



**With the valve exhaust system, adjust the tailpipes so that they only have a clearance of around 3-4 mm on the inside of the rear apron, to ensure sufficient space for heat expansion in the width.**

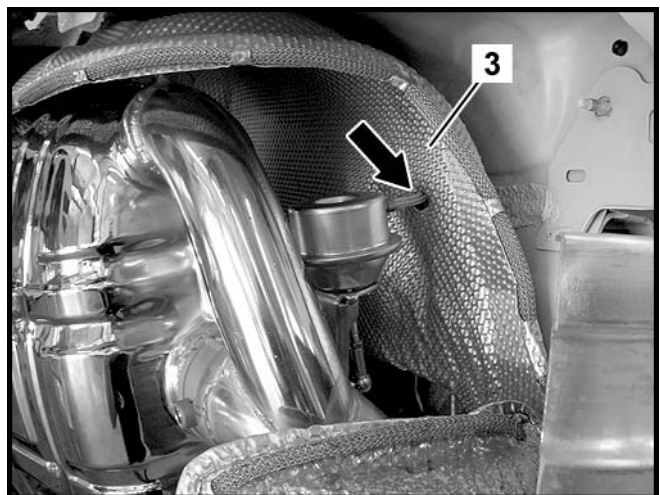


Fig. 03



- 6 Remove the rear apron once again.
- 7 Push the braided steel vacuum hoses (4) onto the vacuum units.
- 8 Using a plastic vacuum pipe, route the braided steel vacuum hoses (4) through the holes in the heat shields and the existing holes in the body into the engine compartment.

**i** Install the supplied grommet (5) in the existing holes in the body (5).

- 9 Secure the braided steel vacuum hoses (4) to the vacuum unit using one-ear clamps.

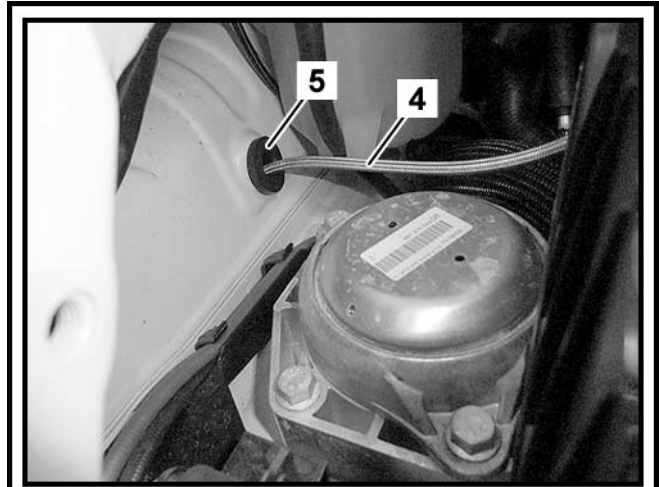


Fig. 04

- 10 Fit the heat shields on the right and left.
- 11 Now completely install the rear apron and check the alignment of the tailpipes again.



### 3.2 Installing the vacuum pipe

- 1 Disconnect the vacuum pipe in the engine compartment behind the intake manifold at the lower inlet of the timing valve (6).
- 2 Replace the rubber connectors with the supplied Y-pieces (7).

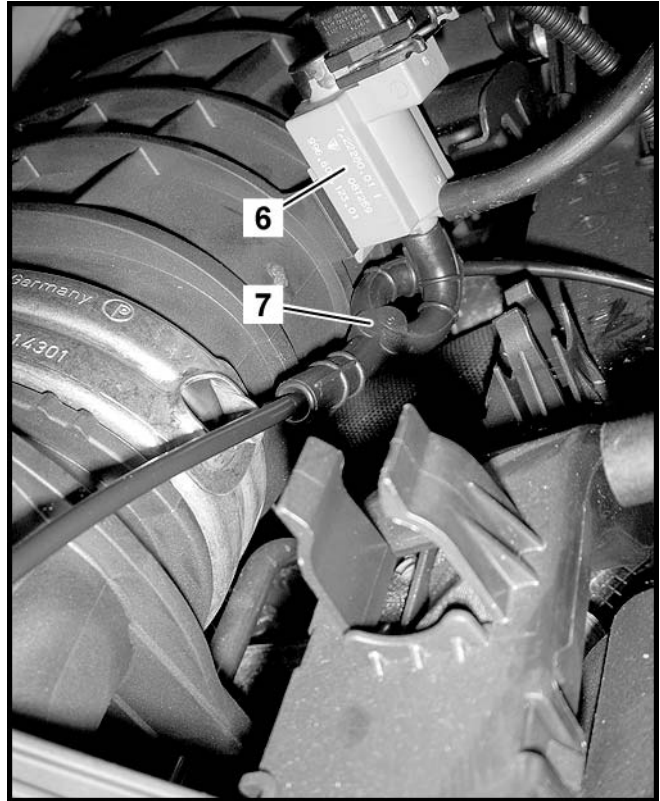


Fig. 05

- 3 Mount the reversing valve (8) with bracket on the intake manifold.
- 4 Using a molded hose (10), connect the vacuum pipe (9) from the Y-piece on the timing valve to the reversing valve (8).
- 5 Route the vacuum pipe (20) from the reversing valve (8) past the intake manifold in the direction of the visible side of the engine. Once there, connect it to the ready-fitted lines coming from the exhaust flaps using Y-pieces. (See connection diagram for vacuum supply, Fig. 07).

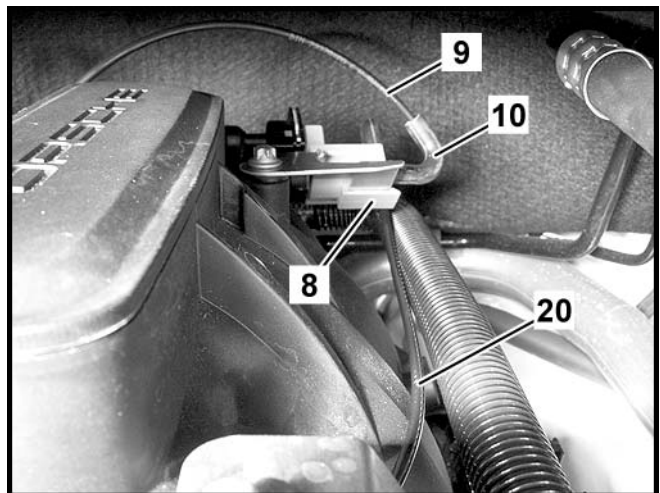


Fig. 06



# ASSEMBLY INSTRUCTIONS

TECHART "Sport" valve exhaust system

## Connection diagram for vacuum supply

Code	Designation	Part number
4	Braided steel vacuum hoses	99711001600
7	Y-piece	92857372705
8	Reversing valve	99660512301
9	Vacuum pipe	99918185240
10	Molded hose	92857471705
12	Muffler vacuum units	
20	Vacuum pipe	

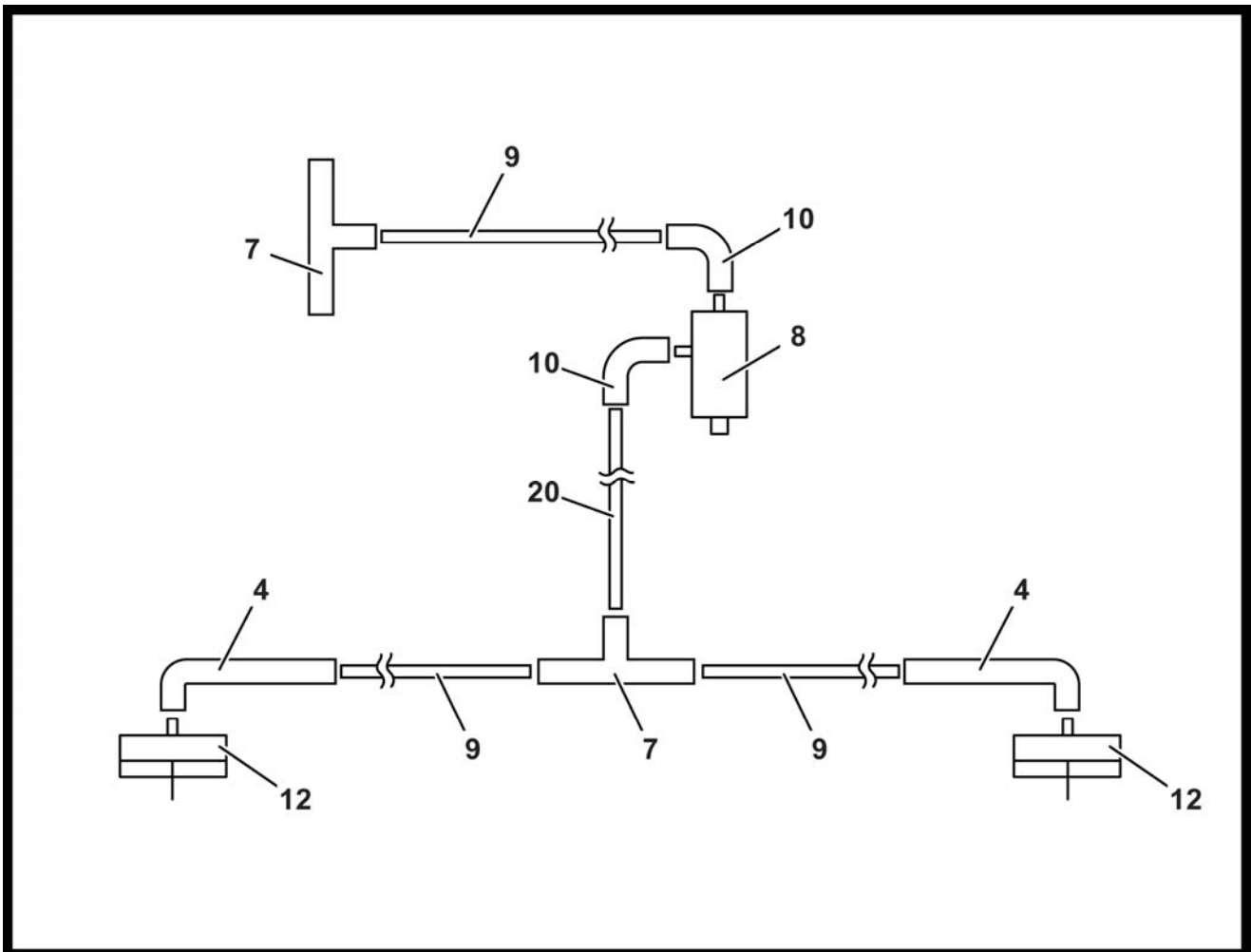


Fig. 07



# ASSEMBLY INSTRUCTIONS

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## 3.3 Connecting the control unit

**i** Switch off the ignition and disconnect the battery when working on the vehicle electrical system.

**i** The exhaust flap control unit should be positioned close to the engine control unit and secured with the supplied Velcro strip.

**i** The exhaust flap control unit should be positioned close to the engine control unit and secured with the supplied Velcro strip.

**In the Coupe, you must first remove the subwoofer and the carpet behind the rear seats.**

**In the Cabrio, you must first move the convertible top to the service position and remove the carpet beneath it.**

### Coupe

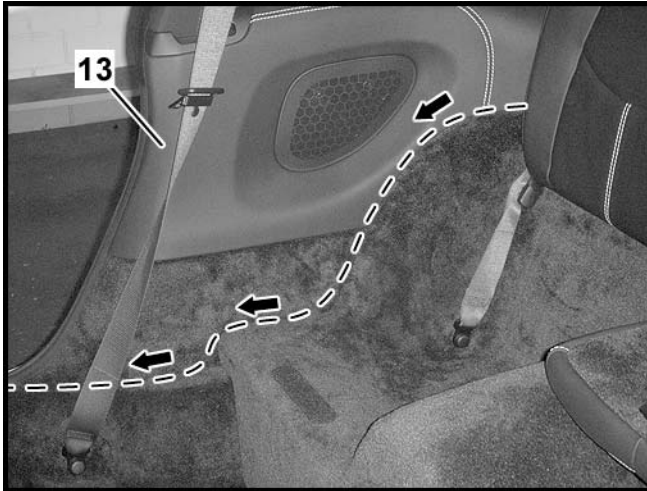


Fig. 08

### Cabrio

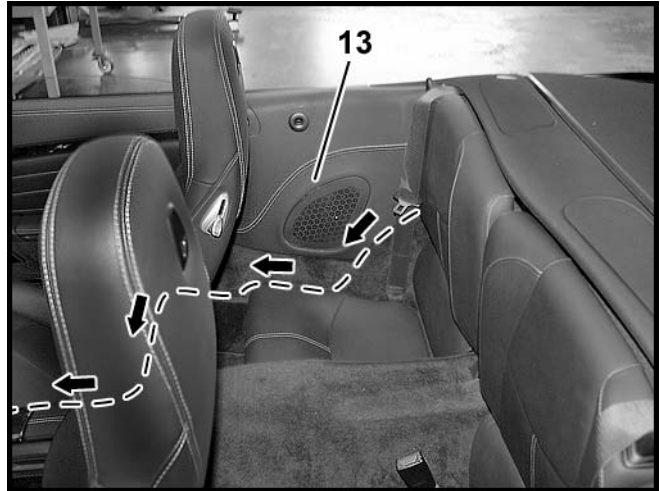


Fig. 10

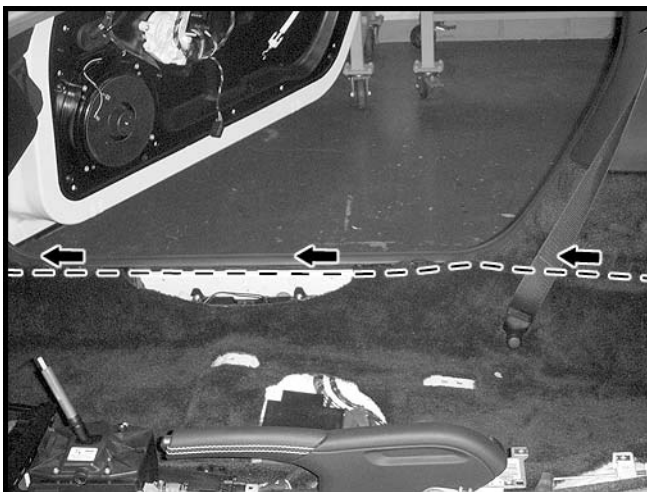


Fig. 09



Fig. 11

- 1 Remove the right door tread plate and the right door frame seal.
- 2 Route the TECHART wiring harness (with the two keypad connecting leads) behind the right-hand side trim panel (13), under the door tread plate and then under the passenger footwell carpet to the center console.



**The side trim panel (13) does not need to be removed.**

**You can use a plastic wedge to move the TECHART wiring harness behind the side trim panel.**



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- 3 Remove the keypad (14) as per manufacturer's instructions.



Fig. 12

- 4 Take the compact connector (15) apart using a small screwdriver.
- 5 Connect the two cables of the TECHART wiring harness to their pins (see connection diagram).
- 6 Put the compact connector (15) back together and insert in the supplied keypad with sports flap button.
- 7 Install the supplied keypad with sports flap button.

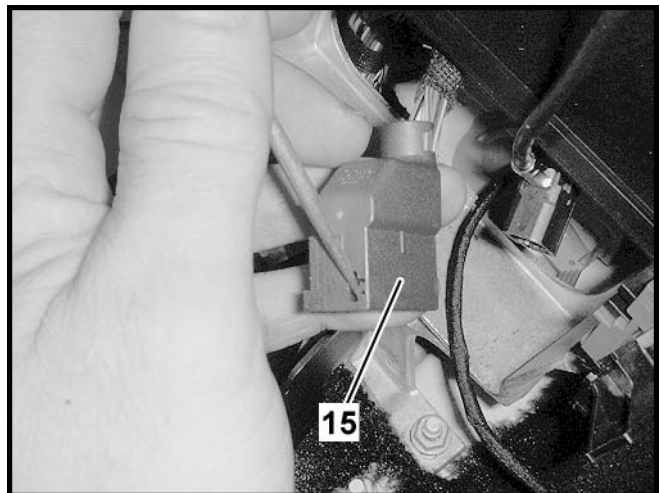


Fig. 13



# ASSEMBLY INSTRUCTIONS

TECHART "Sport" valve exhaust system

## Coupe

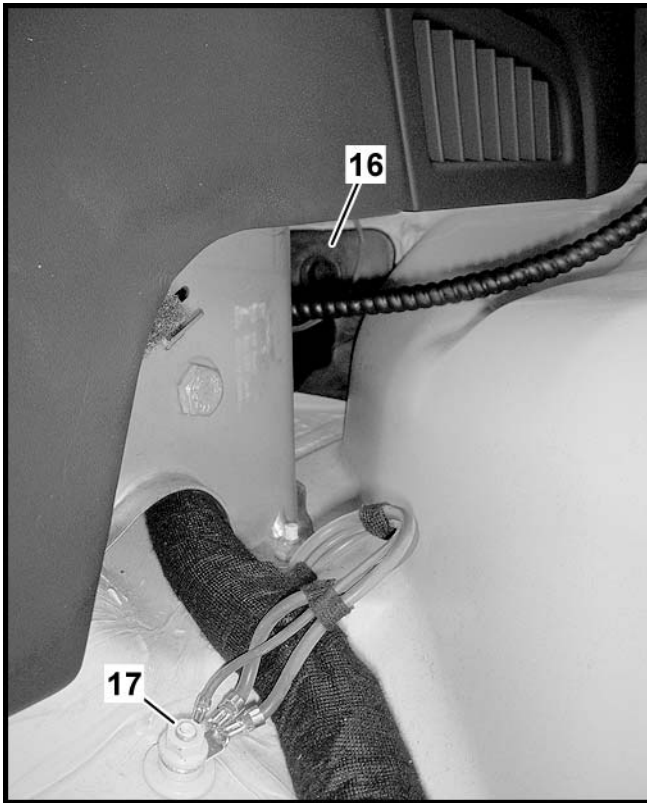


Fig. 14

## Cabrio

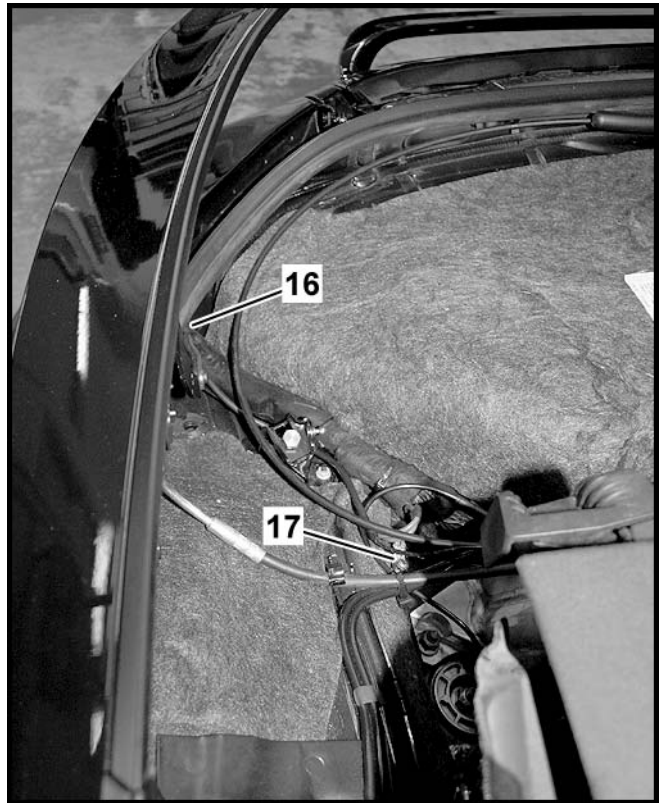


Fig. 15

- 8 Run the TECHART wiring harness (with the two connecting leads for the reversing valve) from the vehicle interior through the cable bushing (16) on the right of the interior into the engine compartment.
- 9 Connect the 2-way connector in the engine compartment to the connecting lead and plug into the reversing valve (see connection diagram).
- 10 Connect the brown ground strap of the TECHART wiring harness to ground (17) in the rear right of the vehicle.
- 11 Remove and take apart the DME compact connector of the engine control unit. To do so, pull out the lock and push out the gray plug insert.



- 12 Using a small screwdriver, remove the Can High, Can Low and Term. 15 connections from their pins in the gray DME plug insert (18) (to do so, push the lugs of the pins, see arrow).

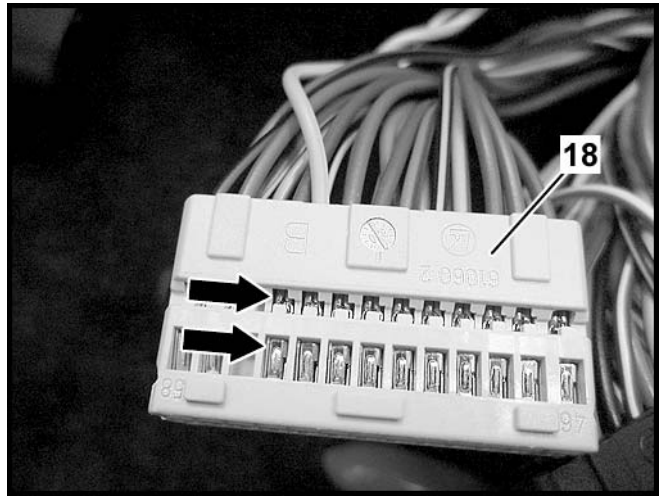


Fig. 16

- 13 Connect the Can High (19a), Can Low (19b) and Term. 15 (19c) connections to their pins in the supplied 3-way TECHART compact connector (19) (see connection diagram).

- 14 Plug the TECHART compact connector into the mating plug of the TECHART wiring harness.

**i** **Confusing the slots for the individual pins will cause serious malfunction and/or damage to the on-board electronics.**

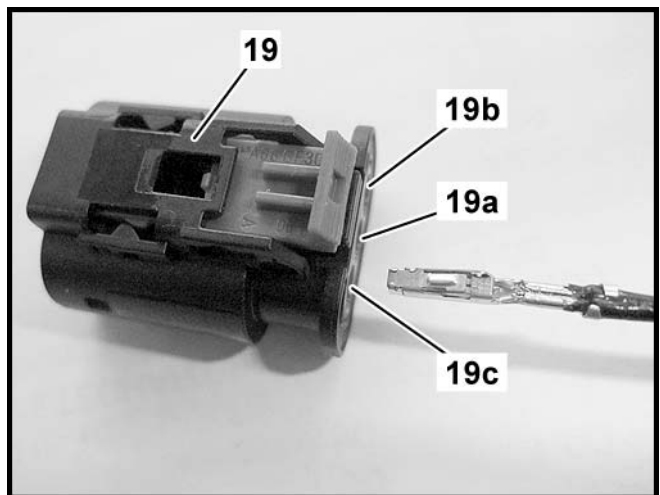


Fig. 17





# ASSEMBLY INSTRUCTIONS

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15 Insert the free pins coming from the TECHART wiring harness into the now vacant slots of the gray DME plug insert.

**i** Pay attention to the supplied circuit diagram, and take care to perform connection work correctly.

16 Put the DME compact connector back together and connect to the engine control unit.

17 Position and route the TECHART wiring harness and TECHART control unit.

18 Connect the battery and perform a function test.

- To do this, start the engine and allow it to idle.
- Exhaust flap button not pressed (the flap is closed after vacuum has built up).
- Exhaust flap button pressed (flaps are open and the LED lights up orange).

**i** When the exhaust flap button is pressed, a considerably deeper exhaust sound can be heard. At speeds of between 47 km/h and 68 km/h, the LED goes out and the exhaust flap briefly closes (noise emission regulation).

19 Reassemble the vehicle interior.



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## 3.4 Exhaust flap circuit diagram

- 1 **Exhaust flap button not pressed:** The exhaust flap is closed.
- 2 **Exhaust flap button pressed:** Exhaust flap is always open. The exhaust flap is closed and the exhaust noise reduced only between speeds of 47 km/h and 68 km/h.

### Circuit diagram for TECHART flap-valve exhaust system, 997 Turbo

Code	Designation
TA AKSG 097.310.100.320	TECHART exhaust flap control unit
AKV 996.605.123.01	TECHART exhaust flap valve
MSG DME	DME engine control unit
KPS	TECHART compact connector
TLMK	Keypad on center console
F	Fuse 5A
bu	Blue
br	Brown
ye	Yellow
bk	Black
wh	White
gy	Gray
gn	Green
K+	Term. 15 (12 V)
K-	Term. 31 (ground)

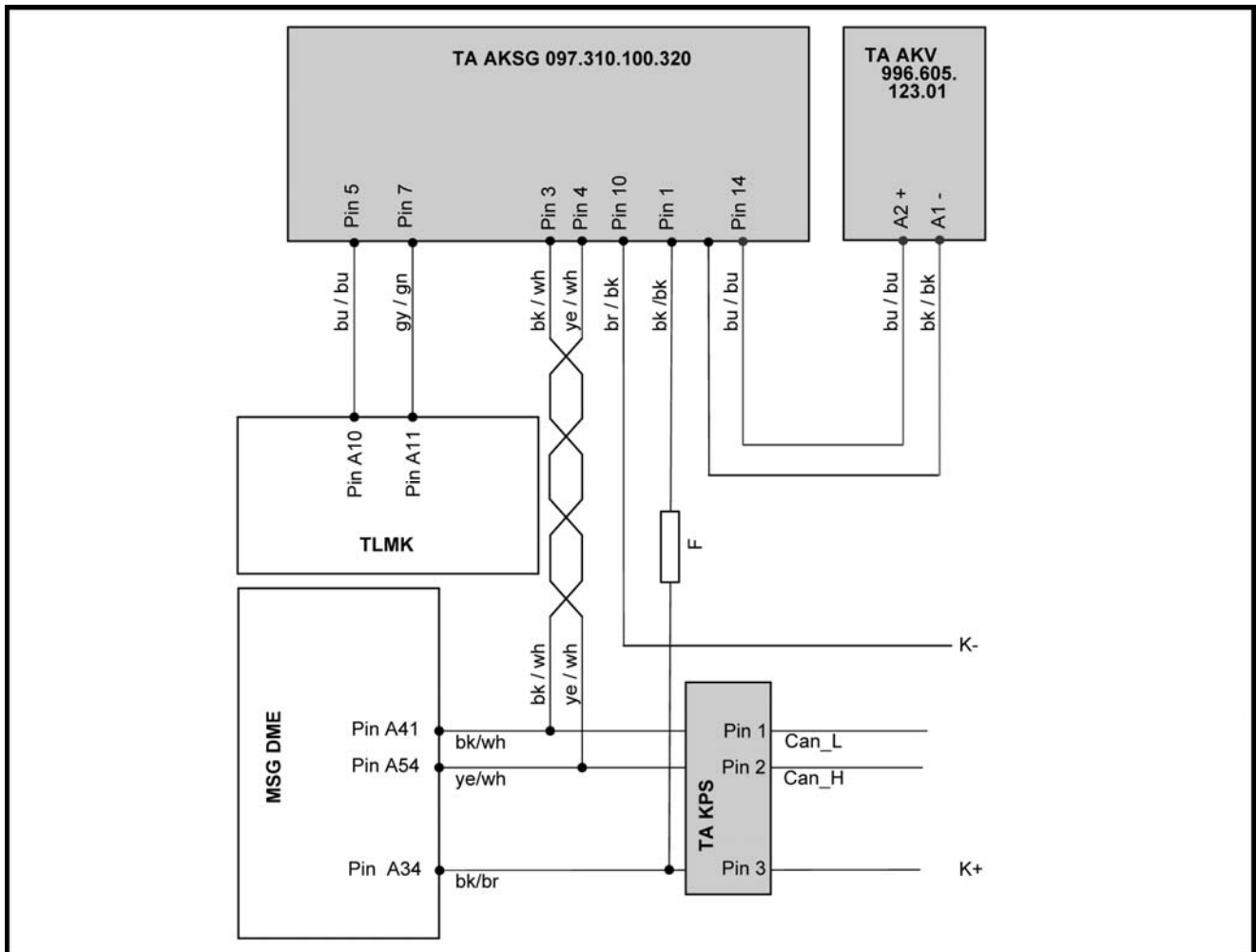


Fig. 17

#### 4 Finishing work

- 1 Perform a test drive and read out the fault memory again.
- 2 Check the position of the tailpipes once more and adjust if necessary.

#### 5 Tightening torques

Location	Description	Type	Basic value
Manifold bolts		Tightening torque	24 Nm



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TECHART "Sport" valve exhaust system

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