# Solution for 2007 Porsche Panamera Brake Pad Clearance Out of Tolerance

Product Model	Date	Number
X-431 Series	20160624	

### **Tested Model:**

• Porsche Panamera, 2007, VIN=WP0AA2979d10\*\*\*\*\*, see Picture 1



Picture 1

### **Failure Description:**

When replacing the brake pad, it prompts: Left actuator air gap: 2.747, right actuator air gap: 2.915, gap is out of tolerance, the value shall be between 1.9mm and 2.4mm, see Picture 2.



Picture 2

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# Function Explanation:

This function allows you to maintain the electronic parking brake system safely and efficiently. Main functions include: Put the handbrake pad to the installation position, check the basic setting of the parking brake (check the gap of the handbrake pad), handbrake pad run-in and calibration.

### **Caution:**

- The procedure of replacing brake pad on Porsche Panamera must be strictly performed according to the requirement listed in the service index.
- After the replacement of brake pad, check the basic setting of the parking brake. Check the gap of the handbrake pad (standard gap is 1.9mm-2.4mm). Continue if it is OK.
- For the replacement of steel brake pad, calibration is performed only after the run-in.

## **Operation Guideline:**

- 1. Select Porsche Version V21.26 or above.
- 2. Select automatic search.
- 3. Select system selection.
- 4. Select parking brake.
- 5. Select special function, see Picture 3.

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Show Menu	
PORSCHE V23.11 > Automatically Search > Panamera > System Selection > Parking Brak	e
Maintenance index	Put hand brake pad to installation position
Check basic setting of parking-brake	Grinding-in
Calibration	



6. Select service index, read the index information, see Picture 4.

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Show Menu		A		P	
PORSCHE V23.11 > Automatically Search > Pana					
Maintenance index	Maintenance index	Ilation posit	tion		
	Procedure for replacing the brake pad: 1. Perform the function 'Put the hand brake pad to the installation position'	ination posi	lion		
Check basic setting of parking-bra	(remarks: DTC exist after the function is performed: parking brake not calibrated) 2. Replace the hand brake pad. 3. Perform the function 'Check basic setting of parking-brake'. If the				
Calibration	clearance is out of the range, adjust the clearance. Procedure for adjusting the clearance: (1) Disassemble two rear wheels. (2) Disassemble the adjustment hole bolt on the brake disc.				
	<ul> <li>(3) Use the straight screwdriver to put in the adjustment hole to adjust the idler wheel from inside to outside to narrow the clearance. The clearance becomes larger if you adjust the idler wheel from outside to inside. The standard clearance is 1.9mm-2.4mm.</li> <li>4. Perform the function 'hand brake pad Grinding-in'. (Do not need to perform this function if the brake disc is ceramic. Perform this function if the brake disc is ceramic. Perform the function 'hand brake pad calibration'.</li> <li>5. Perform the function 'hand brake pad calibration'.</li> <li>6. If the procedure fails to be performed, perform the hand brake pad Grinding-in and calibration functions again(If the fault lamp still on , please Check basic setting of parking-brake).</li> </ul>				
	Cancel OK				
Porsche VIN WP0AA2A7					
	Disture 4				

Picture 4

- 7. To replace the brake pad, select the function of "Put the brake pad to the installation position". After carrying out the function successfully as prompted, replace the brake pad.
- 8. After the installation of new brake pad, select the function of "Check the basic setting of parking brake", see Picture 5.

Show Menu			A		F
PORSCHE V23.11 > Automatically Search > Pana	imera > System Selection > Parking Brak	(e			
Maintenance index		Put hand brake pad to installa	ntion positi	ion	
Check basic setting of parking-brake		Grinding-in			
	Check basic settin	g of parking-brake			
Calibration Vehicle must stand on a level surface; the parking brake is automatically applied and released.					
	Note: The <check basic="" brakes="" enables="" function="" of="" parking="" setting="" the<br="">current setting status of the Parking brake to be determined and the required measures to be displayed.</check>				
	Cancel	ок			
Porsche VIN WP0AA2A75					
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Picture 5

9. Click "OK" button, the actuator will complete a process of tension and release, see Picture 6.

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Check basic setting of parking-brake	
PORSCHE V23.11 > Manually Select > Cayenne(As of 2011) > System Selection > Park brake	
Description:	Status
1. Actuator status	Tensioned
2. Actuator status	Released

		Next		
Porsche VIN WP0AA2A79				
	$\leftarrow$	$\Box$		:
		Picture 6		

10. Click "Next" to check the gap of the brake pad, see Picture 5.Note, the standard gap for Porsche Panamera (as of 2011) is 1.9mm-2.4mm. If out of this range, please manually adjust it. If the value is not in the normal range, the status is an exclamation mark. If within the normal range, the status shows OK, see Picture 7.

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Check basic setting of parking-brake	<b>^</b>	
PORSCHE V23.11 > Manually Select > Cayenne(As of 2011) > System Selection > Park br	ake	
Actuators	Value	Status
Left actuator air gap	2.051	ОК
Right actuator air gap	2.049	ОК
Air clearance in tolerance.		

		Next		
Porsche VIN WP0AA2A79				
	$\hookrightarrow$	$\Box$		
		Picture 7	,	

11. Click "Next" to complete the function of "Check the basic setting of parking brake", see Picture 8.



Picture 8

#### 12. After adjusting the gap, select "run-in" to run in the steel brake pad, see Picture 9.

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Show Menu		1	1		P	
PORSCHE V23.11 > Manually Select > Cayenne(A	s of 2011) > System Selection > Park brake					
Maintenance index	Grinding-in the parking brake	allation p	ositio	on		
Check basic setting of parking-bra	The grinding procedure for the parking brake is repeated eight times in sequence in the following steps. Each individual cycle must be completed successfully in order to put the parking brake into operation reliably.					
Calibration	The vehicle must be at standstill at the beginning of the grinding procedure. After pressing [OK] Start , promptly accelerate the vehicle to 10-20 km/h (6-12 mph) over a distance of approx 15-30 m (50-100 ft).					
	One signal tone is a prompt to start driving and another signal tone is prompt to stop the drive.					
	The vehicle is brought to a standstill again after the end of the drive. The brake is released. A signal tone is a prompt to move the vehicle to position again in order to perform another grinding procedure.					
	Eight grinding procedures are required in total in order to put the parking brake into operation. Do not drive on public roads! Please switch the hazard warning lights on for the duration of the test.					
	Сапсеі ОК					
Porsche VIN WP0AA2A79						
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13. After the replacement of brake pad, perform run-in! This function equals to adaptive learning. The instrument panel will prompt "Parking system enters maintenance mode". This function requires one person to drive and another person to operate the decoder software. It also has strict requirement to the site. Be well prepared. Follow the decoder software's prompt, after 8 times of correct operations of driving speed and time and stop time, the decoder software will prompt successful run-in and write into the control unit, see Picture 8.

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Show Menu			A		P	
PORSCHE V23.11 > Manually Select > Panamera	> System Selection > Parking Brake					
Maintenance index		Put hand brake pad to inst	allation posi	tion		
Check basic setting of parking-brake		Grinding-in				
Calibration	Grinding-in the	e parking brake				
	Parking brake ground in successfully.					
	0	К				
Porsche VIN 2�						
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Picture 10

#### 14. Select "Calibration", see Picture 11.

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Show Menu			A		P			
PORSCHE V23.11 > Manually Select > Panamera	a > System Selection > Parking Brake							
Maintenance index		Put hand brake pad to installation position						
Check basic setting of parking-br	ake	Grinding-in						
Calibration	Calib	ration						
	Brake must have been bedded in alrea The vehicle must be stationary during The brake linings must not exceed a te Cancel	dy. calibration. emperature of 50 degree C.						
Porsche VIN 2�								
	~ C					:		

Picture 11

15. After satisfying the calibration conditions, click OK to perform the "Calibration" of the parking brake. When it prompts the calibration completed, the software operation of replacing the brake pad is completed, see Picture 12.

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Calibration	<b>∩</b>	
PORSCHE V23.11 > Manually Select > Panamera > System Selection > Parking Brake		
Control unit	Phase	Status
Parking Brake	Calibration	Cancelled
Function Stopped. Press [NEXT] to go back.		

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Porsche VIN 2					
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Picture 12					

16. Click "Next" to complete and exit. Turn ignition off and on again to test the vehicle. When everything is OK, the procedure of replacing brake pad is completed.