

Approved Tires, Wheels and Wheel Spacers (11/19)

Revision: This bulletin replaces bulletin Group 4, 21/18, dated November 19, 2018

Vehicle Type: **911 Carrera (991)/911 Carrera S (991)**

Model Year: **As of 2012 up to 2016**

Information: Approval status: November 2015



Driving with different tires (mixed tires)

- Uncontrollable vehicle handling
- ⇒ **Only use tires of the same make and type, with the same speed index and the same specification code (N0, N1, N2, ...) on a vehicle.**

Summer Tires:

Model	Tire size	Tire make and type
911 Carrera, 911 Carrera S	235/40 ZR 19 (92Y) and 285/35 ZR 19 (103Y) XL – 911 Carrera S: Only for China	Goodyear F1 Eagle Asymmetric 2 N0 (Inside/Outside)
	245/35 ZR 20 (91Y) 295/30 ZR 20 (101Y) XL	Pirelli P Zero N1 (Inside/Outside)
	245/35 ZR 20 (95Y) XL and 305/30 ZR 20 (103Y) XL	Michelin Pilot Sport 4S N0 (Inside/Outside)
	245/35 ZR 20 (91Y) and 305/30 ZR 20 (103Y) XL	Pirelli P Zero N1 (Inside/Outside)



Driving with sports tires

- Aquaplaning on wet or muddy roads
- ⇒ Reduce speed.
- ⇒ Drive according to the road conditions.

Summer Tires
(UHP):

Model	Tire size	Tire make and type
911 Carrera, 911 Carrera S	245/35 ZR 20 (91Y) and 305/30 ZR 20 (103Y) XL	Pirelli P Zero Corsa NO (Inside/Outside)



Information

Sports tires (**Ultra High Performance Tires**) are permitted on public roads and satisfy all legal requirements and road safety criteria.

These tires are also designed for use on racing circuits (driving safety training courses, sports driving schools, Clubsport events) and offer distinct advantages with regard to dry adhesion and wear-and-tear compared to normal road tires.

The main features are a reduced tread depth as well as a special thread design and substructure.

Winter Tires:

Model	Tire size	Tire make and type
911 Carrera, 911 Carrera S	235/40 R 19 92V M+S and 285/35 R 19 99V M+S	Pirelli Winter 240 Sottozero Series II NO (Inside/Outside)
		Continental WinterContact TS 830P NO (Inside/Outside)
	245/35 R 20 91V M+S and 295/30 R 20 97V M+S	Pirelli Winter 240 Sottozero Series II NO (Inside/Outside)
		Michelin Pilot Alpin NO (Rotation)
		Michelin Pilot Alpin N1 (Rotation)



Information

The relevant legal regulations must be observed in the export countries!



Information

"N..." = Specification code of the tire, e.g. "N0", "N1", "N2" ... The complete "N ..." code of the tires in question must be shown on the tire sidewall near the tire type designation.

Instructions for correct mounting of the tires are also given on the tire sidewall. If there are no mounting instructions on the tire sidewall, the tire must be mounted so that the DOT marking is visible from the outside.

Arrow with inscription "Rotation" = directional mounting
 "Inside/Outside" inscription or "Left" or "Right" = mounting on specified side only

Arrow with both inscriptions "Rotation" and "Inside/Outside" = directional mounting on specified side only.

Arrow with both inscriptions "Rotation" and "Left" or "Right" = directional mounting on specified side only.



Information

If a tire is damaged and it is not possible to determine with absolute certainty that there is no ply damage - with all of its consequences - or if the tire was thermally and/or mechanically overloaded due to a loss of pressure or other prior damage, replace the tire in question for safety reasons.

Repairs to "V", "W", "Y" and "ZR" tires are not permissible, as well as the use of inner tubes in tubeless tires. Please inform your customers accordingly. It is advisable to mount winter tires at temperatures below **45° F/7°C**, because the driving characteristics of summer tires are reduced at low temperatures. Extremely low temperatures can cause permanent damage to summer tires.



Incorrect tire pressure

- **Uncontrollable vehicle handling**
- ⇒ **Adjust the tire pressure according to specifications. Never allow the pressure to fall below the minimum pressure.**
- ⇒ **Check age of tires. Replace tires that are more than 6 years old.**
- ⇒ **Perform visual inspections.**
- ⇒ **Use only tires recommended by Porsche.**

Tire Pressure:



Information

The tire pressure applies only to the tire makes and types approved by Porsche, and is specified for cold tires (approx. **68° F/20°C**). The tire pressures must never be lower than the specified values.

Standard tire pressure for summer tires

Wheel size	911 Carrera				991 Carrera S			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.1 bar (30 psi)	2.5 bar (36 psi)	2.4 bar (34 psi)	2.9 bar (42 psi)				
20-inch wheels	2.2 bar (31 psi)	2.7 bar (39 psi)	2.5 bar (36 psi)	3.1 bar (44 psi)	2.2 bar (31 psi)	2.7 bar (39 psi)	2.5 bar (36 psi)	3.1 bar (44 psi)

Standard tire pressure for winter tires

Wheel size	911 Carrera				991 Carrera S			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.2 bar (31 psi)	2.4 bar (34 psi)	2.4 bar (34 psi)	2.6 bar (38 psi)	2.2 bar (31 psi)	2.4 bar (34 psi)	2.4 bar (34 psi)	2.6 bar (38 psi)
20-inch wheels	2.2 bar (31 psi)	2.4 bar (34 psi)	2.4 bar (34 psi)	2.8 bar (40 psi)	2.2 bar (31 psi)	2.4 bar (34 psi)	2.4 bar (34 psi)	2.8 bar (40 psi)

Comfort tire pressure for summer tires up to 270 km/h (165 mph) – only for vehicles with Tire Pressure Monitoring (TPM) and “Comfort pressure” menu in the multi-function display (depending on the country)

Wheel size	911 Carrera				911 Carrera S			
	Part load		Full load		Part load		Full load	
	FA	RA	FA	RA	FA	RA	FA	RA
19-inch wheels	2.0 bar (29 psi)	2.3 bar (33 psi)	2.2 bar (31 psi)	2.7 bar (39 psi)				
20-inch wheels	2.2 bar (31 psi)	2.4 bar (34 psi)	2.2 bar (31 psi)	2.8 bar (40 psi)	2.2 bar (31 psi)	2.4 bar (34 psi)	2.2 bar (31 psi)	2.8 bar (40 psi)

Sizes:

Permissible tire and wheel sizes**(RO = rim offset in mm, FA = front axle, RA = rear axle)**

The wheel and tire combinations specified here are contained in the EU general certification as of e13*2007/46*1187*01.

Tires	Tire sizes	Wheel sizes	Snow chains
Summer	FA: 235/40 ZR 19 (92Y) RA: 285/35 ZR 19 (103Y) XL – 911 Carrera S: Only for China	FA: 8.5 J x 19 H2, RO 54 RA: 11 J x 19 H2, RO 69	No
	FA: 245/35 ZR 20 (91Y) RA: 295/30 ZR 20 (101Y) XL	FA: 8.5 J x 20 H2, RO 51 RA: 11 J x 20 H2, RO 70	No
	FA: 245/35 ZR 20 (91Y) RA: 305/30 ZR 20 (103Y) XL	FA: 9 J x 20 H2, RO 51 RA: 11.5 J x 20 H2, RO 68	No

Tires	Tire sizes	Wheel sizes	Snow chains
Winter	FA: 235/40 R 19 92V M+S RA: 285/35 R 19 99V M+S	FA: 8.5 J x 19 H2, RO 54 RA: 11 J x 19 H2, RO 69	RA only
	FA: 245/35 R 20 91V M+S RA: 295/30 R 20 97V M+S	FA: 8.5 J x 20 H2, RO 51 RA: 11 J x 20 H2, RO 70	No

Wheel Spacers: The front and rear axle can be fitted with 5 mm wheel spacers, Part No. 991.044.500.00, for the following wheel/tire combinations.

Tire sizes	Wheel sizes
FA: 235/40 ZR 19 (92Y) RA: 285/35 ZR 19 (103Y) XL	FA: 8.5 J x 19 H2, RO 54 RA: 11 J x 19 H2, RO 69
FA: 245/35 ZR 20 (91Y) RA: 295/30 ZR 20 (101Y) XL	FA: 8.5 J x 20 H2, RO 51 RA: 11 J x 20 H2, RO 70

The wheel spacers are contained in the EU general certification as of e13*2007/46*1187*01.

Always read information on fitting in *⇒Installation and Conversion Instructions '441300 5-mm wheel spacer'*.

Wheels:

Overview of Porsche wheels for summer and winter tires

Identification on inside of wheel:

Wheel size, rim offset (RO) in mm, part number (without colour code FFF) and Porsche logo

**Information****19-inch Carrera V wheel**

Front: 8.5 J x 19 H2, RO 54

Part No. 991.362.141.00/.02 FFF

Rear: 11 J x 19 H2, RO 69

Part No. 991.362.146.00/.02 FFF

**20-inch Carrera S III wheel**

Front: 8.5 J x 20 H2, RO 51

Part No. 991.362.161.00/.04/.40 FFF

Rear: 11 J x 20 H2, RO 70

Part No. 991.362.166.00/.04/40 FFF

**20-inch Carrera Classic II wheel**

Front: 8.5 J x 20 H2, RO 51

Part No. 991.362.161.11/.30/.51 FFF

Rear: 11 J x 20 H2, RO 70

Part No. 991.362.166.11/.30/.51 FFF



20-inch Sport Design II wheel

Front: 8.5 J x 20 H2, RO 51
Part No. 991.362.161.13/.32 FFF

Rear: 11 J x 20 H2, RO 70
Part No. 991.362.166.13/.32 FFF



20-inch Sport Techno II wheel

Front: 9 J x 20 H2, RO 51
Part No. 991.362.162.20/.40 FFF

Rear: 11.5 J x 20 H2, RO 68
Part No. 991.362.167.20/.40 FFF



20-inch 911 Turbo III wheel

Front: 8.5 J x 20 H2, RO 51
Part No. 991.362.161.02/.06 FFF

Rear: 11 J x 20 H2, RO 70
Part No. 991.362.166.07 FFF



**Information**

Improper handling can damage the wheel surface.

Carry out tire removal and mounting using a bead holding-down device only.

Use a leather pad on the rim flange to support the valve insertion tool.

Only use the Porsche centering clamping set for balancing.

Do not use brushes to clean the wheels because brushes can cause deep scratches that cannot be removed by polishing.

Never use solvents or other chemical substances on tires.

Wheel

Mounting: **Tightening torque 160 Nm (118 ftlb.)**

**WARNING****Incorrectly installed snow chains**

- **Uncontrollable vehicle handling**
- ⇒ **Do not exceed the maximum speed of Speed 30 mph/50 km/h.**
- ⇒ **Observe installation instructions from the chain manufacturer.**

Snow Chains: Porsche offers the following snow chains as accessories:

Tire size	Porsche Part No.	Type of snow chain
285/35 R 19 M+S	958.044.600.13	Link-type chain, quick fit

**Information**

Sufficient snow-chain clearance is only guaranteed if any wheel spacers present are removed before fitting the snow chains.

- Wheel Storage:
- Tires must be stored in a cool, dry and dark room with adequate ventilation.
 - Tires must never come into contact with fuel, oil, grease or chemicals.
 - Do not store summer tires in storage areas with ambient temperatures of less than 5° F (-15° C).
 - Complete wheel & tire assemblies can be stacked for storage; we recommend that you increase the tire pressure by approximately 6 psi (0.4 bar).
 - Optimum conditions for storage of the complete wheels are provided by the Original Porsche storage trolley, Part No. 000.044.000.38.
 - If the tires are not mounted on wheels, it is best to store them in a vertical position.
 - We recommend that you turn tires stored in this position every two weeks in order to prevent flat spots.
 - Tires that are stacked in a horizontal position will become severely deformed and cannot be seated properly in the rim flange when they are mounted.

General Information:

- Always use new valves when changing tires.
- Always observe any possible instructions concerning the rolling direction and/or specifying which side the tires must be mounted on.
- Coat the tire beads and humps with mounting lubricant before mounting the tire. This ensures that the tire beads will slide over the humps easily.
- In order to prevent the tire from turning on the wheel, avoid extreme driving maneuvers (acceleration and braking) during the first 100 to 200 miles with new or recently mounted tires.
- In order to optimize smoothness of rolling, it is appropriate - and necessary in individual cases - to mount the tire in a certain (favorable) position with respect to the wheel (matching).

Matching (uncontrolled and controlled) is explained below: Uncontrolled matching:

- Turning the tire on the wheel by 90° or 120° if necessary in order to achieve an acceptable value with regard to rolling smoothness (true running, imbalance and weight distribution of balance weights).

Controlled matching:

- With a balancing machine with matching program. In most cases, this produces an even better result with regard to the rolling smoothness (true running, imbalance and weight distribution of the balance weights) than can be achieved with uncontrolled matching.
- Maximum permissible radial runout and lateral runout of the wheels < 0.7 mm. Maximum permissible radial runout and lateral runout of the wheels with tires < 1.25 mm. Values < 1.50 mm - ideally approx. 0.5 mm - are desirable.
- The mounting pressure (seating pressure) of 58 psi/4.0 bar overpressure must not be exceeded before both tire beads are evenly seated on the rim flange.

New Tires (Replacements):

- If new tires are to be mounted or the tires of one axle are to be replaced, tires of the same make, type and with the same specification code must always be used on each of the two axles.
- If tires are replaced on one axle only, the different tread depth from that on the other axle can cause a noticeable change in the familiar handling.
- This is especially the case if new tires are mounted on the rear axle.
- This effect decreases with increasing tire mileage.

When replacing a tire on an axle, make sure that the tread depth of the new tire does not differ from that of the other tire by more than 30 %.

Refer to WM 449503 for specific details of the vehicle you are working on.

- >The 2mm specification will be given here.
- > If there is none listed then the default is 30%.

Repairs to Tires:

- If a tire is damaged and it cannot be determined with absolute certainty that there is no ply damage - with all of its consequences - or if the tire was thermally or mechanically overloaded due to a loss of pressure or other prior damage, we recommend replacement of the tire in question for safety reasons.

- Repairs on "ZR" tires are not permissible, as is the use of inner tubes in tubeless tires.

Tire Aging:

- Tires age due to chemical and physical processes, which can impair their function.
- Tires that are stored unused for an extended period harden and become brittle faster than tires that are in continual use.
- Hairline aging cracks can occur on older tires.
- On tires in continual use, the kneading action activates the plasticizer in the rubber and thereby prevents hardening and cracking.
- Therefore, attention should be paid not only to the tread depth but also to the age of the tire.
- Tires should not be older than 6 years.
- The age of the tire can be determined via the DOT code on the sidewall, which indicates the production date of the tire: e.g. DOT 2201 = 22nd week of 2001.

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