
Workshop Manual

911

Carrera 4

The workshop manual is only for the internal use of the Porsche Dealer Organization.

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	Ti/ QI	No.	911 C2/C4	911	911 Turbo	Remarks, Model, Also refer to...	Date
1985							
- Summer Tires 205/55 VR 16 and 225/50 VR 16	T	1/85	●	●	●	Goodyear/Dunlop	28.02.85
- Brake Booster 8"	Q	1/85	●	●	●	Turbo Look	15.02.85
- Breake Pressure Regulator	Q	2/85	●	●	●	Turbo Look/55bar	15.02.85
- Flat Spotting of Tires	Q	3/85	●	●	●	4 bar	10.04.85
- Turbo Brake Calipers Front and Rear	Q	4/85	●	●	●	Turbo/...-Look	10.04.85
- Aluminium Wheel Nuts	Q	5/85	●	●	●	Special Tool P 300	07.06.85
- Shock Absorber front/rear	Q	6/85	●	●	●	1985 (F) Model	07.06.85
- Winter Tires and Tire Chains	T	2/85	●	●	●	Replaced	30.10.85
- Brake Force Regulator	Q	7/85	●	●	●	33bar/55bar	29.11.85
- Shock Absorber front/rear	Q	8/85	●	●	●	1986 (G) Model	29.11.85
1986							
- Brake Lines Visual Inspection On Car	Q	1/86	●	●	●	Pipe/hose clearance	09.05.86
- Testing Criteria and Measures in Case of Damages on Steering System	T	1/86	●	●	●	All types	30.07.86
- Winter Tires and Tire Chains	T	2/86	●	●	●	Replaced	29.10.86
- Wheel Installation Installing Procedures	Q	2/86	●	●	●	Paint dot/wheel bolts	25.11.86
- Wheel Imbalance Balancing on Car	Q	3/86	●	●	●	Front wheels in "straight ahead" position	25.11.86
- Front / Rear Shock Absorbers	Q	4/86	●	●	●	1987 (H) Model	25.11.86
1987							
- Wheel Sizes / 7 J and 8 J x 16	Q	1/87	●	●	●	Wheel clearance	20.02.87
- Replacement Parts Brake Pad Kit	Q	2/87	●	●	●	Table	31.08.87
- Rear Axle Rear Axle Strut	Q	3/87	●	●	●	Spacer 2mm	16.10.87
- Wheel Rim Sizes / 7J und 8J x 16	Q ⊕	1/87	●	●	●	Wheel clearance	16.10.87
- Summer Tires and Wheel Rim Survey	T	1/87	●	●	●		30.11.87
- Winter Tires and Tire Chains	T	2/87	●	●	●		30.11.87
- Front / Rear Shock Absorbers Survey - 1988 Models	Q	4/87	●	●	●	1988 (J) Model	30.12.87
◆ = Conversion instructions or workshop campaign ▼ = Brochure ⊕ = Supplement or change for Ti/QI							



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	TI/ QI	No.	911 C2/C4	911	911 Turbo	Remarks, Model, Also refer to...	Date
1988							
- Brakes Brake Pads Without Asbestos	Q	1/88	●			Sweden, Norway, Denmark	29.04.88
- Emergency Collapsible Wheel Vredestein	Q	2/88	●		●	Repairing Not Permitted	22.07.88
- Propeller Shaft Crease / Optitemp	Q	3/88	●		●	New grease: Optitemp PU 35	05.09.88
- Recommended Winter Tires and Tire Chains	T	1/88	●		●		20.10.88
- Brake Pads Without Asbestos and In- formation for Adjusting Parking Brake	T	2/88	●		●	Survey - brake pads without asbestos	28.10.88
- New Tire Road Speed Designations and Summer Tire/Wheel Rim Survey	T	3/88	●		●		24.11.88
1989							
- Tire and Wheel Rim Survey	T	1/89	●			ZR tires for Carrera 4	08.02.89
- Front Axle - Wheel Carriers - Wheel Bearings	T	2/89	●			Cracking noises.	08.06.89
- Radial Oil Seals on Front Wheel Hubs	T	3/89	●		●	New sealring with studs	02.03.89
- Steering Gear Installation on Front Axle Cross Member	T ♦	4/89	●			Grating noises. WK 03 66000	08.06.89
- Replacing Spring Strut Mounting Parts on Front Axle	T ♦	5/89	●			Optimoly HT / 135 Nm WK 06 66000	08.06.89
- Correcting Special Tool P 300	T	6/89	●				15.06.89
- "VR" Summer Tires	T	7/89	●	●	●	Combined design of VR and ZR tyres. Replaced	16.07.89
- Survey of Summer Tires and Rims	T	8/89	●				31.08.89
- Survey of Winter Tires, Rims and Tire Chains	T	9/89	●		●		29.09.89
- Survey of Winter Tires, Rims and Tire Chains	T	9/89	●		●		24.11.89
- Bolted Wheel Bearings on Front Axle	T	10/89	●			Cracking noises.	14.11.89
1990							
- Overview of tires and wheels/Type 959	T	1/90			●	Model 959 from M'89 (K)	26.02.90
- Breake system, rear axle Braking noise	T ♦	2/90	●			C 2: damping sheet, dampers.	23.03.90
- Survey of Summer Tires and Rims	T	3/90	●			Replced Nr. 8/89 of 31.08.1989	19.04.90
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	TI/ QI	No.	911 C2-C4	911	911 turbo	Remarks, Model, Also refer to...	Date
- Front and rear brakes Damper shims and vibration dampers -survey	T	4/90	●			From M'89 (K)	24.07.90
- Survey of Summer Tires and Wheels	T	5/90	●			Replaces T N° 3/90	16.08.90
- Summary of winter tires, wheels and snow chains	T	6/90	●	●	●	Replaces T N° 9/89	28.08.90
◆ = Conversion instructions or workshop campaign ∇ = Brochure ⊕ = Supplement or change for TI/QI							



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The workshop manual of the Carrera 4 also includes that for the Carrera 2.
The Carrera 4 acts as the basis for description of the repairs in the manual.
"Carrera 4" also appears on every page in the header line.

Deviating descriptions for repairs on the Carrera 2 follow those of the Carrera 4. These repair descriptions for both models are separated by a yellow sheet.
"Carrera 2" appears on all pages in the header line after the separating sheet. The page number starts with 100 as an additional distinction.

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Tightening torques for front-axle

Location	Thread	Tightening torque Nm (ft.lb.)
Cross member		
Cross member to chassis outer	M 12	100 (73)
inner	M 10	46 (34)
Rubber-metal bearing to cross member	M 8	23 (17)
Central pipe / FA final drive		
Rubber-metal bearing to FA final drive	M 12	85 (62.5)
Rubber sealing disk (in area of clamping sleeve) to central shaft	M 6	10 (7.5)
Central tube to transmission (FA and RA drive)	M 12	85 (62.5)
Clamping sleeve to central shaft (FA and RA drive)	M 10	75 (55)
Drive shaft		
to FA drive	M 8	42 (31)
to wheel hub	M 22	460 (340)
Side member		
to chassis (front)	M 12	85 (62.5)
to cross member (rear)	M 10	46 (34)
Control arm/joint carrier		
Control arm front to side member	M 12	110* (81)*
Control arm rear to side member	M 12	85 (62.5)

* The screw with washer must be replaced each time the screw connection is undone.

Location	Thread	Tightening torque Nm (ft.lb.)
Joint carrier to control arm (Castor excenter and fastening)	M 10	65 (48)
Joint carrier to wheel carrier (Ball joint)	M 12	65 (48)
Cooling-air guide for brakes to control arm	M 6	10 (7.5)
Spring strut/wheel carrier		
Spring strut to wheel carrier (camber adjustment)	M 12 x 1.25*	135 (101)*
Spring strut to chassis	M 8	23 (17)
Spring strut support mount to piston rod	M 14	80 (59)
Plug** of spring strut support mount (911 Carrera RS)	M 50	180** (133)
Brake caliper to wheel carrier	M 12	85 (62.5)
Speed sensor to wheel carrier	M 6	10 (7.5)
Retainer plate for wheel bearing on wheel carrier	M 8	37 (27)
Wheel hub on wheel carrier (Carrera 2 / turbo as of 91)	M 22	460 (339)
Stabilizer		
to side member	M 8	23 (17)
to stabilizer mount	M 10	46 (34)
Stabilizer mount to wheel carrier (balljoint)	M 10	35 (26)

- * Only use original screws and hexagon nuts according to SP catalog (pitch, quality).
 Replace M 12 x 1.5 screws (gold-colored, tightening torque 120 Nm (88.5 ft.lb.)) if necessary.
 Lubricate threads (approx. 10 mm of beginning of threads) and head (bearing surface) of bolts with Optimoly HT.

- ** Do not undo plug while the vehicle is on its wheels. Replace plug after removal (micro-sealed plug).