

MODEL FILE 45 · MODERN 911 · PORSCHE · SAUGER TO TURBO

PORSCHE 911 (991 CARRERA)

9A1 NA · 3.0 BITURBO · 2012–2019 · CARRERA · S · GTS · T · TARGA

THE MODEL IN BRIEF

THE FAMILY

This file: 991.1 (2012–15) Carrera 3.4 (350 PS), Carrera S 3.8 (400 PS), C4/4S, Cabriolets, Targa 4/4S (from 2014), GTS 3.8 (430 PS, 2014–16) · 991.2 (2016–19) Carrera and S 3.0 biturbo (370/420 PS), Carrera T (2017–19, the purist variant), C4/4S, Targa, GTS (450 PS). Not covered, per the register: GT3 family (Model File 35), Turbo (File 36), GT2 RS (File 34). The 991.1→991.2 step is the file's axis: the last naturally aspirated Carreras give way to the 3.0 biturbo.

THE ENGINE STORY

Both generations rank among the sturdiest modern Carrera units — and the file says it plainly: the 9A1 naturally aspirated engines (3.4/3.8) carry NO IMS theme and NO systematic bore scoring — the M96/M97 chapter is closed. The 991.2's 3.0 biturbo is likewise decidedly reliable: a new turbo generation with no known series problem. Register classification, both worlds: ENGINE = LOW RISK.

THE SYSTEM-CHECK DOCTRINE

The dossier's Fazit carries the file: the 991 marks the point where PPI priorities shift for good — away from classic engine risk, toward SYSTEM CHECKS. What decides a 991 purchase: maintenance history, suspension wear, electronics and software level, the cooling front, and the high-end options — front-axle lift, rear-axle steering, PCCB, the Targa roof. The engine is the quiet part: the file audits the systems around it.

INSPECTION ZONES · DRIVETRAIN

INJECTION & CARBON

All engines run direct injection: with mileage the checks are intake-valve coking, injectors, high-pressure pump. Carbon build-up occurs — framed correctly as a MAINTENANCE issue, not a construction problem: walnut blasting is scheduled work, not a defect. On the 991.2 the high-pressure side (HPFP, injectors) joins the standard scan; rail-pressure plausibility closes the topic.

TURBOS (991.2) & GEARBOXES

The 3.0's turbochargers: no known series problem — boost pressure, oil traces, wastegate, noises, adaptation values. PDK: one of the most reliable dual-clutch transmissions anywhere — manoeuvring, cold start, shift quality, adaptations, and above all the SERVICE HISTORY (PDK service €800–1,500 by profile). Manuals: rare, very robust, clutch checked normally — and the rarity is a market datum in itself.

ENGINE MOUNTS

The quiet 991 point: the hydraulic engine mounts lose damping with age — symptoms are increased vibration and a light knock on load changes. Cheap to diagnose, honest to price: MOTOR_MOUNTS is its own field.

INSPECTION ZONES · SYSTEMS & BODY

CHASSIS SYSTEMS

PASM: dampers, oil loss, mode switching, fault memory. Rear-axle steering (per model/equipment): calibration, fault memory, accident truth — no known series problem, but verified after any bodywork. Front-axle lift: cycled several times, cold and warm, hold function, hydraulics and sensors. Sport Chrono: function check, no known weakness. Suspension wear: arms, top mounts, drop links — cars at 80,000 km and beyond get the close look.

COOLING, CLIMATE & ELECTRONICS

The water-cooled standard: front radiators and A/C condensers exposed to stones and leaves — cleaning is maintenance, the condensers are the exposed part. Water pump: occasional age wear (€1,000–1,800), no series. Electronics: the control-unit count jumps with the 991 — PCM, Bluetooth, navigation, reversing camera, park sensors, battery management all tested: a CURRENT SOFTWARE LEVEL is a purchase criterion. PCM 3.1 (991.1) vs PCM 4.0 with CarPlay (991.2): a clear second-generation advantage that shows in daily use and resale.

TOPS, BRAKES & ORIGINALITY

Cabriolet: hydraulics, tension cables, tightness, drains. Targa: the elaborate roof choreography is the model's signature — sequence, hydraulics, microswitches, seals, noises: defects are RARE but repairs are involved, so the full cycle is watched, twice. Brakes: steel normal wear: PCCB (optional) cracks, chipping, pad state — €8,000–15,000+ exposure, measured. C4: very reliable — front diff, driveshafts, boots. Originality: sport exhaust, lowering, spacers, and on the 991.2 frequent ECU OPTIMIZATIONS — documented or priced as risk, SOFTWARE_LEVEL and ORIGINALITY_SCORE carry it.

FACTORY ACTIONS · VERIFIED SEPTEMBER 2026

THE VIN MATRIX

The dossier verifies precisely: VIN-dependent campaigns exist, NO engine or gearbox action anywhere. The verified Carrera-relevant record across MY2012–18: 12V107 (MY2012 Carrera S): coolant-line interference could disconnect a fuel line — fire risk. 13V058 (MY2012–13 C2/C4, standard exhaust): tailpipes could fracture from the rear muffler — mufflers replaced. 11V409 (MY2012): seat-belt anchor plates. 13V502 (MY2014 Carrera, built 2–23 Sep 2013): passenger-seat wiring harnesses. 14V698 (MY2014–15, built May–Sep 2014): front-hood upper lock not to specification. Then the airbag era: 16V946 and 17V134 (inflator initiators may fail to ignite), 19V533 (airbag ECU capacitor, code AKB4, cross-line), 19V179 (MY2018: side-airbag impact sensors possibly not tightened), plus 17V054 (MY2017: fuel-collection-pipe screws may shear — leak) and 17V135 (MY2017 Cabrio/Targa: windshield bonding). Eleven touches, all small, all closeable: the VIN query at every PPI, per the dossier — and it closes fast.

MARKET POSITION & COST FRAME

STATUS	A two-character market: the 991.1 as the LAST naturally aspirated Carrera generation (the GTS 3.8 as its collecting spearhead) — the 991.2 as the more capable daily with PCM 4.0 and torque. Manuals carry premiums across both: the Carrera T earns its purist niche: GTS versions lead both generations. Bands follow the transaction dataset in the usual round.		
COST FRAME & MAINTENANCE	Working magnitudes, not quotes (Sep 2026): annual service €1,200–2,000 · major service €2,500–4,000 · PDK service €800–1,500 · water pump €1,000–1,800 · front-axle lift €2,000–5,000 · PCCB €8,000–15,000+. Maintenance doctrine: annual oil, PDK service by usage profile, brake fluid on schedule, radiator cleaning as routine.		
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IMS or scoring cases in this file: the 9A1 era closed the M96 chapter for good	PCM with CarPlay: the 991.2 advantage that shows in daily life and resale	VIN campaigns MY2012–18: airbag-era hygiene, no engine action — the check closes fast	

Sources: Porsche factory data (9A1 350/400/430 PS, 3.0 biturbo 370/420/450 PS, Carrera T, PCM 3.1/4.0, family structure); NHTSA record verified September 2026 across MY2012–18 — 12V107, 13V058, 11V409, 13V502, 14V698, 16V946, 17V134, 17V054, 17V135, 19V533/AKB4, 19V179 — no engine or gearbox campaign; carbon, mount, cooling, Targa and software patterns per the dossier and named specialist sources. Cost figures are MI working magnitudes; market bands follow the transaction round.