

MODEL FILE 59 · ULTIMATE SERIES · McLAREN · HALO PROTOCOL · HV DOCTRINE

McLAREN P1 · GTR · LM

M838T HYBRID · 916 PS · 2013–2015 · 375 ROAD CARS · LANZANTE TREE

THE FAMILY · OUTSIDE THE NORMAL RANGE

THE VARIANT TREE

The register separates strictly: P1 (375 road cars, McLaren-confirmed) · P1 GTR (track-only, 58 built — the GTR was produced only after the 375th road car) · GTR ROAD CONVERSIONS (mostly Lanzante — 36 of the 58 converted and delivered by summer 2025, per Lanzante itself) · P1 LM (5 customer cars + the XP1LM prototype — a Lanzante project authorized around McLaren, NOT a works road model) · P1 GT and GTR-18 (Lanzante few-offs) · P1 HDK (High Downforce Kit) · P1 Spider (Lanzante conversion, at most 5 planned, with a structurally MODIFIED lower chassis). Two MI doctrines up front: a road-legal GTR is NOT an LM — and with 36 of 58 converted, a "road-legal P1 GTR" is no longer a five-car rarity, while a real LM remains exactly that.

THE ARCHITECTURE

M838T 3.8 biturbo V8 plus e-motor (IPAS), 916 PS / 900 Nm system, rear drive, 7-speed SSG, RaceActive Chassis Control, active aerodynamics with up to 600 kg of downforce, carbon MonoCage. Mechanically the P1 is closely related to the 12C/650S — but the hybrid integration makes it a COMPLETELY DIFFERENT PPI object today, and the file is built around that fact.

THE FIRST SENTENCE

The dossier's Kernfazit, adopted as register doctrine: five or ten years ago the P1 PPI began with carbon, hydraulics, history and hybrid function. Today the first sentence is: WHICH BATTERY IS FITTED, HOW OLD IS IT, AND WHAT DO THE CELL/BRICK DATA SAY? The risk order of the road car: HV battery → carbon/accident → hybrid/charging → hydraulics/aero → brakes → V8/SSG. And notably: the actual drivetrain has aged WELL — no reliable evidence of a systemic V8, SSG or e-motor failure series exists.

THE BATTERY CHAPTER · PRIMARY AGEING RISK

GEN 1 · THE AGEING PACK

The original cells date technically from the development phase around 2010: the cars are now eleven to thirteen years old, and specialist reporting in 2026 describes growing numbers of packs needing replacement — some cars no longer drivable. Classification: HV BATTERY = PRIMARY AGEING RISK — no longer observation.

POWER, NOT CAPACITY

The original pack (≈ 4.7 kWh) was built for power boost, torque fill, recuperation and short EV running — NOT as a big EV battery: so the decisive question is not range but whether the pack can deliver its POWER reproducibly. BATTERY POWER CAPABILITY, not battery capacity — an old pack can charge, drive EV and show no fault code, yet fall short under full load.

THE MANDATORY REPORT

The register releases no P1 purchase without a DEEP BATTERY REPORT: battery generation, install date, state of health, minimum and maximum cell/brick voltage, delta, temperature spread, isolation, contactor status, BMS software, deep-discharge history. The MINIMUM BRICK VOLTAGE is enormously relevant: below 3 V a special contactor/recovery logic engages per McLaren's own Gen-2 bulletin — and McLaren warns that a pack in such a state can NOT simply be recovered by running the combustion engine. RED FLAG: any history of deep discharge, above all repeated.

GEN 2 & THE CARE
DOCTRINE

McLaren now offers a second-generation P1 battery — probably the single biggest positive value indicator on a purchase: invoice, install date, serial/generation, software level documented (GEN2_BATTERY = YES/NO). But Gen 2 is ALSO care-intensive: McLaren's 2025 service information prescribes a precise charging procedure — charge at most ≈ 2.5 hours, disconnect the charger, let the car sleep, then check SOC, target $\geq 80\%$ — plus protective BMS software against deep discharge. P1 battery care is NOT normal trickle-charger logic. And the CHARGER IS PART OF THE CAR: the correct regional P1 charger, present and function-tested, no extension cables — a P1 without working correct charging equipment grades HIGH.

TERMINALS, COST &
AFTERMARKET

Diagnostic doctrine from McLaren's 2025 knowledge article: hybrid warnings can be triggered by improperly seated TERMINALS in the HV charger harness — and the DTCs can look like a far bigger hybrid problem. Order: DTC → charger harness connector → terminals → BMS/battery — never condemn the pack first. Cost: the register stores no fixed part price but the magnitude — HV BATTERY = SIX-FIGURE OEM EXPOSURE (2026 reporting names $\approx \text{€}140\text{k}/\$150\text{k}+$ for the official solution: always re-checked against a current McLaren quote). Aftermarket: V Engineering announced PROJECT CONTINUUM in July 2026 — new cell/pack architecture, 12.4 kWh, ≈ 23 kg lighter, customer installs from 2027: carried as ANNOUNCED / NOT YET LONG-TERM PROVEN, with the collector question attached: OEM Gen 2 versus third-party pack.

THE REST OF THE CAR

HYBRID DRIVE & 12V

IPAS/e-motor: no recognizable systemic failure series — torque fill, boost, EV mode, regen, temperatures, inverter DTCs checked. The road test covers ALL operating states: E-mode, Normal, Sport, Track, boost, charge/regen — never just the combustion engine. The 12V system is its own chapter: generation, condition, maintainer, voltage drop — a weak 12V supply produces a spectacular fault christmas tree on this car.

RACEACTIVE & AERO

The extreme version of the hydraulic chassis: accumulators (age, standing time and system load make them especially relevant — replacement history mandatory), pressure, leaks, pump frequency, ride height. RACE MODE IS ACTUALLY ACTIVATED at the PPI — the car drops visibly, and the menu alone proves nothing. Active aero: rear-wing extension and angle, DRS/airbrake logic, front elements, hydraulics, calibration — a crooked or juddering wing is not cosmetic.

CARBON, UNDERBODY & AGE

MonoCage: CRITICAL — tub, sills, roof structure, floor, suspension pickups, underbody: on any accident suspicion, NDT and a composite specialist — this is a multi-million collector car, and a paint gauge is not an inspection. The underbody reads carefully: the P1 runs very low in Race Mode — front floor, diffuser, carbon edges, jack points: SURFACE ABRASION distinguished from STRUCTURAL IMPACT. Age items regardless of mileage: mounts, bushings, seals, hoses — calendar ageing: tyres are absolutely critical (many P1s: minimal kilometres, old rubber — correct spec, DOT, heat cycles, flat spots: no dynamic testing on old tyres): fuel age and storage practice on standing cars: cooling verified through a FULL WARM CYCLE with heat soak, hot restart, pressures, pumps, fans. PCCB: OEM configuration matters on a collector car — surfaces, chips, cracks, oxidation, pads.

GTR · LM · THE LANZANTE TREE

GTR & CONVERSIONS

GTR: 1,000 PS, large fixed wing, F1-derived DRS, twin-pipe exhaust, track-only — the PPI changes to motorsport standard: track hours, engine and gearbox OPERATING HOURS, suspension rebuilds, brake history, aero and floor damage, air-jack system, fire system — kilometres are secondary. Configuration truth is CRITICAL: ORIGINAL TRACK GTR vs LANZANTE ROAD CONVERSION vs other conversion — Lanzante describes its conversion as fully REVERSIBLE, so the questions are: converted by whom, documented how, and are the ORIGINAL PARTS RETAINED.

LM & THE FEW-OFFS

The LM is another league again: 5 customer cars + XP1LM — enlarged 4.0-litre engine (3,994 cc), 1,000 bhp/1,050 Nm, 60 kg lighter than the GTR, bespoke aero, suspension and wheels, road-legal. The file rule: LM_ENGINE = 4.0 — never carry the standard M838T dataset onto an LM. Authenticity at five cars: Lanzante build documentation, chassis identity, correct engine, bespoke wheels, aero, interior, tools, the DIAGNOSTIC TABLET and charging package Lanzante delivered — completeness is extremely value-relevant. P1 GT and GTR-18: Lanzante sub-variants with larger splitter, reworked wing, roof scoop, louvred wings, LM suspension — never judged on the normal P1 chassis dataset. P1 Spider: at most five, with the lower chassis structurally modified and reinforced — the PPI additionally demands the LANZANTE STRUCTURAL CONVERSION DOCUMENTATION.

THE MODIFICATION
DOCTRINE

The P1 breaks the register's usual originality rule, deliberately: a Lanzante LM, GTR road conversion, GT, GTR-18, HDK or Spider can be HIGHLY collectible — decisive are provenance and executor. Outside that world the doctrine hardens: ECU tunes, aftermarket exhausts, unexplained aero conversions, undocumented hybrid modifications — very critical, and on the hybrid drive: NO experiments.

FACTORY ACTIONS · VERIFIED SEPTEMBER 2026

TWO CAMPAIGNS & THE
BULLETIN LAYER

The US record carries two P1 campaigns, both confirmed. 15V836 (filed Jan 2016): 122 US cars, MY2014–15 — the SECONDARY HOOD LATCH could fail to re-latch correctly after operation: if the primary latch released inadvertently, the hood could open while driving: new latch fitted — 15V836 COMPLETE is a safety field. 19V141: the TAKATA passenger-inflator recall — 121 P1s inside the population: CRITICAL if open. Above the recall list sits the richer layer: McLaren knowledge articles and service campaigns — the Gen-2 battery software, deep-discharge management, charging bulletins — which is why the FULL SOFTWARE READ is mandatory: BMS, hybrid controller, charger, engine, gearbox, chassis, aero.

MARKET POSITION & WORKING EXPOSURE

STATUS & EXPOSURE

Halo protocol: no market bands — networks, specialists and auction results are the reference, and single files decide. The register replaces normal repair tables with WORKING EXPOSURE: annual/collector service several thousand to low five figures · hydraulic catch-up five figures possible · PCCB five figures · carbon/aero five figures to far beyond · HV GEN-2 BATTERY six-figure OEM exposure · MonoCage damage a specialist/OEM case, potentially enormous · LM/GTR-specific parts by Lanzante/McLaren quote only.

1st

Question of every P1 file today: which battery, how old, what do the brick data say

€140k+

The OEM battery magnitude: the position that breaks the normal maintenance frame

36/58

GTRs road-converted by Lanzante by mid-2025: road-legal ≠ rare — an LM stays rare

Sources: McLaren factory data (916 PS IPAS, 600 kg downforce, 375 road cars, GTR 1,000 PS); Lanzante records (58 GTR/36 converted mid-2025, LM 5+XP1LM 3,994 cc); NHTSA — 15V836 (122 cars, hood latch), 19V141 (Takata, 121 P1s); McLaren Gen-2 battery bulletins (contactor logic <3 V, ≈2.5 h charge, SOC ≥80%, regional charger, terminals) per NHTSA-filed documents; ageing and Project Continuum per 2026 reporting; costs re-checked against current McLaren quotes. No bands per halo protocol — single files decide.