

LAMBORGHINI AVENTADOR

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The last pure twelve - Lamborghini's final non-hybrid V12, uncompromised and quirky

700-780 CV

NA 6.5 V12, no turbo, no hybrid - LP 700-4 through to Ultimae

2.9 s to 100

Single-clutch ISR, all-wheel drive - top speed ~350 km/h

2011-2022

Murcielago's successor; ~11,465 built; the Revuelto's predecessor

Last Pure V12

Lamborghini's final non-hybrid twelve - loved despite the quirks

01 EXECUTIVE SUMMARY

The Lamborghini Aventador is the Revuelto's predecessor and, in one important sense, its opposite: it is Lamborghini's last non-hybrid, naturally aspirated V12 - a pure, mid-engined twelve with no electric assistance of any kind. Built from 2011 to 2022 across the LP 700-4, the SV, the S, the SVJ and the final Ultimae, it is the car that defined the modern Lamborghini shape and the last of an engine type that will not return. It is uncompromised, theatrical, and quirky in ways its owners tend to forgive - and increasingly collected for exactly that.

As with the Revuelto paper, the vantage point is declared plainly: the author is a Ferrari owner and enthusiast, not a Lamborghini specialist, so this is a research-led assessment built on Lamborghini's technical material, the road-test record, documented owner experience and European and US market data. The good news for a buyer is that the Aventador is comparatively straightforward: there is no hybrid system to age or to complicate a repair, the V12 itself is robust, and the questions are the familiar ones - the gearbox, the electronics and the running costs that come with the territory.

Key Finding

The last pure V12 - and that is the point. A 6.5-litre naturally aspirated V12 (700 CV in the LP 700-4, rising to 780 in the Ultimae), no turbo and no hybrid, revving to 8,500 rpm. As an experience it is an event; as a piece of history it is the last series-production Lamborghini powered solely by a naturally aspirated V12, which is central to how it is valued.

The engine is not the worry - what surrounds it is. The V12 is regarded as robust. The defining quirk is the seven-speed single-clutch ISR gearbox, deliberately abrupt at low speed and subject to clutch wear; early (2012-2013) cars also had electrical and suspension niggles since resolved. Buy a later, updated car, with full history and a clutch-wear check.

Specials are firmer; standard cars have softened. The SV, SVJ and Ultimae are scarce and show stronger value retention as the last pure V12s; the LP 700-4 and S have depreciated gently and are the accessible way in. Either way, this is a car to buy for the engine, not the interface.

02 THE MARQUE AND THE CAR

The car that defined the modern Lamborghini - and closed the pure-V12 era.

The Aventador arrived in 2011 as the successor to the Murcielago and the new V12 flagship, named - by Lamborghini tradition - after a fighting bull, one noted for its bravery in Zaragoza in 1993. Internally LB834, it was designed by Filippo Perini's Centro Stile and built around a carbon-fibre monocoque. Over an unusually long eleven-year life it ran through a clear ladder of versions: the original LP 700-4 (2011), the 50th-anniversary 50 Anniversario (2013), the lighter and sharper LP 750-4 SV (2015), the restyled, rear-steering LP 740-4 S (2017), the track-focused LP 770-4 SVJ (2018) with its Nurburgring lap record, and the final LP 780-4 Ultimae (2021) - the most powerful of all and the last of the line. Production ended in 2022 after 11,465 cars, and the Revuelto succeeded it in 2023.

Its real significance is what it ended. The Aventador was the last series-production Lamborghini powered solely by a naturally aspirated V12 - no mild-hybrid, no plug-in system, no electric assistance of any kind - so the Ultimae was marketed, accurately, as the final pure V12. That status now shapes everything about how the car is admired and valued. It was also a transitional car in another sense: rawer and more compromised than the Revuelto that followed, but already a long step on from the cars before it.

THE LAMBORGHINI CHARACTER

Lamborghini should be judged on its own terms. Where Ferrari has chased technical purity and outright dynamic precision, Lamborghini has traditionally prioritised emotional theatre, visual drama and the sound and feel of a big naturally aspirated engine - and has always asked the owner to accept a few quirks as part of the bargain. The Aventador is the clearest modern example: you take the jerky low-speed gearbox and the awkward visibility because of what comes with them. Throughout this series each Lamborghini is judged against that philosophy, not against Ferrari's different brief.

03 DESIGN

The template - the wedge that every modern Lamborghini still answers to.

If the Revuelto looks like a fighter jet, it is because the Aventador taught it how. Perini's design set the modern Lamborghini template: a sharp, low wedge, scissor doors, a Y-motif in the lights and air intakes, and an aggressive, planted stance that still looks current more than a decade on. Over the years the details sharpened - the S and SVJ gained more aggressive aero, the SVJ a fixed rear wing and ALA active aerodynamics - but the silhouette never needed changing. It is one of the defining supercar shapes of its era, and arguably the car that fixed the contemporary idea of what a Lamborghini looks like.

The theatre comes with the usual costs. Visibility is poor, the car is wide and very low, ground clearance is minimal (a nose-lift is essential for real-world use), and getting in and out is a public performance. The cabin is pure drama - a fighter-jet driving position, a covered starter button, toggle switches - but the infotainment, shared with the Audi parts of the period, was dated even when new. None of this is a surprise to the people who buy one; it is part of the character, and the next sections treat it as such.

04 ENGINE AND POWERTRAIN

A great V12 - and a gearbox that is the car's defining quirk.

The heart of the Aventador is a 6.5-litre naturally aspirated 60-degree V12, the L539 - Lamborghini's own design, its fifth in-house engine and second all-new V12 design since the 3.5-litre unit in the 350 GT, not a carried-over part. It is the car's masterpiece: free-revving to 8,500 rpm, savage in its response and unmistakable in its sound, and rated from 700 CV in the LP 700-4 up to 780 CV in the Ultimae, the most powerful standard-production naturally aspirated V12 in Lamborghini history. Drive goes to all four wheels through a Haldex-based system with a rear mechanical limited-slip differential, on pushrod suspension, with rear-wheel steering arriving on the S and later cars.

The controversial part is the gearbox. The Aventador uses a seven-speed ISR (Independent Shifting Rod) single-clutch automated manual, built by Graziano - chosen for being compact, light and able to handle the V12's torque, and capable of brutally fast shifts at full throttle. Its trade-off is well known: at low speed it shifts with a distinct lurch, far less smoothly than the dual-clutch units rivals used, and the single clutch is a wear item. This is partly by design - the shift is deliberately abrupt in the sportier modes, engineered for drama rather than smoothness - so it is best understood not as a fault but as the defining quirk of the car - thrilling when driven hard, awkward in traffic - and it is the single biggest thing to understand before buying. The SVJ added ALA active aerodynamics and set a 6:44.97 Nurburgring Nordschleife production-car lap record in 2018 (since eclipsed by faster machinery).

Technical specification

Layout	Mid-engined naturally aspirated V12; all-wheel drive (Haldex + rear LSD)
Engine	6,498 cc 60-deg V12 (L539); 700-780 CV by variant; 8,500 rpm redline
Transmission	7-speed ISR single-clutch automated manual (electrohydraulic)
Chassis	Carbon-fibre monocoque; pushrod suspension; rear-wheel steering (S onward)
0-100 / top speed	2.9 s (LP 700-4) / 2.8 s (SV, SVJ, Ultimae); ~350 km/h
Production	2011-2022; ~11,465 built; succeeded Murcielago, replaced by Revuelto

The variant ladder

Variant	Years	Power	Built	Note
LP 700-4	2011-16	700 CV	standard	The original; defined the shape
50 Anniversario	2013	720 CV	200	50th-anniversary special
LP 750-4 SV	2015-17	750 CV	600 + 500 R	-50 kg, more downforce; rawer
LP 740-4 S	2017-21	740 CV	standard	Rear-wheel steering; restyled
LP 770-4 SVJ	2018-21	770 CV	900 + 800 R	ALA active aero; Nurburgring record
LP 780-4 Ultimae	2021-22	780 CV	350 + 250 R	Last non-hybrid V12; most powerful

Sources: Lamborghini technical material and the road-test record; production figures from Lamborghini and contemporary reporting. 'R' denotes Roadster; CV and PS are equivalent units, used interchangeably in factory figures.

05 DRIVING AND PERFORMANCE

An event, not an appliance - the last great analogue-feeling V12.

To drive, the Aventador is an occasion in a way few modern cars are. The V12 is the whole point: instant throttle response anywhere in the rev range, a rising howl to 8,500 rpm, and a sense of drama that the numbers alone do not capture. Reviewers and owners consistently describe it as visceral and theatrical, a car that demands attention and rewards commitment rather than flattering the driver the way a more clinical rival might. The faster variants sharpen this: the SV is rawer and more focused, the SVJ genuinely track-capable with its active aero and four-wheel steering, while the S and Ultimae are a little more rounded and usable.

It is not a car that hides its compromises. The ISR gearbox lurches at low speed, the ride is firm (more so on early cars), visibility is poor and it is wide and low in a way that makes town and car-park work a chore. Owners are near-unanimous that none of this matters set against the experience: this is a weekend and event car, bought to be driven hard and enjoyed for its drama, and on those terms it delivers something the smoother, faster Revuelto arguably cannot - the last Lamborghini V12 with no electrification between the driver and the engine.

06 THE QUIRKS AND WHAT THEY COST

No hybrid to worry about - but the gearbox and the early cars repay study.

Compared with the Revuelto, the Aventador is refreshingly straightforward: with no hybrid system there is no high-voltage battery to age, no pyrotechnic cut-out and no post-crash electronic lock - the right-to-repair problem that dominates the Revuelto paper simply does not arise here. What remains are conventional, knowable costs. The ISR clutch is a wear item: driven smoothly it lasts well, but a replacement is a real expense (owner reports commonly cite figures in the region of USD 12,000-20,000, and a failed gearbox can run much higher - one widely cited S case was around GBP 28,500). Early cars (2012, and some into 2013) are the ones to study: they were prone to engine wiring-harness faults that could cause power loss and a limp-home state, occasional non-start and battery issues, and a stiffer, bouncier ride; later updated cars resolved most of this and are the sensible entry point.

THE WATCH-LIST BEFORE BUYING

Gearbox and clutch - have the clutch-wear percentage read on a diagnostic and budget for an eventual replacement. Early-car electronics - confirm any wiring-harness and software updates were done on 2012-2013 cars. Radiator fans - known to fail when debris jams them; check both. Front lift and suspension sensors - wear items, costly to replace. Carbon monocoque - light and strong, but expensive to repair after a serious impact, so accident history matters; note, though, that unlike the Revuelto there is no high-voltage system or post-crash battery lockout to compound a repair - just the cost of the carbon itself. Service history - a driven, properly serviced car is healthier than a low-mileage one that has sat; insist on a full record and a pre-purchase inspection.

The infotainment and switchgear are dated, as noted, and parts and labour are priced as you would expect for a carbon-tubbed Italian V12. But the headline is reassuring: the costs are predictable and the engine is sound. This is a car whose risks can be inspected for and budgeted, not an open-ended technological gamble.

07 OWNERSHIP, RELIABILITY AND SERVICE

The robust V12 - and a car that is healthiest when it is driven.

The reassuring theme across the owner record is that the engine is not the problem. The L539 V12 is regarded as robust and long-lived, and the Aventador is generally regarded by owners as one of Lamborghini's more dependable modern flagships (alongside the Huracan) when it is properly maintained and, crucially, actually driven. The issues that do arise are around the engine - the gearbox and clutch, electronics and sensors, radiator fans, the lift system - rather than in it, exactly as a prospective buyer would hope. A recurring piece of owner wisdom is that a driven, well-serviced car is a safer bet than a pampered, low-mileage one that has sat for years; sitting still is what harms these cars.

On service, the picture is as for the Revuelto: the car is maintained through Lamborghini's dealer network, backed where needed by the marque's travelling specialist technicians, with no independent network of the depth a mainstream car enjoys. The older Aventadors predate the five-year scheduled-maintenance plan offered on current cars, so maintenance is pay-as-you-go and not cheap - one owner reported an USD 8,800 bill simply to bring a low-mileage Ultimae's service up to date after it had sat for a year. Running costs otherwise are segment-standard: premium fuel, specialist insurance, costly tyres, brakes and clutches, and dealer-level rates. The sensible approach is to buy a well-documented, regularly driven car and keep it that way.

08 MARKET - EUROPE AND THE US

Standard cars have settled; the specials are the store of value.

The Aventador market splits cleanly along the variant ladder, and it behaves very differently from the Revuelto's. The standard cars have taken their depreciation and are levelling out: a LP 700-4 that cost around USD 390K new now averages roughly USD 270K, with clean cars commonly in the USD 200-290K band and the depreciation curve appearing to stabilise; the S sits similarly, around USD 290K. These are the accessible way into a V12 Lamborghini. Open-top cars carry a modest premium (LP 700-4 and S Roadsters around USD 360-410K).

The limited specials are a different story - scarce, and increasingly treated as the blue-chip naturally aspirated V12s. The SV (600 coupes, 500 roadsters) averages around USD 395K and into the 500s for roadsters; the SVJ (900 coupes, 800 roadsters) is the headline car, helped by its Nurburgring record and ALA aero, with clean examples roughly USD 490K to well over USD 600K - and exceptional cars far higher (one sale reached USD 3.56M, an outlier reflecting a special-spec car, not the norm). The Ultimae (350 + 250), the last of the line, is similarly strong, commonly around USD 490-630K and higher for roadsters. As the naturally aspirated V12 becomes historically scarcer, the specials are the cars showing the stronger value retention - supported by collector demand - while the standard cars are bought to drive: a notably healthier picture at the top end than the Revuelto's softening market.

Market reference by variant (approximate, 2026; CLASSIC.COM and dealer data)

LP 700-4 coupe	~USD 270K average	Gentle depreciation, appearing to stabilise
LP 700-4 / S Roadster	~USD 360-410K	Open-top premium over the coupe
LP 740-4 S	~USD 290K	Standard car; sharper, rear-wheel steering
LP 750-4 SV	~USD 395-570K	Firm; rawer driver's special
LP 770-4 SVJ	~USD 490-850K+	Strong; Nurburgring halo (one \$3.56M outlier)
LP 780-4 Ultimae	~USD 490-630K+	Strong; the last pure V12

Methodology and a note on values

Market levels reflect CLASSIC.COM recorded sales and averages plus European and US dealer listings; figures vary widely with variant, specification, mileage, options (Ad Personam paint and carbon meaningfully move price) and timing, and are reported in the currencies quoted rather than normalised. Extremes - a sub-USD 150K early car, a multi-million SVJ - are outliers, not the market. The Lamborghini market is moving faster than Ferrari's at present, and the specials in particular (SVJ, Ultimae) can move materially over six to twelve months, so these are a snapshot to be refreshed periodically. Forward-looking remarks are the author's reading of a moving market, not a forecast, and nothing here is investment advice.

09 SYNTHESIS

The last pure twelve - uncompromised, quirky, and all the more loved for it.

The Aventador is the bookend to the Revuelto: where the newer car keeps the V12 alive by electrifying it, the Aventador is the pure version that came before - naturally aspirated, unassisted, and the last of its kind. It is more compromised than its successor and makes no apology for it: the gearbox lurches, the cabin is dated, the visibility is poor. And yet it is more admired and more collected than ever, because what it does - the noise, the response, the sheer event of a great naturally aspirated V12 - is exactly what the industry is leaving behind. It asks the owner to accept its quirks, and rewards them with something increasingly rare.

For a buyer, the choice follows the goal. To simply own and drive one, a well-maintained, later (post-2013) LP 700-4 or S is the accessible, sensible entry, with predictable costs and no hybrid complications. To combine the experience with a store of value, the scarce SV, SVJ and Ultimae are the cars the market is rewarding as the last pure V12s. Either way it should be bought for the engine and the occasion, driven rather than parked, and inspected properly first. It is, quite simply, one of the defining naturally aspirated V12 supercars of the modern era - and the end of the line.

BOTTOM LINE

Lamborghini's last pure V12: a 6.5-litre naturally aspirated twelve (700-780 CV) in the definitive modern Lamborghini shape, uncompromised, theatrical and quirky. The engine is robust; the things to manage are the single-clutch ISR gearbox and clutch, early-car electronics and the usual running costs - all knowable, none hybrid. Standard cars have depreciated gently and are the way in; the SV, SVJ and Ultimae are scarce and show the stronger value retention. Buy a documented, driven car for the engine and the occasion - and accept the quirks, because they are the point.

SOURCES

Lamborghini technical and historical material (Aventador range; LP 700-4 through Ultimae). Specifications and production figures corroborated against Lamborghini historical material and contemporary reporting; reliability, gearbox and repair detail from the owner record and specialist commentary; market levels from CLASSIC.COM recorded sales and European and US dealer listings. Production total of 11,465 is Lamborghini's confirmed figure; individual variant counts are from Lamborghini and corroborated registries. Figures are from public sources.

Author. Uwe Riemeyer, Marque Intelligence (an IMP InterMediaPartners venture, est. 1976). Disclosed bias: the author is a Ferrari owner and enthusiast - currently a Ferrari 488 GTB and GTC4Lusso T, previously an FF - and writes as an admirer of, rather than a specialist in, Lamborghini; this paper is accordingly research-led rather than drawn from long personal ownership of the marque. It is research and commentary, not investment advice; collector-car values are volatile and illiquid, and any purchase decision is the reader's own.