

“The Mercedes stood  
out amidst a throng  
of exhibitors”



# Sound





After buying this stunning SL55 AMG, award-winning audio specialist Steven Sailer set about creating the ultimate in-car sound experience

# machine

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▷ Touchscreen head unit from maker Pioneer.

▷▷ Footwell mounted subwoofer.

◁ In the boot are amplifiers of 4x260W, 2x500W and 1x1,700W.

**I** was on the Mercedes-Benz stand at the 2001 Frankfurt motor show when Professor Jürgen Hubbert, Head of the Mercedes-Benz passenger car division at the time, unveiled the SL55 AMG in a novel way never attempted by Mercedes before or since.

After a brief speech introducing the new high-performance AMG roadster, Professor Hubbert got behind the wheel, fired up the supercharged V8 and blipped the throttle a few times. The muscle car soundtrack filling the hall clearly resonated with the crowd who let loose a big round of applause. While the SL55 AMG established significant gravitas for its deep baritone voice that day, it went on to carve itself a wider reputation by slaying the acceleration and top speed numbers of some big-name supercars in car magazine tests around the world.

Fast forward two decades and the SL55 AMG still looks sleek and modern, its descendants turning distinctly baroque with their styling, and not in a good way. Meanwhile, the SL55's straight-line performance numbers and soundtrack are no less impressive than when it was new.

Those inherent attributes and the practical folding hardtop are what drove Austrian Mercedes and music enthusiast, Steven Sailer to buy this SL55 AMG in 2018. A professional high-end car audio installer by trade, Steven's search for the right SL led him to a mint Obsidian Black car with full service history and about 57,000km (circa 35,400 miles) on the clock. Taking the Covid years into account, he has added another 15,000km (just over 9,000 miles) to the total, and drives the roadster whenever he can.

In recent years, the annual

Consumer Electronics Show in Las Vegas has progressively moved more towards drones, flat-screen TVs and new tech gadgets. It is no surprise then that all the serious audio manufacturers simultaneously gravitated towards Munich's High End show held every May, and this is now the largest and most important hi-fi show in the world with over 500 companies exhibiting in 2023.

This was where I met Steven and his SL55 AMG on a bespoke stand. The Mercedes stood out amidst a throng of exhibitors from audio cable makers to specialists selling record players costing ▷



## Audio upgrade – SL55 AMG



◀ Thesis kit angled towards the occupants.

▷ Sub setup adapted during the build process.

▽ Interface for the Audison signal processor.



▷ Tasteful upgrades for the two-seat cabin.

“A car has many more potential acoustic challenges compared to a room”

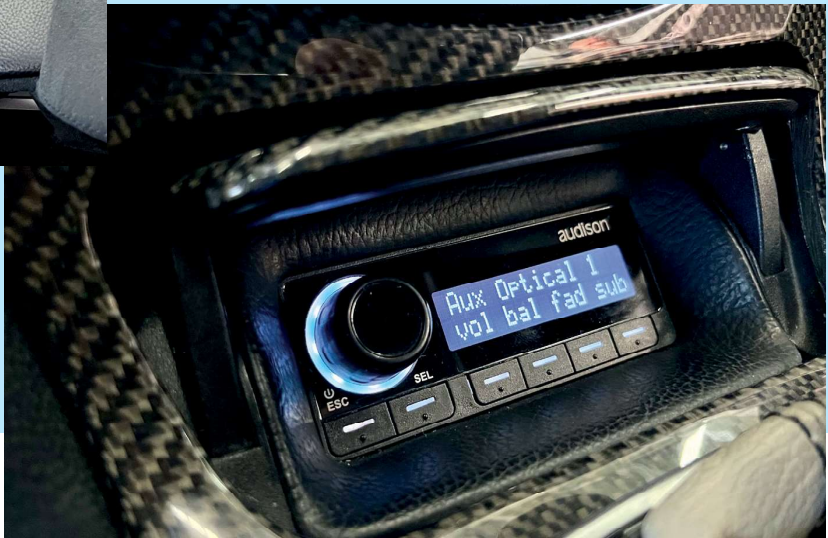
▷ over £100,000. Also in the mix were a Porsche 911 Carrera equipped with JM Focal speakers, as well as OE Porsche and Mercedes models demonstrating the latest Burmester 3D and 4D audio systems respectively.

As car manufacturers have come to recognise the cachet of offering bespoke in-car entertainment systems from well respected, domestic high-end brands like Burmester, Bose, Bang & Olufsen, and Bowers & Wilkins, the aftermarket car audio installation industry has shrunk. The contributing reasons are cost, convenience, warranty, and a significant bridging of the gap between the awful head units and cheap speakers the OEs provided years ago and a good aftermarket installation from the likes of Alpine, Nakamichi, Pioneer and so on.

With the latest OE optional, high-end car audio now often more capable of realistic music reproduction than the systems many have at home, an intended consequence is the positive effect on the sales of home audio components and systems from these brands. This is good marketing in action. Another reason for the drop-off in the aftermarket installation business is of course the total integration of the infotainment system so that it operates holistically within the car's CAN bus. As every car uses different software, this in itself is a nightmare for aftermarket installers to interface with non-native devices.

**L**uckily that is not the case with this two-decade-old R230 SL55 AMG. With many years of expertise and several wins in the International Auto Sound Challenge Association (IASCA) behind him, Steven (who is still Car Audio Vice World Champion, an accolade no other European competitor has achieved in the last 25 years) sat down and worked out a game plan for the electrical and acoustical installation.

A car has many more potential acoustic challenges compared to a room. Changing levels of intrusive sounds from the engine, road



surface and other ambient noises are one thing, but the damping effect that adding one person to such a small space has is vastly more consequential than when one extra person walks into a 250sq ft (23sq m) room. Thus, it is critical to match the characteristics of a proposed installation to the car, as what works in a Maybach Pullman will not work in an SL, which has about one quarter of the cabin volume. While state-of-the-art DSP (digital signal processing) sound shaping electronics can tailor the sound to a large extent, it is far better to start with good acoustics and just use the DSP for fine-tuning.

At a very basic level, an aftermarket installer can start by replacing the factory speakers with audiophile grade units powered by stereo or mono power amplifiers fed by a good quality signal from an upgraded head unit. However, if you really want the job





done properly, it is a good idea to start by taking the vehicle's structure out of the equation by building bespoke wooden enclosures to house the speaker units.

**W**ood is a fine acoustic dampening material that also has the plus point of converting vibration into heat and dissipating it. An enclosure volume calculated for a particular speaker cone will help optimise its acoustic performance and, when properly attached to the door or other parts of the car, it will also aid the prevention of annoying rattles, particularly those excited by low frequencies. A sealed enclosure also helps to minimise annoying sound leakage to ears outside the vehicle.

The sources components here are a Pioneer AVIC-Z920DAB head unit and an Astell&Kern high resolution audio player. They feed their outputs to the power amplifiers via a digital 24bit/96kHz Audison bit One HD Virtuoso signal processor that allows a huge range of EQ tweaking to optimise the sound.



◀ Bespoke housings for the new speakers.

The three power amps built into a bespoke rack in the boot are a 4x 260W Class-A Audison Thesis Quattro four-channel power amplifier, a 2x 500W Class-A Audison Thesis Due two-channel power amplifier, with a 1x 1,700W Class AB Audison Thesis Uno monoblock power amp driving the footwell-mounted subwoofer. As the rack is built into the space saver wheel well there is still boot space for a weekend away.

Each door pod accommodates two pairs of Audison Thesis TH 6.5 II Sax woofers, and when the system is cranked up you can feel the air they move bouncing off your knees! A Thesis TH 3.0 II Voce mid-range driver and a Thesis TH 1.5 II Violino tweeter live under the grilles at the extremes of the dashtop. Importantly, the speakers under these grilles have been angled towards the listeners for better imaging. The leatherwork on the dashboard and doors exactly matches the factory coverings so the system integrates seamlessly to the eye.

**B**espoke brass rings machined to attach the woofers, mid-range drivers and tweeters help to remove resonance and absorption from the equation. Steven used three layers of sound deadening in the doors in addition to the wooden supports and, with all the above in place, the doors are now 25kg heavier than when the car left the factory!

In his relentless pursuit for perfection Steven was quite willing to change course and adapt if a better way or new more suitable product became available. Thus, the four eight-inch Hertz Mille ML 2000.3 subwoofers built into a box behind the seats gave way to a single 10-inch Hertz Mille Pro MPS 250 S2 subwoofer that went on sale during the build. With a mounting depth of just 3.5-inches, this subwoofer fits perfectly into the front passenger footwell and obviates the uncomfortable feeling you get when massive deep bass erupts from behind you.

However, Steve was not content with this and managed to fit the even larger 12-inch MPS 300 S2 unit using a bespoke

## Audio upgrade – SL55 AMG

“The system that cost Steven some 800 man-hours and £50,000 to build certainly delivers”



▷ The 5.4-litre supercharged V8 makes music too!

▷ Space age rack built into the spare wheel well.

▷ three-chamber speaker box and some judicious juggling of the SL's washer bottle inside the front wing area! Thankfully, the fine craftsmanship that went into making the now redundant rear subwoofer cabinet was not wasted as it was repurposed for additional cabin storage space.

I have always said that too much power is just enough, and that applies as much to a high-performance audio system as a high-performance car. The goal in both cases is effortless performance, and the system that cost Steven some 800 man-hours and £50,000 to build certainly delivers. Playing a wide variety of music, from jazz to rock and classical, the system showed that it can palpably move air in a way that no OE carmaker's system can hope to match, with enough spare headroom to avoid the annoying distortion that manifests itself when you overdrive a normal system.

**A**t the other end of the music reproduction scale, it delivers good sound-staging on tracks recorded with that legendary 'smoky jazz club' feel. The dynamic transients of classical music are very underestimated, and the way a pianissimo passage can suddenly leap to fortissimo puts great strain on the amplifiers and speakers of any system, whether domestic or mobile. This system was not phased at all, passing the effortless dynamic range test with gusto.

Steven Sailer has created one of the hottest audio systems ever installed in a Mercedes-Benz SL anywhere, and certainly one worthy of challenging the soundtrack of its 510bhp supercharged V8. He would like to keep the Mercedes forever, but at the same time must move onto the next project to showcase his skills. So, if you are a serious music buff in the market for an SL55 AMG then look no further.



### Just the facts

#### Mercedes-Benz SL55 AMG (R230)

ENGINE M113 5,439cc V8 supercharged POWER 510bhp@6,100rpm TORQUE 531lb ft@2,600-4,000rpm TRANSMISSION 5-speed auto, RWD WEIGHT 1,960kg  
0-62MPH 4.5sec TOP SPEED 155mph FUEL CONSUMPTION 20.9mpg YEARS PRODUCED 2001-2008

All figures from Mercedes-Benz for a standard, post-facelift car; fuel consumption according to NEDC combined; top speed electronically limited