

ALPINE



ALL-NEW  
A110 R  
R FOR RADICAL!



# R for "radical"

This much-awaited latest version rounds out the A110 range. Extreme, light, more streamlined, and more inspired by motor sports than ever - 'radical' is the only way of describing the car that now sits as the crowning jewel of the A110 line-up. The ultimate expression of lightness and performance, the Alpine A110 R was designed to be sensational on the racetrack yet still certified for the open road.

The first main difference with the A110 R is seen through the extensive work put in to reducing its overall weight down to as little as 1,082kg - 34kg less than the A110 S. Its aerodynamic performance has been enhanced for greater downforce and reduced drag. For the first time ever on the A110 range, some parts (e.g. the bonnet, rear window, and diffuser) have been redesigned specifically for the new model. The exclusive improvements made to the chassis, along with the 1.8L 300HP motor, and race-car interior, feed into the heightened radical feel that make the driving experience more intense than ever before.

Taking just 3.9 seconds to go from 0-100km/h, the All-new Alpine A110 R pushes the boundaries of sports cars. Building off the brand's commitment to motor sports, the design phase involved direct input from top-level experts and is more than ready to beat the clock when it takes to the racetrack. Made in France at the Manufacture Alpine Dieppe Jean Rédélé, this latest car marks the beginning of a new chapter for the brand's expertise in motor sports.



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# INSPIRED BY MOTOR RACING

**The Alpine A110 R is radical expression of sports car performance.** At the heart of the car's genesis lies a quest for perfect aerodynamics built off an optimal balance between improved downforce and reduced drag.



## STRAIGHT OFF THE TRACK

A number of features inspired by the world of motor racing have been directly added or adapted to the All-new Alpine A110 R in order to optimise handling at top speed. It benefits from the latest wind-tunnel technology and tools used in Formula 1. The new design work put into the rear swan-neck spoiler, flat undercarriage, and diffuser, in addition to the full-carbon fibre wheels, makes for greater stability around corners and at high speeds. The A110 R boasts greater back-end aerodynamic downforce than the A110 S Aero Kit, with an extra 29kg at top speed, thereby ensuring greater balance when taking fast corners. At the same time, drag has been reduced by 5% (track attitude) thereby extending the top speed to a record 285km/h.

## AN ADAPTED AERODYNAMIC BALANCE

In order to improve high-speed stability and performance for the All-new Alpine A110 R on the racetrack, the design phase was guided by a fundamental goal: unlock the vehicle's full potential through an optimal balance between downforce and drag. As such, the front end has been fitted with the same carbon-fibre lip as the A110 S, however the air intake valves have been integrated into the front shield, thereby further reducing overall air resistance and improving the car's feasible top speed.

## AN OPTIMISED DIFFUSER

For a stylish yet technical touch, the diffuser has been redesigned for a bold look and a driving experience like no other. Designed using carbon fibre and fibre glass, the reduced weight is a perfect part of the aerodynamic equation. Now wider than before as it stretches towards the rear, it creates a rapid flow of air through the undercarriage thereby causing a greater drop in pressure. The vertically positioned side-flaps reduce aerodynamic turbulence. Fairing has been added to better isolate the diffuser from disturbances coming from the spinning wheel. Alterations have also been made to the fins: bigger and lower than before, their shape has been changed to direct airflow towards the diffuser. Lastly, cowlings on the rear suspension arm help augment the effectiveness of the diffuser and flat car-bed.

## SWAN-NECK SPOILER MOUNTS

The rear spoiler is fixed atop so-called 'swan-neck' mounts that add a sporty look and greater aerodynamic performance. While it has the same shape as the spoiler on the Alpine A110 S, a few features on the All-new A110 R make it unique. Pushed further to the rear, with a smaller incline for a smaller approach angle, it is a key aspect of the car's performance in terms of downforce and optimised drag. The swan-neck mounts enhance the spoiler's performance while reducing air lift on its underside. Given its location in a low-pressure environment, it is particularly sensitive to any disturbances that will alter its effectiveness.

## BRAND-NEW SIDE SKIRTS

The Alpine A110 R has been fitted with unique carbon-fibre side skirts in order to extend the underbelly out. The larger surface area means there is less turbulence along the car's length as it mitigates undercarriage disturbances. The rear-end of the skirts rise up in front of the rear wheel, thereby reducing backdraughts and protecting the rear wheel from the surrounding air. Greater stability guaranteed! Aesthetically, the new skirts connect the front lip with the rear diffusers for a more grounded look.

## DOUBLE-WALL EXHAUST

Alpine engineers and thermodynamics experts also worked on the exhaust. The A110's iconic dual exhaust, has been given a 3D-printed double wall to isolate exhaust gases and protect other nearby parts. The way it works is simple: the outer wall remains colder than the gases passing through the central exhaust, thus creating a balance between the inside and outside.



# MORE RADICAL AGAIN

While Alpine is already synonymous with "lightness", engineers have taken it even further, for greater performance on the circuit, and heightened driving pleasure on the open road.

## THE POWER OF CARBON FIBRE...

Thanks to the extensive use of carbon fibre – widely used in Formula 1 – both inside and out, the All-new Alpine A110 R weighs only 1,082kg, making it 34kg lighter than the A110 S. With its weight/power ratio lowered to 3.6kg/PS, it can run a full 1,000m from a standing start in just 21.9 seconds, ranking it among the best in its category.

## ... ON THE BONNET

Carbon fibre has been used most notably for the hood of the All-new Alpine A110 R. The entirely carbon fibre bonnet not only has a sportier look with more character, but it also weighs 2.9 kg less and provides improved all-round performance, including top speed. The bonnet also has two air intakes for enhanced aerodynamics, making it a key feature of the car's bold design, giving it a more radical feel.

## ...ON THE REAR WINDOW

While numerous technical characteristics reinforce the sporty feel of the All-new A110 R, its design gives it a bolder sense of character. The rear window, made entirely of carbon fibre, has thus become the highlight of the car's rear end. The new rear window now extends over the engine bay and features the third stop light in its centre. It also houses two intake valves that supply the engine with air and bear the Alpine brand's iconic snowflake.

## ... ON THE WHEELS

Developed in by the Alpine team along with the supplier, Duqueine, the unique, tailor-made wheels on the All-new Alpine A110 R are also entirely carbon fibre and designed with a triple purpose in mind: to improve the car's performance by reducing its weight; to optimize its aerodynamics; and provide better cooling for the brakes. As such, the wheels weigh 12.5kg less than on the A110 S. More open at the front and more closed at the rear, the wheels' have been given a unique design with fine-tuned dynamic performance, optimised drag, and improved brake cooling.

## ...ON THE SEATS

The single-shell Sabelt® seats on the All-new A110 R are both entirely made of carbon fibre and help lighten the car by a further 5kg. The driver and passenger seats are equipped with a 6-point safety harness. They embody the sports car feel and guarantee unique comfort and support when cornering and driving at high speeds.





# READY TO BEAT THE CLOCK

Thanks to the unprecedented coupling of agility and performance, the All-new Alpine A110 R is a true race car with certification for the open road, designed to beat the clock no matter the circumstances.



## FROM 0 TO 100KM/H IN 3.9 SECONDS

Powered by a 4-cylinder 1.8 turbo coupled to a 7-speed wet dual-clutch automatic transmission, the All-new Alpine A110 R has the perfect set of muscles under the bonnet built for performance. Maximum torque of 340Nm is available from 2,400rpm and maximum power of 300HP at 6,300rpm. With the Launch Control automatic start function, this brand-new sports car can shoot up to 100km/h in just 3.9 seconds, for a maximum speed of 285 km/h. With performance like that, this car is clearly in pole position for the A110 range.

## EXCLUSIVE CHASSIS

Adjustments and custom-made features on the All-new Alpine A110 R chassis are game changers, imbuing the car with unprecedented performance on the racetrack. The clearance has been lowered by 10mm

compared to the A110 S. The adjustable shock absorbers mean it can be lowered a further 10mm for an ultimate on-track experience. The stiffness of the unique anti-cant bars has been increased 10% in the front and 25% in the rear compared to the A110 S. The same can be said for the suspension springs that are more than 10% stiffer in the front and rear for far greater body support. Specially designed shock absorbers feature hydraulic adjustment for a personalised driving experience. A 20-click ring can be used to adjust the compression / expansion ratio, meaning car enthusiasts can really get the most out of their circuit driving sessions.

## HIGH PERFORMANCE TYRES

The standard All-new Alpine A110 R comes fitted with Michelin Pilot Sport Cup 2 semi-slick tyres (215/40 R18 at the front and 245/40 R18 at

the rear). When paired with the car's exclusive chassis, these high-performance tyres can be used on both closed circuits and the open road. Compared to standard tyres, semi-slick tires provide more stability and cornering control (reinforced structure, 15% more grip, greater on-track longevity and more transverse acceleration). All in all, that means an improvement of 0.5 seconds per km on the racetrack.

## POWERFUL BRAKING SYSTEM

The Brembo high-performance braking system on the All-new A110 R features 320mm diameter composite discs at the front and rear. To perform at the level required by the on-track speed and behaviour, engineers devised an exclusive cooling system for the brakes, with four specific parts. Scoops mounted on either side of the upper arms of the front axle and ducts attached to the

fairing, below the car, serve to better direct the air towards the brake discs in order to cool them down. Their combined input translates into a 20% improvement of the brake cooling system.

## PERSONALISED DRIVING

As with the other cars in the range, the All-new Alpine A110 R boasts three customisable driving modes for greater enjoyment: Normal, Sport, and Track. Responsiveness of the accelerator and engine, power-steering sensitivity, gear shifts, and ESC sensitivity all change according to the chosen mode. The specific use of each mode is as follows:

- **Normal** - the combination of smooth everyday driving with low fuel use.
- **Sport** - optimised engine and gearbox management for a dynamic, sporty drive: reactive accelerator, specific deceleration, quick upshifts, with the possibility of multi-downshift and with increased revs (smart

throttling like double clutching) between each downshift.

• **Track** - primised for track driving, with faster gear changes that are controlled exclusively via the steering wheel paddle shifters. This mode includes a specific ESC setting to push the car's limits when on a track. There is an 'ESC off' mode for expert drivers.

## ALPINE'S HALLMARK SPORTY SOUND

A roar that is readily recognisable as a sound signature worthy of the Alpine name! The exhaust system with post-injection and double-wall exhaust pipes on the All-new A110 R offer a more assertive sound. Improvements made to the shape of the double-wall exhaust and the removal of the exhaust valve mean the car emits a far more harmonious sound. Noise from excess air has also been reduced, bringing the car's sound more in line with the Alpine

signature. The completely overhauled interior soundscape makes for a more intense experience and heightened engine feel. Increased noise from the engine has been enhanced through the replacement of the glass partition by a lighter cut-aluminium partition, the addition of tie rods, the removal of engine soundproofing, and the continued presence of an intake resonator at the intake, thereby enhancing the brightness of the car's sound.

## EXCEPTIONAL ENERGY EFFICIENCY

The All-new Alpine A110 R boasts unique fuel efficiency. By far the lightest in its class and with aerodynamics that combine low drag and high downforce, this most recent sports car boasts maximum fuel efficiency in all driving conditions that translates into an exceptionally low CO2 emission (1/3 less than the competition) and reduced fuel use!

# INSPIRED BY MOTOR RACING

An assertive and unique sporting style that is readily felt on both the interior and exterior of the All-new Alpine A110 R. A race car atmosphere that says: settle in and get ready for the unique sensations this car can give.

## THE A522 COLOUR

The launch colour for the All-new Alpine A110 R, Racing Matte Blue, is the same as that used on the Formula 1 A522. Blue, but also red, carbon fibre, and microfibre: all colours and materials that draw inspiration from the Grands Prix starting grid and the unique sensations from the track. The 100% carbon fibre roof features a gloss black finish.

## "R" IN EVERY DETAIL!

A unique plaque that incorporates the car's silhouette and which has been mounted into the console, was designed specifically for the model.

## REAL-TIME PERFORMANCE DATA

The standard model comes with the 'Alpine Telematics' on-board telemetry system using pressure gauges and histograms to display real-time technical data on turbo pressure, gearbox temperature, torque, power, steering wheel angle, and accelerometer. The integrated chronograph can be used to measure and record performances during on-track sessions.

## THE CARBON PACK, FOR A MORE RADICAL IDENTITY

New parts such as the front and rear bonnet, new diffuser, and side skirts feed into the expected look for the All-new Alpine A110 R. Clear-cut, deliberate choices, such as the opaque rear bonnet, make for an overall design full of character and emotion! The carbon pack has been developed with the supplier Carl Composites.

## A RACE CAR ATMOSPHERE

The interior of the Alpine A110 R is made entirely of microfibre fabric - even the trim of the door panels! Red straps have been used instead of the traditional door handles as a nod to the world of motorsports. The steering wheel is also upholstered in microfibre with grey stitching. An intelligent blend of aesthetics, authenticity, and efficient design, for a truly sporty interior.

## RACE-LIKE CARBON FIBRE SEATS

The single-shell Sabelt Track seats on the A110 R are inspired by the world of motor racing. With their unique, carbon-fibre design, microfibre upholstery and grey stitching, they embody the world of sports cars. Equipped with 6-point competition harnesses, the seats ensure optimal support for driver and passenger alike. The seats also feature a 'Seat Belt Reminder' warning. The driver's seat has front-back and up-down adjustments, whereas the passenger seat remains fixed, for added comfort. The letter 'A', embroidered on the headrests, reflects Alpine's unique brand identity.

# TECHNICAL SPECS



## Overview of the All-new Alpine A110 R:

- 1.8L 4-cylindre engine
- 300HP
- Weight/power ratio - 3.6kg/PS
- 0 to 100km/h in 3.9 seconds
- 340Nm of torque from 2,400 to 6,000rpm
- Top speed 285km/h
- Chassis: recalibrated anti-roll springs and bars, specific axle geometry, coil springs 10% stiffer, specific anti-cant bars, adjustable spring/shock absorber settings, ride height 10mm lower, further 10mm drop possible when on racetrack
- Kerb weight - 1,082kg
- Sport exhaust system
- Brembo® high-performance braking system, 320mm composite front and rear discs
- 100% carbon fibre 18" rims
- Michelin Pilot Sport Cup 2 Connect semi-slick tyres (215/40 R18 at the front and 245/40 R18 at the rear).
- Single-shell carbon-fibre Sabelt® Track seats (up-down / front-back adjustable for driver) with black carbon fibre-fibre-microfibre blend upholstery with grey stitching

## ABOUT ALPINE

Founded in 1955 by Jean Rédélé, the brand has set itself apart with its French-style sports cars. In 2018, the brand presented the new A110, a sports car faithful to Alpine's timeless principles of compactness, lightness, agility and driving pleasure. The Alpine Business Unit was created in 2021 and thus became the brand dedicated to innovative, authentic, exclusive sportscars of the Renault Group, benefiting from the heritage and craftsmanship of its historic plant in Dieppe and the Alpine Racing and Alpine Cars teams engineering mastery.

