



Service Bulletin

Bulletin No.: 22-NA-160

Date: August, 2022

INFORMATION

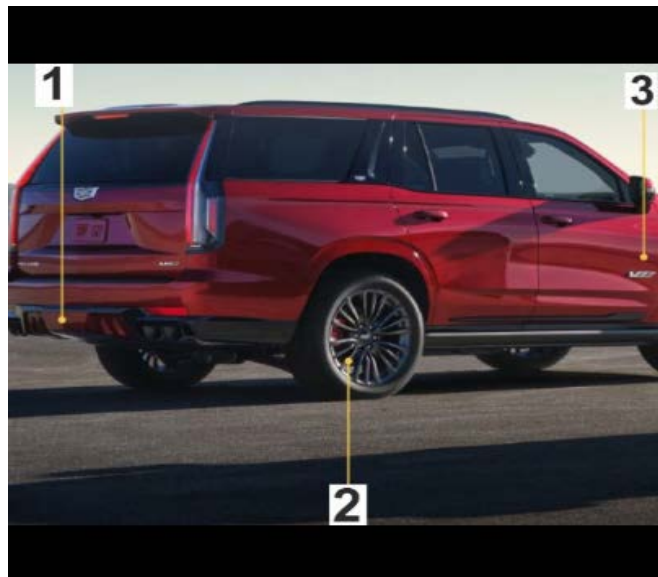
Subject: 2023 Cadillac Escalade - V New Model Features

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade-V	2023	2023				

Introduction/Overview



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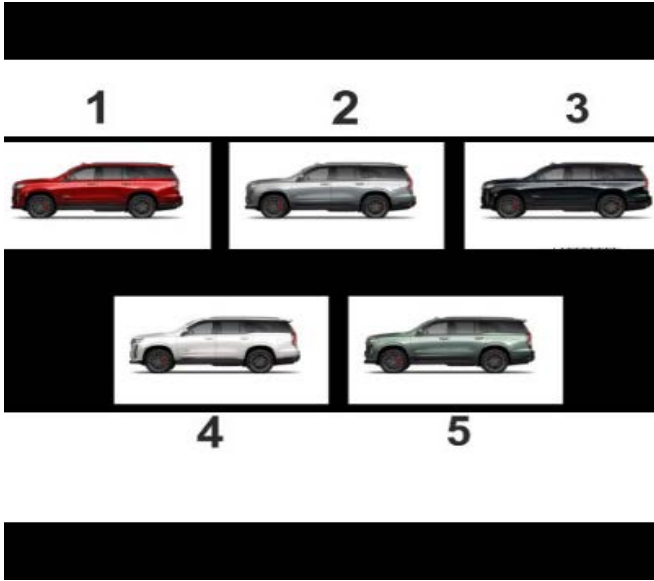
1. Rear Fascia w/ Dark Quad Exhaust
2. Unique 22-inch Wheel Design
3. Exterior V-Series Badges — Side Doors and Liftgate



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1. Bold Front Fascia
2. Front Brembo Brakes w/ Edge Red Finish
3. Available LPO Accessory Wheel

Exterior Color Options



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- 1. Radiant Red
- 2. Sharkskin Metallic
- 3. Black Raven
- 4. Crystal White
- 5. Cypress

Cluster Graphics



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Exterior Design



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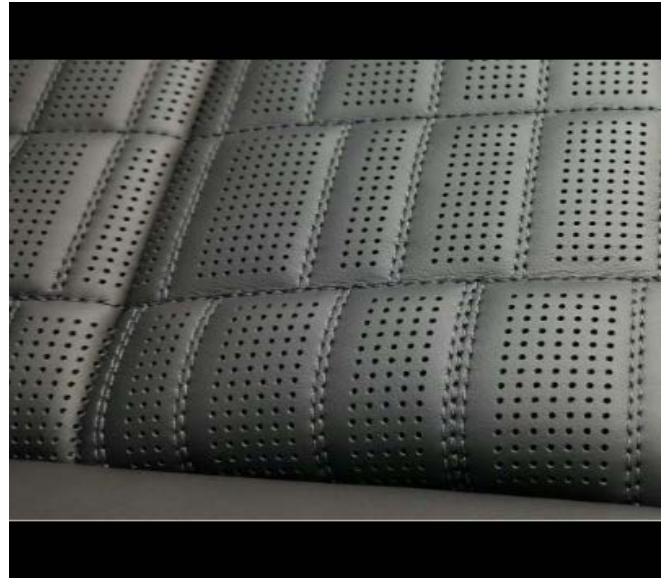


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Interior Design



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Interior Summary

- Interior design language indicates power, speed and movement
- Heritage inspired Mondrian quilting on the seats
- Fine details: V badging, Edge Red key fob matched to the brake calipers

Integration & Performance

From Cadillac's start in racing in 1949, there has been knowledge, process, design, technology, and inspiration transfer between its race and production vehicles. Advancements in design, propulsion, braking, aerodynamics, steering, materials, electronics, tires, development, validation, and much more are shared.

This transfer and sharing continue with the Escalade-V. The V-Series branding added to the Escalade adds the performance and enthusiasm from the sedans to the fully robust and capable SUV.

Performance

ENGINE: 6.2L SUPERCHARGED V8 (ESCALADE-V)

Each 6.2L Supercharged V8 for the Escalade-V is hand-built at the GM Performance Build Center in Bowling Green KY.

- Each stage of production is supervised by an individual engine builder who stays with the engine from the initial loading of the crankshaft through the addition of Escalade-V exclusive details such as the unique Mondrian-pattern engine cover and personally-signed engine builder's plate

The Escalade-V is powered by an updated version of the V8 from the 2022 Cadillac CT5-V Blackwing, resulting in the highest-output engine in Cadillac's history –

- A 6.2L supercharged V8 that delivers 682 horsepower and 653 lb-ft of torque
- Through an AWD system, allowing this extremely capable SUV to provide exhilarating acceleration combined with excellent payload and towing ratings

Innovative features of this fifth-generation aluminum engine include:

- Fuel-efficient direct injection with continuously variable valve timing
- Improved airflow path with low-restriction airbox and a full dual exhaust system tuned to let you know the Escalade-V is not messing around
- Largest production supercharger available from Eaton, a 2650 R-Series TVS Supercharger with 4-lobe, 160-degree helix rotor design previously used in Corvette ZR1 LT5
- High Strength aluminum cylinder heads that are stronger and handle heat better than conventional aluminum heads. These support the engine's higher output and the greater cylinder pressures created by the engine's forced induction. The cylinder head includes weight-saving titanium intake valves
- Powertrain launch control optimized for the AWD system that helps get the engine's output to the pavement for blistering performance

LT4 Piston / Rod

- Forged pistons
- DLC (diamond-like coating) piston pins
- Racing-style steel rod with machined / doweled joint

Lube and Vent System

- Variable-displacement oil pump
- Continuously adjust oil flows to maintain proper oil pressure at bearings
- Dual-pressure capability
- Center port fresh air PCV fittings in the rocker covers as used in the Police Pursuit Tahoe

LT4 Combustion System

- Gen 5 combustion system
- 10.0: 1 CR
- Premium fuel required
- LT1 ports
- Compact chamber and piston topography for optimized mixing and combustion
- Titanium compatible intake seats
- Hundreds of iterations of combustion systems analyzed
- Over 6 million hours of CPU time dedicated to combustion system optimization
- SAE paper 2013-01-1732 Development of the Combustion System for the General Motors Fifth Generation "Small Block" Engine Family

LT4 T1 Supercharger

- New supercharger cover top plate with Mondrian-inspired design specific for Cadillac Escalade-V
- Carryover Corvette ZR1 LT5 air path and charge air coolers instead of open cover in Cadillac CT5-V. All supercharged air goes through coolers to reduce temperature and increase density of combustion air. Bypassed air is also cooled for lower inlet temperatures and avoid recirculating hot air.
- Added coolant crossover for the Escalade-V application to optimize coolant flow balancing between charge air cooler banks
- Additional third cooling fan for improved cooling/intercooler performance
- Largest production supercharger available from Eaton, a 2650 R-Series TVS Supercharger with 4-lobe, 160-degree helix rotor design previously used in Corvette ZR1 LT5
- Electronically actuated bypass enables lower parasitic losses during non-boosted operation
- Lower 2.15 pulley drive ratio compared to previous GM supercharged applications results in more airflow at lower engine speeds and more torque and power
- Higher flow Direct Injection fuel system allows removal of secondary LT5 PFI injectors and associated doghouses to open up airflow streamlines into the cylinders

Fuel Delivery

- Direct injection
- Higher flow fuel pump
 - 2900 psi (20 MPa) operating pressure (LT1 was 15 MPa)
- New fuel rail assembly
- High flow injectors
 - 25 cc/second flow (LT1 was 20 cc/second)
 - Fuel spray cone for optimized combustion

Valve and Camshaft Systems

- Titanium intake valves
- Continuously variable valve timing
- Camshaft previously used on Corvette ZR1 LT5
- Cam intake and exhaust lift optimized for LT4's high flow combustion system performance, accounting for short intake runners and supercharged manifold dynamics

Transmission: Standard 10-Speed Automatic

The V-Series Escalade is equipped with the Hydra-Matic 10-Speed electronically controlled automatic transmission. This 10L90 Transmission offers world-class refinement, shift times and towing capacity to provide a truly unique and amazing driving experience in this extremely capable SUV.

- First GM offering of TAP shifting in a performance SUV
- Exhilarating launch performance provided by optimized system
- The 10L90 V-Series Escalade has increased first gear torque capability to levels never before offered
- World-class shift times and smoothness coupled with highly capable towing
- The transmission adapts and anticipates the next shift to deliver unmatched response and refinement
- The 10L90 offers gear states with smaller steps between gears, enabling the engine to run at peak performance & efficiency
- Precision control: Transmission uses a unique Cadillac-developed control system, with performance calibrations tailored specifically for V-Series Escalade. Intelligent controls automatically adjust to the needs of the driver to deliver a winning combination of smooth operation and aggressive response.
- Enhanced Sport Mode: This impressive mode offers a unique DPM calibration, shifting pattern and performance shift tuning with tailored sporty pedal mapping.
- Dynamic Performance Mode: Automatically activated by high g-forces generated by spirited driving when in Sport or V mode. Dynamic Performance Mode automatically selects the correct gear, providing smoother, faster shifts that help deliver an overall amazing driving experience. The Dynamic Performance Mode (DPM) calibration for the V-Series Escalade vehicles is tuned to deliver more aggressive focused shift patterns based on g-forces, acceleration, and deceleration rates.
- Tap Shift/Manual Mode: Integrated steering wheel paddles allow the driver to select a gear and experience the speed and precision of the new 10-speed on demand. Electronic safeguards prevent over-revving if the wrong gear position is selected but relies on the driver to make upshifts or downshifts. Drivers who choose this manual

mode are rewarded with shifts that are quick and crisp, accompanied by unique V-Series Escalade exhaust character.

- Sport Mode or V Mode: Real-time interpretation of driving conditions adjust the transmission operation to reduce shift busyness and improve performance while delivering aggressive, sticky driving dynamics.
- Tow/Haul Mode - Intuitive uphill and downhill detection: The system detects the grade the vehicle is on and adjusts accordingly. When going uphill, the system will select the correct gear and reduce overall shift busyness. On downhill grades, the system will automatically downshift to help reduce driver fatigue and stress on the brakes (improving brake life). Taken together, these features help drivers who do not have a great deal of mountain driving experience appear more confident during mountain driving.

Integration: Suspension

- The Ride and Handling tuning of the V-Series Escalade balances the incredible straight-line performance with capable handling during spirited driving conditions
- Air Ride Adaptive Suspension – specifically developed for Escalade-V
 - The ride height automatically lowers 20mm to Aero height at all speeds when the V-mode button is pressed
- Magnetic Ride Control 4.0 - specifically tuned to provide a unique driving experience between vehicle Drive Modes

Integration: Brakes / Wheels

- V-Series 22" diameter 9" wide styled wheel
- Edge Red painted piston front Brembo brake calipers and 1" diameter front rotors combined with Edge Red rear calipers deliver controlled braking

Integration: Driveline

Reinforced Full Time Active

AWD T-Case

- Larger front output bearing
- Unique driveline torque distribution based on driver mode

ELSD (Electronic Limited Slip Differential) – optimized specifically for the increased torque output of the V-Series engine

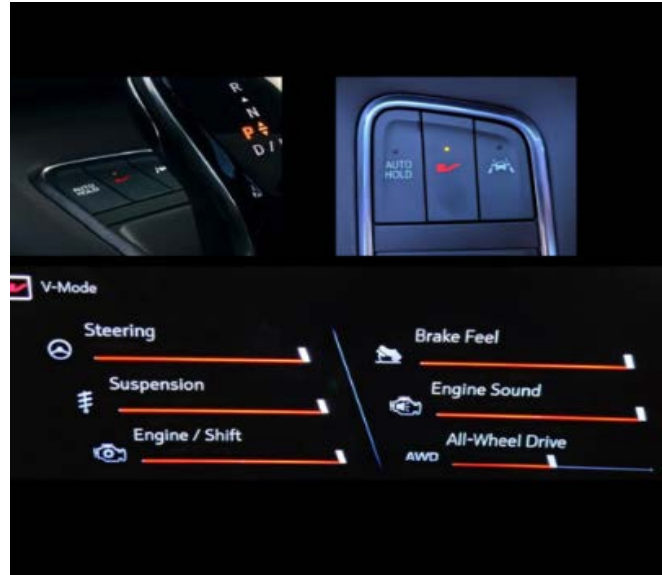
Launch Control – optimizes vehicle launch performance for consistent 0-60 times

Integration: Exhaust

- Exhaust tuning: The tuning of the exhaust system was designed and developed to perfection to produce high performance and a powerful attention-grabbing sound
- Dual 70mm pipe diameter full equal length low restriction exhaust system with an X pipe, dual mufflers and ECM controlled exhaust valves

- Customizable performance sound with pops and burbles in V-mode or Sport mode or a tamed down sound in Tour mode
- Black quad tipped exhausts exits through dual openings in the rear fascia

Integration: V-Mode



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V-Mode Mode: V-Mode allows the customer to select their preferred performance driving conditions. By pressing the V-Mode button the vehicle will lower 20 mm and adjusts to the driver's preferred level of performance:

- Steering
- Suspension
- Engine/Shift
- Brake Feel
- Engine Sound
- All-Wheel Drive
- Enables Launch control
- Peak launch performance occurs when the Launch Control system is enabled in V-mode
- Capable of runs under 4.4 sec 0-60 mph, 12.74 sec ¼ mile
- To activate Launch Control Mode: Hold Brake Pedal Firmly while Simultaneously apply Throttle to 100%. TCS Active Light will flash when ready and vehicle will hold at steady RPM. Upon release the vehicle will accelerate with Maximum Capability, depending on wheel slip system will self calibrate to provide optimal launches.

Version	1
Modified	Released August 11, 2022

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