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**MITSUBISHI OUTLANDER BRINGS SPORT SEDAN DYNAMICS TO COMPACT
SPORT-UTILITY VEHICLE SEGMENT, WITH SOPHISTICATED SUSPENSION, ADVANCED
STABILITY AND TRACTION CONTROL, FOUR-WHEEL DRIVE AND ALUMINUM ROOF**

The next-generation Mitsubishi Outlander, introduced for the 2007 model year, is based on a new global performance-engineered platform that also forms the foundation for the new Lancer and 2008 Lancer Evolution models. As such, the Outlander was engineered from wheels to roof to give the driver a confident feel behind the wheel.

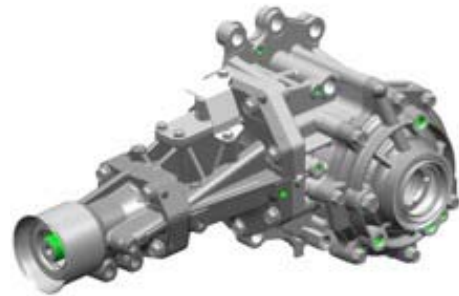
The engineering that went into making the Outlander a driver's SUV reflects Mitsubishi's renowned motorsports expertise. In 2007, Mitsubishi scored its seventh consecutive win in the Paris-to-Dakar off-road endurance race in a special competition-built Montero SUV.

Each of the three trim lines offered for the 2008 Outlander – the new 4-cylinder ES, the V-6 LS and the sport/luxury XLS – is available with standard front-wheel drive or an available electronically controlled 4-wheel drive system – All-Wheel Control (AWC). Mitsubishi's All-Wheel Control philosophy for Outlander combines electronically controlled 4-wheel drive with Active Stability Control with electronic traction control (TCL) and a tuned suspension, plus an aluminum roof that helps to lower the center of gravity for better handling response.

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Real World 4-Wheel Drive Performance and Benefits

Mitsubishi studied real-world usage of 4-wheel drive systems to determine what type of technology would be most effective for vehicle control, and most useful to the compact SUV customer. At the same time, the goal was to ensure that 4-wheel drive capability did not unduly impact fuel economy. Mitsubishi rejected the increasingly common solution to this challenge, which is to use an automatic “on-demand, part-time” type 4-wheel drive system as used by some competitors. Such systems rely purely on slippage at the front wheels before channeling power to the rear wheels. Mitsubishi felt customers in this segment would be best served by a system that could proactively reduce the likelihood of wheel slippage.



Outlander 4WD transfer case is located just ahead of rear differential for optimal weight distribution.

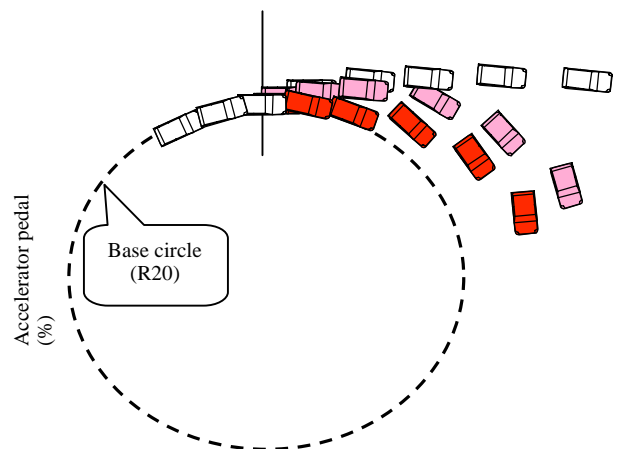
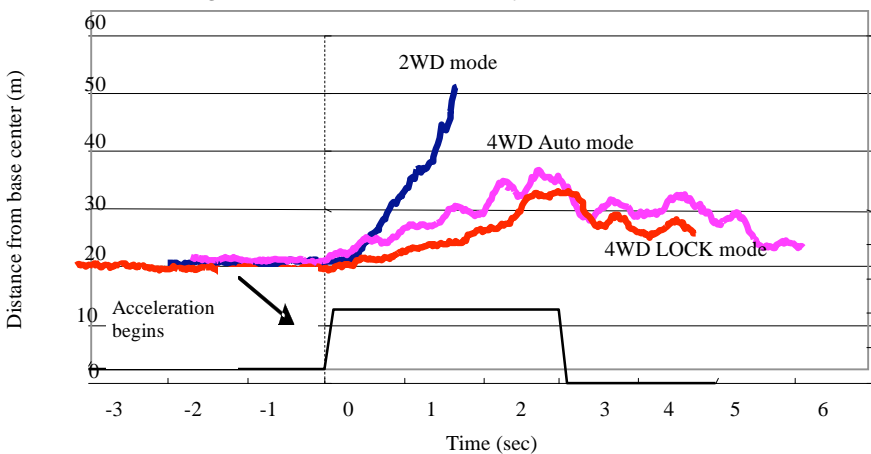
All-Wheel Control with Advanced 4-Wheel Drive

The next-generation Outlander gives the driver a choice among vehicle drive modes. Standard front-wheel drive is augmented by the Active Stability Control (ASC) system, which includes traction control for better grip on slippery surfaces.



4WD LOCK mode

With the optional 4-wheel drive system, the driver uses a drive-mode dial on the center console to select “FWD” for best fuel economy or one of the two 4WD modes – 4WD or Lock – to optimize traction performance for driving conditions or handling performance. The driver can freely change the drive mode at any time.



In 4WD or Lock modes, the system uses an electronically controlled transfer clutch to automatically and seamlessly route variable power to the rear wheels, depending on driving and road surface conditions. In either 4WD or Lock modes, the system routes more torque to the rear wheels under acceleration (more in Lock mode). At low speeds through tight corners, coupling torque is reduced, providing a smoother feel through the corner.

In Outlander, Lock mode can operate at all speeds, sending more torque to the rear wheels (but still variable) than in 4WD mode to enhance agility on dry roads and to help improve traction on slippery surfaces. In contrast, the Lock mode in some competitive vehicles' 4WD systems is only for driving at low speeds on very slippery or loose surfaces.

Drive Mode	Overview of Control	Benefit
2WD	Distributes all torque to front wheels	Best fuel economy
4WD Auto	Distributes variable torque to rear wheels depending on accelerator pedal position and front-to-rear wheel speed difference	Delivers the optimal amount of torque for driving conditions
4WD Lock	Delivers 1.5 times more torque to the rear wheels than 4WD mode	Increases off-the-line traction; provides greater high-speed stability and best performance on rough or slippery surfaces.

How the Electronic Coupling Works

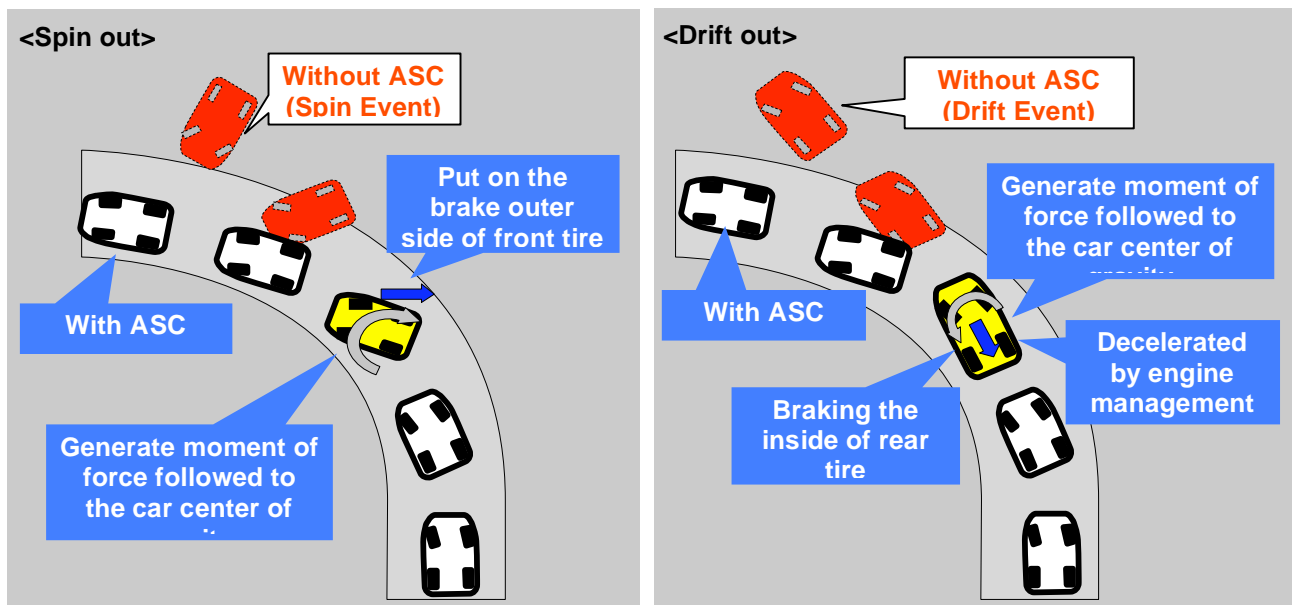
Coupling torque is computed using a combination of feed-forward control, which operates in response to accelerator pedal action, and feedback control, which monitors the speed of the four wheels and computes any difference between front and rear wheel rotation speeds. Information on accelerator pedal position and vehicle speed is received via the CAN bus. The system interprets driving conditions and driver input and delivers the right amount of torque to the rear wheels. Current passes through a magneto, generating magnetic force that engages a pilot clutch. In response to this force, the ball in the cam mechanism bites in and generates thrust. The force of this thrust pushes the main clutch and torque is transferred to the rear wheels.

The aluminum transfer coupling is located near the rear differential for optimal weight distribution. At 39.2 lbs., the coupling is 16.8 lbs. lighter than the previous-generation Outlander's

transfer case – a significant weight reduction in a strategic location. A new three-point differential mounting system with reduced gear offset between the propeller shaft and the coupling helps to reduce friction, noise and vibration and also contribute to better fuel economy.

Active Stability Control

The new-generation Outlander features standard Active Stability Control (ASC) on all models. The previous-generation Outlander did not offer such a system. ASC helps to prevent side slipping (spin and side drift) as a result of sudden steering wheel operation or on slippery roads. Overall vehicle stability is enhanced in all driving conditions, lending an extra measure of confidence in wet or snowy weather.



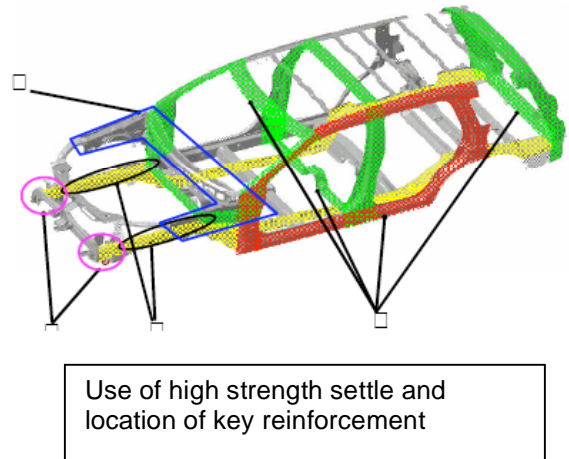
In FWD Outlander models – and under all driving modes in 4WD models – ASC helps keep the vehicle traveling in the driver's intended direction. The ASC system takes data input from a number of sensors, including steering angle, individual wheel speed and yaw, as well as from the powertrain electronic control unit (ECU).

When it detects side-slipping or wheel spin, ASC provides integrated control of brakes,

engine torque (via the electronic throttle control), transmission and electronically controlled 4WD to improve vehicle stability. The high-speed CAN bus facilitates communication between the engine, transmission and 4WD system.

The traction control portion of ASC provides a “virtual” limited-slip differential effect by helping to prevent wheel spin during start up and acceleration in slippery conditions. Even if the driver has not selected 4WD Auto or 4WD Lock modes on a 4WD Outlander model, front wheel spin can be controlled under a variety of conditions. Since a mechanical limited-slip differential is not required, weight is reduced.

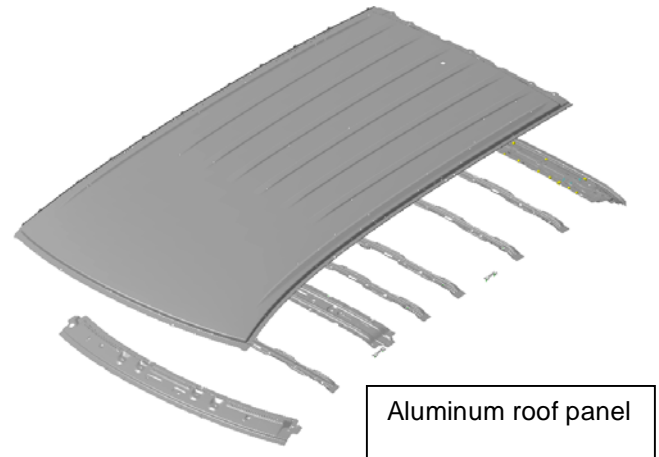
Whenever ASC intervenes, a warning light flashes in the liquid crystal display inside the instrument panel, signaling the driver that the system is operating and that the vehicle has reached a driving limit. An ASC OFF switch allows the driver to disengage the system. Instances where that could be useful include driving the vehicle through deep snow, or out of a snowed-in parking space. In such situations, traction control could be a hindrance. The electronically controlled 4WD system does not rely on traction control to distribute power; power distribution is controlled through the electronically controlled viscous coupling, with ASC influencing that as needed.



High-Strength Structure with Aluminum Roof

The next-generation Outlander is built around Mitsubishi’s next-generation Reinforced Impact Safety Evolution (RISE) unibody design. The highly rigid structure, which makes extensive use of high-strength steel, allows sport suspension tuning without compromising a smooth, compliant ride. Compared to the previous-generation Outlander, torsional rigidity is increased by 18 percent, and bending rigidity is up by 39 percent.

One of the most significant handling-oriented features in the Outlander is found above, not beneath. Borrowing a lesson learned from the Lancer Evolution, the Outlander's steel-reinforced aluminum roof removes 11 pounds compared to a conventional steel roof, helping to lower the vehicle's center of gravity. A lower center of gravity helps to reduce body roll in handling maneuvers and enhances steering response; the aluminum roof achieves these goals without affecting ride quality, as stiffer suspension tuning.

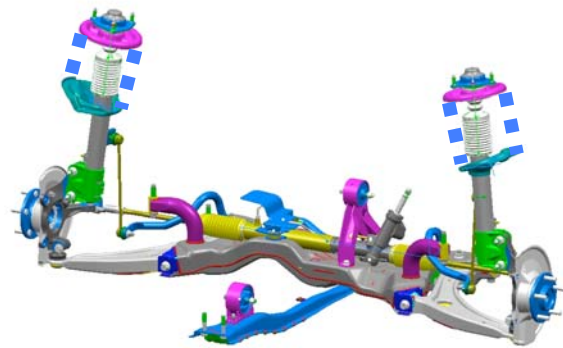


Of special note is that the aluminum roof is three times more effective at lowering a vehicle's center of gravity than lower aluminum body panels would be.

Earning the “Sport” in Sport Utility Vehicle

In their approach to Outlander dynamics, Mitsubishi engineers rejected the “stiff suspension and wide tires” approach often applied to make SUVs generate impressive cornering figures. The result is a compact sport-utility vehicle that will surprise and delight the driver with handling dynamics, stability and a level of driver engagement uncommon in the segment.

A longer wheelbase (105.1 in. vs. 103.3 in. for previous Outlander) and wider track – in conjunction with the aluminum roof – contribute to enhanced stability in the next-generation Outlander. Front track is widened by 1.7 in. and rear track by 1.3 in. Suspension travel is increased by 0.4 in. compared to the previous model, enhancing road-holding performance, even on rough surfaces. Impact shock over uneven surfaces is also reduced.

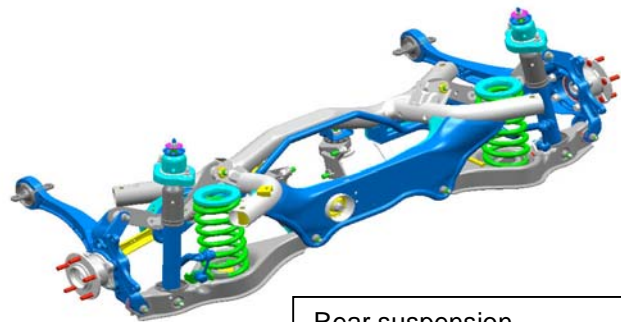


Front suspension

The MacPherson strut front suspension is similar in layout to the previous Outlander's, but all-new, with a sharpened focus on enhancing rigidity while reducing weight and lowering the roll center. The front stabilizer bar diameter is 0.9 in. Strut tower bars enhance lateral rigidity for precise steering response, and lower arm attachment points and steering knuckles have been strengthened. Combined, these changes, along with retuned lower arm bushings, contribute to quicker steering response, for a handling feel not generally found in SUVs.

The Outlander's all new trailing-arm type multi-link rear suspension, is designed to provide a balance of handling performance and ride comfort more like a sport sedan than an SUV. Using separate coil springs and shock absorbers helps maximize cargo space. The rack-type crossmember is lightened, yet its rigidity increased to enhance handling response.

Compared with the current Outlander, the toe control arm is located lower down and camber rigidity increased to deliver better steering stability. Locating the trailing arm bushing higher up improves suspension operation when traversing rough surfaces and enhanced ride comfort. Rear stabilizer bar diameter is 0.8 in.



Rear suspension

Shock absorber piston diameter is increased from 0.98 in. for the previous Outlander to 1.18 in. to improve steering stability and ride comfort for the new model. Also contributing to steering stability in the new Outlander are ball joint type stabilizer bar links and a new hub unit bearing that provides higher camber and toe rigidity.

Steering Worthy of a Sport Sedan

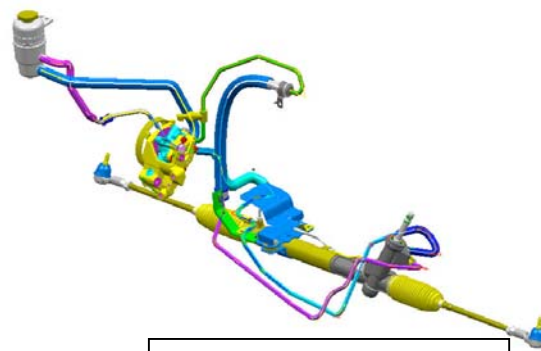
Even drivers accustomed to car-based SUVs will experience a pleasant surprise from the 2008 Outlander's crisp, fluid steering response. Changes within the steering system itself greatly contribute to the improved steering response and feel, yet the full effect of the precision response

is the combined result of the rigid body structure with aluminum roof and new suspension design and tuning.

The new steering rack has a larger diameter than the previous model (1.02 in. vs. 0.98 in.). The biggest change is in the new, more rigid mounting method. Supporting the steering gear cross member with a bushing fitted with an internal cylinder provides higher rigidity and enhances steering feel. Pump flow and gear valve characteristics have been optimized, and stability is improved through the addition of a valve to prevent oil backflow, which helps reduce kick-back from bumps.

The optimized steering column layout features joint friction-reduction parts that improve steering feel (reduce torque fluctuation). Support stiffness at the steering wheel end of the steering column is increased by 20 percent compared to the previous model, reducing steering wheel vibration. Dampers used on the intermediate shaft help reduce shimmy.

Mitsubishi found opportunities in the steering system to improve fuel efficiency. Using a sensor instead of the conventional On/Off switch as a power steering pressure detection method improves engine idling rpm control. Fine-sensing of pressure within the power steering allows finer engine speed control, reduced wasteful over-revving and improved fuel economy. Finally, as part of the effort to reduce noise from even the smallest sources, optimal tuning of the flexible hose inside the high-pressure hose reduces steering pump noise.



Outlander power steering rack assembly

Powerful Four-Wheel Disc Brakes

The Outlander gets an all-new braking system, featuring a new single 10-in. brake booster, compared to the tandem 8 + 9-in. configuration in the previous model. The single booster, with a

long-stroke master cylinder, improves boost power and brake feel. All Outlander models use a four-wheel disc brake system, featuring 11.5-in. ventilated rotors in front and 11.8-in. solid rotors in the rear. Rotors are 1.00 in. thick in front and 0.4 in. thick in the rear. Additionally, higher friction coefficient pads improve performance.

The front brakes utilize powerful dual-piston calipers, with single-piston calipers at the rear. The standard anti-lock braking system (ABS) incorporates Electronic Brake-force Distribution (EBD) on all Outlander models. A change in the surface treatments for both the calipers and rotors eliminates hazardous materials.

Wheels and Tires

Outlander ES models feature standard 16-in. steel wheels (with spoke-design covers) with 215/70 R16 tires. Alloy 16-inch wheels are optional on the ES and standard on the LS. On XLS models, standard 18-inch aluminum-alloy wheels with 225/55 R18 all-season tires further enhance handling response and accentuate the sporty stance of the vehicle.

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