

Basic Safety Technologies for supporting Triple Safety

Most technologies applied in vehicles are used to help driving safety and driver peace of mind. The technologies of Triple Safety (the three citadels of safety) focus on the processes that cause accidents, but there are also many other technologies supporting safe driving. Nissan considers these as the basic technologies supporting Triple Safety.

Multi-Link Suspension

A system that keeps tire movement in a nearly ideal state, for both riding comfort and superb handling and stability, the front Multi-Link Suspension is designed to respond accurately to the steering wheel input, and to accurately communicate road conditions to the driver. This provides excellent stability at high speeds and improved stability during cornering and braking. The rear Multi-Link Suspension keeps the tires perpendicular to the road to bring out the tires' maximum performance for improved road-gripping performance when cornering on bumpy or wavy roads, and improved straight-line vehicle stability.



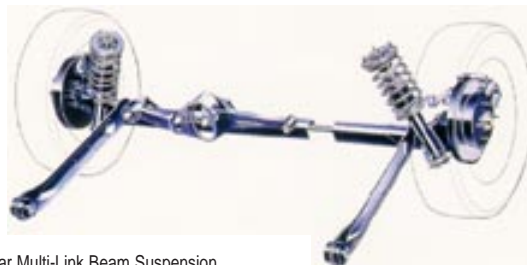
Front Multi-Link Suspension



Rear Multi-Link Suspension

Rear Multi-link Beam Suspension

A system that keeps tire movement in a nearly ideal state, for both riding comfort and superb handling and stability, the rear Multi-Link Beam Suspension is designed to keep the tires perpendicular to the road to bring out the maximum performance of the tires (including the front tires) of a front-wheel-drive vehicle, this system improves vehicle stability during straight driving and braking.

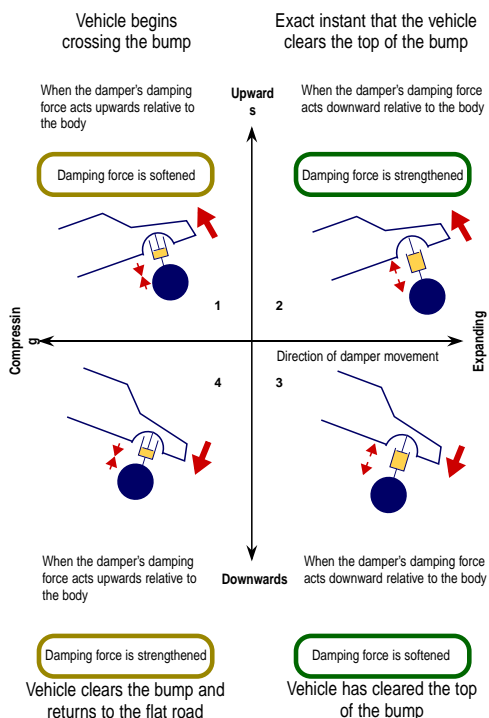
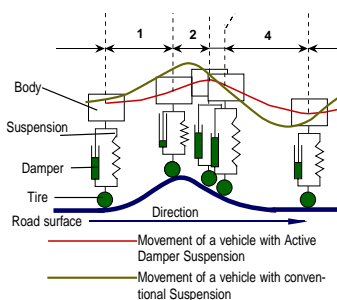


Rear Multi-Link Beam Suspension

Active Damper Suspension

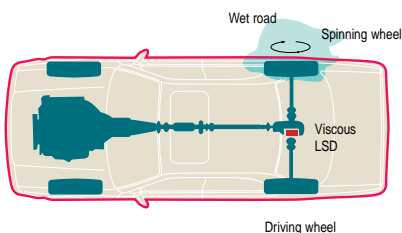
In this system, the damper's* damping force is controlled electronically at high speed according to the bumps in the road so that the suspension strokes smoothly, thereby increasing tire traction when driving on bumpy roads and improving driving stability. In addition, the decrease in vehicle body pitching and rolling means lower occupant fatigue.

*Damper: A general term for any device that actively restrains mechanical or electrical vibration.



Viscous LSD (Limited Slip Differential)

When trying to start on a snowy road or other slippery road surface, one wheel can lose traction and spin, preventing the car from starting smoothly. Similarly, even while the car is moving, tires can spin repeatedly, lowering the vehicle's driving stability. In such situations, Viscous LSD reduces tire spinning according to the difference in rotational frequency between the left and right tires. Thus, drive force is effectively transferred to the road surface, and both starting and driving stability on slippery roads are improved.



V-TCS (Viscous Traction Control System)

V-TCS is a drive force control system combining TCS (Traction Control System) with Viscous LSD. TCS uses electronic control to prevent wheel spin by reducing drive torque the instant that wheel spin starts, for improved starting, acceleration and vehicle stability. By combining this system with Viscous LSD, drive force is distributed to the left and right drive wheels more accurately for improved forward stability during strong side winds on expressways, and improved driving stability when accelerating, decelerating and cornering.



V-TCS System

Improves vehicle stability when braking on slippery road surfaces

