



19MO631- AUTOTRONICS UNIT 5 - CHASSIS AND SAFETY SYSTEMS

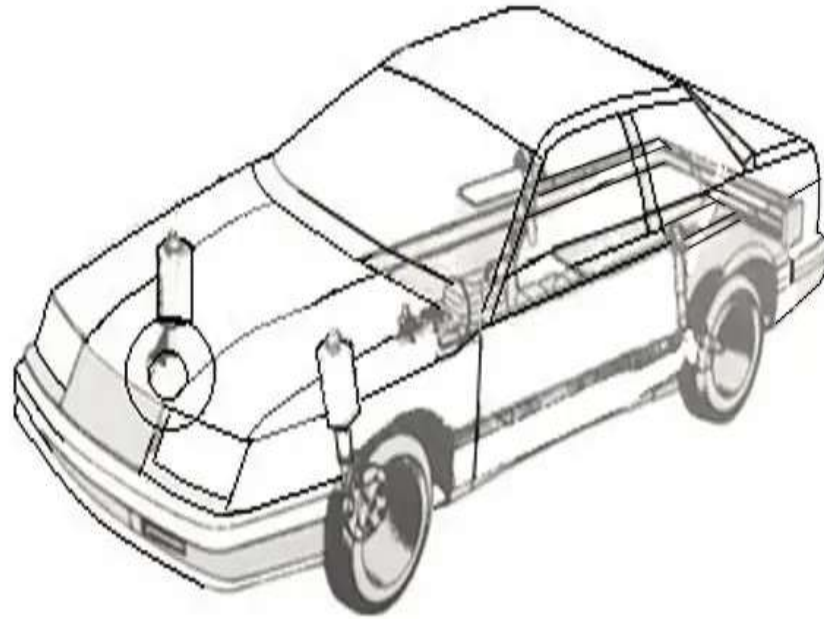
Electronic Suspension System

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[ADDITIVE MANUFACTURING]



Electronic Suspension





Introduction to Electronic Suspension System

- ❖ The electronic suspension system is a technology that has revolutionized the automotive industry. It is designed to provide optimal comfort and handling by adjusting the suspension in real-time based on driving conditions.
- ❖ The system uses sensors to monitor road conditions, vehicle speed, and driver inputs to make adjustments to the suspension. This results in a smoother ride, better handling, and improved safety.



Components of Electronic Suspension System

The electronic suspension system consists of several components, including sensors, control units, and actuators. The sensors are responsible for measuring various parameters such as wheel position, velocity, and acceleration.

The control unit processes the data from the sensors and sends signals to the actuators, which adjust the suspension accordingly. The actuators can be in the form of solenoids, motors, or hydraulic valves.



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Benefits of Electronic Suspension System

The electronic suspension system offers several benefits over traditional suspension systems. One of the main advantages is the ability to adjust the suspension in real-time, resulting in a smoother and more comfortable ride.

Additionally, the system can improve handling and stability, especially in challenging driving conditions such as sharp turns or uneven terrain. Finally, the electronic suspension system can enhance safety by reducing the risk of accidents caused by poor handling or instability.



Future of Electronic Suspension System

The electronic suspension system is a rapidly evolving technology, and future advancements are expected to further improve performance and reduce costs. One area of development is the use of artificial intelligence algorithms to optimize suspension settings based on driver behavior and road conditions.

Another area of focus is the integration of the electronic suspension system with other vehicle systems, such as the engine and brakes, to create a more seamless driving experience. As technology continues to advance, the electronic suspension system is poised to become an even more integral part of modern vehicles.



THANK YOU