

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Why does the output side of the suspension air compressor contain a desiccant?

2) How does a magneto-rheological suspension system work?

3) Why is the vehicle speed sensor used as input for many electronic suspension systems?

4) What type of sensor is usually used on electronically controlled suspensions to sense the height of the vehicle?

5) What is a lateral accelerometer sensor and why is it used?

Answer Key

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- 1) A desiccant is used on the outlet of the suspension air compressor to remove water from the system, which could cause rust or an inoperative suspension system in freezing weather.
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- 2) Under normal operating conditions, the fluid flows easily through orifices in the shock and provides little dampening. When a large or high-frequency bump is detected, a small electrical current is sent from the chassis controller to an electromagnetic coil in each shock and the iron particles in the fluid respond within 3 milliseconds (ms), aligning themselves in fiber like strands. This type of shock absorber is used to control squat during acceleration and brake dive, as well as to reduce body roll during cornering by the chassis controller.
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- 3) Vehicle speed and throttle position sensors are inputs to the suspension electronic control module so the suspension can be made firm during high speed operation or during rapid acceleration.
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- 4) A photo-cell-type sensor, Hall-effect or a potentiometer-type sensors are usually used to sense the height of the vehicle.
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- 5) A G-force sensor is used to measure cornering forces so the suspension control module can control the suspension to become firmer during rapid vehicle movements.
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