

Name \_\_\_\_\_

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

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

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

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

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

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

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## Answer Key

Testname: ASSA8\_SHORT10

- 1) 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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- 2) 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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- 3) 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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- 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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