

Chapter 18

NAME _____

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

1. What is the difference between a lane departure warning and a lane keep assist?

2. What is the purpose and function of advanced driver assist systems?

3. Parking-assist systems use what type of sensor?

4. When is the calibration of a camera on an ADAS-equipped vehicle required?

5. What type of sensors are used in automatic emergency braking and pre-collision control systems?

Answer Key

Testname: EV1SHORT18

1. The lane departure warning system (LDWS) uses cameras to detect if the vehicle is crossing over lane marking lines on the pavement. The purpose of lane keep assist (LKA) , also called lane keep assist system (LKAS) , is not only to warn the driver if the vehicle is moving out of the lane of traffic, but when there is no response from the driver, to also automatically use the electric power steering system to steer the vehicle back into the lane.

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2. The purpose of advanced driver assist systems (ADAS) is to provide the driver with systems that help the driver.

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3. Ultrasonic object sensors are used to measure the distances to nearby objects and are built into the fender, and front and rear bumper assembly. Electromagnetic parking sensors (EPS) detect when a vehicle is moving slowly and toward an object.

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4. Calibration of the camera is required when one or more cameras are replaced on a mounting component, such as a windshield, bumper cover, mirror, or door. The calibration is an in-shop, static process. Large patterned mats are placed around the vehicle at specific locations and the scan tool is used to initiate the process.

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5. Sensors such as radar, sonar, and/or cameras are used, depending on the system to detect the distance to another object.

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