

## **ADAS ACRONYMS**

1. ACC – ADAPTIVE CRUISE CONTROL: Cruise control system that automatically adapts speed to maintain a safe distance from vehicles in front.

2. **ADAS – ADVANCED DRIVER ASSISTANCE SYSTEM:** An electronic system that aids the driver for a safer and more comfortable driving experience. Often based on camera technology, but can also include other sensors like radar, laser, or ultrasound.

3. **AFLS – ADAPTIVE FRONT LIGHTING SYSTEM:** System that automatically turns the headlight beam to the right or left dependent on the vehicle's direction in curves.

4. **AHBC – ADAPTIVE HIGH BEAM CONTROL:** Adaptive High Beam Control detects oncoming traffic and vehicles in front, automatically adjusting the headlamp beam high and low. Also known as <u>Adaptive Light Control</u>.

5. **ALC – ADAPTIVE LIGHT CONTROL:** Adaptive Light Control detects oncoming traffic and vehicles in front, automatically adjusting the headlamp beam high and low. Also known as <u>Adaptive High Beam Control</u>.

6. **ANV – AUTOMOTIVE NIGHT VISION:** Automotive Night Vision captures images using a thermal camera or active infrared lighting and presents it on a dashboard display. This increases the driver's perception and viewing distance during nighttime. Also known as <u>Night View Assist</u>.

### 7. AEB – AUTOMATIC EMERGENCY BRAKING, AUTONOMOUS

**EMERGENCY BRAKING:** Automatic Emergency Braking monitors the proximity of vehicles in front, detecting situations where a collision is imminent. Braking is then automatically applied to avoid the collision or mitigate its effects.

8. **APS – AUTOMATIC PARKING SYSTEM:** Automatic Parking Systems are designed to help a driver park. Some perform the entire job automatically, while others simply provide advice so that the driver knows when to turn the steering wheel and when to stop. See also Intelligent Parking Assist and Parking Assist.

9. AVM – AROUND VIEW MONITOR: Multi-camera surround view system captures and displays the area surrounding the car in a single integrated view on a display in the dashboard.

### 10. BSD – BLIND SPOT DETECTION, BSM – BLIND SPOT

**MONITORING, BSW – BLIND SPOT WARNING:** Blind Spot Detection systems provide vital information about the vehicle's blind spots, areas that cannot be seen easily by the driver. Some of these systems will sound an alarm if they sense the presence of an object within a blind spot, others include cameras that transmit camera images to a display in the dashboard. See also Lane Change Assist.

#### 11. BOP – BACK-OVER PROTECTION, BACK-OVER PREVENTION: A back-

over protection or prevention system can combine both ultrasonic and rear-view camera technologies to increase safety while backing up, ensuring the driver doesn't hit a pedestrian, vehicle or other object.



#### 12. CIB – CRASH IMMINENT BRAKING, COLLISION IMMINENT

**BRAKING:** CIB systems automatically apply the brakes in a crash imminent situation if the driver does not respond to warnings. Similar to <u>Collision Detection Warning</u> or <u>Collision Avoidance Systems</u>.

13. **CDW – COLLISION DETECTION WARNING:** Collision Detection Warning systems use a variety of sensors to determine whether a vehicle is in danger of colliding with another object. These systems sense the proximity of other vehicles, pedestrians, or other objects on the road. When the vehicle is in danger of colliding with another object, the collision avoidance system will warn the driver and take preventive actions, such as precharging the brakes, apply tension to the seat belts, or take over steering. Similar to <u>Crash Imminent Braking</u> or <u>Collision Avoidance Systems</u>.

14. **CAS – COLLISION AVOIDANCE SYSTEM:** Collision avoidance systems use a variety of sensors to determine whether a vehicle is in danger of colliding with another object. These systems sense the proximity of other vehicles, pedestrians, or other objects on the road. When the vehicle is in danger of colliding with another object, the collision avoidance system will warn the driver and take preventive actions, such as precharging the brakes, apply tension to the seat belts, or take over steering. Similar to <u>Crash Imminent</u> Braking or Collision Detection Warning.

15. **CMS – CAMERA MONITOR SYSTEM:** A system that adds monitors, or displays, to the car, presenting the view of externally mounted cameras. For instance, rear view cameras or mirror replacement cameras that remove the need for left, right, or rear-view mirrors, and present a better view of the vehicle's surroundings.

16. **CTA – CROSS-TRAFFIC ALERT:** These systems let you know if you're about to run into oncoming cross traffic. Multiple sensors or wide angles cameras are located near the front or rear of the vehicle, detecting traffic that comes from the side, typical in parking lot situations. See also Rear Cross-Traffic Alert.

## 17. DDW – DROWSY DRIVER WARNING, DFW – DRIVER FATIGUE WARNING, DDD – DRIVER DROWSINESS DETECTION, DMS – DRIVER

**MONITORING SYSTEM:** Driver drowsiness or awareness detection systems use cameras or other sensors to determine if a driver's attention is still on the road and on operating the vehicle safely. Most systems track eye blinking rates and gaze direction. Some of these systems look for the driver's head to nod in a telltale motion that indicates sleepiness.

18. EVWS – ELECTRIC VEHICLE WARNING SOUND: A system that makes sounds designed to alert pedestrians to the presence of electric drive vehicles that make very little noise.

19. **EDA** – **EMERGENCY DRIVER ASSISTANT:** A driver system that monitors driver behavior. If the system concludes that the driver is no longer able to safely drive the vehicle, the car takes the control of the brakes and the steering to bring the vehicle to a stop.



# 20. FCW – FORWARD COLLISION WARNING, FCWS – FORWARD COLLISION WARNING SYSTEM, FCA – FORWARD COLLISION

**AVOIDANCE:** Forward Collision Warning systems use a variety of sensors to determine whether a vehicle is in danger of colliding with another object. These systems sense the proximity of other vehicles, pedestrians, or other objects on the road. When the vehicle is in danger of colliding with another object, the collision avoidance system will warn the driver and take preventive actions, such as precharging the brakes, apply tension to the seat belts, or take over steering.

21. **GFHB – GLARE-FREE HIGH BEAM:** The Glare-free High Beam function allows driving with the high beam on at all times. If the camera detects other traffic on the road, the distribution of light from the high beams is adjusted in order to not blind the approaching driver. See also <u>Head Lamp Assist</u>.

22. **HLA – HEAD LAMP ASSIST:** The Head Lamp Assist function allows driving with the high beam on at all times. If the camera detects other traffic on the road, the distribution of light from the high beams is adjusted in order to not blind the approaching driver. See also <u>Glare-free High Beam</u>.

23. **HUD – HEAD-UP-DISPLAY:** A transparent display that shows information on the front windshield, allowing drivers to keep their eyes on the road, instead of having to look away toward information on the dashboard.

24. **HDC** – **HILL DESCENT CONTROL:** A system that adjusts speed by applying the brake or shifting to lower gears during descent from a hill.

25. **ICC – INTELLIGENT CRUISE CONTROL:** Nissan/Infiniti radar cruise control system that automatically adapts speed to maintain a safe distance from vehicles in front.

#### 26. ISA – INTELLIGENT SPEED ADAPTATION, INTELLIGENT SPEED

**ADVICE:** A system that monitors vehicle speed, warning the driver to adjust their speed in case it is higher than the allowed limit. Typically uses Traffic Sign Recognition and map data to determine the allowed speed limit.

27. **IHBC – INTELLIGENT HIGH BEAM CONTROL:** The Head Lamp Assist function allows driving with the high beam on at all times. If the camera detects other traffic on the road, the distribution of light from the high beams is adjusted in order to not blind the approaching driver. See also <u>Glare-free High Beam</u> and <u>Head Lamp Assist</u>.

28. **IPAS – INTELLIGENT PARKING ASSIST SYSTEM:** Intelligent Parking Assist Systems are designed to help a driver park. Some perform the entire job automatically, while others simply provide advice so that the driver knows when to turn the steering wheel and when to stop. See also <u>Parking Assist</u> and <u>Automatic Parking System</u>.

29. LA – LIGHTING AUTOMATION: Lighting Automation allows driving with the high beam on at all times. If the camera detects other traffic on the road, the distribution of light from the high beams is adjusted in order to not blind the approaching driver. See also <u>Glare-free High Beam</u>, <u>Head Lamp Assist</u>, and <u>Intelligent High Beam Control</u>.

30. LCA – LANE CHANGE ASSIST: Lane change assist senses a vehicle approaching in a neighboring lane while you signal for a lane change. The vehicle can alert the driver with a flashing indicator in the side mirror. See also <u>Blind Spot Detection</u>.



31. LCA – LANE CENTERING ASSIST: Lane Centering Assist combines a forwardfacing camera to detect lane markings with an electric steering system, keeping the vehicle in the center of the lane. See also <u>Lane Keeping Assist</u>.

32. LD – LANE DETECTION: Using a forward camera to detect lane markings on the road.

#### 33. LDW – LANE DEPARTURE WARNING, LDWS – LANE DEPARTURE

**WARNING SYSTEM:** Lance Departure Warning uses a forward-facing camera to detect lane markings, warning the driver in case the vehicle leaves the lane without proper use of the turn signal.

34. **LKA – LANE KEEPING ASSIST:** Lane Keeping Assist combines a forward-facing camera to detect lane markings with an electric steering system, keeping the vehicle in the center of the lane. See also <u>Lane Centering Assist</u>.

35. **MOD** – **MOVING OBJECT DETECTION:** A system that detects moving objects around the vehicle, typically during parking or slow maneuvering. Typically uses multiple cameras located around the vehicle.

36. **NVA – NIGHT VIEW ASSIST:** Night View Assist captures images using a thermal camera or active infrared lighting and presenting it on a dashboard display. This increases the driver's perception and seeing distance during nighttime. Also known as <u>Automotive</u> <u>Night Vision</u>.

37. OC – ONLINE CALIBRATION: A camera-based system that calibrates itself during startup of the car, or in real-time. This contrasts with a camera system that needs to be calibrated in the factory or garage.

38. **OD** – **OBJECT DETECTION:** A computer vision algorithm that detects objects in view of a camera: for example, pedestrians, vehicles, animals, or cyclists.

39. **OSD** – **OPTICAL SURFACE DIRT:** A camera system that automatically detects whether the camera lens is dirty and warns the driver or takes other appropriate action.

40. **PA – PARKING ASSISTANCE:** Parking Assistance systems are designed to help a driver park. Some perform the entire job automatically, while others simply provide advice so that the driver knows when to turn the steering wheel and when to stop. See also Automatic Parking System and Intelligent Parking Assist.

41. PD – PEDESTRIAN DETECTION, PDS – PEDESTRIAN DETECTION

**SYSTEM:** A system that detects pedestrians in front or behind the vehicle, typically camera-based.

42. **PAEB – PEDESTRIAN AUTOMATIC EMERGENCY BRAKING:** A system that performance automatic braking in cases a pedestrian is detected in front of the vehicle.

43. PLD – PARKING LINE DETECTION: A system that detects markers on the road surface in order to determine the exact location of parking slots. See also <u>Parking Spot</u> <u>Marking Detection</u>.

44. **PSMD – PARKING SPOT MARKING DETECTION:** A system that detects markers on the road surface in order to determine the exact position of parking slots. See also <u>Parking Line Detection</u>.



45. **RCTA – REAR CROSS-TRAFFIC ALERT:** These systems let you know if you're about to back into oncoming cross traffic. Multiple sensors or wide angles cameras are located near the rear of the vehicle, detecting traffic that comes from the side, typical parking lot situations. See also <u>Cross-Traffic Alert</u>.

46. **RVC – REAR VIEW CAMERA:** A camera that's mounted in the rear of the vehicle, facing backward.

47. **SVC – SURROUND VIEW CAMERA:** Multi-camera surround view system captures and displays the area surrounding the car in a single integrated view on a display in the dashboard. See also <u>Surround View Park Assist</u>.

48. **SVPA – SURROUND VIEW PARK ASSIST:** Multi-camera surround view park assist systems capture and display the area surrounding the car in a single integrated view on a display in the dashboard. See also <u>Surround View Camera</u>.

49. **SAD** – **SEMI-AUTONOMOUS DRIVING:** A driving system that is primarily autonomous but requires the driver to monitor and take control of the vehicle in case the automated driving system cannot safely operate the vehicle.

50. **TJA** – **TRAFFIC JAM ASSIST:** A Traffic Jam Assist system keeps distance and adapts speed and optionally takes control of steering in lower-speed, dense traffic situations.

51. **TSR – TRAFFIC SIGN RECOGNITION:** A Traffic Sign Recognition system is a camera-based technology that detects and analyzes the traffic signs next to the road. Speed limit signs can for instance be used to control speed of the vehicle. Often the important traffic signs are shown on the dashboard in order to inform the driver.

52. **TLR – TRAFFIC LIGHT RECOGNITION:** A Traffic Light Recognition system is a camera-based technology that detects and analyzes traffic lights, either to inform the driver or to provide information to the vehicle for autonomous driving.

53. **TA – TURNING ASSISTANT:** The Turning Assistant system monitors opposing traffic when turning at low speeds, even autonomously applying the brakes in case of unsafe situations.

54. UPA – ULTRASONIC PARK ASSIST: A Parking Assist system that solely uses ultrasonic sensors. Ultrasonic sensors can detect distance, but can't detect smaller objects well, nor can they find parking spot markers. See also <u>Parking Assist</u>.

55. WWDW – WRONG-WAY DRIVING WARNING: A system that warns the driver when they are traveling into the wrong direction. Typically uses a Traffic Sign Recognition system to detect wrong-way traffic sign indicators. See also <u>Wrong-Way Driving Alert</u>.

56. WWDA – WRONG-WAY DRIVING ALERT: A system that warns the driver when they are traveling into the wrong direction. Typically uses a Traffic Sign Recognition system to detect wrong-way traffic sign indicators. See also <u>Wrong-Way Driving Warning</u>.











Lane Watch Camera

FCW/LKA/LDW Camera

Blind Spot Radar

Parking Assist Sensors