Blind Spot Detection

What is Blind Spot Detection

What:

A system that provide drivers with warnings when there is a vehicle in the “Blind Spot” that could cause an accident if a lane change is attempted. Video: https://youtu.be/B93tfG4ZydY

Why:

To improve passenger safety by providing warnings and / or intervention to potentially tired or distracted drivers.

Benefits:

Decrease in accidents / injuries / deaths caused by tired or distracted drivers

Pathway to autonomous vehicles

Increased traffic flow

How:

Utilization of cameras and electronically controlled systems can interpret and react to changing conditions faster than a human driver in many situations reacts. System can be “Passive” (Provide audio, visual or haptic feedback) to notify driver of a pending situation or can be “Active” (Intervention with steering) as the situation dictates.

Blind Spot Detection Operation

Radar to sense other vehicles

Notify driver when cars near by

- Turn signal use key operational factor

May have correction capability

Blind Spot Detection Components

Radar sensors (Some use ultrasonic or cameras)
Module(s)
Control Switch
Steering
Visual Indicators
Audio
Haptic feedback (Steering wheel shake)

Blind Spot Detection Diagnosis

- Visual inspection
  - Damage to bumper
  - Damage to sensor
- Fault codes
  - OEM
  - SAE
- Electrical testing
  - Power
  - Ground
  - Signals
  - BUS Communications

Blind Spot Detection Service / Calibration

Mechanical

- Targets
- Some sensors hard mounted, some may be adjustable
- Non-related repairs and services can require calibration
  - Alignment
  - Collision

Self / Auto

- Driving