DETROIT ASSURANCE® SUITE OF SAFETY SYSTEMS
DETROIT ASSURANCE® 5.0

DEMAND DETROIT.COM

DETROIT SUPPORT. ANYWHERE.

- Unmatched parts availability
- Factory-certified technicians
- Live technical support
- Hundreds of Freightliner dealership service locations

Through radar and a proprietary high-definition camera system, Detroit Assurance 5.0 provides optimum on-road safety, integrating seamlessly into the new Cascadia¹ equipped with a Detroit® powertrain.

Using fused technology, the bumper-mounted radar and the windshield-mounted HD camera communicate with the ABS brakes, engine, and transmission in real time. The system tracks up to 40 objects at once and can identify up to 10 objects of interest refreshing 200 times per second.

Detroit Assurance 5.0 offers unprecedented features for advanced on-road protection.

Detroit Assurance radar reports the distance, velocity, width, lateral offset, type, and confidence level of the top six priority vehicles in the truck’s path.

The Detroit Assurance suite of safety systems delivers exceptional control, protection, and driver experience.

NOTICE: The Detroit Assurance suite of safety systems is intended as an aid for an alert and conscientious professional driver. It should not be relied upon to operate the vehicle and is not a substitute for safe, normal driving procedures, nor will it compensate for driver impairment, such as drugs, alcohol, or fatigue. The Detroit Assurance suite of safety systems may not work as intended under all conditions, and may be affected by weather, road, and traffic conditions. Failure to drive safely and use the systems properly could result in personal injury and/or death and severe property damage. Please consult the Drivers’ Manual for the vehicle for additional limitations and details.
Active Brake Assist

**Radar & Camera System**

1. **Initial Warning/ABA 5.0 Dash Displays**
   - How Active Brake Assist Works
     - Adaptive Cruise Control (ACC) to 0 mph
     - Fast Braking

2. **W/Braking**: If the driver does not react, the radar sends an audio warning tone, and simultaneously initiates partial braking.

3. **W/Braking**: If there is no driver input, the system will increase partial braking and simultaneously initiate full braking.

4. **ABA Full Braking**: Every finished braking on hold.
   - The full braking on hold is initiated with the vehicle at a complete stop and the engine off.

**Full Braking on Moving Pedestrian**

- The system continuously monitors all objects on the road, including moving and stationary objects.
- The system will trigger full braking when an object enters the vehicle's path at a speed that could cause a collision.
- Full braking will be applied unless the driver takes appropriate action.

**Adaptive Cruise Control (ACC) to 0 mph**

ACC automatically adjusts your truck's cruising speed to maintain a safe following distance—15 seconds by default on the new Cascadia—from other vehicles in its path, allowing the truck to remain in cruise control longer. The following distance can be adjusted by a driver in the instrument cluster. The sensors on the front and rear of the truck continuously monitor traffic conditions, recognizing both stationary and moving objects.

- If an object is detected in its path, ACC will warn the driver with a visual alert and a partial braking warning.
- If the driver does not react, full braking will be initiated.

**Active Lane Assist**

- Independent of the ACC and ABA features, Active Lane Assist uses the front camera to monitor the road and automatically assists the driver in keeping the truck within the driven lane.
- When the system detects an object in the truck's blind spot, it will guide the driver to steer the truck back into the lane.

**Lane Keep Assist (LKA)**

- If the vehicle leaves the driven lane, Lane Keep Assist will automatically correct the steering to keep the truck within the lane.

**Tailgate Warning**

- The system monitors the area behind the truck and alerts the driver if another vehicle is detected in the blind spot.
- If the vehicle in the blind spot is detected, the system will visually and audibly alert the driver.

**Additional Features with Detroit Assurance 5.0**

- **Traffic Sign Display**
- **Automatic Wipers/Headlamps**
- **Intelligent High Beam**
- **Optional Video Capture with Detroit Assurance 5.0 Cameras**

**Financial Impact of Collisions**

- **Cost of Collisions**
  - 1,000 crashes cost U.S. employers:
    - $65,000 per nonfatal injury
    - $671,000 per death
  - Costs totaling:
    - $10,000 to $20,000 per vehicle rental, and $65,000 per nonfatal injury, and $671,000 per death every year.
  - **$25 billion per year**

See the Centers for Disease Control and Prevention (CDC) Prevention Point Preventable Costs of Crime, Injury, and Violence - 2153139.htm for more information. 

**Consider these realities when spec’ing your next truck with a collision mitigation system.**