Making it easy for you.

Electronic Stability Control & Collision Mitigation

LEONARD Bus Sales Inc

Updated: January 2026

Frequently Asked Questions

Are all available Bendix Safety and Stability Systems DOT Approved?
- Yes, this includes all mounting locations (i.e. Fusion Camera if equipped, Driver Interface Unit)

What systems are standard?
- Bendix Electronic Stability Control
- Bendix Fusion 3.0 (Starting with 2027 Model Year)

What is the optional upgrade?
- Auto High Beam Control with Fusion 3.0 – Contact your Transportation Advisor.

Can a Bendix stability control or collision mitigation system be added to an existing vehicle?
- No, vehicles must be equipped from the factory.

Can a bus be upgraded to an Advanced or Fusion system after it is built? A stock bus for example.
- No, there will be no option to upgrade or up-fit existing vehicles at this time. Extensive hardware and body modifications make this difficult.

Can Bendix system be removed from a bus?
- No, the vehicle computer is calibrated to operate with the Bendix system installed.

Can the Bendix Fusion or Fusion 3.0 camera be relocated?
- No, Bendix and IC bus specify the camera location and calibrate the system accordingly.

What if the camera becomes blocked or obstructed? Will the system stop functioning?
- No, if the camera becomes blocked or obstructed, the computer will automatically downgrade capabilities while maintaining as many functions as is possible.

What happens if the radar unit becomes damaged or obstructed during operation?
- Features of the Bendix systems may be limited or non-functioning. For example, the driver may be unable to set cruise control when it is determined that the radar is damaged. Appropriate system failure notification will become apparent to the driver through dash warning lights, and/or the dash mounted display unit on older units.

Can any feature of the Bendix systems be turned on or off by the operator?
- If equipped: Lane departure alerts are the only feature that may be turned on or off by the operator.

Does the operator need to do anything differently?
- Generally, no. In winter weather it is advisable to clear the radar camera of snow, ice, salt, slush, etc.

How does the system notify the operator of a fault?
- Depending on the nature of the failure, the operator may see an ABS, traction control, malfunction indicator light, or any combination of the above. The dash mounted interface will also notify the operator of a system error if equipped.

No school bus safety technology replaces the most important safety component of all – a skilled, alert professional driver exercising safe driving habits, as well as continuous, comprehensive driver training. Responsibility for the safe operation of the vehicle remains with the driver at all times.

Under no circumstances should any individual willfully conduct testing or attempt to demonstrate the capabilities of units equipped with an Electronic Stability Control or Collision Mitigation system. Purposeful testing and/or demonstration of these systems can put the operator, passengers, participants, pedestrians, and other motorists at risk of serious injury or death.

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Frequently Asked Questions continued...

How is the system serviced?
- Technicians will find service to be similar to that of a vehicle not equipped with these systems and may continue to use Bendix AE diagnostic software, formerly Bendix ACom Pro.

Can the bus still be equipped with a grill mounted winter front cover?
- Yes, however the radar must not be blocked by the winter front cover.

How far ahead does the radar unit scan?
- Approximately 500 feet, dependent upon weather conditions

What sensors are unique to Bendix ESC equipped buses? What are they for?
- Brake Pressure Sensor – Measures the operator's braking demand
- Steering Angle Sensor – Senses the operator's steering demand and direction
- Yaw Rate Sensor – Senses the rotation of the vehicle
- Lateral Acceleration Sensor – Senses the side or lateral forces acting on the vehicle

Is Bendix ESC/ESP new to the industry?
- No, Bendix ESC/ESP has been proven over millions of miles and is operated on over 600,000 commercial vehicles and thousands of IC buses across the state.

Can I continue to use Bendix ACOM for service?
- No, Bendix ACOM was replaced by Bendix AE and is required to provide diagnostic information or calibration features.

Does the Bendix ESC/ESP system require special service or maintenance?
- There are two areas that require special attention. Bendix AE will provide detailed information
    - Front end alignment or adjustment – The steering angle sensor must be recalibrated to zero if any work is done relating to the steering componentry, toe, wheel camber, etc.
    - Yaw Rate Sensor – The sensor must be cleaned at the time of routine preventative maintenance.

Is the Bendix system available across all brake option types?
- Yes, the Bendix systems are compatible with air disc and air drum braking systems.

What type of radar wave comes from the unit?
- 24Ghz radar with LFM-FSK. It is compliant with applicable sections of FCC 15

What is LFM-FSK?
- LFM-FSK is a new type of radar signal modulation waveform. This new waveform combines the merits of Linear Frequency Modulation (LFM) and Frequency Shift Keying (FSK)

Is the stability control system designed with school bus in mind?
- Yes, unique calculations are used in the stability control system for each vehicle type. Data relating to the vehicle center of gravity, wheelbase, weight, etc. are all unique to school bus.

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