

Making it easy for you.

Electronic Stability Control & Collision Mitigation



Utilize the information on this page to educate drivers on the proper identification of the Bendix Wingman Fusion system their bus is equipped with and to ensure they have a proper understanding of its intended purpose, importance, and functionality.

Bendix Wingman Fusion is designed to act as a driver assistance technology. 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.

The driver should be able to identify and explain the following:




- Identifying a vehicle equipped with Bendix Wingman Fusion
- Precautions (Including winter weather)
- Driving a vehicle equipped with Electronic Stability Control and Bendix Wingman Fusion
- Radar, camera, and driver interface unit locations and their functions

Identifying a vehicle equipped with Wingman Fusion

Vehicles equipped with Bendix Wingman Fusion systems will be equipped with a forward facing radar unit, mounted in the center of the bumper, and a windshield mounted forward facing camera. A driver interface unit is also installed on the right side dashboard of the bus.

Precautions (Including winter weather)

The radar unit should not be blocked by a winter front cover or license plate and should be kept clear of snow, dirt, ice, etc. The forward facing camera should be kept clear of snow, dirt, ice, etc. when possible. The camera is intentionally placed in the wiper coverage area to assist in this process. System functions may be limited or eliminated with excessive buildup of debris. Typically, clearing the radar unit or camera of built up snow or ice will clear the fault.

An ABS, traction control, or  symbol on the dash is not a cause for concern. The driver interface unit or gauge cluster may accompany these symbols with text that outlines a system fault. The vehicle is still operable and safe but should be serviced at the first available opportunity. The driver should be aware that system functions may be limited or eliminated until serviced. The vehicle is still drive-able.

Driving a vehicle equipped with Electronic Stability Control and Bendix Wingman Fusion

Buses equipped with Electronic Stability Control (ESC) are designed to prevent skids, slides, and loss of control in all weather conditions. The driver must continue to exercise safe driving practices to prevent and avoid application of the electronic stability control system and or collision mitigation functions.

The driver should be well versed in driving both vehicle types – One equipped with Electronic Stability Control (ESC), and one without. The driver must understand the importance of their knowledge of vehicle control techniques.

System Feature	Driver Action
Automatically apply the buses brakes to avoid slides, skids, and loss of control in all weather conditions.	Perform normal skid, slide, and loss of control functions such as braking, counter steering, and driving at a speed appropriate for the conditions to avoid application of electronic stability control system.
Sound audible alerts for unsafe following distance.	Reduce following distance immediately to silence the alert and return to safety.
Sound audible alerts for a potential impact.	The driver should take immediate action by slowing or braking.
Sound audible alerts for stationary objects in their lane of travel.	The driver should take immediate action by slowing or braking.
Utilize radar to perform adaptive cruise control functions.	The driver should follow policy and use common sense regarding use of cruise control. Cruise should not be utilized in heavy traffic or inclement weather.
Automatically apply the buses brakes to reduce severity of or prevent collision with a forward moving vehicle.	To avoid automatic brake application, the driver should continually exercise safe driving practices that adhere to federal, state, and local practices.
Automatically apply the buses brakes to reduce severity of or prevent collision with a stationary vehicle in the lane of travel.	To avoid automatic brake application, the driver should continually exercise safe driving practices that adhere to federal, state, and local practices.
Sound audible alerts for an over-speed condition. (Exceeding 5+ Over)	Adjust speed and adhere strictly to posted speed limit signs.
Sound audible alerts for a lane departure event.	Correct lane positioning immediately <u>or</u> utilize a turn signal or hazard warning when intentionally crossing painted lane markings.

System Identification	Location	Function
Radar Unit	Located within the center of the front bumper.	The radar unit acts as the information center for the collision mitigation system, scanning 500' ahead for large metallic type objects.
Driver Interface Unit (DIU)	Located on the right side of the dash.	The DIU displays real time following distance and speed of vehicles within 500' of the bus. The DIU will sound audible alerts for close following distance and/or potential collision.
Camera	Located in the center of the windshield.	The camera acts as a second source of information for the buses computer by identifying stationary vehicles, posted speeds, and lane positioning.