

Electronic Stability Control All IC Buses are equipped with Electronic Stability Control as a standard feature since 2019.	▪ Bendix ESC is the first widely used ABS-based stability system capable of recognizing and assisting with both rollover and vehicle under and over-steer driving situations. ▪ The system can selectively apply vehicle brakes, as well as de-throttle the engine in the event of a potential rollover or loss of control. ▪ Helps mitigate vehicle slides, skids, and loss of control through advanced monitoring of a variety of vehicle parameters and automatic and selective application of vehicle brakes.
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**Electronic Stability Control (ESC) is not omittable.*

Bendix Wingman Fusion 3.0

Available for Model Year 2027 + (Buses ordered beginning Q3 of 2025) diesel and gasoline only.

Buses built with Wingman Fusion 3.0 will exhibit different behaviors than those with Bendix Wingman Advanced Collision Mitigation.

Alerts An alert is simply an audible indicator and does not necessarily indicate a brake application.	Following Distance Alert: At speeds over 5 mph, audible and visual alerts let the driver know when they are getting too close to the forward vehicle. ▪ Three levels of alert sound through the instrument cluster. ▪ An alert indicates the driver is following too closely and must create space. Impact Alert: Above 15 mph, audible and visual alerts warn the driver that a collision with the forward vehicle is likely and that they should address the situation immediately. ▪ Drivers should assume that automatic emergency braking will occur. ▪ Stationary object alerts have been removed from the Fusion 3.0 system.
Adaptive Cruise Control	Adaptive Cruise Control: Reduces throttle and may apply vehicle brakes to help the driver maintain a set following distance behind a forward vehicle.
Collision Mitigation *Buses equipped with the Bendix Wingman Advanced system do not have the capability to apply brakes for a stationary object.	Active Collision Mitigation: Above 15mph, the system can automatically apply the vehicle brakes to mitigate, or potentially prevent, a potential collision with a moving <u>vehicle</u>. Stationary Vehicle Braking: Above 15mph, the system can alert the driver up to 3.5 seconds before impact and apply vehicle brakes if the large, stationary, in-lane object is definitively identified as a licensed motorized vehicle. Enhanced Collision Mitigation: Above 15mph, the system potentially removes up to twice as much vehicle speed as current collision mitigation systems. ▪ Multi-lane emergency braking ensures that the brakes remain applied if needed, even if the driver swerves out of their lane to avoid a collision. ▪ Highway departure warning and braking may sound an alert and apply the brakes if the bus has unintentionally left the roadway.
Enhanced Alerts	Over-speed Alert & Action: Two levels of action, at speeds over 20 mph, Fusion 3.0 can read speed limit signs and notify the driver of over-speed travel. ▪ At 5-9 MPH over the posted speed limit, an audible alert can be heard. ▪ At 10+ MPH over the posted speed limit, an audible alert can be heard, and the engine will de-throttle for 1 second. ▪ This system will <u>NOT</u> apply the brakes to correct speed. Alert Prioritization: Only the most critical alert is sounded to the driver to minimize distractions during potentially severe events. Lane Departure Warning: Above 37 mph, a “rumble strip” sound alerts the driver to unintentional lane departure.
Pedestrian Detection	Pedestrian Detection: ▪ At low speeds, pedestrian detection provides audible and visual warnings if the system predicts that the bus may collide with a pedestrian. ▪ If the driver does not intervene, the system may apply the brakes to reduce severity of the collision. Go / No Go System: ▪ With the bus stopped, but in gear and the parking brake released, visual and audible indicators will inform the driver that a pedestrian is detected. ▪ The bus may prevent the driver from accelerating if they try to do so with the pedestrian present. Firmly applying and releasing the brake pedal or making a full throttle application will cancel the Go / No Go hold. The alert will continue if the system detects the pedestrian is still present.
Additional Hardware	Hardware Requirements in Addition to Radar for Wingman Fusion 3.0: A windshield mounted camera, bulk-head mounted speakers for lane departure only, lane departure cancel switch, and an overhead storage compartment.



Bendix Wingman training information can be found at:

www.leonardbus.com/training

No school bus safety technology replaced 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. As the driver, you should always be alert and ready to intervene.