

# BENDIX® ESP®

## FULL STABILITY SYSTEM

*An intelligent investment in stability for school buses*

Option Number 40453-02

The Bendix ESP full stability system – advanced technology from the industry leader.

### A competitive advantage for your fleet; peace of mind for your drivers

The Bendix® ESP® full stability system is a widely-available ABS-based commercial vehicle stability system capable of recognizing and assisting with driving situations on the widest range of road conditions. Blue Bird is the first school bus OEM in North America to offer the system on its diesel Vision and All American bus models.

#### Boost driver confidence

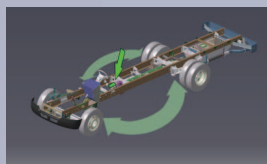
The Bendix ESP full stability system promotes driver confidence by mitigating events that could be experienced in certain road conditions. The system can help by automatically activating wheel-end braking to slow the vehicle when necessary.

#### The full stability solution

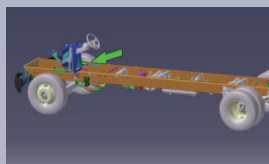
The Bendix ESP system helps to mitigate vehicle slides and skids through advanced monitoring of a variety of vehicle parameters plus an automatic and selective application of vehicle brakes.

With key sensors and braking capability, including all axle braking, the system delivers the highest level of stability performance on both dry and wet surfaces.

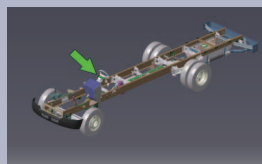
### Bendix ESP full stability system components



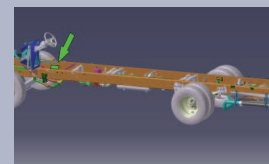
Yaw Rate Sensor



Brake Pressure Sensors



Steering Angle Sensor



Lateral Acceleration Sensor



A heritage of looking ahead.

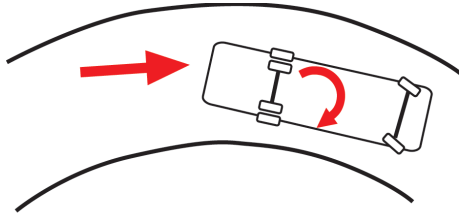
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# Bendix® ESP® Full Stability System – What is it and how does it work?

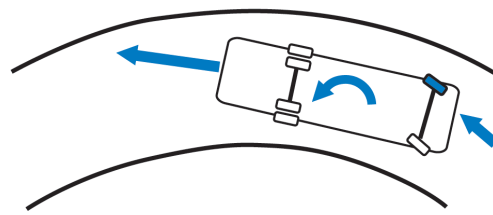
## Driving Scenario:

The vehicle speed around a curve exceeds the ability for the tires to hold the vehicle orientation, causing the vehicle to slide and begin to over-steer. The momentum of the load further pushes the vehicle, making the situation worse.



## System Response:

The Bendix® ESP® full stability system senses the driver's intended path and compares it to the actual situation to identify an over-steer condition. In an attempt to correct the vehicle orientation and reduce speed, if required, the system quickly applies braking pressure to only the appropriate wheels. (The Bendix ESP system reacts similarly for under-steer situations.)



## Key features and components of the Bendix® ESP® full stability system

	Feature	What it does	Why it matters	Bendix® ESP® Full Stability
Bendix® ESP® Sensor Technology	Wheel Speed Sensor	Monitors the wheel rotation at individual wheels	Allows the system to determine vehicle speed and monitor wheel lock-up to optimize braking	✓
	Steering Angle Sensor	Senses the driver's steering and direction	An early indicator of a potential critical maneuver. Helps the system to respond faster and more accurately	✓
	Brake Pressure Sensors	Measures the driver's braking demand	Allows the system to accurately supplement the driver throughout the maneuver	✓
	Yaw Rate Sensor	Senses the rotation of the vehicle	Allows the system to monitor the true orientation of the vehicle and compare it to the driver's intention	✓
Bendix® ESP® Performance Enhancement	Multi-level Sensing	Cross checks multiple system sensors	Improves the reaction time and accuracy of the intervention	✓
	Tuning	Different vehicles have different stability characteristics. Tuning adapts the stability system to account for these differences	Improves the ability of the stability system to match the intervention of the situation	✓
	All Axle Braking	The ability to apply brakes at all axles	Provides the best opportunity to reduce vehicle speed in the shortest time	✓

Bendix ESP is currently available on our Vision and All American Buses equipped with a diesel engine.



Contact your local Blue Bird Dealer to learn more about Bendix ESP!

[www.blue-bird.com/find-a-dealer](http://www.blue-bird.com/find-a-dealer)



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