News Release

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FOR IMMEDIATE RELEASE

DESTINATION: SAFER SCHOOL BUSES

In Support of National School Bus Safety Week, Highlighting the Safest Form of Student Transportation, Bendix Shares Efforts to Help Make It Even Safer

ELYRIA, Ohio – Oct. 18, 2021 – Is there anything that says "student" in America quite like the iconic yellow school bus? While the school bus is a symbol for K-12 students, it also symbolizes safety: The classic yellow vehicle – which carries more than 25 million children every day – is well documented as the safest form of student transportation. In support of 2021 National School Bus Safety Week (Oct. 18-22), Bendix Commercial Vehicle Systems shares a look at technologies and training designed to make school bus transportation across North America even safer.

National School Bus Safety Week is a public education program from the National Association for Pupil Transportation (NAPT) that is designed to promote school bus safety. It occurs the third full week of October each year.

The National Highway Traffic Safety Administration, citing American School Bus Council data, says students are 70 times more likely to get to school safely when taking a school bus instead of traveling by car. NAPT is leading a charge for better numbers yet – its "Zip. Zero. Nada. None." campaign is aiming for an entire school year free of fatalities no later than the school year ending June 30, 2025.

"We support NAPT's mission at Bendix by providing ADAS (advanced driver assistance systems) to school bus OEMs that in turn provide them to school bus fleets in pursuit of an even safer experience," said TJ Thomas, director of marketing and customer solutions – Controls at

Bendix, the North American leader in the development and manufacture of active safety, air management, and braking system technologies for commercial vehicles. “Partnering with school districts and vehicle manufacturers across North America, we are working to deploy the latest technologies and training to help keep student passengers safe, and to support the school bus drivers who oversee their travels day in and day out.”

Air Disc Brake Advantage

Part of NAPT’s strategy in its zero-fatality campaign is to encourage the utilization of the latest vehicle safety equipment and technology, including air disc brakes, electronic stability control, forward collision warning, collision mitigation, and electronic parking brakes.

“These driver-assistance technologies are proven,” Thomas said. “School bus manufacturers are making them increasingly available, and they’re finding a place in growing numbers of school bus fleets.”

More districts are equipping vehicles with air disc brakes, which provide shorter stopping distances than drum brakes and perform with little to no brake fade. During downhill applications or stop-and-go usage – like a school bus route – drum brakes can heat up and experience decreased performance. The design of air disc brakes all but eliminates fade. Air disc brakes also provide shorter, smoother, and more stable stops than drum brakes.

“Seeing the safety difference brought by air disc brakes is particularly striking – our September 2020 Virtual School Bus Demo offered an eye-opening side-by-side look at the real-world effect of brake fade on stopping distance,” said Mark Holley, Bendix director of marketing and customer solutions – Wheel-End. “It helps put into perspective why adoption of the Bendix® ADB22X® air disc brake – which we introduced to the school bus market in 2008 – continues to gain ground rapidly. Roughly a couple thousand new school buses are equipped with air disc brakes each year.”

In addition, air disc brakes at the wheel-ends help optimize performance of the higher-level safety systems that are also becoming more common in school bus fleets.

All of North America’s major school bus manufacturers – including Blue Bird Corporation, Navistar’s IC Bus, and Thomas Built Buses – offer the industry-leading ADB22X as a factory-installed option.

ADAS Difference

Since 2018, both Blue Bird and IC Bus have made the Bendix® ESP® Electronic Stability Program full-stability system standard equipment on air-braked buses, even though full-stability

technology – already mandatory on most motorcoaches and commercial trucks – is not a requirement for school buses.

Bendix® ESP® utilizes a system of sensors and advanced algorithms to recognize and mitigate conditions that could lead to rollover and loss of control. It functions in a wide range of driving and road conditions, including snowy, ice-covered, and slippery surfaces, and can activate the brakes in ways the driver cannot replicate.

Full-stability systems like Bendix ESP also provide the technological foundation for more advanced driver assistance systems (ADAS), including collision mitigation technologies such as Bendix® Wingman® Advanced™ – A Collision Mitigation Technology and Bendix® Wingman® Fusion™, the company's flagship system.

Bendix Wingman Advanced uses a single radar sensor mounted to the front of the vehicle to deliver active cruise control with braking features, providing both warnings and active interventions to help drivers potentially avoid rear-end collisions, or at least help reduce their severity.

Bendix Wingman Fusion integrates a forward-facing camera with the radar and the vehicle's brake system, creating a comprehensive driver assistance system. With a suite of sensors working together, and not just in parallel, Fusion uses deep, multisystem integration to create a detailed and accurate data picture, setting it apart from radar-only systems.

Bendix collision mitigation technologies are on the road helping protect school bus occupants: IC Bus became the first North American school bus manufacturer to offer collision mitigation as a standard feature in 2018, spec'ing Wingman Advanced on its CE Series and RE Series and offering the Wingman Fusion system as an option on the CE Series.

"The National Transportation Safety Board (NTSB) and NAPT support the adoption of full-stability and collision mitigation on school buses," Thomas said. "These road-proven systems are effective and making a difference right now. We're proud to work with our industry partners to make that happen."

Thomas noted that Bendix safety technologies complement safe driving practices. No commercial vehicle safety technology replaces a skilled, alert driver exercising safe driving techniques and proactive, comprehensive driver training. Responsibility for the safe operation of the vehicle remains with the driver at all times.

Smart Parking

The Bendix® Intellipark® Electronic Parking Brake is another technology to enhance safety and driver convenience. The system helps to prevent rollaway and runaway crashes by

automatically setting the brakes when the system interlocks are met, indicating the driver has forgotten to do so.

"The system monitors inputs in critical areas – for example, status of the foot brake, the accelerator pedal, and wheel speed may be monitored– to help determine when the driver inadvertently forgot to set the parking brakes and the vehicle should be parked," Thomas said. "And since Intellipark® is electronic, it is also positioned for integration with Wingman® Fusion™, enabling the use of the parking brakes to further enhance driver assistance functions."

The Intellipark system replaces the familiar yellow push-pull dash valve with an easy-to-engage electronic switch, making it more ergonomically friendly and eliminating the "stinging" feel of engaging a 120-psi hand-controlled park brake valve. The switch maintains the recognizable yellow symbols and text and includes built-in LED indicator lights that show the status of the brake immediately, offering an additional advantage over the traditional valves. Intellipark also offers increased durability and additional cycles over the current pneumatic system.

Earlier this year, Thomas Built Buses was the first school bus manufacturer to make Intellipark available, on two models. Intellipark is available as an option on the Saf-T-Liner C2 equipped with a Cummins diesel or Detroit Diesel powertrain and an air brake package, and comes standard on the Saf-T-Liner C2 Jouley electric bus.

Other school bus manufacturers are in the process of making Intellipark available.

Training Is Key for Drivers and Technicians

As school bus technologies rapidly evolve and advance, up-to-date proper training on their use and maintenance has become even more important to keeping drivers and their young charges safe.

Bendix offers a combination of hands-on experiences, continuous education, and ongoing communications to help school bus fleets and drivers understand new technologies, learn what these technologies do in traffic situations to help, and, overall, keep their skills sharp.

In-person demonstrations, for example, guide drivers through the actual experience of how these systems work and feel. Other resources include the Bendix YouTube channel; a training portal at brake-school.com that provides no-charge access to a wide array of technical courses; and the Knowledge Dock® at knowledge-dock.com, which has archived resources like the Bendix Tech Tips series, podcasts, blogs, and white papers.

"We will continue to work with our valued manufacturer safety partners in our mission to provide school districts and drivers with the best safety and driver convenience ADAS

technologies, tools, and training to help keep their bus passengers safe," Thomas said. "Students and parents across the country are depending on it."

About Bendix Commercial Vehicle Systems LLC

Bendix Commercial Vehicle Systems, a member of Knorr-Bremse, develops and supplies leading-edge active safety technologies, energy management solutions, and air brake charging and control systems and components under the Bendix® brand name for medium- and heavy-duty trucks, tractors, trailers, buses, and other commercial vehicles throughout North America. An industry pioneer, employing more than 4,100 people, Bendix – and its wholly owned subsidiary, R.H. Sheppard Co., Inc. – is driven to deliver the best solutions for improved vehicle safety, performance, and overall operating cost. Contact us at 1-800-AIR-BRAKE (1-800-247-2725) or visit bendix.com. Stay connected and informed through Bendix expert podcasts, blog posts, videos, and other resources at knowledge-dock.com. Follow Bendix on Twitter at twitter.com/Bendix_CVS. Log on and learn from the Bendix experts at brake-school.com. And to learn more about career opportunities at Bendix, visit bendix.com/careers.

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TOWARD A SAFER FUTURE FOR SCHOOL BUSES

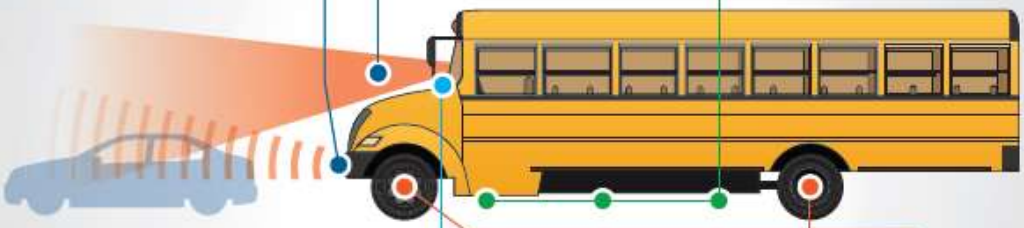
National data supports that school buses are the safest way to transport students to and from school. But crashes do happen, and even a single school bus accident is one too many. Advanced safety technologies – increasingly available on school buses – can help make school buses even safer. Here are four:

Collision Mitigation

- Built on full stability
- Can use a radar sensor alone or be "fused" with a camera for additional functionality
- Delivers warnings and active interventions
- Helps mitigate potential rear-end collisions or reduce their severity

Full Stability

- Helps mitigate potential rollover and loss of control
- Also known by its generic term, Electronic Stability Control (ESC)
- Adds additional sensors and capabilities to ABS, and delivers automatic brake interventions
- Works in a range of conditions, including rain, ice, and snow



Electronic Parking Brake

- Helps prevent rollaway and runaway crashes
- Automatically sets parking brake when interlocks are met (driver has forgotten)
- Offers safety and driver convenience features

Air Disc Brakes

- Significantly shorter stopping distances
- Passenger car-like feel
- Consistently straight, stable stops
- Virtually eliminates brake fade

Bendix is the foremost supplier of safety technologies for school buses. Technologies include the Bendix® ADB22X® air disc brake, Bendix® ESP® Electronic Stability Program full-stability system, Bendix® Wingman® Advanced™ – A Collision Mitigation Technology, Bendix® Wingman® Fusion™, and the Bendix® Intellipark® Electronic Parking Brake.

Bendix® safety technologies complement safe driving practices and are not intended to enable or encourage aggressive driving. No commercial vehicle safety technology replaces a skilled, alert driver exercising safe driving techniques and proactive, comprehensive driver training. Responsibility for the safe operation of the vehicle remains with the driver at all times.

Bendix®