



Auto Innovators Report: Helping Prevent Pediatric Heatstroke Through Rear Seat Reminder Systems

(October 2022)

Industry Progress in Advancing Safety

In 2019, several leading automakers made a proactive, voluntary Commitment to install rear seat reminder systems in new vehicles to help combat instances of pediatric heatstroke attributable to a child being left in a vehicle by a parent or caregiver.¹

Participating manufacturers committed to install these rear seat reminder systems as standard equipment beginning on either September 1, 2024, or for model year 2025 vehicles (depending upon the individual manufacturer production schedules).

Already, there has been significant progress in meeting the goals of the Commitment. This Industry Report provides an update on the progress made in meeting the goals of this Commitment, and highlights further actions and expanded consumer awareness to help support a holistic approach to this important safety issue. Based on this data, more than 150 vehicles now have a rear seat reminder system as standard or optional equipment, representing a three-fold increase in available models since the Commitment was established three years ago.

Understanding the Challenge

Tragically, every year children die of heatstroke, also known as hyperthermia, while unattended in vehicles. The number of children rescued before a fatality occurs is significantly higher. Young children are particularly at risk because their bodies can heat up three to five times faster than adults. In addition to the industry's Commitment, automakers are working to spread the message on the dangers of heatstroke and to educate parents and caregivers about never leaving a child unattended in a vehicle – no matter how briefly.

How does Heatstroke Happen?

Once a vehicle is parked, temperatures inside it can rise rapidly. In minutes, the car's interior temperature can significantly exceed the outside, ambient air. Heatstroke can happen any time of year.

What is a Rear Seat Reminder?

A key aspect of the industry's Commitment is ensuring manufacturers maintain the ability to develop new and innovative safety features that can adapt to changes in how parents and caregivers interact with these systems. Today, there are several types of rear seat systems available. One includes an end-of-trip reminder once the vehicle has been turned off that provides a visual and audible alert to the driver when occupants are potentially present in the rear seat. Another technology, occupant sensing, is designed to detect motion in the rear row of the vehicle and provide similar alerts to the driver.

¹ Leading Automakers' Commitment to Implement Rear Seat Reminder Systems https://www.autosinnovate.org/safety/heatstroke/Automakers%20Commit%20to%20Helping%20Combat%20Child%20Heatstroke.pdf





Ensuring a Holistic Approach

As rear seat reminder systems become more prevalent within the new vehicle fleet, it remains important to continue the focus on consumer education. Such awareness can help to highlight the challenges in addressing pediatric heatstroke and strategies to help reduce the likelihood of these tragic incidents.

To support these efforts, federal and state policymakers must ensure necessary funding is available for advertising, as well as grassroots initiatives to raise awareness among parents, caregivers, and the extended childcare community. These activities should be targeted to ensure greater consumer awareness, particularly during warmer months, which can vary by state. Additional resources have been made available by the National Highway Traffic Safety Administration (NHTSA) and can be accessed on the agency's website, www.nhtsa.gov/campaign/heatstroke.

The availability of new aftermarket products that integrate with Child Restraint Systems (commonly known as car seats) provide an additional layer of awareness about the potential presence of a child in the rear seat of the vehicle.

By taking a holistic approach, collectively, automakers hope to reach the shared goal of zero pediatric heatstroke deaths in the United States. Additional information can be found on the Auto Innovators website.² Individual manufacturer reports can also be found in a NHTSA docket that has been established to provide an option for OEMs to update the public on their ongoing progress toward the Commitment.³

Rear Seat Reminder System Availability – Individual Manufacturer Progress

The following is a list of automakers and models with rear seat reminder systems provided as standard equipment, unless otherwise stated. For each manufacturer listed below, the vehicle models represent those manufactured between September 1, 2021, through August 31, 2022 (unless a model year designation is otherwise noted).

While certain manufacturers do not have models listed as having a rear seat reminder system equipped as standard equipment for this reporting year, we understand that progress is being made to ensure these systems are available in future years.

² Auto Innovators Website: https://www.autosinnovate.org/initiatives/safety/heat-stroke-prevention

³ NHTSA Docket: https://www.regulations.gov/docket/NHTSA-2019-0126/document





BMW BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022	Company	Make	Model	Model Year
Honda Civic Aug 31, 2022 Honda Civic Civ		Honda	Accord	Vehicles manufactured:
Honda HR-V Honda HR-V Honda Odyssey Honda Passport Acura Integra Acura RDX BMW of North America, LLC BMW ix 2023 BMW MW X7 2023 BMW X7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Honda	Accord Hybrid	Sept 1, 2021 -
Honda HR-V Honda Odyssey Honda Passport Acura Integra Acura RDX BMW of North America, LLC BMW ix 2023 BMW MW ix 2023 BMW X7 2023 BMW X7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022 Jeep W		Honda	Civic	Aug 31, 2022
Honda Passport		Honda	Civic Si	
Honda		Honda	HR-V	
Acura Integra Acura MDX Acura RDX BMW of North America, LLC BMW ix 2023 BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Honda	Odyssey	
Acura MDX Acura RDX BMW of North America, LLC BMW ix 2023 BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Honda	Passport	
BMW of North America, LLC BMW ix 2023 BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Acura	Integra	
BMW of North America, LLC BMW ix 2023 BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Acura	MDX	
BMW BMW 7 Series (including i7) 2023 BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		Acura	RDX	
BMW x7 2023 FCA US LLC Jeep Grand Cherokee 2022 Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022	BMW of North America, LLC	BMW	ix	2023
FCA US LLCJeepGrand Cherokee2022JeepGrand Cherokee L2022JeepGrand Cherokee 4xe2022JeepWagoneer2022		BMW	7 Series (including i7)	2023
Jeep Grand Cherokee L 2022 Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022		BMW	x7	2023
Jeep Grand Cherokee 4xe 2022 Jeep Wagoneer 2022	FCA US LLC	Jeep	Grand Cherokee	2022
Jeep Wagoneer 2022		Jeep	Grand Cherokee L	2022
·		Jeep	Grand Cherokee 4xe	2022
		Jeep	Wagoneer	2022
Jeep Grand Wagoneer 2022		Jeep	Grand Wagoneer	2022
Dodge Durango 2022		Dodge	Durango	2022
Chrysler Pacifica 2022		Chrysler	Pacifica	2022
Chrysler Pacifica Hybrid 2022		Chrysler	Pacifica Hybrid	2022
Ford Motor CompanyFordBronco 4DR2021, 2022, 2023	Ford Motor Company	Ford	Bronco 4DR	2021, 2022, 2023
Ford Bronco Sport 2021, 2022, 2023		Ford	Bronco Sport	2021, 2022, 2023
Ford EcoSport 2021, 2022		Ford	EcoSport	2021, 2022
Ford Edge 2021, 2022, 2023		Ford	Edge	2021, 2022, 2023
Ford Escape 2021, 2022, 2023		Ford	Escape	2021, 2022, 2023
Ford Expedition 2021, 2022		Ford	Expedition	2021, 2022
Ford Explorer 2021, 2022, 2023		Ford	Explorer	2021, 2022, 2023
Ford Explorer Police Interceptor* 2021, 2022, 2023		Ford	Explorer Police Interceptor*	2021, 2022, 2023
Ford F-150 (Super Cab, Crew Cab) 2021, 2022, 2023		Ford	F-150 (Super Cab, Crew Cab)	2021, 2022, 2023
Ford F-150 Police Responder 2021, 2022, 2023		Ford	F-150 Police Responder	2021, 2022, 2023
Ford Mustang Mach E 2021, 2022, 2023		Ford	Mustang Mach E	2021, 2022, 2023
Ford Ranger 2021, 2022, 2023		Ford	Ranger	2021, 2022, 2023
Ford Super Duty (Super Cab, Crew Cab) 2021, 2022, 2023		Ford	Super Duty (Super Cab, Crew Cab)	2021, 2022, 2023
Ford Transit* 2021, 2022, 2023		Ford	Transit*	2021, 2022, 2023
Ford Transit Connect* 2022, 2023		Ford	Transit Connect*	2022, 2023
Lincoln Aviator 2021, 2022, 2023		Lincoln	Aviator	2021, 2022, 2023
Lincoln Corsair 2021, 2022, 2023		Lincoln	Corsair	2021, 2022, 2023
Lincoln Nautilus 2021, 2022, 2023		Lincoln	Nautilus	2021, 2022, 2023
Lincoln Navigator 2021, 2022		Lincoln	Novigotor	2024 2022





Company	Make	Model	Model Year
General Motors LLC	Buick	Enclave	2021, 2022, 2023
	Buick	Encore GX	2022, 2023
	Buick	Envision	2022, 2023
	Buick	Encore	2022
	Cadillac	CT4	2021, 2022, 2023
	Cadillac	CT5	2021, 2022, 2023
	Cadillac	Escalade	2021, 2022, 2023
	Cadillac	Escalade ESV	2021, 2022, 2023
	Cadillac	XT4	2021, 2022, 2023
	Cadillac	XT5	2022, 2023
	Cadillac	XT6	2022, 2023
	Cadillac	LYRIQ	2023
	Chevrolet	Blazer	2021, 2022, 2023
	Chevrolet	Malibu	2021, 2022, 2023
	Chevrolet	Suburban	2021, 2022, 2023
	Chevrolet	Tahoe	2021, 2022, 2023
	Chevrolet	Traverse	2021, 2022, 2023
	Chevrolet	Bolt EV	2022, 2023
	Chevrolet	Bolt EUV	2022, 2023
	Chevrolet	Colorado (Crew Cab)	2022, 2023
	Chevrolet	Equinox	2022, 2023
	Chevrolet	Silverado 1500 (Crew Cab, Double Cab)	2022, 2023
	Chevrolet	Silverado 2500 (Crew Cab, Double Cab)	2022, 2023
	Chevrolet	Silverado 3500 (Crew Cab, Double Cab)	2022, 2023
	Chevrolet	Trailblazer	2022, 2023
	Chevrolet	Spark	2022
	Chevrolet	Trax	2022
	GMC	Acadia	2022, 2023
	GMC	Canyon	2022, 2023
	GMC	Hummer EV	2022, 2023
	GMC	Sierra 1500 (Crew Cab, Double Cab)	2022, 2023
	GMC	Sierra 2500 (Crew Cab, Double Cab)	2022, 2023
	GMC	Sierra 3500 (Crew Cab, Double Cab)	2022, 2023
	GMC	Terrain	2022, 2023
	GMC	Yukon	2021, 2022, 2023
	GMC	Yukon XL	2021, 2022, 2023
	GMC	Sierra LD (Crew Cab, Double Cab)	2021





Company	Make	Model	Model Year
Hyundai Motor America	Hyundai	Santa Fe	2019*, 2020, 2021, 2022, 2023
	Hyundai	Sonata	2020, 2021, 2022, 2023
	Hyundai	Palisade	2020, 2021, 2022
	Hyundai	Elantra	2021, 2022, 2023
	Hyundai	loniq 5	2022, 2023
	Hyundai	Kona	2022, 2023
	Hyundai	Tucson	2022, 2023
	Hyundai	Santa Cruz	2022, 2023
	Hyundai	Hyundai	2023
	Genesis	G80	2021*, 2022, 2023
	Genesis	GV80	2021*, 2022, 2023
	Genesis	G70	2022, 2023
	Genesis	GV70	2022, 2023
	Genesis	GV60	2023
	Genesis	G90	2023
Kia Motors America	Kia	Carnival	2022, 2023
	Kia	EV6	2022, 2023
	Kia	Forte	2022, 2023
	Kia	K5 All	2022, 2023
	Kia	Niro All	2022, 2023
	Kia	Niro EV	2022, 2023
	Kia	Rio S (Optional)	2022, 2023
	Kia	Seltos	2022, 2023
	Kia	Sorento	2022, 2023
	Kia	Soul All	2022, 2023
	Kia	Sportage	2022, 2023
	Kia	Stinger	2022, 2023
	Kia	Telluride	2022, 2023
Mercedes-Benz USA, LLC	Mercedes-Benz	EQS SUV	
	Mercedes-Benz	EQS SUV 450+	2023
	Mercedes-Benz	EQS SUV 450 4MATIC	2023
	Mercedes-Benz	EQS SUV 580 4MATIC	2023
Mitsubishi Motors North America, Inc	Mitsubishi	OUTLANDER	2022





Company	Make	Model	Model Year
Nissan North America, Inc.	Nissan	Versa**	2021, 2022
	Nissan	Sentra	2021, 2022
	Nissan	Altima	2021, 2022, 2023
	Nissan	Maxima	2021, 2022
	Nissan	LEAF	2022, 2022
	Nissan	Pathfinder	2022, 2023
	Nissan	Frontier	2022, 2023
	Nissan	Titan	2021, 2022, 2023
	Nissan	Rogue	2021, 2022, 2023
	Nissan	Murano	2021, 2022, 2023
	Nissan	Kicks**	2021, 2022, 2023
	Nissan	Nissan Rogue Sport	2021, 2022
	Nissan	Armada	2022
	Nissan	ARIYA	2023
	Infiniti	QX50	2023
	Infiniti	Infiniti QX60	2022, 2023
	Infiniti	Infiniti QX80	2022, 2023
Subaru of America, Inc.	Subaru	Impreza (Sedan + 5-door) Optional*	2022-2023
	Subaru	Crosstrek Optional*	2021-2023
	Subaru	WRX	2022
	Subaru	Legacy	2022-2023
	Subaru	Outback	2022-2023
	Subaru	Forester	2021-2022
	Subaru	Ascent	2021-2022
	Subaru	Solterra	2023





Company	Make	Model	Model Year
Toyota Motor North America, Inc.	Lexus	LS	Vehicles manufactured:
	Lexus	LS Hybrid	Sept 1, 2021 -
	Lexus	ES	Aug 31, 2022
	Lexus	ES Hybrid	
	Lexus	IS	
	Lexus	UX	
	Lexus	UX Hybrid	
	Lexus	NX	
	Lexus	NX Hybrid	
	Lexus	NX Plug-In Hybrid EV	
	Lexus	GX	
	Lexus	LX	
	Toyota	Avalon	
	Toyota	Avalon Hybrid	
	Toyota	Camry	
	Toyota	Camry Hybrid	
	Toyota	Prius	
	Toyota	Prius Prime	
	Toyota	Corolla Cross	
	Toyota	Tundra	
	Toyota	Tundra Hybrid	
	Toyota	4Runner	
	Toyota	Highlander	
	Toyota	Highlander Hybrid	
	Toyota	Sienna	
	Toyota	RAV5	
	Toyota	RAV4 Hybrid	
	Toyota	RAV4 Prime	
	Toyota	Mirai	
	Toyota	Venza	
	Toyota	bZ4X	

^{*}Rear seat reminder provided as optional equipment

^{**} Rear seat reminder provided as optional equipment (SV, SR only)