mobileye®
An Intel Company

Mobileye

Shield+™ Connect

Our most advanced collision avoidance system designed specifically for buses and large vehicles

Mobileye Shield+™ Connect is a collision avoidance system specifically designed for fleets operating in a crowded urban environment. This all-in-one system warns drivers of hazards, even in their blind spots, and helps fleets manage their vehicles.

Shield+
an award winning system

Commercial Fleet Award
UK
2017

Innovative Solutions Award
BusCon
2016

Avoid Collisions

With Vehicles, Pedestrians, Cyclists and Motorcyclists

Driving in urban areas is stressful enough. Mobileye Shield+ gives drivers visual and audio alerts, warning them of potential collisions.

Pedestrian and Cyclist Collision Warning
With pedestrians, cyclists and motorcyclists darting in and out between cars and rushing out on to crosswalks, PCW gives drivers the time to avoid or mitigate these collisions.

Forward Collision Warning (FCW)
Cars cutting in front, trucks stopping short, vehicles not yielding – just a few of the challenges facing your bus drivers. FCW gives them those precious seconds they need to avert or at least mitigate a clash.

Headway Monitoring & Warning (HMW)
Keeping proper distance is especially challenging in urban traffic, but is still a key element to avoiding rear-end crashes and harsh braking. HMW helps drivers judge proper following distance and there is even evidence that it reduces passenger injuries.

Lane Departure Warning (LDW)
Busy urban streets and passengers often require a lot of your drivers' attention. LDW helps drivers by alerting them if they stray from their lane.

Speed Limit Indicator (SLI)
Tight schedules may put pressure on some drivers to speed. SLI provides a reminder to drivers when they exceed the speed limit.

Now Featuring

New! DAY&NIGHT DETECTION
Pedestrian and Cyclist Warning Day & Night*

New! OVER-THE-AIR UPDATES
Connecting to the cloud allows you to benefit from latest software updates

New! HEATED SIDE CAMERAS
Provide blind spot protection even in freezing weather

*Detection at night requires reasonable artificial lighting

With blind spot detection

Mobileye Shield+™ Connect has cameras on the bus's sides, continuously monitoring the driving environment.

These cameras are able to detect pedestrians, cyclists and motorcyclists hidden in the vehicle's blind spots and alert the driver to take action before a collision.

Mobileye's Blind Spot Detection and Collision Warning has a unique two-phase alert system:

A yellow signal indicates a pedestrian, bicycle, or motorcycle in the blind spot, meaning the driver should act with caution.

A red signal, along with an audio alert warns the driver of an imminent collision and of the need to take immediate preventative action. This alert takes the bus's path into account – helping prevent the dangerous situation of a bus turning into or across the path of pedestrians, cyclists and motorcyclists.

Protect
your fleet, your drivers & road users

with our advanced collision avoidance system, making the streets safe for everyone.

Avoid or mitigate collisions

Mobileye Shield+ Connect offers a full-range of collision protection for buses. Forward collision, pedestrian collision and headway monitoring warnings help prevent rear-end collisions and pedestrian injuries Lane departure warning helps keep vehicles in their lane and avoid sideswipes, while blind spot warnings alert drivers to the presence of pedestrians and cyclists to the side of a vehicle or in the area obscured by the A-pillar.

Reliable alerts are effective alerts

The need to alert drivers of potential hazards is obvious, but it's also important for these systems to avoid warning drivers when there is no hazard. These "false positives" can lead to drivers dis–missing alerts even when there is real danger. Mobileye Shield+ is designed to ignore irrelevant objects such as mailboxes and poles, so drivers are only alerted when there is real danger.

Detect pedestrians and cyclists ahead and in blind spots

Help avoid collisions with pedestrians, cyclists or motorcyclists with pedestrian collision warnings and blind spot detection.

Protect
your budget

by lowering collision costs, improving fleet efficiency and letting you install advanced collision avoidance into your existing fleet.

Retrofit your existing fleet

No need to wait for the purchase of new buses, when you can benefit from collision avoidance for a fraction of the cost. Retrofit your buses with Mobileye Shield+ Connect advanced safety technology today.

Improve driver behavior

A University of Missouri study showed that after installing a collision avoidance system, drivers improved their behavior with a 43% drop in lane departure warnings, a 71% drop in headway monitoring warnings and a 57% drop in forward collision warnings. This indicates these systems significantly improve driver behavior.

Curb collision costs

Even a minor collision can cost your fleet a significant amount. Help tackle vehicle damage costs and the costs associated with collisions, including passenger law suits, by equipping your vehicles with a robust collision avoidance system.

New and improved technology

Mobileye Shield+™ Connect features the new EyeQ®4 chip.
The EyeQ4 enables the system to detect pedestrians and cyclists under low light, and incorporates improved lane detection. The system has a large detection area, which provides a wide protection zone for drivers and vulnerable road users.

Protecting bus passengers

Mobileye does not just protect vulnerable road users. During a trial program run by Abellio London, Mobileye was installed on 66 buses and used by over 200 drivers. During this period avoidable collisions fell 29.1% and there was an unexpected side-benefit – avoidable passenger injuries dropped an astounding 60%.
The company credits Mobileye's headway monitoring & warning with this drop. It seems that as drivers keep safer distances there is a reduction in the harsh braking that can result in passengers being thrown around the vehicle.

Protecting vulnerable road users

The UNECE has issued regulations for blind spot detection and the EU's General Safety Regulation makes this feature mandatory for new trucks and buses as of 2024. In Germany, Mobileye's Shield+ turn-assist already qualifies for special government incentives to protect pedestrians, cyclists and motorcyclists.

Tested

The General German Automobile Club (ADAC), tested Shield+ for its turn-assist (blind spot) capabilities, certifying that it met the Federal Ministry of Transport and Digital Infrastructure standards. They described the system as "easy and understandable" and "characterized by a low rate of false alarms.[1]"

Toward safer cities

In 2018, impressed by the Mobileye Shield+ safety record, Barcelona equipped 23 of the city's buses with the system. The city council is also working toward making Mobileye mandatory in all new network vehicles. The council's decision was based both on safety considerations and the system's ability to gather valuable data, giving city planners the tools they need to improve safety on city streets.

[1] Truck turning assistants in comparison, https://bit.ly/2O0kYkT
[2] Findings of 'Active Safety-Collision Warning Pilot Study' by Washington State Transit Insurance Pool; full Study(including explanation of methodology) available at www.trb.org/Main/Blurbs/176361.asp

"This is about making our city streets safer and we are looking to avoid situations that are especially dangerous for pedestrians and cyclists, two of the most vulnerable groups of road users in urban environments."

The Barcelona City Council

"No Shield+ equipped buses were involved in any collisions with bicyclists or pedestrians."

Active Safety-Collision Warning Pilot Study by Washington State Transit Insurance Pool[2]

Serve the Public More Efficiently

In addition to protecting and managing your fleet, Mobileye can also help fleets by providing critical data*. Using the information collected by collision avoidance technology, bus operators can leverage transportation data to make bus service more efficient.

This GIS-compatible data lets fleets identify hot spots, traffic jams and other crucial mobility information, that bus operators can use help them stay safe and on schedule.

*Mobileye Data Services are sold separately
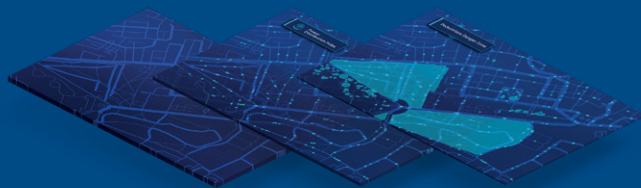
Locate hot spots to improve safety

Hot spots are locations where vehicles have an increased chance of getting into an accident.
By collecting and processing data about near-misses – incidents where vehicles almost collide with other vehicles or pedestrians, fleet managers can isolate these hot spots. Drivers can be warned of these potential risks beforehand or these areas can be avoided.

About Mobileye

Mobileye, an Intel company, is leading the mobility revolution with its autonomous-driving and driver-assist technologies, harnessing world-renowned expertise in computer vision, machine learning, mapping, and data analysis.

Mobileye technology uses a single camera to scan the road ahead and detect potential dangers – it identifies lane markings, for example, and alerts drivers if the vehicle has departed from the lane, providing functions such as Lane Departure Warning and Lane Keep Assist.

Over 65 million vehicles around the world have Mobileye inside.
The robust performance of our technology has been stress-tested over millions of driving miles as part of the stringent validation processes of safety-critical automotive products.

Leveraging the same technology, Mobileye reinvented road surveying for asset management and road maintenance. Mobileye's EyeQ® chip and algorithms have been trained to identify, tag, and classify road assets, to assess pavement condition and to capture mobility data, as equipped vehicles travel on their regular routes.

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