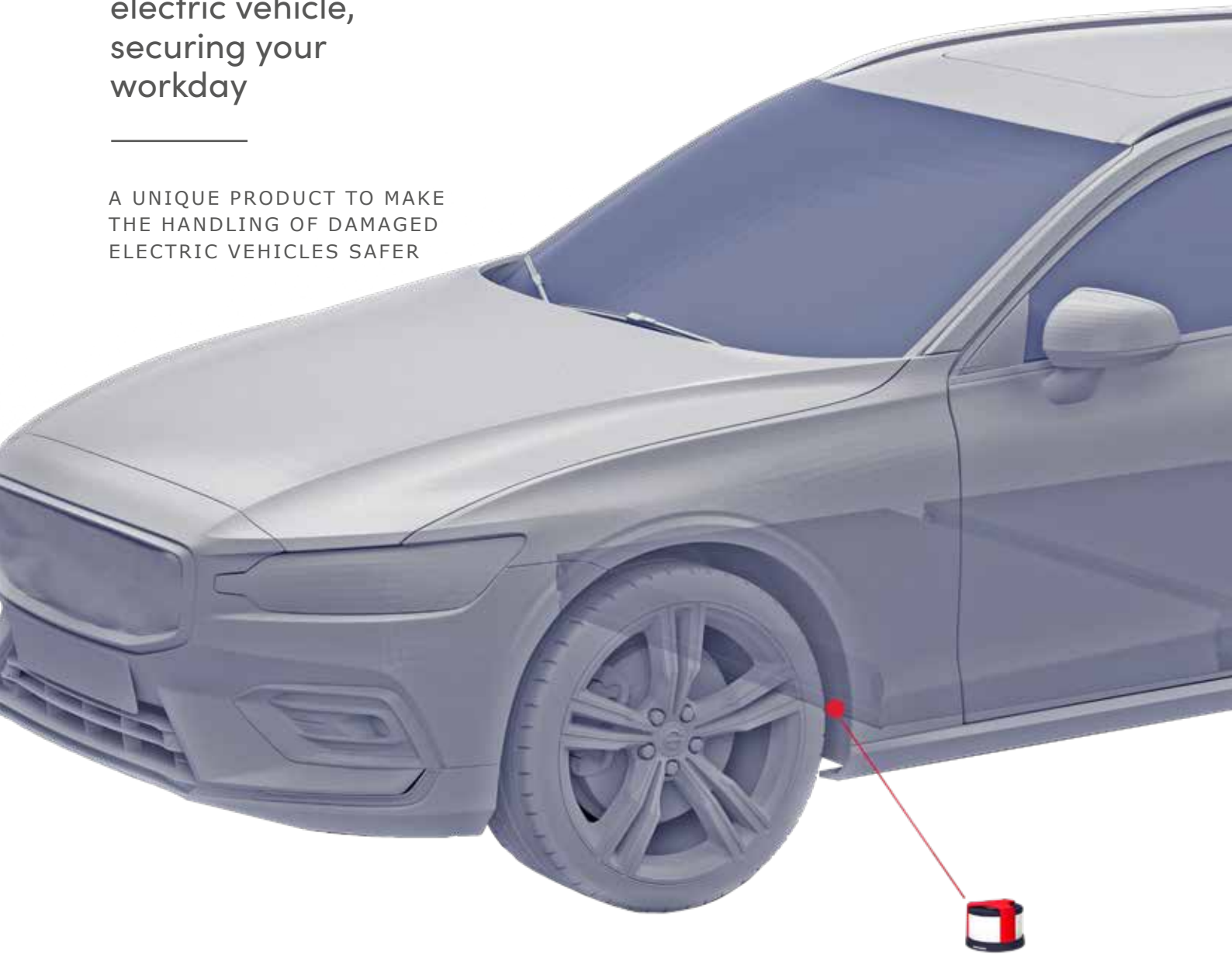


EV-Garm

EV-Garm
Guarding your
electric vehicle,
securing your
workday

A UNIQUE PRODUCT TO MAKE
THE HANDLING OF DAMAGED
ELECTRIC VEHICLES SAFER



DAFO
Vehicle
BY UNITED SAFETY



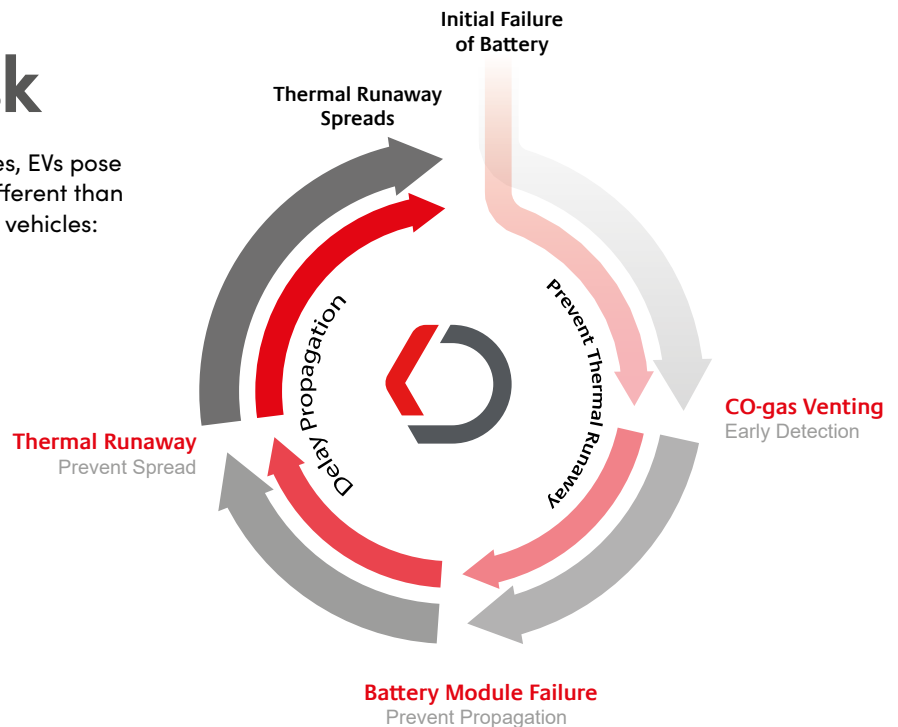
Electric Vehicle Growth...

The electric vehicle (EV) revolution (EVs) is well underway and gathering momentum.

In the drive for sustainability, by 2030, it's estimated there will be over 300 million EVs on the road globally - up from 16.5 million at the end of 2021.

Batteries - A Unique Risk

Powered by lithium-ion (li-ion) batteries, EVs pose unique fire risks - which are entirely different than those of traditional combustion engine vehicles:



- If a battery overheats, overcharges, becomes overvoltage or is physically damaged, it may malfunction
- That malfunction can lead to smoke emission and rapid temperature increases across the battery's cells
- If not controlled quickly, this can lead to fire, toxic gas emissions (carbon monoxide) - and even large explosions.

That process is called thermal runaway - and once it's started, it's extremely difficult to extinguish using traditional fire suppression systems.

Traditional, thermal fire detection systems will often only detect thermal runaway as temperatures rise. Those temperatures may be beyond the point of no return.

In addition, toxic gases being emitted, such as hydrogen fluoride, carbon dioxide and cyanide, can cause serious damage to both the skin and respiratory tract.

EV batteries need a system that detects thermal runaway in its earliest stage - to mitigate risk and maximise safety.

EV-Garm

Introducing a cutting-edge safety monitoring system for batteries in electric vehicles. The carbon monoxide sensing system is specifically designed for electric vehicles during repair, service and maintenance.

This advanced system provides essential safety monitoring for automobile repair facilities, detecting the early signs of Li-ion battery venting. It's a must-have safety solution for any workshop handling battery electric vehicles. With innovative, patent-pending technology, our system is setting a new benchmark in safety monitoring for the future of vehicle maintenance.



How to place the sensors:

When a damaged vehicle is in a workshop or quarantined, EV-Garm continuously monitors it for early signs of ventilation, thermal runaway, and fire risk.

The sensors should be placed close to the battery's over-pressure valve (the maximum distance should be 30 cm). This enables the sensor to react to early signs of Li-ion battery venting.

How the sensors work:

In the event of battery distress or failure, our sensors trigger a loud siren, flashing lights, and send a notification to alert workshop staff to take immediate action and necessary precautions.

With early detection of thermal runaway, EV-Garm:

- Minimizes EV quarantine time and reduces downtime
- Ensures a safer work environment for workshop staff

"This is the product the industry needs and has been waiting for. Finally we can secure safer workshops for our associated members." – Bo Ericsson, Fordonsjuristen.

The mechanic at the workshop can easily install sensor modules on the electric vehicle before starting work. With the help of these sensors, they can safely follow safety procedures and, if necessary, quickly evacuate the workshop if an alarm is triggered. Safety and security – smooth and efficient!





DAFO
Vehicle
BY UNITED SAFETY

**Don't compromise on
safety - get in touch.**

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