

Vehicle Accident-Prevention System Retrofit (ADAS)

The fleet already exists. Safety has to be fitted to it.

RETROFIT IS THE HARD VERSION

Factory driver-assistance is designed with the vehicle: sensor positions engineered into the body, a clean data bus, a known electrical system. A retrofit meets the vehicle as it is - a cab never shaped for sensors, a decades-old electrical architecture with real transients, vibration that makes a badly mounted sensor lie, and no bus to plug into. So the integration is the product: rigid jugged mounting with defined alignment, conditioned power, EMC discipline, and a NON-INVASIVE installation - reversible, inspectable - that preserves the vehicle's existing approvals.

THE FALSE ALARM IS THE REAL ENEMY

Hard duty breaks civilian assumptions: convoys hold deliberate close spacing that would keep a civilian collision warning sounding continuously; dust and night moves on dimmed lights degrade what cameras see; drivers rotate, so the interface must be understood in minutes. A system that cries wolf is switched off inside a month - worse than no system, because the fleet then believes safety equipment is noise. Thresholds are tuned to the duty, validated on the fleet's own roads, and the false-alarm rate is treated as a specification.

A PROGRAMME, NOT A PRODUCT

Years of service make every vehicle slightly different - a sensor aimed wrong by a degree watches the verge, not the road - so every installation ends in a PER-VEHICLE CALIBRATION against a target, recorded, plus an end-of-line functional check. The installation line runs at depot throughput without pulling vehicles from duty. Driver training takes minutes by design; maintainer training has depth. Spares and AMC work wherever the fleet goes. Acceptance is demonstrated - test-track validation against target objects to the applicable standard - never asserted from a datasheet.

THE MACHINE

- Sensing and perception - a certified subsystem, mounted rigid, jugged, aligned
- Driver interface - one display, unambiguous alerts, day / night / blackout modes
- Vehicle integration - conditioned power, EMC, non-invasive, approvals preserved
- Fleet programme - depot line, per-vehicle calibration, training, spares, AMC

VARIANTS

Forward-collision warning & braking assist · Driver monitoring & fatigue alert · Vision & blind-spot suite · Fleet incident recording & analysis

PARTNERSHIP & SCOPE

Perception and warning subsystem from a specialist UK driver-safety systems developer, integrated as a certified subsystem. Ours: the retrofit engineering and integration, and the fleet programme - depot installation line, per-vehicle calibration and checks, track validation, documentation, training, spares and AMC. The customer's: the fleet, the duty, the applicable standard and the acceptance programme.

STATUS

Engineered to order. Equipment of this class has been quoted against successive accident-prevention system retrofit requirements for a military logistics vehicle fleet; no delivered accident-prevention retrofit is claimed.