

## Engine Management System (EMS) Interfaces for Cars, Vans & HGVs

Monitoring the vehicle's engine management system is a proven method for analysing vehicle or driver performance. FleetSure is able to combine data from a vehicle's CAN, FMS or OBD interface with key metrics from other systems such as the Tachograph and our 3D G-Force sensor.

Irrespective of each vehicle's location, live and historic data can be analysed by driver, vehicle, division or entire fleet. The resulting reports and graphical summaries will enable you to pre-empt maintenance, minimise wear, educate drivers and reduce fuel consumption – all leading to reduced costs and improved safety.

The actual data available to the FleetSure EMS interfaces will depend on the brand, model and configuration of each vehicle and may include:

### Speed & Cruise

- Speed
- Cruise control active
- Odometer
- Over speeding
- Cruise time, speed & fuel
- Coasting

### Harsh Driving

- Accelerator pedal position
- Excessive acceleration
- Uneven speed pattern
- Extreme fuel consumption
- Green band driving
- Harsh brake indicators

### Engine

- Engine hours
- Engine Coolant temperature
- Oil temperature, level & pressure
- Actual engine torque
- Turbo pressure

### Tachograph Info

- Work status
- Speed
- Performance, handling & event status
- Driver ID

### Brake Analysis

- Brake switch
- Parking brake
- Brake information
- Retarder & engine brake
- Brake distance

### Power Take Off Analysis

- PTO active
- Fuel used PTO active
- PTO duration
- PTO activations

### Fuel Analysis

- Fuel level
- Total fuel used
- Actual fuel consumption
- Fuel used idle active
- Idle analysis

### Clutch & Gear

- Clutch switch
- RPM
- Selected gear information
- Reverse
- Over revving

### Others

- Service distance
- Axle weight
- Vehicle ID
- Ambient air temperature
- Barometric pressure
- AdBlue catalyst level

This list is not exhaustive and can be extended on a per-project basis.

The FleetSure EMS interface technology is read-only and does not interfere with the vehicle CANbus network. When required, an optional passive connection can be used to read the vehicle signals without making a wire to wire connection or breaking the vehicle's wiring-insulation. This technology guarantees that no intrusive signals are sent to the vehicle CANbus eliminating liability and warranty issues.

Live and historic data can be automatically compared with pre-configured parameters and alerts can be raised for any unacceptable driving events. Both vehicle and driver performance can be monitored by the fleet operator and other permitted parties. An in-cab display can also be used to notify drivers of driving style issues during a trip. Driver specific feedback and education on how their driving style directly affects operating costs will lead to substantial fleet-wide fuel consumption reductions.

