
Overview

This standard is about identifying and fitting suitable supplementary locking and security devices that are permanently fitted to vehicles to deter theft.

DRAFT

Performance**criteria**

- You must be able to:**
- P1 select and use appropriate personal and vehicle protection equipment at all times
 - P2 support the fitting of supplementary locks and security systems by reviewing vehicle:
 - P2.1 technical data
 - P2.2 diagnostic test procedures
 - P3 prepare, connect and check all the required equipment following manufacturers' instructions prior to use
 - P4 collect sufficient information to enable an accurate fitting of supplementary locking and security devices
 - P5 use fitting techniques (both electrical and mechanical) which are relevant to the systems presented
 - P6 use the tools and equipment required, correctly and safely throughout all fitting activities
 - P7 make cost effective recommendations for the fitting of relevant supplementary locks and security devices according to the customers' needs and vehicle type
 - P8 carry out all fitting activities following:
 - P8.1 manufacturers' instructions
 - P8.2 recognised researched repair methods
 - P8.3 health, safety and environmental requirements
 - P9 work in a way which minimises the risk of:
 - P9.1 9.1 damage to other vehicle systems, units and components
 - P9.2 9.3 contact with leakage, hazardous substances and high voltage systems
 - P9.3 damage to your working environment
 - P9.4 injury to yourself and others
 - P10 ensure all components and units conform to the vehicle operating specification and any legal requirements
 - P11 adjust components and units correctly to ensure that they operate to meet system requirements
 - P12 ensure the systems fitted perform to the vehicle operating specification and any legal requirements prior to return to the customer

-
- P13 ensure your records are accurate, complete and promptly passed to the relevant person(s) in the format required
 - P14 complete all activities within the agreed timescale
 - P15 promptly report any anticipated delays in completion to the relevant person(s)

DRAFT

Knowledge and understanding

You need to know and understand:

Legislative and organisational requirements and procedures

- K1 the current health and safety legislation and workplace procedures relevant to workshop practices and personal and vehicle protection when fitting supplementary locks and security devices
- K2 legal requirements relating to the vehicle and fitment of supplementary locks and security devices (including road safety, MOT, Construction and Use regulations and Type Approval)
- K3 your workplace procedures for:
 - K3.1 fitting supplementary locks and security devices
 - K3.2 recording information
 - K3.3 the referral of problems
 - K3.4 reporting delays to the completion of work
- K4 the importance of working to recognised procedures and processes and obtaining the correct information to enable fitting activities to proceed
- K5 the importance of documenting information
- K6 the importance of working to agreed timescales and keeping others informed of progress
- K7 the relationship between time and costs
- K8 the importance of promptly reporting anticipated delays to the relevant person(s)

You need to know and understand:

Electrical and electronic principles

- K9 electrical and electronic principles, including Ohms Law, voltage, power, current (AC/DC) resistance, magnetism, electromagnetism, electromagnetic induction, EMC, digital and fibre optics principles
- K10 electrical symbols, units and terms
- K11 electrical safety procedures
- K12 how electrical and electronic units and components are constructed, dismantled and reassembled
- K13 how electrical and electronic units and components operate, including electrical component function, electrical inputs, outputs, voltage/current variation and patterns

- K14 the interaction between electrical, electronic and mechanical components within the systems defined
- K15 how vehicle electrical systems interlink and interact with supplementary vehicle locks and additional security devices, including networking protocols

You need to know
and understand:

Locking Device Principles and Operations

- K16 the operating principle and construction of mechanical locking systems
- K17 the operating principle and construction of pneumatic locking systems
- K18 how locking systems (electrical, mechanical and pneumatic) can be integrated with Type Approved vehicle latches

You need to know
and understand:

Mechanical/Electrical Competencies and Fitting principles

- K19 how to identify suitable supplementary locks and security devices for the type/use of vehicle
- K20 how to prepare, test and use all the equipment required for the fitting of supplementary locks and security devices
- K21 how to use measuring devices in order to measure and mark out vehicles to enable the fitting of supplementary locks and security devices
- K22 how to file, fit, tap, thread, cut and drill plastics and metals
- K23 how to integrate vehicle electrical systems with supplementary locks and security devices (where applicable)
- K24 how to apply vehicle body anticorrosion treatment to meet vehicle requirements
- K25 how to make suitable adjustments to components and units
- K26 how to make cost effective recommendations for rectification
- K27 how to work safely avoiding damage to other vehicle systems, components and units and contact with leakage and hazardous substances

Scope/range

1. Examples of **supplementary locks and security devices** include:
 - 1.1. electronic / electro mechanical lock mechanisms
 - 1.2. additional / supplementary mechanical door locks using cylinder type lock
 - 1.3. additional / supplementary mechanical door / aperture locks using external locking systems
 - 1.4. mechanical window protection devices (internal and external)
 - 1.5. replacement security windows / window security films
 - 1.6. pneumatic locking systems

2. **Tools and equipment** include:
 - 2.1. hand tools
 - 2.2. special purpose tools
 - 2.3. general workshop equipment
 - 2.4. measuring equipment

Additional information

This section contains examples and explanations of some of the terms used but does not form part of the standard.

Glossary

Agreed timescales:

Examples include: manufacturer's recommended work times, job times set by your company or a job time agreed with a specific customer

Vehicles:

These can be any of the following – light vehicles, heavy goods and passenger service vehicles, motorcycles, mopeds and scooters

DRAFT

Developed by	IMI
Version number	3
Date approved	March 2022
Indicative review date	March 2025
Validity	Current
Status	Original
Originating organisation	IMI Ltd
Original URN	IMIAEME107
Relevant occupations	Auto and Mobile Installation Technicians; Auto-electrical Technician (Automotive)
Suite	Auto Electrical and Mobile Electrical Installation
Key words	Identify fit motor vehicle auxiliary locks security devices