

Overview

This standard covers the removal and installation of fixed automotive glass in vehicles. How to prepare the apertures, ensuring glass and other components are removed, either for disposal or for refitting, as well as the positioning and securing of the replacement components being installed within the aperture, using the appropriate bonding and sealing materials.

For the purpose of this standard, fixed glass includes windscreens, side glass, rear screen glass and roof glasses. Components include sensors, aerials, airbags, safety systems.

Remove and install fixed automotive glass in vehicles

Performance criteria

- You must be able to:*
- P1 comply with health, safety and legal requirements and procedures at all times.
 - P2 identify and assess any requirements that affect the installation work.
 - P3 check relevant vehicle components and technologies are operational
 - P4 check replacement fixed automotive glass to ensure it is not faulty or damaged and that the installation does not restrict the use of other vehicle components.
 - P5 remove existing glass and materials using correct Personal and Vehicle Protective Equipment and according to the approved repair methods/company guidelines.
 - P6 store existing components and materials carefully for re-installation.
 - P7 clear all debris and surplus materials and dispose of it safely in accordance with standard operating procedures.
 - P8 handle automotive glass correctly to minimise damage, waste and danger, taking into account weight, shape, size and position.
 - P9 apply specified materials in accordance with the manufacturer's specifications to provide a secure and weatherproof installation.
 - P10 ensure the operation of components and technologies is restored correctly.
 - P11 ensure work activities that are undertaken are within one's own competence.
 - P12 record information on the installation in the appropriate information systems.
 - P13 fit the fixed automotive glass correctly and securely according to installation specifications.

Knowledge and understanding

You need to know and understand:

Health and safety

K1 the relevant health, safety and legal responsibilities and obligations

Components and materials

K2 what type of materials should be removed from vehicles

K3 what types of components should be removed from vehicles

K4 how different types of components should be removed/disabled and the correct methods to do this

K5 how different types of material should be transported, stored and disposed of

K6 the methods for removing different types of material from the vehicle

K7 what type of debris needs to be removed from vehicles

K8 how to deal with surplus and waste materials

Automotive glazing products

K9 the differences between laminated and toughened glass, the manufacturing processes and the reasons why front windscreens are almost all made of laminated glass

K10 the reasons some side and rear windows are made of laminated glass and reasons why the use of laminated glass for this purpose is minimal

K11 the properties of polyvinylbutyral (PVB) interlayers used in automotive glass manufacture

K12 the benefits of direct glazing systems, the effects that weather conditions can have of the safe use of them, and how and why to use them correctly

K13 the different requirements for installing various types of fixed automotive glass, taking into account weight, shape, size and position

K14 the different glass tints available and how to identify them and the problems that can occur

K15 the make-up of different specialist types of automotive glass, including solar controlled, heat reflective, acoustic, anti-bandit, hydrophobic, why it is used and how it works

K16 the purpose and meanings of glass markings

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K17 the properties of heated rear and front windscreens

K18 the need to be aware of supplementary restraint systems (SRS), how to identify their location and the precautions to be taken when working near them

K19 how components and technologies operate, how to check them and the types of problems that can occur

K20 the non-glass glazing systems in use and how to obtain information on their correct use, relevant to task and conditions

Fixed automotive glass

K21 the typical range and function of fixed automotive glass

K22 how to identify damaged or faulty fixed automotive glass

K23 how to handle different fixed automotive glass

K24 the correct methods for fitting different types of fixed automotive glazing component

K25 what types of material should be used to provide a secure and weatherproof installation

K26 the safe-drive time applicable to different types of installations

K27 the reset procedures for sensors, how and where to find them and the implications of not following them correctly

K28 the procedures and requirements for installing and handling large fixed automotive glass

K29 the different types of tools and equipment used in automotive glazing and what they are used for

Work

K30 what work has to be done to meet different requirements

K31 what restrictions should be imposed on the use of the vehicle after different types of work

Standard operating procedures

K32 the types of quality checks that can be used on completion of installation to ensure correct alignment and operation of components to manufacturer's specification and their purpose

K33 the standard operating procedures for different activities

K34 how and when to obtain information on the standard operating procedures

Problems

K35 the types of problems that could occur

K36 how different types of problem can be resolved

Glossary

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

Technologies:

- Washers and wipers
- Sensors
- ADAS
- Heated glass
- Head up displays
- Cameras
- Radars
- LIDARs
- Locking systems
- Speakers
- Air bags
- Winding mechanisms
- Locks
- Antenna

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