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| 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 and rear screen glass. Components include sensors, aerials, airbags, safety systems |

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| **Performance criteria**  You must be able to: | 1. comply with health, safety and legal requirements and procedures at all times. 2. identify and assess any requirements that affect the installation work. 3. check components and technologies are operational 4. 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. 5. remove existing glass and materials using correct Personal and Vehicle Protective Equipment and according to the approved repair methods/company guidelines. 6. store existing components and materials carefully for re-installation. 7. clear all debris and surplus materials and dispose of it safely in accordance with standard operating procedures. 8. handle automotive glass correctly to minimise damage, waste and danger. 9. apply specified materials in accordance with the manufacturer’s specifications to provide a secure and weatherproof installation. 10. ensure the operation of components and technologies is restored correctly. 11. ensure work activities that are undertaken are within one's own competence. 12. record information on the installation in the appropriate information systems. 13. fit the fixed automotive glass correctly and securely according to installation specifications.   . |

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| Knowledge and understanding  You need to know and understand:  You need to know and understand:  You need to know and understand  You need to know and understand:  You need to know and understand:  You need to know and understand:  You need to know and understand: | **Health and safety**   1. the relevant health, safety and legal responsibilities and obligations   **Components and materials**   1. what type of materials should be removed from vehicles 2. what types of components should be removed from vehicles 3. how different types of components should be removed/disabled and the correct methods to do this 4. how different types of material should be transported, stored and disposed of 5. what are the methods for removing different types of material from the vehicle 6. what type of debris needs to be removed from vehicles 7. how to deal with surplus and waste materials   **Automotive glazing products**   1. the differences between laminated and toughened glass, the manufacturing processes and the reasons why front windscreens are almost all made of laminated glass 2. 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 3. the properties of polyvinylbutyral (PVB) interlayers used in automotive glass manufacture 4. 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 5. the different requirements for installing various windscreen designs 6. The different glass tints available and how to identify them and the problems that can occur 7. 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 8. the purpose and meanings of glass markings 9. the properties of heated rear and front windscreens 10. 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 11. how components and technologies operate, how to check them and the types of problems that can occur 12. the non-glass glazing systems in use and how to obtain information on their correct use, relevant to task and conditions   **Fixed automotive glass**   1. what is the typical range and function of fixed automotive glass 2. how to identify damaged or faulty fixed automotive glass 3. how to handle different fixed automotive glass 4. what are the correct methods for fitting different types of fixed automotive glazing component 5. what types of material should be used to provide a secure and weatherproof installation 6. the safe-drive time applicable to different types of installations 7. the reset procedures for sensors, how and where to find them and the implications of not following them correctly 8. what are the procedures and requirements for installing and handling large fixed automotive glass 9. the different types of tools and equipment used in automotive glazing and what they are used for   **Work**   1. what work has to be done to meet different requirements 2. what restrictions should be imposed on the use of the vehicle after different types of work   **Standard operating procedures**   1. 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 2. what are the standard operating procedures for different activities 3. how and when to obtain information on the standard operating procedures   **Problems**   1. what are the types of problems that could occur 2. how different types of problem can be resolved |
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| **Scope/Range** | **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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| **Developed by** | IMI |
| **Version number** | 2 |
| Date approved |  |
| Indicative review date |  |
| Validity | Under consultation |
| Status | Tailored |
| Originating organisation | Proskills |
| Original URN | PROAG7 |
| Relevant occupations | Tyre exhaust and windscreen fitters |
| Suite | Automotive glazing |
| Key words | glass; automotive; glazing; cars; vans; mobile plant; buses; coaches |