



INSTITUTE OF THE
MOTOR INDUSTRY

Continuous Professional Development (CPD)

Subject Framework

Body Sector

BS10125 Compliance





Body Sector BS10125 Compliance

Introduction

The IMI has worked with the industry to provide a Continuous Professional Development (CPD) subject framework for the body sector, BS10125 compliance. The following points are derived from the requirements set out in BS10125, in support of Annex A and from direct working with body sector representatives:

- CPD enables individuals to maintain their knowledge and skills for repair task areas as detailed in BS10125, by completing and passing relevant and approved CPD within 3 years of achieving the initial recognition, to retain recognition against BS10125.
- All CPD must be approved by an Awarding Organisation, in line with the requirements set out in BS10125.
- CPD will be delivered in various ways, such as, but not limited to face to face training, virtual classrooms and eLearning. The delivery method must be in a format that enables the most effective assessment to take place for the given knowledge or competence-based repair task, detailed within BS10125.
- CPD knowledge assessments must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.
- CPD knowledge assessments will be a Multiple-Choice Question (MCQ) test. MCQs will consist of a stem/question followed by four possible answers. One answer should be the correct choice plus three distractors.
- It is recognised that if delivering more than one 'C' unit together rules of combination may apply. Providing efficiencies of CPD delivery, due to a reduced number of learning hours where there are similarities in learning content.
- Delivering multiple "C" units together could also provide efficiencies for the CPD assessment requirements, in terms of a knowledge test and practical skills as shown in each 'C' unit where assessment crossover applies.
- CPD practical skills assessments must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.
- CPD practical skills assessments can be carried out in a training environment, or the individual's workplace, all assessments must be appropriate skills repair tasks and observed by competent assessors, as agreed with the relevant Awarding Organisation.

Resources, including vehicles used for practical skills assessments, must be suitable for the task, i.e. if using a vehicle for the practical skills assessment in C0 – Repair Preparation, it must be a vehicle with suitable safety related damage, where a safe & appropriate repair process can be established within the maximum permissible time for that assessment.

- Assessments will be internally and externally quality assured by the provider of the assessment(s) and the relevant Awarding Organisation.
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PLEASE NOTE: Time for assessments **is not** included in the CPD unit hours. Example: C1 would be a minimum of 10hrs CPD, plus 75 minutes for the knowledge assessment.

The CPD subject framework set out in this document has been developed and agreed with an IMI Sector Advisory Group and Technical Working Group. There are 18 subject areas within the framework, aligned to the standard and Annex A. Each subject area has a given number of learning hours and the type of assessment required.

Best practice events will be scheduled annually and attended by Awarding Organisations, to support a standardised approach for the delivery of this framework.

This framework will be reviewed annually to ensure the content remains up to date and relevant, any updates being agreed by the IMI Sector Advisory Group and Technical Working Group in line with sector requirements and changes to BS10125.

For further information please email the IMI at hello@theimi.org.uk

For Office Use Only		
Issue and date	Change detail	Section/page
Issue 1 - October 2022	Original	N/A
Issue 2 – October 2022	Minor wording changes in some modules	Throughout
Owner: Product Development		

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Section One – Preparation

Unit Title:	C0 – Repair Preparation	
Task:	Carrying out repair preparation relevant and suitable to the repair capabilities declared.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met, as shown below, within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification and/or accreditation certificates in accident repair processes and procedures. To conduct a risk assessment of the vehicle’s mechanical and electrical systems and identify requirements for safe isolation, discharge and/or quarantine of high-voltage, gas or fuel systems prior to commencing work on a vehicle. Isolation, discharge and/or quarantine of high-voltage, gas or fuel systems where required by the risk assessment or defined by the vehicle manufacturer, methodically and accurately inspect and assess all elements, including vehicle systems and identification of component part fitment, of a vehicle that has sustained damage and requires repair. Identify and record the assessed damage on a vehicle and determine (using prescribed relevant repair methods) which parts of the vehicle should be repaired or replaced and define and document the repair process; including reinstatement requirements.</p>	
CPD Requirements	<p>Knowledge retained through recognised CPD:</p> <p>C0.1 Material construction and chemical composition of steels and aluminium’s used in vehicle manufacturing and effects of cross contamination</p> <p>C0.2 To correctly identify the substrate material and select the appropriate repair process</p> <p>C0.3 The use and purpose of the various consumables used in corrosion protection and panel surface finishing</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p> <p>Practical Skills retained through recognised CPD:</p> <p>Current competence in automotive repair preparation techniques</p>	<p>Hours</p> <p>10</p>



CPD Hours = C0 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)

Assessment Method: Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.

Assessment Type: Multiple Choice Questions

Maximum duration: 75 Minutes
Number of questions: 36
6 questions from each knowledge topic (as shown above)
Pass mark: 80%

Assessment Type: Practical Skills

Max Duration: 2 hours

List of Competencies:

- C0.4** Establish incident circumstances including the use of images
- C0.5** Establish and record vehicle data
- C0.6** Establish and record vehicle occupancy at the time of the incident
- C0.7** Establish and record the direction and area of impact of the incident damage
- C0.8** Establish and accurately create and/or record an appropriate repair method(s)
- C0.9** Identify and record all safety related components
- C0.10** Establish a safe & appropriate repair process



Unit Title:	C2 – Plastic Repair and Surface Refinishing of Exterior and Interior Components		
Task:	Repair of scuffs, scratches and cracks, plastic welding of broken lugs and fixings.		
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate in removal and refitting of soft and hard trim & in the application of plastic welding, surface finishing and filling.</p>		
CPD Requirements	<p>Knowledge retained through recognised CPD:</p> <p>C2.1 Material construction and chemical composition of plastics in vehicle manufacturing and effects of cross-contamination</p> <p>C2.2 To correctly identify the substrate material and select the appropriate repair process.</p> <p>C2.3 The use and purpose for various consumables used in plastic repair</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>		Hours
			10
CPD Hours = C2 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)			
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.		
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 75 minutes</p> <p>Number of questions: 36</p> <p>6 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>	



Unit Title:	C3 – Refinishing	
Task:	Prepare surfaces; mix, apply and cure refinish products.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to prepare the vehicle for painting, including surface preparation, masking of panels, paint mixing and colour matching. In the application of refinishing materials, polishing and paint defect rectification.</p>	
CPD Requirements	<p>Knowledge retained through recognised CPD:</p> <p>C3.1 Material construction and chemical composition of materials used in vehicle manufacturing and effects of cross-contamination.</p> <p>C3.2 Correctly identify the substrate material and select the appropriate refinish process.</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	
		Hours
CPD Hours = C3 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Unit Title:	C4 – Hot Metal Joining for Steel	
Task:	Resistance, MAG and MIG Braze welding of two or more steel materials to form a permanent joint of the materials.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to safely remove and replace permanently fixed steel panels, including sections. Competent in the application of Metal Active Gas (MAG) Welding & Metal Inert Gas (MIG) Brazing Operations & Resistance Spot Welding operations.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C4.1 Material construction and chemical composition of steel in vehicle manufacturing and effects of cross-contamination</p> <p>C4.2 Correctly identify the substrate material and select the appropriate repair process</p> <p>C4.3 The use and purpose for the various consumables used in corrosion protection and panel surface finishing</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence in automotive joining techniques using steel materials 	
CPD Hours = C4 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 75 minutes</p> <p>Number of questions: 36</p> <p>6 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 4 hours</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C4.4 Using appropriate personal protective equipment (PPE) including fume mask, extraction (HSE STSU1 – 2019 Requirement) and demonstrate working safely throughout the practical activityC4.5 Using appropriate sources of information throughout the assessment activityC4.6 Setting up all welding equipmentC4.7 Carrying out test pieces and assess the suitability of MAG weldsC4.8 Preparing all metal materials appropriately and accuratelyC4.9 Carrying out test pieces and assess the suitability of MAG and spot weldsC4.10 Completing a continuous vertical and overhead up MAG weld – fillet and buttC4.11 Completing a series of resistance spot welds
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Unit Title:	C5 – Hot Metal Joining for Aluminium	
Task:	MIG welding of two or more aluminium materials to form a permanent joint of the materials.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to safely remove and replace permanently fixed aluminium panels, including sections. Competent in the application of MIG Welding Operations.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C5.1 Material construction and chemical composition of aluminium in vehicle manufacturing and effects of cross-contamination</p> <p>C5.2 Correctly identify the substrate material and select the appropriate repair process</p> <p>C5.3 The use and purpose for the various consumables used in corrosion protection and panel surface finishing</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence in automotive joining techniques using aluminium materials 	
CPD Hours = C5 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 75 minutes</p> <p>Number of questions: 36</p> <p>6 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 4 hours</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C5.4 Using appropriate personal protective equipment (PPE) including fume mask, extraction (HSE STSU1 – 2019 Requirement) and demonstrate working safely throughout the practical activityC5.5 Using appropriate sources of information throughout the assessment activityC5.6 Set up all welding equipmentC5.7 Carrying out test pieces and assess the suitability of weldsC5.8 Preparing all metal materials appropriately and accuratelyC5.9 Completing an aluminium MIG weldC5.10 Quality checks to all finished welds
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Unit Title:	C6 – Cold Joining of Mixed and Multiple Materials	
Task:	Riveting and/or bonding of two or more material types to form a permanent joint of the materials.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to remove and replace permanently fixed (bonded/riveted) panels. Competent in the application of riveting and bonding agents.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C6.1 Identify various material types used in vehicle construction and the safe and appropriate joining techniques</p> <p>C6.2 The use and purpose for various consumables used in cold joining of materials</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence in automotive cold joining techniques using mixed and multiple materials 	
CPD Hours = C6 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 60 minutes</p> <p>Number of questions: 30</p> <p>6 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 4 hours 30 minutes</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C6.3 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and work safely throughout the practical activityC6.4 Use appropriate sources of information throughout the assessment activityC6.5 Use the correct tools and equipment throughout the assessmentC6.6 Prepare an existing bonded and mechanically fixed panel section without causing damageC6.7 Prepare panel flanges, the replacement panel and the backing plate edges to receive adhesive and mechanical fasteningsC6.8 Prepare and 'dry fit' the replacement panel section and backing plate to check the alignment/measurementsC6.9 Prepare adhesive bonding material and application equipmentC6.10 Produce adhesive test beadsC6.11 Apply adhesive bonding material in accordance with the manufacturer's specificationC6.12 Fitting and aligning of the replacement panel sectionC6.13 Remove excess bonding adhesive and achieve an acceptable cosmetic finishC6.14 Quality checks to joints formed and take necessary action
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Unit Title:	C7 – Autoglazing	
Task:	Removal and replacement of direct bonded automotive glass.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to safely remove and replace the direct bonded glass.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C7.1 Use current techniques, methods, tools, and equipment</p> <p>C7.2 The use of direct glazing systems and how to select the appropriate products to use with a range of vehicle substrates and glazing materials</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <p>Current competence in automotive glazing techniques</p>	
CPD Hours = C7 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>8 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 2 hours 30 minutes</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C7.3 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and work safely throughout the practical activityC7.4 Complete a pre-inspection of the vehicle, identifying all glazing related systems and their operationC7.5 Check new or existing glazing components for compatibility i.e. Correct quality of glassC7.6 Prepare the vehicle by removing all necessary MET componentsC7.7 Remove and replace vehicle system components using recognised proceduresC7.8 Remove glazing components using approved researched repair methods, manufacturer's technical data and without causing trauma to the vehicle bodyC7.9 Inspect and identify any defects once the glazing components have been removed from the vehicleC7.10 Carry out a 'dry fit' of the new or replaced glazing unitC7.11 Fit glazing unit and MET components following approved researched repair methods and manufacturer's technical dataC7.12 Carry out suitable checks to ensure all components are fitted and working correctly
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Unit Title:	C8 – Vehicle Body Alignment and Rectification	
Task:	Undertake measurements and realign any out of tolerance body or frame components to original specification.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to accurately identify misalignment of body/frame and ability to realign to original tolerances/spec. Ability to record pre and post-repair measurements accurately and to use pulling/pushing equipment and measuring equipment safely and effectively in such a way so as to not affect the structural integrity of the vehicle.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C8.1 Identify various material types and joining technology used in vehicle construction and understand the effects of body alignment on these</p> <p>C8.2 The appropriate clean down processes necessary to avoid any cross-contamination exposure</p> <p>C8.3 To accurately interpret measurement data</p> <p>C.SRS1 SRS and trim components used in vehicle construction**</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** SRS, ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence in vehicle realignment techniques 	
CPD Hours = C8 single unit – 10 Hours includes SRS, ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 75 minutes</p> <p>Number of questions: 36</p> <p>6 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 4 hours 30 minutes</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C8.4 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and work safely throughout the practical activityC8.5 Using appropriate sources of information throughout the assessment activity including vehicle jig data sheetsC8.6 Assess and check for pre-existing damage in the area of the vehicleC8.7 Identify and carry out a safe method of securing the vehicle to the alignment jig using the manufacturer's informationC8.8 Identify and undertake the correct procedures for rectifying and realigning the vehicle to include:<ul style="list-style-type: none">– Identifying and carrying out preparation procedures to the underside of the damaged area before starting the measuring and repair process– Ensuring that the vehicle is positioned/mounted to the jig safely and securely before carrying out the realignment/measuring– Selecting the datum '0', the starting point on a reliable part of the vehicle– Establishing secondary measurement positions to determine the alignment of the vehicle– Recording and diagnosing measurements taken from the vehicle– Aligning a vehicle within the vehicle manufacturer's tolerances– Removing and dismantling the vehicle from the alignment system
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Section Three – Electrical and Mechanical systems

Unit Title:	C9 – Road Wheels and Tyres	
Task:	Identification of faults and damage within road wheels, tyres and rectification through removal, repair, replacement and refit.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to undertake checks to identify damaged or out-of-tolerance components and reinstate them to the manufacturer's technical specification. Remove and replace tyres and to balance and torque road wheels.</p>	
CPD Requirements	<p>Knowledge retained through recognised CPD:</p> <p>C9.1 To correctly identify component and system faults associated with wheels, tyres</p> <p>C9.2 Directional/asymmetric, ultra-low profile and run-flat wheel and tyre assemblies</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>** ADAS may be achieved separately or prior to this CPD unit</p>	<p>Hours</p> <p>10</p>
CPD Hours = C9 single unit – 10 Hours includes ADAS (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 60 minutes</p> <p>Number of questions: 30</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Unit Title:	C10 – Steering, Suspension and Braking Systems	
Task:	Identification of faults and damage within steering, suspension and braking systems, rectification through removal, repair, replacement and refit of systems components.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to undertake system checks, identify damaged or out-of-tolerance components, remove, refit and replace components and assemblies of steering, suspension and braking systems and reinstate systems to manufacturer's technical specification. To carry out pre and post-repair data measurements of wheel alignment with the ability to make adjustments to align wheels, steering and suspension to manufacturers' specifications.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C10.1 Electrically controlled suspension, air ride and related sensors</p> <p>C10.2 Geometry and four-wheel alignment including identification of and the potential impacts on system functionality as a result of steering or suspension damage</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> • Current competence in wheel alignment 	
CPD Hours = C10 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 3 hours</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C10.3 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and demonstrate working safely throughout the practical activityC10.4 Using appropriate sources of information throughout the assessment activityC10.5 Carryout an accurate pre-wheel alignment checksC10.6 Set up wheel alignment equipmentC10.7 Check rear wheel alignment, then front wheel alignment and record geometry readingsC10.8 Compare all readings obtained against those set by manufacturer's data/specificationC10.9 Record any deviation from the vehicle manufacturer's specificationC10.10 Carryout adjustments in the correct sequence to ensure correct wheel alignmentC10.11 Carry out final quality checks
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Unit Title:	C11 – Advanced Driver Assistance and Automated Systems (ADAS)	
Task:	Alignment, calibration and reinstatement of advanced driver assistance and automated vehicle systems.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to identify sensors associated with Advanced Driver Assistance Systems (ADAS) and automated systems, diagnosing damaged and out-of-tolerance components, remove, refit and replace components and assemblies of ADAS and automated systems. Reinstatement systems to manufacturer's technical specification and carry out pre and post data measurements of wheel alignment with the ability to make adjustments to align wheels, steering and suspension to manufacturer's specifications.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C11.1 The types of sensors, and purpose, associated with ADAS and automated systems.</p> <p>C11.2 The potential impacts on system functionality as a result of repair</p> <p>C11.3 Geometry and four-wheel alignment including identification of and the potential impacts on system functionality as a result of steering or suspension damage</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** HV may be achieved separately or prior to this CPD unit</p>	8
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence in ADAS calibration 	
CPD Hours = C11 single unit – 8 Hours includes High Voltage (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 2 hours</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C11.4 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and demonstrate working safely throughout the practical activityC11.5 Using appropriate sources of information throughout the assessment activityC11.6 Identify ADAS features in-vehicle set-upC11.7 Set up the calibration environment by the manufacturer's instructionsC11.8 Use diagnostic equipment for fault code reading and calibration processC11.9 Carryout calibration of ADAS sensors on a vehicleC11.10 Ensure all ADAS systems are functioning correctly on completion
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Unit Title:	C12 – Supplementary Restraint Systems (SRS) Components	
Task:	Removal and refitting of interior and exterior trims (hard and soft); removal and refitting, correct/safe storage and replacement of SRS systems. Carry out pre and post-repair checks.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to safely remove, store and replace soft, hard trim and SRS systems. Carry out pre and post-repair checks on systems, and interpret and report findings of diagnostic checks.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C12.1 SRS components used in vehicle construction and the tools and equipment required to remove and fit such components including diagnostic equipment</p> <p>C12.2 Ensure the safe storage of displaced parts</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
CPD Hours = C12 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Unit Title:	C13 – Make Safe and Repair Vehicle Electrical Systems of a low/medium Voltage	
Task:	Inspect, diagnose, repair or replace electrical systems and or components powered from the 12/24/48v power source.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to carry out varied forms of systems diagnostics including visual, functional and computerised inspections, checking systems for electrical malfunction and damage. To safely remove, refit or replace components of the electrical system. The use of multi-meters to diagnose, open, short and resistive circuit to include volt drop testing.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C13.1 To identify electrical systems and components and the associated voltage of the power source</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
CPD Hours = C13 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 60 minutes</p> <p>Number of questions: 30</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Unit Title:	C14 – Transmission, Air Conditioning and other Driveline Systems	
Task:	Inspect, refit or renew damaged transmission and driveline components. Evacuate, repair and recharge the AC system.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to carry out varied forms of systems diagnostics including aural, visual, functional and computerized inspection, checking system for leaks, malfunctions and damage. To safely remove, refit or replace components and fluids of the mechanical and electrical systems of the vehicle. To remove, refit or replace driveline components including wheel hubs, cv joints, bearings, shafts etc.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C14.1 Emission control systems</p> <p>C14.2 To drain, store and replenish air conditioning systems</p> <p>C14.3 Identify and rectify leaks to vehicle systems</p> <p>C14.4 Driveline systems</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
CPD Hours = C14 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 60 minutes</p> <p>Number of questions: 30</p> <p>5 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Section Four – Powertrain

Unit Title:	C15 – Internal Combustion Engine	
Task:	Inspect, refit or renew damaged engine and fuel system components.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to carry out varied forms of systems diagnostics including, aural, visual, functional and computerised inspection, checking system for leaks, malfunctions and damage. To safely remove, refit or replace components and fluids of the engine and fuel systems. Remove and refitting of a high-pressure fuel pump, fuel tank/ in-tank fuel pump/fuel pipes/injectors.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C15.1 To drain, store and replenish engine and fuel fluids</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>C.HV1 High Voltage systems and the associated hazards and dangers with conducting repairs on a vehicle with high voltage systems on board**</p> <p>** ADAS and HV may be achieved separately or prior to this CPD unit</p>	10
CPD Hours = C15 single unit – 10 Hours includes ADAS and High Voltage (if not already achieved)		
Assessment Method:	Knowledge Assessment, which must be created and delivered by the training provider to assess an individual's subject knowledge upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	Maximum duration: 60 minutes Number of questions: 30 10 questions from each knowledge topic (as shown above) Pass mark: 80%



Unit Title:	C16 – Make Safe Mild or High Voltage Electrical Systems	
Task:	Isolate/discharge and quarantine electrical systems powered from the 48/60v, or above, power source. Perform system checks, inspect, diagnose, repair or replace components of the system.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to be able to safely shut down and isolate the High Voltage system. The use of multi-meters to diagnose, open, short and resistive circuit to include volt drop testing. Carry out varied forms of systems diagnostics including visual, functional and computerised inspection, checking system for electrical malfunctions and damage. To safely remove, refit or replace components of the High Voltage electrical system and complete system diagnostics and fully reinstate the High Voltage system.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C16.1 High Voltage (HV) systems and the associated hazards and dangers with conducting repairs on a vehicle with HV systems on board</p> <p>C16.2 High Voltage electrics auxiliary and cooling systems</p> <p>C16.3 Ensure safe storage of components of a high voltage system</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>** ADAS may be achieved separately or prior to this CPD unit</p>	8
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence to safely shut down and isolate High Voltage Systems 	
CPD Hours = C16 single unit – 8 Hours includes ADAS (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 1 Hour</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C16.4 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and demonstrate working safely throughout the practical activityC16.5 Using appropriate sources of information throughout the assessment activityC16.6 Identify AC and DC voltage symbolsC16.7 Identify high voltage cabling & componentsC16.8 Identify vehicle high voltage status - pre/during/post service & repair activitiesC16.9 Follow procedures before removing/disarming the HV safety deviceC16.10 Measure any voltages to identify the vehicle is in a safe condition to carry out any other service/repair workC16.11 Identify how to connect an additional power source to a high voltage vehicleC16.12 Competently and safely use test equipment- including multi-meter/equipment to measure AC and DC voltagesC16.13 Reset vehicle systems post repair to ensure the vehicle is in condition to handover to the customer
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Unit Title:	C17 – Isolate/discharge, and Quarantine Hydrogen Fuel Systems	
Task:	Inspect, diagnose, repair or replace hydrogen fuel systems and components.	
Entry Requirements	<p>This unit allows the technician to plan CPD requirements across single or combined BS10125 criteria after initial entry requirements have been met as shown below within proven competence.</p> <p>Proven Competence: Apprenticeship or awarding organisation issued qualification certificate to be able to safely shut down and isolate the hydrogen system. Carry out varied forms of system diagnostics including visual, functional and computerised inspections, checking hydrogen systems for leaks, malfunctions and damage. To safely remove, refit or replace components, fluids and gases of the Hydrogen system and complete system diagnostics and fully reinstate the Hydrogen system.</p>	
CPD Requirements		Hours
	<p>Knowledge retained through recognised CPD:</p> <p>C17.1 Identify the different types of hydrogen fuel cell electric vehicle systems and associated hydrogen storage systems</p> <p>C17.2 Understand health and safety legislation, industry codes of practice and workplace procedures when working with hydrogen fuel cell electric vehicles</p> <p>C17.3 Ensure safe storage of components of a Hydrogen system</p> <p>C.ADAS1 Advanced Driver Assistance Systems (ADAS) including identification of and the potential impacts on system functionality as a result of repair**</p> <p>** ADAS may be achieved separately or prior to this CPD unit</p>	10
	<p>Practical Skills retained through recognised CPD:</p> <ul style="list-style-type: none"> Current competence to safely shut down and isolate Hydrogen Systems 	
CPD Hours = C17 single unit – 10 Hours includes ADAS (if not already achieved)		
Assessment Method:	Knowledge and Practical Skills Assessments, which must be created and delivered by the training provider to assess an individual's subject knowledge and skills upon completion of the CPD.	
Assessment Type:	Multiple Choice Questions	<p>Maximum duration: 80 minutes</p> <p>Number of questions: 40</p> <p>10 questions from each knowledge topic (as shown above)</p> <p>Pass mark: 80%</p>



Assessment Type:	Practical Skills	<p>Max Duration: 1 Hour 30 minutes</p> <p>List of Competencies:</p> <ul style="list-style-type: none">C17.4 Using appropriate personal protective equipment (PPE), vehicle protective equipment (VPE) and work safely throughout the practical activityC17.5 Ensure the work area is clearly identified using signs and barriers as appropriate, following environmental standards and regulations at all timesC17.6 Using appropriate sources of information throughout the assessment activityC17.7 Identify that the vehicle has a hydrogen fuel cell system and collect relevant technical informationC17.8 Follow procedures before removing/disarming the hydrogen fuel cell system, and, where relevant the HV safety deviceC17.9 Measure any hydrogen system pressures, or system voltages to identify the vehicle is in a safe condition to carry out any other service/repair workC17.10 Competently and safely use test equipmentC17.11 Reset vehicle systems post repair to ensure the vehicle is in condition to handover to the customer
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