



INSTITUTE OF THE
MOTOR INDUSTRY

IMI ACCREDITATION

MECHANICAL ELECTRICAL TRIM (MET)





What is IMI Accreditation?

IMI Accreditation is a practical, non-academic way to demonstrate individual capability, providing independent proof of current competence, knowledge and skills.

Focused on the Light Vehicle area of the automotive sector, IMI Accreditation encompasses everyone within this area, from individuals working directly on vehicles to those advising customers or managing a dealership. Three different types of accreditation reflect the diverse range of roles within the motor industry: Technical, Customer Facing and Management

Accreditation typically takes just one day to achieve (depending on the specific route), with individuals assessed against industry-agreed standards. Each accreditation route is designed using best practice techniques, and offers multiple career development options for a specific job role.

Accreditation is available for the following routes:

- Technical
 - Air Conditioning
 - Autoglazing
 - Cosmetic Repair
 - Digital Audio Broadcasting
 - Electric Vehicle
 - Fast Fit
 - Light Vehicle Maintenance & Repair
 - Light Vehicle Inspection
 - Mechanical Electrical Trim
 - Motorcycle
 - Paint
 - Panel
 - Roadside
 - Vehicle Damage Assessor
- Customer Facing
 - Customer Service
 - Parts
 - Sales
- Management
 - Management

Once an individual has passed all the required practical and knowledge-based modules in a specific route, they will receive a certificate of achievement which is valid for three years.



IMI Accreditation benefits

IMI Accreditation was created to help the motor industry keep on top of constant, rapid changes in technology, legislation and working methods, by encouraging and measuring the current competence, knowledge and ability of those working within it. By providing proof of current competence, IMI Accreditation benefits both individuals and their employers.

Those gaining accreditation receive:

- An IMI Accredited certificate
- Inclusion on IMI Professional Register
- Industry-wide recognition of their skills and abilities
- Confidence
- Advice and guidance for development
- An opportunity for career progression

While the employer of an accredited individual benefits from:

- Confidence in the individual's ability
- Eligibility for British Standard/DVSA requirements (depending on routes)
- Increased customer visibility on the IMI Professional Register
- Higher work output and fewer mistakes
- Public confidence in abilities

Industry Recognition through the IMI Professional Register

The IMI Professional Register is an industry-wide database of professionals in the motor industry. The Register is promoted to consumers as a place to find trustworthy professionals who have proven their skills and competence within specialist areas of the industry. IMI Accredited individuals are automatically included on the IMI Professional Register.

Routes to Accreditation

There are two routes to gaining IMI Accredited status: Full Assessment and Conversion*. Full Assessment involves the completion of all practical and knowledge-based assessments at each level. Conversion enables an individual to use existing qualifications to gain exemption from specific modules.

IMI Accreditation continually evolves to meet the changing needs of the industry, with each accreditation valid for three years, after which time an individual is required to undertake a new assessment either at the same level, next career level or a different route in order to prove their current competence.



IMI Accreditations are delivered through the IMI approved centre network, and you can find your nearest centre or explore assessment routes at www.theimi.org.uk/awarding

Further Information

For further information on any of the accreditation routes, please visit www.theimi.org.uk/accreditation Alternatively call 01992 511521 to contact IMI directly.

Who is the MET route for?

The MET route is intended for technicians whose job role involves the repair of vehicles typically involved in accidents or similar incident circumstances.

There are two levels within MET:

- **Technician**
The technician should be working in the accident repair sector of the industry and ideally have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to remove & refit or replace various components such as mechanical items and trim.
- **Senior Technician**
The technician should be working in the accident repair sector of the industry and ideally have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to replace various components, including returning vehicle systems to manufacturer specification and diagnosing system faults.

MET Route Structure

Those wishing to achieve IMI accreditation will be required to use the following method:

- **Full Assessment**

For those wishing to retain their accreditation there are two options, these are:

- **Full Assessment**
or
- **AOM Update**
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Note: In order to re-accredit using 'AOM Updates' (Assessed Outcome Modules) the candidate's accreditation must remain valid throughout the assessments and until all of the prescribed AOMs have been passed. Should the accreditation expire beforehand, the candidate will be required to re-take a 'full assessment'.



MET – Technician

Full Assessment

This level requires the candidate to complete the following modules:

Cosmetic Panel Alignment	AOM 002
Cooling Systems Components	AOM 003
SRS - Scan Tools	AOM 004
Vehicle Electrical - Basic Fault Finding	AOM 005
MET - Remove/replace/refit	AOM 044

This will normally be a one-day assessment.

MET - Senior Technician

Full Assessment

This level requires the candidate to complete the following modules:

Cosmetic Panel Alignment	AOM 002
Cooling Systems Components	AOM 003
SRS - Scan Tools	AOM 004
MET – Complex	AOM 006
Vehicle Electrical - Complex Fault Finding	AOM 007
Vehicle Suspension	AOM 008
Four Wheel Alignment - Return to Specification	AOM 012
Four Wheel Alignment - Interpretation of Data	AOM 013

This will normally be a two-day assessment.

MET – Technician

AOM Update Reaccreditation only

This level requires the candidate to complete the following modules:

SRS - Scan Tools	AOM 004
Vehicle Electrical - Basic Fault Finding	AOM 005
MET - Remove/replace/refit	AOM 044

This may either be achieved through a one-day assessment or may be spread over the duration of the individual's existing IMI accreditation.



MET - Senior Technician

AOM Update Reaccreditation only

This level requires the candidate to complete the following modules:

SRS - Scan Tools	AOM 004
MET - Complex	AOM 006
Vehicle Electrical - Complex Fault	AOM 007
Four Wheel Alignment - Interpretation of data	AOM 013

This may either be achieved through a one-day assessment or may be spread over the duration of the individual's existing IMI accreditation.



Accreditation Module Title	Cosmetic Panel Alignment
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Module Code	ATA - AOM - 002
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Practical Assessment Time	0.5 hour
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On-line Knowledge Test	K - 002
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IMI AOM Level	2
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Module Overview	
<p>This module is about the alignment of panels to ensure that the panels (i.e. gaps) are aligned to the correct specification.</p> <p>The candidate will need to protect the vehicle before working on the vehicle, remove a bolted panel (hinged or fixed) from a vehicle without damage, ensuring that the panel is stored correctly to prevent damage before refitting the panel to the vehicle. This will involve the use of vehicle specification information.</p> <p>The candidate will also have to ensure that any locks and catches that require adjustment are aligned to the correct settings to provide the correct opening and closing of the panel.</p>	

Candidate Profile	
<p>The technician should be working in the accident repair sector of the industry and have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to remove & refit or replace various components, such as vehicle body panels and their associated parts, and for the preparation of panels (existing) and to give a fault free finish.</p>	

Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Technician
	Senior Technician
Panel	Technician
	Senior Technician



Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Accurately assess the vehicle for pre-existing damage prior to work commencing
1.2	Protect the vehicle prior to removing any MET components and body panels to prevent damage to the vehicle during the assessment
1.3	Access and understand the vehicle manufacturer (or equivalent to) repair methods to enable the candidate to carry out the removal and replacement of vehicle components
1.4	Read and understand Material Safety Data Sheets / Material Technical Data Sheets
1.5	Disconnect / remove vehicle components / ancillaries to gain access to the repair without causing damage to the vehicle components or its systems
1.6	Remove the panel(s) without causing damage to the panel, the vehicle and its systems
1.7	Select and use the correct range of tools and equipment
1.8	Store components in a safe suitable way
1.9	Refit the panel and components without causing damage to the vehicle and its systems
1.10	Replace components to the vehicle specification; adjust the components settings to the vehicle manufacturer's settings including identify the torque settings of all components and fixtures
1.11	Ensure that the components replaced and their associated components are operating as per the vehicle manufacturer requirements
1.12	Use Personal Protection Equipment (PPE)
1.13	Follow health and safety guidelines
1.14	Work within given time constraints

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	The types of materials used in the construction of the vehicle
2.2	The products and techniques used in the repair of vehicle and its components
2.3	The types of fasteners and the use of which are used in the construction of a vehicle
2.4	The tools and equipment used in the repair of the vehicle body and its components
2.5	Information to access and use during the repair process of vehicle and its components
2.6	Health and safety guidelines



Accreditation Module Title	Cooling Systems Components
Module Code	ATA - AOM - 003
Practical Assessment Time	1 hour
On-line Knowledge Test	K - 003
IMI AOM Level	2
Module Overview	<p>This module is to remove and refit engine cooling system components which will require the draining of the engine coolant from the system and storing / disposing of the coolant in line with any environmental requirements.</p> <p>The candidate will need to remove a minimum of one cooling system component (i.e. the radiator) from the vehicle and store correctly. Once removed, the cooling system component(s) will need to be replaced, the coolant refilled with the correct type and content/strength of antifreeze. The cooling system will need to be bled in accordance with the specified procedure and any actions taken in regard to checking the cooling system for leaks.</p> <p>The candidate will also need to be able to access and interpret any vehicle data / specifications required to carry out the task.</p>
Candidate Profile	<p>The technician should be working in the accident repair sector of the industry and have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to remove & refit or replace various components, such as vehicle body panels and their associated parts.</p>
Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Technician
	Senior Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Accurately assess the vehicle for pre existing damage prior to working on a vehicle
1.2	Protect the vehicle prior to removing any cooling system and associated components to prevent damage to the vehicle during the assessment
1.3	Access and understand the vehicle manufacturer (or equivalent) repair methods to enable the candidate to carry out the removal and replacement of vehicle components
1.4	Drain and store coolant in the correct manner
1.5	Dispose of coolant in line with any legislation or legal requirement
1.6	Remove engine cooling system components (example engine coolant radiator) without causing damage to the vehicle or its systems
1.7	Assess and accurately report the condition of the cooling system and the associated components
1.8	Assess cooling system components and associated components for serviceability in line with vehicle manufacturer requirements and be able to determine if replacement is required
1.9	Assess and identify all components / surfaces that require cleaning prior to re-assembly
1.10	Replace cooling system and associated components without causing damage to the vehicle and its systems
1.11	Assess and identify the engine coolant antifreeze strength and ability to alter its strength to vehicle manufacturer information
1.12	Refill the engine cooling system with coolant without damage to the vehicle and associated components
1.13	Ensure that the engine cooling system is free from air within the system in line with any vehicle information
1.14	Ensure that the engine cooling system operates correctly across the engine temperature operating range including ensuring that all cooling components are working as intended by the vehicle manufacturer
1.15	Ensure that the components replaced and their associated components are functioning as per the vehicle manufacturer requirements
1.16	Use Personal Protection Equipment (PPE)
1.17	Follow health and safety guidelines
1.18	Work within given time constraints



Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	The components fitted to engine cooling, heating and ventilation systems (including air conditioning)
2.2	The function of engine cooling, heating and ventilation systems (including air conditioning) components
2.3	The techniques used in the removal and replacement of engine cooling system components
2.4	The methods and procedures used to reinstate cooling systems after the replacement of cooling system components
2.5	The tools and equipment used in the replacement and repair of engine cooling system components
2.6	Information accessed and used during the replacement and repair of engine cooling system components
2.7	Health and safety guidelines



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Accreditation Module Title	SRS - Scan Tools					
Module Code	ATA - AOM - 004					
Practical Assessment Time	0.75 hour					
On-line Knowledge Test	K - 004					
IMI AOM Level	2					
Module Overview	<p>This module is to assess the competence of the candidate's knowledge and ability to remove and refit Supplementary Restraint System (SRS) components. This will include the replacement of an 'airbag' which will include the candidate following the necessary health and safety guidelines to ensure their own and others safety is maintained at all times during the task.</p> <p>The candidate will also have to use fault code / scan tool equipment to ensure that the system is configured correctly, no fault codes exist in the system and the driver instrument warning lamp is functioning correctly.</p>					
Candidate Profile	<p>The technician should be working in the accident repair sector of the industry and have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to remove & refit or replace various components, such as vehicle body panels and their associated parts</p>					
Links with Accreditation Routes and Modules	<p>This module features in:</p> <table border="1"> <thead> <tr> <th>IMI Accreditation Route</th> <th>IMI Accreditation Level</th> </tr> </thead> <tbody> <tr> <td rowspan="2">MET</td> <td>Technician</td> </tr> <tr> <td>Senior Technician</td> </tr> </tbody> </table>	IMI Accreditation Route	IMI Accreditation Level	MET	Technician	Senior Technician
IMI Accreditation Route	IMI Accreditation Level					
MET	Technician					
	Senior Technician					

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Define the technical and safety requirements of the components of an SRS including the removal, handling and refitting, prior to carrying out the practical assessment
1.2	Accurately assess the vehicle for pre existing damage serviceability of components prior to working on a vehicle
1.3	Protect the vehicle prior to removing any SRS and associated components to prevent damage to the vehicle during the assessment
1.4	Access and understand the vehicle manufacturer's (or equivalent to) repair methods to enable the candidate to carry out the removal and replacement of vehicle components
1.5	Access vehicle system(s) with the appropriate tool and equipment (including scan / diagnostic tools) to check for fault codes or other relevant system information prior to removal / replacement of vehicle components
1.6	Isolate / disarm SRS device prior to removal from the vehicle in accordance with vehicle manufacturer's procedures and in line with any appropriate legislation and legal requirements
1.7	Apply the correct time period (discharge) as indicated by the vehicle manufacturer prior to removal of any SRS component(s)
1.8	Remove SRS components (airbag) without causing damage to the vehicle or its systems
1.9	Transport the SRS device(s) and store in accordance with vehicle manufacturer information and in line with any legislation or health and safety requirements
1.10	Illustrate through knowledge the logging and registering of explosive devices that are used in a motor vehicle environment
1.11	Replace any SRS components and associated components without causing damage to the vehicle and its systems
1.12	Access vehicle system(s) with the appropriate tools and equipment (including scan / diagnostic tools) to reinstate the vehicle systems to a fault free condition after the replacement of vehicle components
1.13	Ensure that the components replaced and their associated components are functioning as per the vehicle manufacturer requirements
1.14	Use Personal Protection Equipment (PPE)
1.15	Follow health and safety guidelines
1.16	Work within given time constraints



Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	Supplementary Restraint Systems (SRS) components and their operation
2.2	The function of Supplementary Restraint Systems (SRS) components
2.3	The techniques used in the removal and replacement of SRS components
2.4	The electrical functions within a SRS including the understanding of electrical wiring diagram(s)
2.5	The tools and equipment used in the repair and replacement of SRS components
2.6	Information to access and use during the replacement and repair of SRS components
2.7	Health and safety guidelines



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Accreditation Module Title	Vehicle Electrical - Basic Fault Finding
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Module Code	ATA - AOM - 005
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Practical Assessment Time	0.5 hour
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On-line Knowledge Test	K - 005
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IMI AOM Level	2
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Module Overview	
<p>This module is to assess the competence of the candidate's knowledge, skill and ability to diagnose a simple electrical fault (open circuit).</p> <p>The candidate will need to access vehicle information such as component location and the appropriate electrical wiring diagrams use these together with electrical test equipment such as multi-meter (volts, amps, ohms) to diagnose the system fault. Once the electrical fault has been diagnosed, the candidate should have the ability to rectify the fault to allow the candidate to check the system is functioning as per the vehicle manufacturer's original specification.</p>	

Candidate Profile	
<p>The technician should be working in the accident repair sector of the industry and have at least two years experience to ensure they are familiar with the skills, knowledge and techniques required to remove & refit or replace various components, such as vehicle body panels and their associated parts.</p>	

Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Technician



Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Accurately assess the operation of vehicle system(s) and identify the vehicle fault as described by the information available
1.2	Carry out a system initial assessment and basic checks prior to any electrical fault finding
1.3	Carry out electrical fault finding using logical methodology throughout the process to locate the electrical fault without the need to substitute component(s)
1.4	Select the correct range of tools and equipment, including carrying out any calibration
1.5	Use electrical test equipment accurately during the electrical fault finding task
1.6	Describe and record the actions necessary to locate the electrical fault and the action necessary to rectify the fault in accordance with vehicle manufacturer information
1.7	Use Personal Protection Equipment (PPE)
1.8	Follow health and safety guidelines
1.9	Work within given time constraints

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	Vehicle electrical system components and their functions
2.2	Vehicle electrical system component operation
2.3	The techniques used in the removal, repair and replacement of vehicle electrical system components
2.4	The tools and equipment used in the diagnosis, repair and replacement vehicle electrical system and its components
2.5	Information accessed and used during the repair and replacement of vehicle electrical system components
2.6	Health and safety guidelines



Accreditation Module Title	MET - Complex
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Module Code	ATA - AOM - 006
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Practical Assessment Time	2 hours
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On-line Knowledge Test	K - 006
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IMI AOM Level	3
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Module Overview	
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This module is to ensure that the candidate has the ability to remove & refit vehicle exterior and interior trim without damaging either the vehicle bodywork or its systems.

The candidate will need to remove and refit items including bumper cover which will include system sensors (such as parking sensors) and their associated components, headlamp(s) of the Xenon (HID) type, exterior door handle and associated components including the door card / trim.

The candidate will be required to realign the components (body panel(s) / headlamp) using the correct workshop equipment which may include the use of diagnostic equipment / scan tools.

The candidate should ensure that the system(s) are operating as per vehicle manufacturer specification.

Candidate Profile	
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The senior technician should be working in the accident repair sector of the industry and have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to replace various components, including returning vehicle systems to manufacturer specification and diagnosing system faults.

Links with Accreditation Routes and Modules	
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This module features in:

IMI Accreditation Route	IMI Accreditation Level
MET	Senior Technician
Panel	Senior Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Accurately assess the vehicle for pre-existing damage prior to working on a vehicle
1.2	Protect the vehicle prior to removing any components to prevent damage to the vehicle during the assessment
1.3	Access and understand the vehicle manufacturer (or equivalent) repair methods to enable the candidate to carry out the removal and replacement of vehicle components
1.4	Assess and prepare the vehicle prior to removal of mechanical, electrical components (disconnected battery, fuses etc)
1.5	Disconnect / remove vehicle headlamp (Xenon type headlamp) without causing damage to the vehicle components or its systems
1.6	Select and use the correct range of tools and equipment including check, carry out any calibration or actions required pre and post the task
1.7	Store components in a safe suitable way in the designated storage area, using bags / containers / materials provided during the removal and refitting of components
1.8	Replace a headlamp (Xenon type headlamp) to the vehicle specification
1.9	Adjust the components settings, including alignment of the headlamp aim, as per the vehicle manufacturer requirements
1.10	Remove vehicle trim (door card and its electrical components) without causing damage to components, vehicle or vehicle systems
1.11	Remove interior door lock components without causing damage to components, vehicle or vehicle systems
1.12	Remove exterior door lock / handle components without causing damage to components, vehicle or vehicle systems
1.13	Store components in a safe suitable way in designated storage area(s), during the removal and refitting of components
1.14	Check vehicle component clips, fittings and fixtures for serviceability and replace / identify where necessary
1.15	Refit the vehicle trim (door card and its electrical components) without causing damage to components, vehicle or vehicle systems
1.16	Refit the interior door lock components without causing damage to components, vehicle or vehicle systems
1.17	Refit the exterior door lock / handle components without causing damage to components, vehicle or vehicle systems
1.18	Replace and adjust components to the vehicle specification and settings (torque etc)
1.19	Check the operation of lock, fittings, electrical components and handle are working correctly after replacement
1.20	Disconnect / remove vehicle bodywork without causing damage to the vehicle components or its systems
1.21	Select and use the correct range of tools and equipment including checking and carrying out any calibration or actions required pre and post the task
1.22	Store components in a safe suitable way in the designated storage area, using bags / containers / materials provided during the removal and refitting of components
1.23	Replace the vehicle body work to the vehicle specification



1.24	Adjust the components to the vehicle manufacturer's settings including alignment of the bumper and any vehicle safety systems as per the vehicle manufacturer requirements
1.25	Access vehicle system(s) with the appropriate tool and equipment (including scan / diagnostic tools) to reinstate the vehicle systems to a fault free condition after the replacement / initiation of vehicle safety systems (i.e. system sensors) within the bumper cover and associated components
1.26	Ensure that the parts replaced and their associated components are operating as per the vehicle manufacturer requirements
1.27	Use Personal Protection Equipment (PPE)
1.28	Follow health and safety guidelines
1.29	Work within given time constraints

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	The Mechanical Electrical Trim (MET) techniques / methods used for the removal and replacement of vehicle components
2.2	Vehicle electrical systems and related components including vehicle safety systems, network communication and high voltage systems such as Xenon lighting
2.3	The information used in the removal and refitting of vehicle components
2.4	The tools and equipment used the removal, repair and replacement of vehicle mechanical, electrical and trim components
2.5	The tools and equipment used to communicate with vehicle systems and their use within the removal, repair and replacement of vehicle components
2.6	Legal requirements for motor vehicles
2.7	Health and safety guidelines whilst carrying out MET activities



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Accreditation Module Title	Vehicle Electrical Fault Finding (Safety and Driver Assistance Systems)
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Module Code	AOM - 007
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Practical Assessment Time	0.75 hour
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On-line Knowledge Test	K - 007
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IMI AOM Level	3
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Module Overview	
<p>This module is to assess the competence of the candidate's knowledge, skill and ability to diagnose a complex electrical fault on vehicle safety systems or driver assistance systems.</p> <p>The candidate will access vehicle information and use diagnostic equipment to diagnose the system fault. Once the electrical fault has been diagnosed, the candidate must check the system(s) are functioning correctly and meet the manufacturers' specifications.</p>	

Candidate Profile	
<p>It is expected that the senior technician will be working in the accident repair sector of the industry and have at least three years experience to ensure they are familiar with the skills, knowledge and techniques which are required to replace electrical components, diagnose system faults and return vehicle systems to their original specifications.</p>	

Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Senior Technician

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
1.1	The health and safety practices relating to diagnosing and rectifying complex electrical faults on vehicle safety or driver assistance systems.
1.2	Electrical symbols, units and terms.
1.3	Electrical and electronic principles, electrical system testing and fault diagnosis procedures.
1.4	How electrical and electronic units and components operate, including electrical component function, electrical inputs, outputs, voltages/current levels and their associated patterns/waveforms.
1.5	The interaction between electrical, electronic and mechanical components within the systems defined.
1.6	Different types of vehicle safety or driver assistance systems and their purpose.
1.7	The relationships between a range of electrical systems in terms of interlinking and interacting.
1.8	The effects of faulty vehicle safety or driver assistance systems.
1.9	How to use electrical testing and diagnostic equipment.

Skills Requirements	
The candidate must demonstrate the ability to:	
2.1	Work safely throughout the task.
2.2	Isolate and protect vehicle electrical systems.
2.3	Select, interpret and use sources of information which are applicable to diagnosing faults on vehicle safety or driver assistance systems.
2.4	Use electrical testing and diagnostic equipment to identify faults on vehicle safety or driver assistance systems.
2.5	Follow the correct procedures to efficiently diagnose electrical faults on vehicle safety or driver assistance systems.
2.6	Use software and equipment which is appropriate to configure the vehicle system(s).
2.7	Check for stored faults in the system control units.
2.8	Check the vehicle safety or driver assistance systems operate correctly and meet the manufacturer's specifications.



Accreditation Module Title	Vehicle Suspension
Module Code	ATA - AOM - 008
Practical Assessment Time	2 hours
On-line Knowledge Test	K - 008
IMI AOM Level	3
Module Overview	<p>This module is to assess the competence of the candidate's knowledge, skill and ability to remove, replace and refit vehicle suspension and associated components such as braking systems and electrical systems.</p> <p>The candidate will be required to remove, replace and refit sub systems such as road springs which may require the use of special tools. Once the suspension system has been refitted the candidate will be required to reset all systems (e.g. the bleeding of hydraulic braking circuits) allow the candidate to return the vehicle back to specification and also check the system(s) is functioning as per the vehicle manufacturer's original specification.</p>
Candidate Profile	<p>The senior technician should be working in the accident repair sector of the industry and have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to replace various components, including returning vehicle systems to manufacturer specification and diagnosing system faults.</p>
Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Senior Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Assess the vehicle for pre existing damage prior to working on a vehicle
1.2	Protect the vehicle prior to removing any suspension system and associated components to prevent damage to the vehicle during the assessment
1.3	Access and understand the vehicle manufacturer's (or equivalent) repair methods to enable the candidate to carry out the removal and replacement of vehicle components
1.4	Read and understand Material Safety Data Sheets/Material Technical Data Sheets
1.5	Raise and support the vehicle correctly at a suitable working height
1.6	Support vehicle 'components' using the correct method(s) during the removal and replacement of vehicle components using the appropriate equipment
1.7	Remove / replace suspension and sub system components (example suspension strut / spring assembly) without causing damage to the vehicle or its systems
1.8	Disconnect / remove / refit vehicle components / ancillaries / wiring harnesses without causing damage to the vehicle components or its systems
1.9	Select and use the correct range of tools and equipment pre, during and post the assessment task
1.10	Adjust the component settings, including alignment of the suspension, as per the vehicle manufacturer requirements
1.11	Identify any components that require to be renewed (safety critical use once only components) during the task
1.12	Ensure that the components replaced and their associated components are functioning as per the vehicle manufacturer requirements (example; the brakes are bled correctly) and are operating correctly after the task is completed
1.13	Use Personal Protection Equipment (PPE)
1.14	Follow health and safety guidelines
1.15	Work within given time constraints



Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	Types of vehicle suspension systems
2.2	Vehicle suspension system(s) components
2.3	Vehicle braking system components
2.4	Vehicle suspension, braking system component operation
2.5	The techniques used in the removal, repair and replacement of vehicle suspension, braking systems and related components
2.6	The tools and equipment used in the removal, repair and replacement of vehicle suspension, braking systems and related components
2.7	Information accessed and used during the removal, repair and replacement of vehicle suspension, braking systems and related components
2.8	Braking systems including ABS and related components
2.9	Suspension sub-systems, dampers / shock absorbers, road springs
2.10	Wheels and tyres
2.11	Driveline systems & components
2.12	Vehicle emission systems
2.13	Health and safety guidelines



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Accreditation Module Title	Four Wheel Alignment - Return to Specification
Module Code	ATA - AOM - 012
Practical Assessment Time	1.5 hours
On-line Knowledge Test	K - 012
IMI AOM Level	3
Module Overview	<p>This module is to assess the competence of the candidate's knowledge, skill and ability to check the vehicles four wheel alignment / geometry. This will include ensuring that the vehicle is initially set up to the correct specifications and then using industry recognised wheel alignment equipment record the readings obtained from the vehicle and compare them against the vehicle manufacturer data.</p> <p>The candidate will be required to reset the vehicle's wheel alignment to the vehicle manufacturer specification.</p>
Candidate Profile	<p>The senior technician should be working in the accident repair sector of the industry and have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to replace various components, including returning vehicle systems to manufacturer specification and diagnosing system faults</p>
Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
MET	Senior Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Assess the vehicle for pre-existing damage prior to working on a vehicle
1.2	Protect the vehicle prior to carrying out wheel alignment checks to prevent damage to the vehicle during the assessment
1.3	Access and understand the vehicle manufacturer (or equivalent) repair methods / specification to enable the candidate to carry out the measurement of four wheel alignment and return the alignment to vehicle manufacturer specification
1.4	Read and understand Material Safety Data Sheets / Material Technical Data Sheets
1.5	Carry out an accurate four wheel alignment check and report including basic checks (including the prerequisite check on tyres, steering and suspension, ensuring correct pressures, weight loading and ride height) to ensure the measurements obtained are accurate to compare against the vehicle manufacturer specification
1.6	Accurately set up four wheel alignment equipment to ensure the measurements obtained are accurate to compare against the vehicle manufacturer specification
1.7	Carry out vehicle four wheel alignment measurements using logical methodology throughout the process ensuring that the wheel alignment is checked in the correct order, i.e. rear to front
1.8	Record the vehicle wheel alignment accurately in a format that is able to be read and understood by third parties
1.9	Compare the vehicle wheel alignment measurements against the vehicle manufacturer specification
1.10	Inspect and check vehicle components for wear and damage that are indicated through the measurements from the four wheel alignment equipment readings
1.11	Adjust the appropriate components to reset the vehicle wheel alignment to the vehicle manufacturer's settings in a logical sequence
1.12	Reinstate the vehicle geometry to vehicle manufacturer's specification
1.13	Accurately diagnose and record where rectification of steering geometry is not possible
1.14	Use Personal Protection Equipment (PPE)
1.15	Follow health and safety guidelines
1.16	Work within given time constraints



Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	Steering system types including rack and pinion, steering boxes
2.2	Principles of wheel alignment including Ackerman principle
2.3	Steering system components and their operation
2.4	Power steering types: hydraulic, electro hydraulic, electric
2.5	Wheel alignment: Steering Angle Inclination (SAI), King Pin Inclination (KPI), caster, camber, thrust line, toe in / out, wheel set back, wheelbase
2.6	Procedures and techniques used to check and adjust wheel alignment
2.7	Tools and equipment used to check and adjust wheel alignment / geometry
2.8	Wheel alignment diagnostic procedures
2.9	Health and Safety procedures



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Accreditation Module Title	Four Wheel Alignment - Interpretation of Data
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Module Code	ATA - AOM - 013
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Practical Assessment Time	0.75 hour
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On-line Knowledge Test	K - 013
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IMI AOM Level	3
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Module Overview	
<p>This module is to assess the competence of the candidate's knowledge, skill and ability to interpret data from a vehicles four wheel alignment / geometry report.</p> <p>The candidate will be required to review the measurement data obtained from a vehicle, (This data will be presented to the candidate) and to compare against the vehicle manufacturer specification and diagnose possible vehicle faults and make recommendations on the methods used to rectify the faults.</p>	

Candidate Profile	
<p>The technician should be working in the light vehicle sector of the industry and have at least three years experience to ensure they are familiar with the skills, knowledge and techniques required to replace various components, including returning vehicle systems to manufacturer specification and diagnosing system faults.</p>	

Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
Fast Fit	Service Technician
Light Vehicle Maintenance and Repair	Diagnostic Technician
MET	Senior Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Show an understanding of the requirements for performing the vehicle alignment pre-checks (i.e. correct ride height / loading)
1.2	Obtain the alignment target data from the vehicle manufacturer for the model.
1.3	Use wheel alignment measurement data previously recorded to diagnose and document the required actions to rectify / adjust the vehicle rear geometry settings to specification.
1.4	Use wheel alignment measurement data previously recorded to diagnose and document the required actions to rectify / adjust the vehicle front geometry settings to specification.
1.5	Show appropriate knowledge for the correct deployment and use of Personal Protection Equipment (PPE) and follow health and safety procedures.
1.6	Work within given time constraints

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	Steering system types including rack and pinion, steering boxes
2.2	Principles of wheel alignment inc. Ackerman principle
2.3	Steering system components and their operation
2.4	Power steering types, including hydraulic, electro hydraulic, electric
2.5	Wheel alignment: Steering Angle Inclination (SAI) / King Pin Inclination (KPI), caster, camber, thrust line, individual toe, toe in/out, wheel set back, wheelbase and track width. Toe-out on turns
2.6	Procedures and techniques used to check and adjust wheel alignment
2.7	Tools and equipment used to check and adjust wheel alignment
2.8	Interpretation of car manufacturer's wheel alignment data
2.9	An understanding of additional vehicle components (Steering Angle Sensor) associated with alignment adjustment specified by the vehicle manufacturer
2.10	Personal Protection Equipment (PPE) and Health and Safety procedures associated with wheel alignment activities.



Accreditation Module Title	MET - Remove/Replace/Refit
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Module Code	ATA - AOM - 044
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Practical Assessment Time	2.5 hours
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On-line Knowledge Test	K - 044
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IMI AOM Level	2
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Module Overview	
<p>This module is to ensure that the candidate has the ability to remove & refit vehicle exterior and interior trim - including body components - without damaging other components or the vehicle bodywork. The vehicle components will include: bumper cover (and associated components), headlamp (halogen type), door handle (and associated components including door card / trim). The candidate will be required to realign the applicable components (body panel(s) / headlamp) ensuring correct fitting as per vehicle manufacturer specification.</p>	

Candidate Profile	
<p>This module is intended for technicians / senior technicians working without supervision whose role involves the repair of vehicle bodywork. The technician should be working in the industry and have at least two years experience to ensure they are familiar with the techniques used within a bodyshop.</p>	

Links with Accreditation Routes and Modules	
This module features in:	
IMI Accreditation Route	IMI Accreditation Level
Cosmetic Repair	Senior Technician
MET	Technician
Panel	Technician

Skills Requirements	
The candidate must demonstrate the ability to:	
1.1	Use recognised vehicle repair methods
1.2	Assess the vehicle for existing damage prior to commencing repair work
1.3	Protect the vehicle prior to removing any components in order to prevent further damage
1.4	Use the correct tools and equipment to remove / refit vehicle trim and components
1.5	Remove / refit vehicle headlamp (halogen bulb type)
1.6	Remove / refit vehicle trim
1.7	Remove / refit door release mechanism (interior/exterior)
1.8	Remove / replace vehicle bumper without causing damage to other vehicle components
1.9	Identify any components that are damaged / missing / broken during the replacement of components
1.10	Ensure components are operating as per the vehicle manufacturer requirements
1.11	Adjust the components' settings to the vehicle manufacturer's specifications including alignment components (i.e. bumper alignment / headlamp aim)
1.12	Use Personal Protection Equipment (PPE)
1.13	Follow health and safety guidelines
1.14	Work within given time constraints

Knowledge Requirements	
The candidate must indicate a sound knowledge of:	
2.1	The Mechanical Electrical Trim (MET) techniques / methods used for the removal of vehicle components
2.2	Fundamental knowledge of vehicle electrical systems and related components including vehicle safety systems
2.3	The information used in the removal and refitting of vehicle components
2.4	Legal requirements for motor vehicles
2.5	Health and safety guidelines whilst carrying out MET activities