

WorldSkills UK – Automotive Technology Technical Handbook



INSTITUTE OF THE
MOTOR INDUSTRY

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1. Introduction

This handbook has been prepared by the **Institute of the Motor Industry (IMI)** to provide competitors and judges with a comprehensive reference for the **WorldSkills UK Light Vehicle Technology 2026 competition**.

It is designed to:

- Describe the structure and requirements of the competition
- Define the technical tasks to be undertaken at National Qualifiers and National Finals
- Provide assessment and marking criteria
- Offer guidance for preparation and skills development
- Detail career pathways and industry standards

This handbook is applicable to all competitors, training providers, and competition judges.

2. Competition Overview

Light Vehicle Technology is a core sector within the automotive engineering industry. Competitors will demonstrate competence in:

- Servicing, inspecting, and repairing light vehicles (cars and vans up to 3.5 tonnes)
- Diagnosing and rectifying faults in mechanical, electrical, and electronic systems
- Using industry-standard tools, diagnostic equipment, and technical documentation
- Applying manufacturer procedures and safety standards
- Working efficiently under time constraints while maintaining high-quality standards

Competitors are assessed on **technical knowledge, practical skill, efficiency, problem-solving, and professional behaviour**.

3. Career Pathway

3.1 Role of a Light Vehicle Technician

Light Vehicle Technicians are responsible for:

- Servicing and repairing vehicles according to manufacturer guidelines
- Diagnosing mechanical, electrical, and electronic faults
- Using diagnostic and workshop equipment safely and efficiently
- Advising service reception on required repairs and providing time estimates
- Maintaining repair and service records

3.2 Qualifications Required

- Level 2 Light Vehicle Maintenance and Repair
- Level 3 Light Vehicle Maintenance and Repair
- Apprenticeships or college-based N/SVQs and VRQs

3.3 Working Hours and Remuneration (UK, 2026 estimates)

Role	Typical Working Hours	Salary
Apprentice / Trainee	40 hours/week, Mon–Sat	£7,000–£13,000
Qualified Light Vehicle Technician	40 hours/week, Mon–Sat	£30,000 per annum / £15.50 per hour
Entry Level	40 hours/week	£26,300 per annum
Experienced	40 hours/week	Up to £39,500 per annum

3.4 Career Progression

- Light Vehicle Master Technician
- Diagnostic Vehicle Technician
- Service Manager

Further Information:

- [IMI Skills Competitions](#)

4. Registration and Pre-Competition Activity

4.1 Registration Process

1. Complete online registration and accept competition terms and conditions
2. Access the Entry Stage Online Test via email

4.2 Entry Stage Online Test

- Mandatory for all registered competitors
- Determines eligibility for National Qualifiers
- Results communicated via email

4.3 Pre-Competition Preparation

- Review current industry procedures and technical manuals
- Practice tasks under competition-like conditions
- Access pre-competition resources: [WorldSkills UK Pre-Competition Resources](#)

5. Competition Structure

Note: Tasks may be subject to minor changes; any adjustments will not significantly affect format or marking criteria.

5.1 National Qualifiers – Practical

Tasks:

1. Vehicle Inspection
2. Engine Mechanical
3. Braking Systems
4. High Voltage / Electric Vehicle Systems
5. Body Electrical
6. Engine Electrical

Assessment Weighting:

Task	Weighting
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Vehicle Inspection	16%
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Engine Mechanical	15%
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Braking Systems	16%
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High Voltage	18%
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Body Electrical	18%
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Engine Electrical	17%
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Competitor Expectations:

- Rotate through all tasks within allocated time
- Apply industry-standard procedures and diagnostic methods
- Demonstrate competence with tools, equipment, and systems
- Top six highest-scoring competitors progress to the National Finals

5.2 National Final

Tasks:

1. Vehicle Diagnostics (including Electric/Hybrid systems)
2. Transmission Systems
3. Body Electrical Systems
4. Braking Systems
5. Steering & Suspension Systems
6. Engine Mechanical Systems

Marking Distribution:

Task	Weighting
Vehicle Diagnostics	20%
Body Electrical	18%
Engine Mechanical	15%
Braking Systems	15%
Vehicle Inspections	18%
Steering & Suspension	14%

Competitor Expectations:

- Apply advanced diagnostic and repair techniques
- Demonstrate safe, efficient, and accurate use of tools and equipment
- Exhibit planning, problem-solving, and time management under pressure

6. Task Specifications

6.1 Practical Tasks

Competitors are expected to:

- Inspect and diagnose vehicle faults
- Repair mechanical, electrical, and electronic systems
- Follow manufacturer procedures for hybrid/electric vehicles
- Use diagnostic tools, multimeters, oscilloscopes, and measuring equipment
- Perform brake, steering, suspension, engine, and transmission tests

7. Marking and Assessment

7.1 Technical Competencies

- Accurate diagnosis and repair
- Efficient and safe use of tools and equipment
- Application of manufacturer procedures

7.2 Professional Attributes

- Time management and planning
- Communication and teamwork
- Health & safety compliance

7.3 Assessment Moderation

- Independent moderation ensures consistency
- Marks verified before results confirmed

8. Technical Master Classes & Digital Resources

Master Classes:

- Pre-final technical training is due to be arranged, and details will be shared in due course

Focus:

- Suspension geometry
- Wheel alignment
- Road Force wheel balancing equipment
- Suspension systems
- Inspection techniques
- Open forum
- EV training
- ADAS training

Digital Resources:

- [AlignMyCar](#)
- [Pro Align](#)
- [Pico Auto](#)
- [Electude](#)
- Manufacturer YouTube channels (GScan, Autologic, Wabco, etc.)

9. Judges' Guidance

Technical Competencies:

- Accurate fault diagnosis and rectification
- Safe and efficient use of tools
- Effective application of procedures

Professional Attributes:

- Planning and organisation
- Problem-solving
- Communication under pressure

Marking Approach:

- Objective assessment based on task-specific criteria
- Recognition of overall technical excellence

10. Competition Rules

- Arrive on time; late arrivals may be excluded
- Wear WorldSkills UK T-shirt and safety footwear; workwear required
- Follow instructions from judges and organisers
- Comply with venue and PPE regulations

11. Beyond WorldSkills UK

- National Finals contribute to **EuroSkills selection**
- Age-eligible competitors may be invited to train for **EuroSkills International** competitions
- Non-eligible competitors may join the **Skills Champions Programme** to inspire future talent

12. Appendices

12.1 Glossary and Abbreviations

- PPE – Personal Protective Equipment
- EV – Electric Vehicle
- ADAS – Advanced Driver Assistance Systems

12.2 PPE and Tools Checklists

PPE: Gloves, overalls, safety glasses, masks

Tools: Multimeters, oscilloscopes, scan tools, hand tools, power tools, pressure gauges, measuring devices

12.3 Contacts and Useful Links

- IMI Skills Competition Manager: mmassey@theimi.org.uk
- Head of Research, Careers & Inclusion: emmac@theimi.org.uk
- [IMI Skills Competitions](#)
- [WorldSkills UK Resources](#)