

[Unique Reference Number]

Carry out scheduled electrical maintenance on buses/coaches



Overview

This unit identifies the competencies you need to carry out scheduled bus/coach electrical maintenance activities in accordance with approved procedures. You will be required to interpret the requirements of the maintenance schedule, carry out maintenance to the standards required and record the results of maintenance activities to comply with organisational and regulatory procedures.

You will understand the factors governing the planning and application of scheduled electrical maintenance activities. You will know about the statutory and company standards in adequate depth to carry out the activities to the required specification.

Applying relevant safe working practices will be a key issue throughout.

This unit consists of one element:

1. Carry out scheduled electrical maintenance on buses/coaches

This element is about carrying out electrical maintenance on buses/coaches and their components. This may be time or distance based. The systems to include, as appropriate:

1. battery, charging and starting systems
2. instrumentation and warning systems
3. lighting systems
4. electrical/electronic diagnostics
5. auxiliary systems
6. electrical and electronic transmission

You will be required to check maintained electrical systems to ensure compliance with specification in the following areas as appropriate:

1. correct operation and performance
2. visual
3. critical tolerances
4. quality/volume
5. capacity
6. pressures
7. efficiencies
8. emissions
9. component replacement

At all times your responsibilities will require you to comply with your organisation's policy and procedures, regulatory and legal requirements.

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This unit is for all those who work in a bus/coach engineering and maintenance workshop or environment.

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Performance criteria

You must be able to:

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- P1 work safely at all times, complying with health and safety and other relevant regulations and guidelines
- P2 interpret the relevant maintenance schedules to carry out the required work
- P3 carry out the maintenance activities within the limits of your personal authority
- P4 carry out the maintenance activities in the specified sequence and in the agreed timescale
- P5 report any instances where the maintenance activities cannot be fully met or where there are identified defects outside the planned schedule
- P6 complete relevant maintenance records accurately and pass them on to the appropriate person
- P7 dispose of waste materials in accordance with safe working practices and approved procedures

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Knowledge and understanding

You need to know and understand:

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- K1 the relevant safe working procedures covered by:
 - K1.1 HASWA
 - K1.2 your organisation's health and safety policy and procedures
 - K1.3 COSHH regulations
 - K1.4 PPE regulations
 - K1.5 tools and equipment instructions and safety guidance for their use, maintenance and storage
- K2 the critical tolerances, standards and specifications contained within relevant sources of information including:
 - K2.1 service bulletins
 - K2.2 technical data sheets
 - K2.3 vehicle records and history
 - K2.4 charts and tables
 - K2.5 VIN and plate details
 - K2.6 manufacturers' workshop manuals
 - K2.7 manufacturers' bulletins
- K3 the relevant suppliers and manufacturers' information and specifications
- K4 how to source and use relevant information for planning and progressing your work, including as appropriate:
 - K4.1 data sheets
 - K4.2 specifications
 - K4.3 inspection sheets
 - K4.4 on-board diagnostic displays
- K5 how to carry out scheduled bus/coach electrical maintenance to an agreed timescale using an efficient and safe route
- K6 how to carry out scheduled electrical maintenance to the following systems and components, including as appropriate:
 - K6.1 battery, charging and starting systems
 - K6.2 lighting systems
 - K6.3 auxiliary systems
 - K6.4 instrumentation and warning systems
 - K6.5 electrical/electronic diagnostics
 - K6.6 electrical and electronic transmission
- K7 how to check maintained electrical systems to ensure compliance with specification in the following areas, including as appropriate:
 - K7.1 correct operation and performance
 - K7.2 critical tolerances
 - K7.3 capacity
 - K7.4 efficiencies
 - K7.5 component replacement
 - K7.6 visual

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- K7.7 quality/volume
- K7.8 pressures
- K7.9 emissions
- K8 how to calibrate and check specified service tools and to know the importance of this
- K9 how to check and make service adjustments in accordance with relevant data
- K10 how to replenish and replace routine service components and materials
- K11 how to inspect electrical systems and components for damage, wear and corrosion
- K12 how to operate workshop equipment used for scheduled electrical maintenance and to leave it after use in a clean and workable condition and to know the control procedures for reporting defects
- K13 the maintenance authorisation procedures
- K14 how to dispose of the waste materials produced as a result of electrical maintenance activities in accordance with safe working practices and approved procedures
- K15 the importance of reporting the progress and completion of the maintenance to include providing information on the parts used, follow up work and potential problems
- K16 the relevant statutory and contractual obligations to record and safely document completed service and maintenance records
- K17 the extent of your role and responsibility and to whom you should report if you have problems you cannot solve

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Additional information

Glossary

Your organisation

this is the company you work for or, if you are self employed, the rules you have set for yourself to ensure that you comply with relevant legal and licensing requirements

HASWA

Health and Safety at Work Act

COSHH

Control of Substances Hazardous to Health

PPE

Personal Protective Equipment

VIN

Vehicle Identification Number

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Developed by	People 1st
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Suite	Bus and Coach Engineering and Maintenance
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