



**Australian Government**

# **CUALGT312 Repair and maintain lighting equipment**

**Release: 1**

# CUALGT312 Repair and maintain lighting equipment

## Modification History

| Release   | Comments                                                                                     |
|-----------|----------------------------------------------------------------------------------------------|
| Release 1 | This version first released with CUA Creative Arts and Culture Training Package Version 5.0. |

## Application

This unit describes the skills and knowledge required to undertake basic repairs to and maintain lighting equipment and accessories used in the screen, media, entertainment and events industries. It involves identifying and resolving technical faults according to safety requirements and organisational procedures.

The unit applies to those who maintain lighting equipment using some discretion and judgement and operate under broad supervision within an established framework of plans and procedures.

In some States and Territories of Australia, a restricted electrical licence is required to repair and maintain production equipment. Restricted electrical licences allow a person to carry out electrical work incidental to a trade. Incidental work may include fault-finding on equipment or changing like for like equipment by disconnecting and reconnecting the fixed wiring. It does not include any other changes to the fixed wiring.

Testing and tagging of electrical equipment must be carried out by a person with the required certificate of competency in accordance with the performance specifications of:

- Australian Standard 3760: 200 In-service safety inspection and testing of electrical equipment
- Australian Standard 3002: 1985 Electrical installations - shows and carnivals.

In some States and Territories a licensed electrician would be required to undertake the tasks outlined in Element 2.

Users are advised to check with the relevant licensing authority for requirements.

## Unit Sector

Media and Entertainment Production – Lighting

## Elements and Performance Criteria

| ELEMENT                                | PERFORMANCE CRITERIA                                           |
|----------------------------------------|----------------------------------------------------------------|
| <i>Elements describe the essential</i> | <i>Performance criteria describe the performance needed to</i> |

| ELEMENT                                                            | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>outcomes.</i>                                                   | <i>demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1. Undertake routine maintenance tasks                             | 1.1 Clean and maintain equipment according to organisational procedures<br>1.2 Conduct safety checks on equipment according to manufacturer instructions and work health and safety (WHS) guidelines<br>1.3 Check and replace spares and consumables<br>1.4 Confirm production equipment available at specified locations<br>1.5 Complete required documentation provide copies to required personnel                                                                                                                                                                                                      |
| 2. Undertake repair tasks                                          | 2.1 Identify faults and follow manufacturer instructions and organisational procedures<br>2.2 Isolate fault to specific equipment or parts of equipment using fault detection procedures<br>2.3 Determine nature of repair requirements<br>2.4 Tag faulty production equipment according to organisational procedures<br>2.5 Make minor repairs to faulty equipment according to safety requirements and manufacturer instructions<br>2.6 Refer complex repairs to technical specialists or licensed personnel<br>2.7 Discuss faults and repair needs with technical specialists using correct terminology |
| 3. Comply with safety, legislative and organisational requirements | 3.1 Make simple modifications to equipment using current safety measures<br>3.2 Complete documentation according to organisational procedures and distribute to required personnel<br>3.3 Review repair and maintenance activities for compliance with legislation                                                                                                                                                                                                                                                                                                                                         |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.*

| SKILL   | DESCRIPTION                                                                                    |
|---------|------------------------------------------------------------------------------------------------|
| Reading | <ul style="list-style-type: none"> <li>Interprets service documentation and manuals</li> </ul> |

| SKILL              | DESCRIPTION                                                                                                                                                                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Writing            | <ul style="list-style-type: none"><li>• Completes fault and maintenance reports using clear language and industry terminology</li><li>• Tags or labels equipment according to its repair status</li></ul>                                                                                                  |
| Oral communication | <ul style="list-style-type: none"><li>• Obtains information by listening and questioning</li><li>• Uses clear language to contribute information and express requirements</li></ul>                                                                                                                        |
| Self-management    | <ul style="list-style-type: none"><li>• Understands and completes main tasks and responsibilities, within the boundaries of own role</li><li>• Meets work deadlines</li></ul>                                                                                                                              |
| Teamwork           | <ul style="list-style-type: none"><li>• Works collaboratively with required personnel</li></ul>                                                                                                                                                                                                            |
| Problem solving    | <ul style="list-style-type: none"><li>• Adopts a methodical and logical approach to completing basic repairs to lighting equipment</li><li>• Re-assembles and re-aligns lighting equipment under repair</li><li>• Anticipates and addresses issues that arise while repairing lighting equipment</li></ul> |

## Unit Mapping Information

Supersedes and is equivalent to CUALGT302 Repair and maintain lighting equipment.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>

# Assessment Requirements for CUALGT312 Repair and maintain lighting equipment

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## Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- repair and maintain at least two different pieces of lighting equipment.

In the course of the above, the candidate must:

- use the appropriate tools to undertake routine repairs and maintenance on lighting equipment and accessories
- apply logical fault detection procedures
- apply health and safety, organisational and legislative requirements when testing and maintaining lighting equipment
- locate required information in service and technical manuals when undertaking repair and maintenance tasks.

## Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- LED lighting and its operational functions
- typical maintenance needs and schedules for commonly used lighting equipment
- type of cleaning agents to use with different equipment
- techniques and processes for detecting and repairing common faults in lighting equipment
- spare parts and sub-assemblies used when repairing and maintaining lighting equipment
- consequences of not operating and maintaining lighting equipment in optimal condition
- how the following electrical concepts apply when repairing and maintaining lighting equipment:
  - voltage
  - current resistance
  - insulation

- power sources (AC/DC)
- legal and licensing issues that impact on the repair and maintenance of equipment, including:
  - role of the restricted electrical licence
  - testing and tagging certification
  - limitations on the type of work that can be undertaken without a licence
- features of duty of care and public safety issues in relation to the safe use of lighting equipment.

## Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes:

- access to lighting equipment in need of repair and maintenance
- access to workplace documentation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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