



Australian Government

UEEEEC0067 Troubleshoot basic amplifier circuits

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to troubleshoot basic amplifier circuits.

It includes preparing to troubleshoot basic amplifiers, solving basic amplifier circuit problems, completing work and reporting on problem-solving activities.

Permits may be required for some work environments, such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEEEEC0060 Repairs basic electronic apparatus faults by replacement of components

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to troubleshoot basic amplifiers

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for relevant work area are identified, obtained and applied
- 1.2** WHS/OHS risk control measures are applied in

- accordance with workplace procedures prior to commencing work
- 1.3** Scope of the fault is obtained from documentation or discussions with relevant person/s to determine scope of work
- 1.4** Instructions for coordinating work with others are obtained from relevant person/s and applied
- 1.5** Materials required for work are determined in accordance with workplace procedures
- 1.6** Tools, equipment and testing devices required for work are obtained and checked for correct operation and safety
- 2 Solve basic amplifier circuit problems**
- 2.1** WHS/OHS risk control measures and workplace procedures are applied
- 2.2** Need to test and measure live work is determined in accordance with WHS/OHS requirements and workplace procedures
- 2.3** Circuits are isolated, as necessary, in accordance with WHS/OHS requirements and workplace procedures
- 2.4** Fault finding is undertaken methodically applying principles of basic amplifiers and using measured and calculated values of parameters
- 2.5** Unexpected situations are dealt with safely and with the approval of relevant person/s
- 2.6** Fault-finding activities are conducted efficiently minimising unnecessary waste of materials, damage to apparatus, the surrounding environment or services applying sustainable energy practices
- 3 Complete work and report on problem-solving activities**
- 3.1** WHS/OHS risk control measures and procedures are applied
- 3.2** Worksite is cleaned and made safe in accordance with workplace procedures
- 3.3** Justification for troubleshooting solutions is provided in the required format
- 3.4** Work completion is reported and relevant person/s

notified in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Troubleshooting basic amplifier circuit problems must include at least the following:

- two faults on at least two different types of operational amplifier configurations

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH139A Troubleshoot basic amplifier circuits.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>