Australian Government

UEEEC0075 Troubleshoot single phase input d.c power supplies

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 determine the correct operation of independent power supplies and power supply sections of electronic apparatus.

It includes troubleshooting and applying problem-solving procedures; working safely; using voltage, current and resistance measuring devices to measure and calculate; and providing solutions to predictable problems in direct current (d.c.) power supplies with single phase inputs.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEEEC0060 Repairs basic electronic apparatus faults by replacement of components

and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

and

UEEEC0074 Troubleshoot resonance circuits in an electronic apparatus

OR

UEECD0045 Solve problems in multiple path extra-low voltage (ELV) a.c. circuits

OR

UEEEC0065 Solve problems in basic electronic circuits

OR

UEEEL0019 Solve problems in direct current (d.c.) machines

UEEEL0021 Solve problems in magnetic and electromagnetic devices

UEEEL0020 Solve problems in low voltage a.c. circuits

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Troubleshoot d.c. power supplies	**1.1** Work health and safety (WHS)/occupational health and safety (OHS) procedures for a given work area are obtained and applied
	1.2 Nature of d.c. power supplies fault is obtained from documentation or from work supervisor to determine the scope of work to be undertaken
	1.3 Advice is sought from work supervisor to ensure work is coordinated effectively with others
	1.4 Materials required for the work are determined in accordance with workplace procedures
	1.5 Tools, equipment and testing devices required to carry out the work are obtained in accordance with workplace procedures and checked for correct operation and safety
2 Solve d.c. power supply problems	**2.1** WHS/OHS risk control work measures and workplace procedures are followed
	2.2 Power supply fault finding is approached methodically in accordance with workplace procedures, drawing on knowledge of d.c. power supplies and using measured and calculated values of parameters
	2.3 Fault-finding activities are carried out efficiently without unnecessary waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices
3 Complete work and document problem-solving	**3.1** WHS/OHS risk control measures and workplace

activities		procedures for work completion are followed
	3.2	Worksite is cleaned and made safe in accordance with workplace procedures
	3.3	Justification for solutions used to resolve single phase input d.c. power supply problems are documented in accordance with workplace procedures
	3.4	Work completion is documented and appropriate 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 d.c. power supply problems must include:	• single phase input on the rectification section • filtering section of a half wave and full wave rectifiers

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH111A Troubleshoot single phase input d.c power supplies.

Links

Companion Volume implementation guides are found in VETNet - - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6