

**PERFORM FIXING AND MAINTENANCE OF LIGHT  
FITTINGS, POWER OUTLETS AND BASIC  
APPLIANCES**

**UNIT CODE: EE/OS/ET/CR/03/3**

**Unit Description**

This unit covers the competencies on fitting, mounting and installing wiring devices, installing lighting fixtures/switches,

notifying completion of work, mounted outlets, auxiliary outlets and maintenance.

## ELEMENTS AND PERFORMANCE CRITERIA

<b>Element</b> <i>These describe the key outcomes which make up workplace function</i>	<b>Performance Criteria</b> <i>These are assessable statements which specify the required level of performance for each of the elements. <b>Bold and italicized terms are elaborated in the Range</b></i>
1. Select wiring devices and basic appliances	1.1 Drawings are read and interpreted to determine job requirements. 1.2 Correct type and quantity of <b>wiring devices and consumable items</b> are identified in line with job requirements. 1.3 <b>Tools and equipment</b> are selected in line with job requirements 1.4 Correct <b>PPE</b> are identified and selected in line with safety requirements.

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2. Install wiring devices and basic appliances

- 2.1 Safety procedures are followed based on safety regulations
- 2.2 Installation of *wiring devices* and *basic appliances* are performed in line with job requirements
- 2.3 Wiring devices and basic appliances are grounded in accordance with IEEE regulations
- 2.4 Schedule of work is followed based on agreed time, quality standard and minimum wastage
- 2.5 Further instructions are sought in case of unplanned events or conditions.
- 2.6 Changes are recorded according to work place procedures.
- 2.7 Identification and labeling of circuits is carried out.
- 2.8 On-going checking of quality of work is done in accordance with instructions and requirements
- 2.9 Reports are prepared in accordance with work place procedures

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<p>3. Install lighting fixtures</p>	<p>3.1 Safety procedures are followed.</p> <p>3.2 Installation of <i>light fixtures</i> are performed in line with job requirements.</p> <p>3.3 Schedule of work is followed to ensure work is completed in an agreed time, to a quality standard and with a minimum waste.</p> <p>3.4 Further instructions are sought from a supervisor if unplanned events or conditions occur.</p> <p>3.5 Changes are recorded according to work place procedures.</p> <p>3.6 On-going checks of quality of work are undertaken in accordance with instructions and requirements.</p> <p>3.7 Reports are prepared in accordance with work place procedures.</p>
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<p>4. Complete installation of wiring devices, basic appliances and lighting fixtures</p>	<p>4.1 Final checks are made to ensure that work conforms with instructions and to requirements</p> <p>4.2 Supervisor is notified upon completion of work</p> <p>4.3 Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures Work area is cleaned and made safe</p>

<p>5. Perform basic repair and maintenance of installation and appliances</p>	<p>5.1 Tools and equipment are selected in line with job requirements.</p> <p>5.2 Correct PPE are identified and selected in line with safety requirements.</p> <p>5.3 Identify the fault and perform the repair in line with the IEE regulations.</p> <p>5.4 Perform repair on the appliance in line with the manufacture's manual.</p>
<p><b>Element</b> <i>These describe the key outcomes which make up workplace function</i></p>	<p><b>Performance Criteria</b> <i>These are assessable statements which specify the required level of performance for each of the elements. <b>Bold and italicized terms are elaborated in the Range</b></i></p>
	<p>5.5 Maintain the installation and appliances in line with the set standards</p>

## RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

<p><b>Variables</b></p>	<p><b>Range</b> <i>May include but not limited to:</i></p>
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1. Wiring devices	1.1 Socket outlets 1.2 Cooker units 1.3 Double pole switches 1.4 Circuit breakers
2. Light fixtures	2.1 Light fittings 2.2 Light switches
3. Consumables	3.1 Insulating tapes 3.2 Strip connectors 3.3 Sleeves
4. Basic appliances	4.1 Cookers 4.2 Instant water heaters 4.3 Water pumps 4.4 Hand dryers
<b>Variables</b>	<b>Range</b>
	<i>May include but not limited to:</i>
	4.5 Fans 4.6 Air conditioners
5. Tools and equipment	5.1 Pliers 5.2 Screwdrivers 5.3 Electrician knives 5.4 Clipping tools 5.5 Spirit levels 5.6 Spanners



	5.7 Drills 5.8 Wrenches 5.9 Tape measures
6. Personal protective equipment (PPE)	6.1 Working gloves 6.2 Safety shoes 6.3 Helmet 6.4 Overalls and aprons 6.5 Safety harness 6.6 Goggles 6.7 Nose masks
7. Safety procedures	7.1 IEEE regulations 7.3 Building Code 7.3 Safety standards

## REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

### Required Skills

The individual needs to demonstrate the following skills:

- Interpreting plans and drawings
- Handling and storage of materials, tools and equipment
- Observing safety standards
- Installing wiring devices, lighting fixtures and basic appliances
- Communication
- Report writing and record keeping

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- Interpretation of drawings
- Materials specification
- Types and uses of electrical wiring devices, tools and equipment
- Proper PPEs
- Types of lighting fixtures and installation techniques
- Installation procedures of various wiring devices, lighting fixtures and basic appliances
- Ratings of lighting fixtures
- Maintenance of tools
- Storage of tools
- Report writing and record keeping
- Good housekeeping

## **EVIDENCE GUIDE**

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

<p>1. Critical aspects of competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Observed safety standards</li> <li>1.2 Correctly interpreted drawings and work instructions</li> <li>1.3 Selected appropriate tools, equipment and materials for installing wiring devices, lighting fixtures and basic appliances</li> <li>1.4 Selected and used correct PPE</li> <li>1.5 Demonstrated correct procedures for installation of wiring devices and lighting fixtures and basic appliances</li> <li>1.6 Cleaned worksite, tools and equipment</li> <li>1.7 Stored surplus materials</li> <li>1.8 Prepared reports and kept records.</li> </ul>
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Workplace location</li> <li>2.2 Tools and equipment appropriate for installation of wiring devices, lighting fixtures and basic appliances</li> </ul>
	<ul style="list-style-type: none"> <li>2.3 Materials relevant to the proposed activity</li> <li>2.4 Drawings and specifications relevant to the task</li> </ul>

<p>3. Methods of Assessment</p>	<p>Competency may be assessed through:</p> <p>3.1 Direct observation of application of tasks</p> <p>3.2 Oral questioning</p> <p>3.3 Demonstration/practical activity</p> <p>3.4 Written test</p>
<p>4. Context of Assessment</p>	<p>4.1 Competency may be assessed in the workplace or in a simulated workplace setting.</p> <p>4.2 Assessment shall be observed while the tasks are being undertaken either individually or as part of a team under limited supervisions.</p>
<p>5. Guidance information for assessment</p>	<p>Holistic assessment with other units relevant to the industry sector and current technology, workplace and job role is recommended.</p>