

## SECURITY SYSTEM INSTALLATION

**UNIT CODE:** ENG/CU/PO/CR/05/5/A

### Relationship to Occupational Standards

This unit addresses the unit of competency: Security System Installation

**Duration of Unit:** 50 hours

### Unit Description

This unit covers the competencies required in installing of security systems. Competencies includes; Marking out of security systems zones, laying system cables, mounting accessories, terminate system cables and testing of the system.

### Summary of Learning Outcomes

1. Mark out security system zones or call points
2. Lay system cables
3. Mount accessories
4. Terminate system cables
5. Test security system

### Learning Outcomes, Content and Suggested Assessment Methods

| Learning Outcome                                  | Content  | Suggested Assessment Methods   |
|---|--|--|
| 1. Mark out security system zones and call points | <ul style="list-style-type: none"><li>• Meaning of zones in security system</li><li>• Types of security systems e.g<ul style="list-style-type: none"><li>• CCTV</li><li>• Alarms</li><li>• Electric Fence</li></ul></li><li>• Marking, Piping and fixing tools e.g<ul style="list-style-type: none"><li>• Scribers</li><li>• Pliers</li><li>• Connectors</li></ul></li><li>• Importance of marking</li></ul> | <ul style="list-style-type: none"><li>• Oral questioning</li><li>• Written tests</li><li>• Practical tests</li></ul> |
| 2. Lay system cables                              | <ul style="list-style-type: none"><li>• Types of cables in security system</li><li>• Factors to consider in security system cable laying</li><li>• Segregation in cable laying</li><li>• Importance segregations</li></ul>   | <ul style="list-style-type: none"><li>• Observation</li><li>• Written tests</li><li>• Oral questioning</li></ul>     |

| Learning Outcome           | Content   | Suggested Assessment Methods  |
|----------------------------|---|---|
| 3. Mount Accessories       | <ul style="list-style-type: none"> <li>• Meaning of terms</li> <li>• Accessories used in security system e.g</li> <li>• Smoke sensors</li> <li>• Vibration sensors</li> <li>• Security cameras</li> <li>• Transmitters</li> <li>• Receivers</li> <li>• Cameras</li> <li>• Bell circuits</li> <li>• Intruder alarm</li> <li>• Fire alarm</li> <li>• Call and alarm circuits</li> <li>• Wiring security system</li> <li>• Security system control panels</li> <li>• Insulation classes of enclosures e.g.</li> <li>• IP 44 ( Ingress protection)</li> <li>• IP 55</li> <li>• IP 65</li> <li>• IP 66</li> <li>• IP 67</li> </ul> | <ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questioning</li> <li>• Written tests</li> </ul>    |
| 4. Terminate System cables | <ul style="list-style-type: none"> <li>• Meaning of termination</li> <li>• Meaning of Terms</li> <li>• Importance of termination</li> <li>• Cable lugging</li> <li>• Tools used in cable termination e.g. <ul style="list-style-type: none"> <li>• Connectors</li> <li>• Strip Knife</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questioning</li> <li>• Written tests</li> </ul>    |
| 5. Test Security system    | <ul style="list-style-type: none"> <li>• Meaning Testing</li> <li>• Types of tests in security system e.g</li> <li>• Insulation test</li> <li>• Short circuit test</li> <li>• Continuity test</li> <li>• Arming and disarming tests</li> </ul>  | <ul style="list-style-type: none"> <li>• Oral questioning</li> <li>• Written tests</li> <li>• Practical test</li> </ul> |

#### Suggested Methods of Instruction

- Demonstration by trainer

- Practice by the trainee
- Discussions

### **Recommended Resources**

- Drawing instruments
- Computer
- Stationery

easytvvet.com