



REPUBLIC OF KENYA

COMPETENCY BASED CURRICULUM

FOR

ELECTRICAL OPERATION (POWER OPTION)

KNQF LEVEL 5

ISCED CODE: 07130554 B



TVET CDACC
P.O BOX 15745-00100
NAIROBI

SECURITY SYSTEM INSTALLATION

UNIT CODE: ENG/CU/PO/CR/05/5/B

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">• Meaning of zones in security system• Types of security systems e.g<ul style="list-style-type: none">• CCTV• Alarms• Electric Fence• Marking, Piping and fixing tools e.g<ul style="list-style-type: none">• Scribers• Pliers• Connectors• Importance of marking	<ul style="list-style-type: none">• Oral questioning• Written tests• Practical tests
2. Lay system cables	<ul style="list-style-type: none">• Types of cables in security system• Factors to consider in security system cable laying• Segregation in cable laying	<ul style="list-style-type: none">• Observation• Written tests• Oral questioning

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

Suggested Methods of Instruction

- Demonstration by trainer
- Practice by the trainee
- Discussions

Recommended Resources

- Drawing instruments
- Computer
- Stationery