

5357 LEVEL 3

ELECTROTECHNICAL QUALIFICATION

WORKPLACE LOGBOOK

City & Guilds



5357 LEVEL 3

ELECTROTECHNICAL QUALIFICATION

WORKPLACE LOGBOOK

Name

City & Guilds enrolment number

Centre name

Centre number

Trainer

Date registered with City & Guilds

CANDIDATE

I confirm that the evidence supplied in the logbook is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name	Candidate signature	Date

ASSESSOR/IQA

I confirm that this candidate has achieved all the requirements of the units within the logbook and with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name	Assessor signature	Date
IQA name	IQA signature	Date

CONTENTS

Expert witnesses	5
Workplace logbook candidate guide	6
Unit 102: Apply health, safety and environmental considerations	9
Unit 106: Organise and oversee the electrical work environment	27
Unit 108: Terminate and connect conductors	46
Unit 109: Apply design and installation practices and procedures (optional unit)	60
Unit 110: Apply practices and procedures for maintenance (optional unit)	86
Unit 113: Inspect, test and commission electrical systems	103
Unit 115: Apply fault diagnosis and rectification	114
Appendix: Direct observations	140

EXPERT WITNESSES

For an expert witness to confirm competence in the workplace he/she must be able to demonstrate the following criteria:

- current knowledge of industry working practices and techniques
- no conflict of interest in the outcome of their evidence.

The designated expert witness should ordinarily be your immediate work supervisor. It is recognised that over the lifetime of the qualification you may be allocated more than one expert witness.

Therefore, each expert witness allocated to you must complete the following requirements.

I confirm I am suitably experienced or qualified in line with the industry requirements for expert witness as detailed above. I acknowledge that I will only counter-sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Expert witness name

Expert witness signature

Date

I confirm I am suitably experienced or qualified in line with the industry requirements for expert witness as detailed above. I acknowledge that I will only counter-sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Expert witness name

Expert witness signature

Date

I confirm I am suitably experienced or qualified in line with the industry requirements for expert witness as detailed above. I acknowledge that I will only counter-sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Expert witness name

Expert witness signature

Date

I confirm I am suitably experienced or qualified in line with the industry requirements for expert witness as detailed above. I acknowledge that I will only counter-sign documentation requested by the candidate where to my knowledge only the candidate has completed the work and on the understanding that the work has been carried out to a commercially acceptable standard.

Expert witness name

Expert witness signature

Date

This evidence workplace logbook is to be used as you complete naturally occurring jobs and tasks in the workplace. You may also find that your employer has documentation that you can use as part of evidence in this workplace logbook, but please check this with your assessor to ensure it meets the performance criteria.

The workplace logbook will provide evidence of your ability by completing onsite tasks to show you are competent against the performance criteria set out in this workplace evidence record. The recording sheets necessary for you and your assessor to record detail of the work carried out (evidence produced) are included in this workplace logbook.

Once you have started working on a unit in the classroom and you have obtained sufficient knowledge you can start filling out this workplace logbook.

It is a good idea to speak to your assessor and draw up a plan.

WHAT IS SUPPORTING EVIDENCE?

Supporting evidence is additional evidence that supports the work carried out. Guidance to supporting evidence requirements can be discussed with your assessor.

HOW WILL I BE ASSESSED TO SHOW THAT I AM COMPETENT AGAINST THE PERFORMANCE CRITERIA?

There are several methods of providing proof of competence:

DO – Direct observation

PE – Product evidence (product assessment)

RA – Reflective account

PD – Professional discussion

WT – Witness testimony

OQ – Oral question

WQ – Written question

JR – Job record

Direct observation (DO) – Your assessor visits your workplace to see you doing a particular job and completes details of the work you have been observed doing. He/she will identify whether the work you have carried out is to an acceptable standard. You may be asked a number of oral questions in support of the assessment process and these will be detailed on the direct observation record. The assessor will also work with you to forward plan future visits and work that you need to produce to progress your programme.

Product evidence/assessment (PE) – Your assessor, while visiting you on site, checks work that you have previously carried out while he/she was not present. This checking process will include discussion with your expert witness (supervisor).

Photographic evidence – Should be taken at the time of the event, dated and authenticated by an expert witness. The photographs should reflect the work being carried out in the job records and the evidence recorded in these.

Reflective account (RA) – You provide full written details of a job and your expert witness provides confirmation on the recording sheets provided in this evidence record that the work was done by you and it was carried out to a commercially acceptable standard.

Professional discussion (PD) – Your assessor may wish to engage in a professional discussion, which will be recorded. This form of assessment is useful to supplement performance and written evidence to show that you have met the level of competency required.

Witness testimony (WT) – Provides an account of what the candidate does, or has done recently, in their job role.

Oral question (OQ) – Your assessor may need to assess some task items through questioning you about the work. Details of oral questions asked and your responses are written in the space provided on the relevant task sheet. This should be related to the evidence produced for relevant performance units and criteria.

Written question (WQ) – You may be asked to provide one- or two-word answers as well as answers that may need a few sentences.

Job records (JR) – These are designed to meet and capture evidence of the performance criteria as you are carrying out tasks on site.

WHAT IF I MAKE A MISTAKE WHEN COMPLETING THE SHEETS?

If you make a mistake when completing the sheets, simply draw a line through the mistake, and date and sign alongside the mistake. Duplicate sheets can be included as required.

Please do not use correction fluid in this workplace evidence record.

HOW DO I COMPLETE THIS WORKPLACE EVIDENCE RECORD?

Each performance unit is split into five sections. These are the unit brief, checklist, range/evidence tracker, job records and supplementary evidence and feedback.

Unit brief – gives you an overview of the unit, what is expected of you and likely sources of evidence. It is important to pay close attention to this so that you can meet and show you are competent against all the performance criteria. You will notice there are also questions to support you in producing examples of evidence. These questions cover the whole of the unit.

Unit checklist (completed by the assessor) – tracks your progress through the performance unit that you are working on. It also identifies and verifies the assessment method used to meet the performance criteria. The performance criteria must be assessed on a minimum of two occasions.

Unit range/evidence tracker (completed by the candidate) – identifies how you have met the minimum required content across the performance unit and where the evidence for this can be found. The range must be covered on a minimum of two separate occasions.

Job records (completed by the candidate) – some of the performance units contain a job record that is specifically designed to meet the performance criteria of that particular unit. For example, these may contain risk assessments or tool lists that have to be completed. For you to be successful at completing the performance units within this qualification, you have to complete the job records as guided in this workplace logbook. We recommend all job records are completed alongside any direct observation.

Supplementary evidence, feedback, etc – at the end of each unit, there is a section that will give information on what supplementary evidence needs to be provided to meet the performance criteria, and a section for your supervisor/assessor to give feedback on your performance and areas to improve.

WHAT BEHAVIOURS ARE REQUIRED AND HOW ARE THEY ASSESSED?

The behaviours below are embedded into the performance units in this workplace logbook. These behaviours are part of the apprenticeship, and an expert witness and/or your assessor will also assess you against them. They will record and give feedback on your performance against these behaviours.

- Behaviour 1 (B1): Works reliably and effectively without close supervision
- Behaviour 2 (B2): Accepts responsibility for the work of themselves and others
- Behaviour 3 (B3): Accepts, allocates and supervises technical and other tasks
- Behaviour 4 (B4): Uses oral, written and electronic methods for the communication of technical and other information
- Behaviour 5 (B5): Works effectively with colleagues, other trades, clients, suppliers and the public
- Behaviour 6 (B6): Undertakes work in a way that contributes to sustainable development
- Behaviour 7 (B7): Maintains and enhances competence in own area
- Behaviour 8 (B8): Exercises responsibilities in an ethical manner

WHO DOES WHAT?

The candidate

You (the candidate) need to complete the following sections:

- range/evidence tracker
- job records
- supplementary evidence and feedback.

The assessor

Your assessor needs to complete the remaining sections:

- checklist
- forward planning sign-off sheets.

DIRECT OBSERVATIONS

A requirement of this qualification is that you are observed on a **minimum of two** occasions to complete Unit 102, Apply health, safety and environmental considerations. However, it is very unlikely that you will be observed just on health and safety; you will be carrying out tasks that will meet performance criteria across other performance units.

A good approach to observation of performance criteria would be to carry out on-site observations at various intervals. **As a guide, appropriate intervals would be at first fix, second fix and at inspection and test stage, picking up the requirements for health and safety holistically as part of the visits.**

You will find the direct observation documents, for recording any other performance criteria that are observed, in the appendix of this workplace logbook.

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

THE BRIEF

This unit is designed to enable learners to develop the skills and apply the relevant knowledge associated with health and safety legislation, practices and procedures when installing and maintaining electrical systems and equipment.

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from the candidate carrying out tasks in the workplace. The assessor will carry out direct observation, questioning and professional discussion. Supplementary evidence by the candidate will be required to cover the required ranges.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions. The supplied observation, professional discussion records and supplementary evidence cover all criteria required: **LO 1, LO 2, LO 3, LO 4**.

Direct observation is required for the tasks documented on **two** occasions.

If a minimal amount of criteria is not achieved on the direct observation record, then oral questioning and professional discussion can be used on the document provided.

Equivalent employer supplementary evidence documents can be provided, but these must be completed by the candidate in relation to workplace activity.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

Supplementary evidence forms including:

- risk assessment
- photographs
- method statement.

By assessors

- checklists
- direct observation forms
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

Three from the supplementary evidence list provided:

- relevant photographs
- risk assessment
- method statement.

BEHAVIOURS

B1, B2, B4, B5, B6, B7, B8

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

CHECKLIST

LEARNING OUTCOME 1

Apply relevant health and safety legislation in the workplace

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Identify which workplace health and safety procedures are relevant to the working environment, and comply with their duties and obligations as defined by current legislation and organisational procedures				
2 Produce a risk assessment and method statement in accordance with organisational procedures for a given work activity				
3 Work within the requirements of:				
• risk assessments				
• method statements				
• safe systems of work				

LEARNING OUTCOME 2

Assess the work environment for hazards and identify remedial actions in accordance with health and safety legislation

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Identify unsafe situations and conditions and take remedial actions				
2 Assess the work environment and revise work practices accordingly to take into account hazards which could cause harm, including the handling of potentially hazardous:				
• materials				
• tools				
• equipment				
3 Identify any hazards which may present a high risk and report their presence to relevant persons who have overall responsibility for health and safety in the workplace				
4 Apply measures to control health and safety hazards				
5 Select and use correct personal protective equipment				

Continued 

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL

CONSIDERATIONS

CHECKLIST (CONTINUED)

LEARNING OUTCOME 3

Apply methods and procedures to ensure work on site is in accordance with health and safety legislation

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Demonstrate a level of personal conduct and behaviour within the workplace, to ensure that the health and safety of themselves and others is not endangered				
2 Apply procedures to ensure the safe use, maintenance and storage of tools, plant and equipment as stipulated in: <ul style="list-style-type: none">workplace policies (company and site)				
<ul style="list-style-type: none">supplier information				
<ul style="list-style-type: none">manufacturers' instructions				
3 Comply with information, warning, mandatory instruction and prohibition notices				
4 Apply procedures to ensure the safety of the work location through the correct use of guards, barriers and notices				
5 Use access equipment correctly: <ul style="list-style-type: none">ladder				
<ul style="list-style-type: none">tower scaffold or MEWP				
<ul style="list-style-type: none">stepladder				
<ul style="list-style-type: none">platform				

LEARNING OUTCOME 4

Work in accordance with environmental legislation for electrical services

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Demonstrate appropriate procedures for the safe handling, storage and disposal of hazardous materials and products, in accordance with one of the following: <ul style="list-style-type: none">Environmental Protection Act (1990)				
<ul style="list-style-type: none">The Hazardous Waste Regulations (2005)				
<ul style="list-style-type: none">Pollution Prevention and Control Act (1999)				
<ul style="list-style-type: none">Control of Pollution Act (1974)				
<ul style="list-style-type: none">Control of Noise at Work Regulations (2005)				
<ul style="list-style-type: none">Environment Act (1995)				

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 1

Job location and address

Job description

Be able to apply relevant health and safety legislation in the workplace LO 1.1/1.2/1.3	Achieved
Demonstrate the appropriate use of personal protective equipment (PPE)	<input type="checkbox"/>
Identify the location of a suitable first aid kit and nominated person	<input type="checkbox"/>
Demonstrate methods of recording accidents	<input type="checkbox"/>
Conduct yourself properly around others in the workplace	<input type="checkbox"/>
Identify the location of the nearest fire point or fire extinguisher	<input type="checkbox"/>
Demonstrate an awareness of the fire safety procedure	<input type="checkbox"/>
Demonstrate an awareness of the emergency evacuation procedure	<input type="checkbox"/>
Demonstrate an awareness of the site or company induction process	<input type="checkbox"/>
Demonstrate precautionary actions with regards to personal hygiene	<input type="checkbox"/>
Source and confirm location of safety documentation	<input type="checkbox"/>
Demonstrate methods of reporting potential hazards	<input type="checkbox"/>
Work to procedures laid down in risk assessments and method statements	<input type="checkbox"/>

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 1 (CONTINUED)

Use risk assessments to identify safe methods of working at height	Achieved
Work to procedures laid down in risk assessments or method statements when working at height	<input type="checkbox"/>
Identify potential hazards when working at height	<input type="checkbox"/>
Safety check and select the appropriate access equipment	<input type="checkbox"/>
Perform the safe use of access equipment (two of the four items in the range listed below required across jobs 1 and 2)	Achieved
Ladder	<input type="checkbox"/>
Tower scaffold or MEWP	<input type="checkbox"/>
Stepladder	<input type="checkbox"/>
Platform	<input type="checkbox"/>
Carry out safety checks and procedures within the work location	Achieved
Provide evidence of a tidy work area	<input type="checkbox"/>
Provide evidence of adequate lighting in the work area	<input type="checkbox"/>
Provide evidence of protecting customer's property	<input type="checkbox"/>
Verify suitable access and exit routes to and from the work location	<input type="checkbox"/>
Follow safety signs and notices	<input type="checkbox"/>
Store tools and equipment appropriately	<input type="checkbox"/>
Demonstrate safe transportation and use of tools and equipment	<input type="checkbox"/>
Demonstrate safe manual handling lifting techniques	<input type="checkbox"/>

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 1 (CONTINUED)

Professional discussion record (confirmation of evidence)

Feedback and forward planning

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name	IQA signature (as required)	Date

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 2

Job location and address

Job description

Be able to apply relevant health and safety legislation in the workplace LO 1.1/1.2/1.3	Achieved
Demonstrate the appropriate use of personal protective equipment (PPE)	<input type="checkbox"/>
Identify the location of a suitable first aid kit and nominated person	<input type="checkbox"/>
Demonstrate methods of recording accidents	<input type="checkbox"/>
Conduct yourself properly around others in the workplace	<input type="checkbox"/>
Identify the location of the nearest fire point or fire extinguisher	<input type="checkbox"/>
Demonstrate an awareness of the fire safety procedure	<input type="checkbox"/>
Demonstrate an awareness of the emergency evacuation procedure	<input type="checkbox"/>
Demonstrate an awareness of the site or company induction process	<input type="checkbox"/>
Demonstrate precautionary actions with regards to personal hygiene	<input type="checkbox"/>
Source and confirm location of safety documentation	<input type="checkbox"/>
Demonstrate methods of reporting potential hazards	<input type="checkbox"/>
Work to procedures laid down in risk assessments and method statements	<input type="checkbox"/>

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 2 (CONTINUED)

Use risk assessments to identify safe methods of working at height	Achieved
Work to procedures laid down in risk assessments or method statements when working at height	<input type="checkbox"/>
Identify potential hazards when working at height	<input type="checkbox"/>
Safety check and select the appropriate access equipment	<input type="checkbox"/>
Perform the safe use of access equipment (two of the three items in the range listed below required across jobs 1 and 2)	Achieved
Ladder	<input type="checkbox"/>
Tower scaffold or MEWP	<input type="checkbox"/>
Stepladder	<input type="checkbox"/>
Platform	<input type="checkbox"/>
Carry out safety checks and procedures within the work location	Achieved
Provide evidence of a tidy work area	<input type="checkbox"/>
Provide evidence of adequate lighting in the work area	<input type="checkbox"/>
Provide evidence of protecting customer's property	<input type="checkbox"/>
Verify suitable access and exit routes to and from the work location	<input type="checkbox"/>
Follow safety signs and notices	<input type="checkbox"/>
Store tools and equipment appropriately	<input type="checkbox"/>
Demonstrate safe transportation and use of tools and equipment	<input type="checkbox"/>
Demonstrate safe manual handling lifting techniques	<input type="checkbox"/>

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

ASSESSOR DIRECT OBSERVATION JOB 2 (CONTINUED)

Professional discussion record (confirmation of evidence)

Feedback and forward planning

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name	IQA signature (as required)	Date

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: RISK ASSESSMENT

Supplementary evidence sheet reference no.

SE

RISK ASSESSMENT

	Hazard
<input type="checkbox"/>	Vibration
<input type="checkbox"/>	Falling objects/debris Falling materials
<input type="checkbox"/>	Slips and trips (uneven or poor floor surfaces)
<input type="checkbox"/>	Manual handling operations
<input type="checkbox"/>	Flying debris (shards, splinters)
<input type="checkbox"/>	Work area layout/space cramped
<input type="checkbox"/>	Obstructions (low beams, projections)
<input type="checkbox"/>	Confined spaces
<input type="checkbox"/>	Use of portable tools and equipment
<input type="checkbox"/>	Use of fixed equipment (saw/lathe/drill)
<input type="checkbox"/>	Cutting and burning equipment
<input type="checkbox"/>	Mechanical lift equipment
<input type="checkbox"/>	Forklift trucks/pallet trucks
<input type="checkbox"/>	Stored energy Hyd/mech/pneu
<input type="checkbox"/>	Noise
<input type="checkbox"/>	Lone working

	Hazard
<input type="checkbox"/>	Work at height
<input type="checkbox"/>	Ladders
<input type="checkbox"/>	Stepladders
<input type="checkbox"/>	Tower scaffolding/MEWP
<input type="checkbox"/>	Platform
<input type="checkbox"/>	Hand tools
<input type="checkbox"/>	COSHH Oil, greases, chemicals
<input type="checkbox"/>	Lighting conditions
<input type="checkbox"/>	Extreme weather outdoor conditions
<input type="checkbox"/>	Fire, including electrical
<input type="checkbox"/>	Contact with hot or cold surfaces
<input type="checkbox"/>	Crush and trap entanglement
<input type="checkbox"/>	Traffic Moving vehicles
<input type="checkbox"/>	Flora/fauna
<input type="checkbox"/>	Other workers Young people
<input type="checkbox"/>	OTHERS (please specify)

RISK CALCULATOR

Incident likelihood	L	Total cumulative exposure	E
Low/seldom/not foreseeable	1	Less than 1 hour per shift	1
Medium (frequently)	5	Less than 4 hours per shift	5
High (near certainty)	10	More than 4 hours per shift	10
Severity	S	Persons affected	P
Slight (no treatment)	1	Single person	1
Minor (first aid and return to work)	5	All in immediate area (1 to 5)	5
Major (lost time or incapacity)	10	All in the department (5 to 20)	10

Score 1–10 low risk

Score 11–50 medium risk

Score 51+ high risk

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: RISK ASSESSMENT (CONTINUED)

RISK ASSESSMENT/IMPROVEMENT PLAN

LO 1/2/3/4

Hazard description	Risk rating L x E x S x P = Score					Improvement actions	Risk rating L x E x S x P = Score				
	L	E	S	P	Score		L	E	S	P	Score

Continued 

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: RISK ASSESSMENT (CONTINUED)

Are appropriate procedures in place for the safe handling, storage and disposal of hazardous materials and products, in accordance with following:

<input type="checkbox"/> Environmental Protection Act (1990)	<input type="checkbox"/> Control of Pollution Act (1974)
<input type="checkbox"/> The Hazardous Waste Regulations (2005)	<input type="checkbox"/> Control of Noise at Work Regulations (2005)
<input type="checkbox"/> Pollution Prevention and Control Act (1999)	<input type="checkbox"/> Environment Act (1995)

Risk assessor name	Risk assessor signature	Date

Relevant people informed of findings:

Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Access equipment		LO 3.3	Access equipment		LO 3.3
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

PPE used		LO 2.5	Use of guards, notices, barriers		LO 3.4
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: METHOD STATEMENT

Supplementary evidence sheet reference no.

SE

Project name and site address

Contractor name and contact details

Site manager name and contact details

Attendees on site

Description of the contract

Continued

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

SUPPLEMENTARY EVIDENCE: METHOD STATEMENT (CONTINUED)

Tools and plant required

--	--	--

Method statement prepared by: Name	Signature	Date
Method statement accepted by: Name	Signature	Date

UNIT 102

APPLY HEALTH, SAFETY AND ENVIRONMENTAL CONSIDERATIONS

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Product evidence included		Accepted					
Relevant photographs		<input type="checkbox"/>					
Risk assessment		<input type="checkbox"/>					
Method statement		<input type="checkbox"/>					
Professional discussion record (confirmation of evidence)							
Feedback and forward planning							
Record of behaviours							
<input type="checkbox"/> B1	<input type="checkbox"/> B2	<input type="checkbox"/> B3	<input type="checkbox"/> B4	<input type="checkbox"/> B5	<input type="checkbox"/> B6	<input type="checkbox"/> B7	<input type="checkbox"/> B8
Candidate name	Candidate signature	Date					
Assessor name	Assessor signature	Date					
IQA name	IQA signature (as required)	Date					

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

THE BRIEF

This unit is designed to enable learners to develop the skills required, and apply the associated knowledge, so that they can demonstrate that they can implement practices and procedures for overseeing and organising the work environment for the installation of electrical systems and equipment. Candidates may need to be allocated a specific area of work to enable them to complete the required process. This may not be organising and overseeing the whole job or site, but a specific allocated area.

GUIDANCE

The performance criteria in this unit will be met using evidence from the workplace. Supplementary product evidence templates can be sourced from the workplace or completed from this document.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records included in this pack. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- two candidate job records that include a programme of work activities and operations.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

Supplementary evidence should be inserted into the portfolio.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

Two from the following:

- delivery note
- variation order
- written quotation
- material/plant order documentation.

BEHAVIOURS

B1, B2, B3, B4, B5, B6, B7, B8

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CHECKLIST

LEARNING OBJECTIVE 1

Be able to provide relevant people with technical and functional information for work on electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Liaise with relevant people to evaluate the information they require to ensure that systems, equipment or components can be operated safely and effectively				
2 Identify appropriate technical and functional information that is required for the work activity				
3 Provide information in a timely, courteous, suitable and professional manner in accordance with organisational procedures and engineering standards				

LEARNING OBJECTIVE 2

Be able to oversee health and safety during work on electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Produce, or revise generic, risk assessments and method statements, to cover their own work and others working the area (colleagues and other operatives) in accordance with their level of responsibility				
2 Implement suitable procedures to confirm that work is being completed in accordance with health and safety legislation and industry standards				

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 3

Be able to co-ordinate liaison with other relevant persons during work activities

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Select effective procedures to ensure co-ordination with other workers/contractors, including steps to resolve issues which are outside the scope of their job role				
2 Evaluate and apply communication techniques that are clear, accurate and appropriate to the situation				
3 Demonstrate working effectively with colleagues to enhance performance (such as undertaking work to one's best ability, being a good employee/worker, co-operating with the employer and/or customer during work activities)				

LEARNING OBJECTIVE 4

Be able to organise and oversee work activities and operations

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Organise operatives by allocating duties and responsibilities to make the best use of their competence and skills				
2 Monitor the work of operatives to ensure it is in accordance with: <ul style="list-style-type: none">• industry working practices• programme of work• health and safety requirements• cost effectiveness• environmental considerations				
3 Evaluate and apply appropriate procedures to correct issues that arise during work activities				

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 5

Be able to organise a programme for working on electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Produce a simple programme of work from the work specification, including requirements for the following: <ul style="list-style-type: none">estimate of the amount of time required for completion of the workliaison with other trades where necessary				
2 Communicate with others clearly and concisely				
3 Assess situations when it is necessary to liaise with other relevant parties to resolve issues				

LEARNING OBJECTIVE 6

Be able to organise the resource requirements for work on electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Organise provision of resources: <ul style="list-style-type: none">materialsfixingsplantlabourtools				
2 Confirm that materials available are: <ul style="list-style-type: none">the right typefit for purposein the correct quantitysuitable for work to be completed cost efficiently				
3 Ensure that resources are undamaged at the point of delivery				
4 Demonstrate effective measures which ensure the safe and effective storage of materials, tools and equipment in the work location				

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1

Job address

H&S checks

<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Method statement
<input type="checkbox"/> Procedures	

Persons liaised with when gathering/providing information

LO 1.1

<input type="checkbox"/> Client	<input type="checkbox"/> Estimator
<input type="checkbox"/> Architect	<input type="checkbox"/> Project manager
<input type="checkbox"/> Design engineer	<input type="checkbox"/> Contracts manager
<input type="checkbox"/> Quantity surveyor	<input type="checkbox"/> Subcontractor/other trades
<input type="checkbox"/> Clerk of works	<input type="checkbox"/> Site supervisor
<input type="checkbox"/> Structural engineer	<input type="checkbox"/> Supervisor/foreman

Technical information and functional information utilised

LO 1.2

<input type="checkbox"/> Specifications	<input type="checkbox"/> Component positional reference systems
<input type="checkbox"/> British Standards Institute (BSI)	<input type="checkbox"/> Circuit diagrams
<input type="checkbox"/> BSEN Harmonised Standards	<input type="checkbox"/> Wiring diagrams
<input type="checkbox"/> Codes of practice	<input type="checkbox"/> Block diagrams
<input type="checkbox"/> Libraries (eg IET)	<input type="checkbox"/> Location/layout drawings
<input type="checkbox"/> Manufacturers' catalogues, manuals	<input type="checkbox"/> Assembly and detail drawings
<input type="checkbox"/> Reports	<input type="checkbox"/> Variation order
<input type="checkbox"/> Critical path analysis	<input type="checkbox"/> Day worksheets
<input type="checkbox"/> Job sheets	<input type="checkbox"/> Time sheets
<input type="checkbox"/> Site plans	<input type="checkbox"/> Delivery notes
<input type="checkbox"/> Data sheets and wall charts	<input type="checkbox"/> Other: please specify below

Continued

UNIT 106

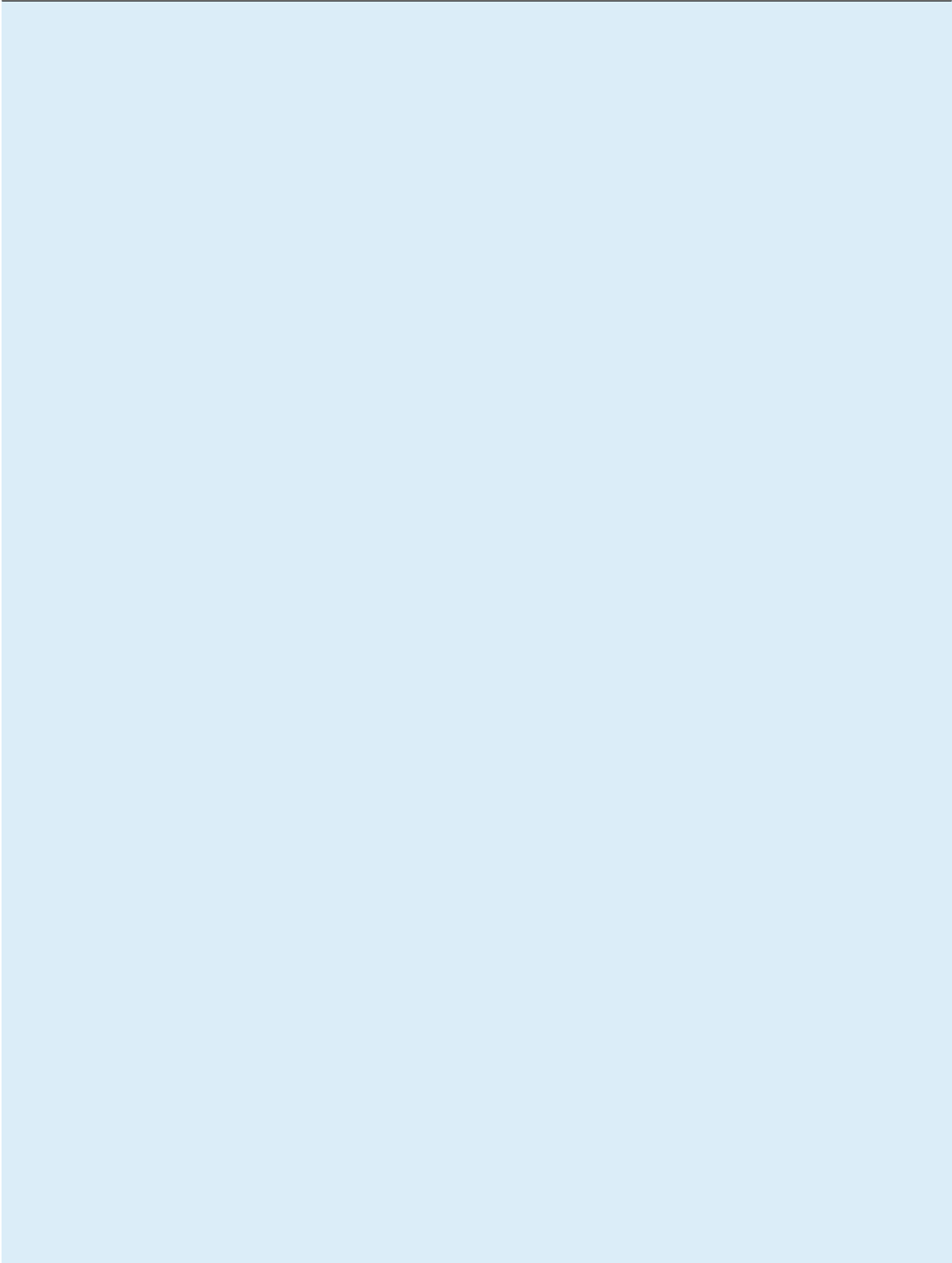
ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Outline of discussions and technical information required for relevant personnel

LO 1.3



Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Which trades will need to be liaised with during work activities? LO 5.1/5.2/5.3

<input type="checkbox"/> Bricklayer	<input type="checkbox"/> Plumber
<input type="checkbox"/> Joiner	<input type="checkbox"/> Decorator
<input type="checkbox"/> Tiler	<input type="checkbox"/> Ground worker
<input type="checkbox"/> Plasterer	<input type="checkbox"/> HV fitter
<input type="checkbox"/> Electrician	<input type="checkbox"/> Gas fitter
<input type="checkbox"/> RAC engineer	<input type="checkbox"/> Other

Outline of topics and dates

Large empty light blue area for writing the outline of topics and dates.

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

What forms of communication will be utilised to maintain effective team working relationships?

LO 3.1/3.2/3.3/5.2/5.3

1. Media

- Newspapers
- Bulletins
- Handbills
- Magazines
- Social media

2. Drawn and visual materials

- Drawings
- Programmes and charts
- Photographs

3. Verbal

- Face to face (meetings)
- Tool box talks
- Phone

4. Written materials

- Specification
- Schedules
- Reports
- Letters
- Fax

5. Notice boards

6. Models and samples

7. Technology

- Email
- Internet

Outline of communication and dates

Large empty area for recording communication and dates.

Continued

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Programme of work activities and operations

LO 2.1/5.1/5.2/5.3

Core details of work programme

Start date:	End date:	Number of days/weeks:
Working hours:	Start time:	Finishing time:

Works description:

Trades on site

<input type="checkbox"/>	Bricklayer	Start date:	Finish date:
<input type="checkbox"/>	Joiner	Start date:	Finish date:
<input type="checkbox"/>	Tiler	Start date:	Finish date:
<input type="checkbox"/>	Plasterer	Start date:	Finish date:
<input type="checkbox"/>	Electrician	Start date:	Finish date:
<input type="checkbox"/>	Plumber	Start date:	Finish date:
<input type="checkbox"/>	Decorator	Start date:	Finish date:
<input type="checkbox"/>	Ground worker	Start date:	Finish date:
<input type="checkbox"/>	HV fitter	Start date:	Finish date:
<input type="checkbox"/>	Gas fitter	Start date:	Finish date:
<input type="checkbox"/>	Others	Start date:	Finish date:

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Electrical work programme		LO 6.1
Week beginning/date:	Labour/resource requirements:	Task description (eg first fix):

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Programme of work activities and operations LO 2.1/5.1/5.2/5.3

Core details of work programme (continued)

Week beginning/date:	Specialist tools and plant required on site:

Client name	Client signature (if available)	Date
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2

Job address

H&S checks

<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Method statement
<input type="checkbox"/> Procedures	

Persons liaised with when gathering/providing information

LO 1.1

<input type="checkbox"/> Client	<input type="checkbox"/> Estimator
<input type="checkbox"/> Architect	<input type="checkbox"/> Project manager
<input type="checkbox"/> Design engineer	<input type="checkbox"/> Contracts manager
<input type="checkbox"/> Quantity surveyor	<input type="checkbox"/> Subcontractor/other trades
<input type="checkbox"/> Clerk of works	<input type="checkbox"/> Site supervisor
<input type="checkbox"/> Structural engineer	<input type="checkbox"/> Supervisor/foreman

Technical information and functional information utilised

LO 1.2

<input type="checkbox"/> Specifications	<input type="checkbox"/> Component positional reference systems
<input type="checkbox"/> British Standards Institute (BSI)	<input type="checkbox"/> Circuit diagrams
<input type="checkbox"/> BSEN Harmonised Standards	<input type="checkbox"/> Wiring diagrams
<input type="checkbox"/> Codes of practice	<input type="checkbox"/> Block diagrams
<input type="checkbox"/> Libraries (eg IET)	<input type="checkbox"/> Location/layout drawings
<input type="checkbox"/> Manufacturers' catalogues, manuals	<input type="checkbox"/> Assembly and detail drawings
<input type="checkbox"/> Reports	<input type="checkbox"/> Variation order
<input type="checkbox"/> Critical path analysis	<input type="checkbox"/> Day worksheets
<input type="checkbox"/> Job sheets	<input type="checkbox"/> Time sheets
<input type="checkbox"/> Site plans	<input type="checkbox"/> Delivery notes
<input type="checkbox"/> Data sheets and wall charts	<input type="checkbox"/> Other: please specify below

Continued

UNIT 106

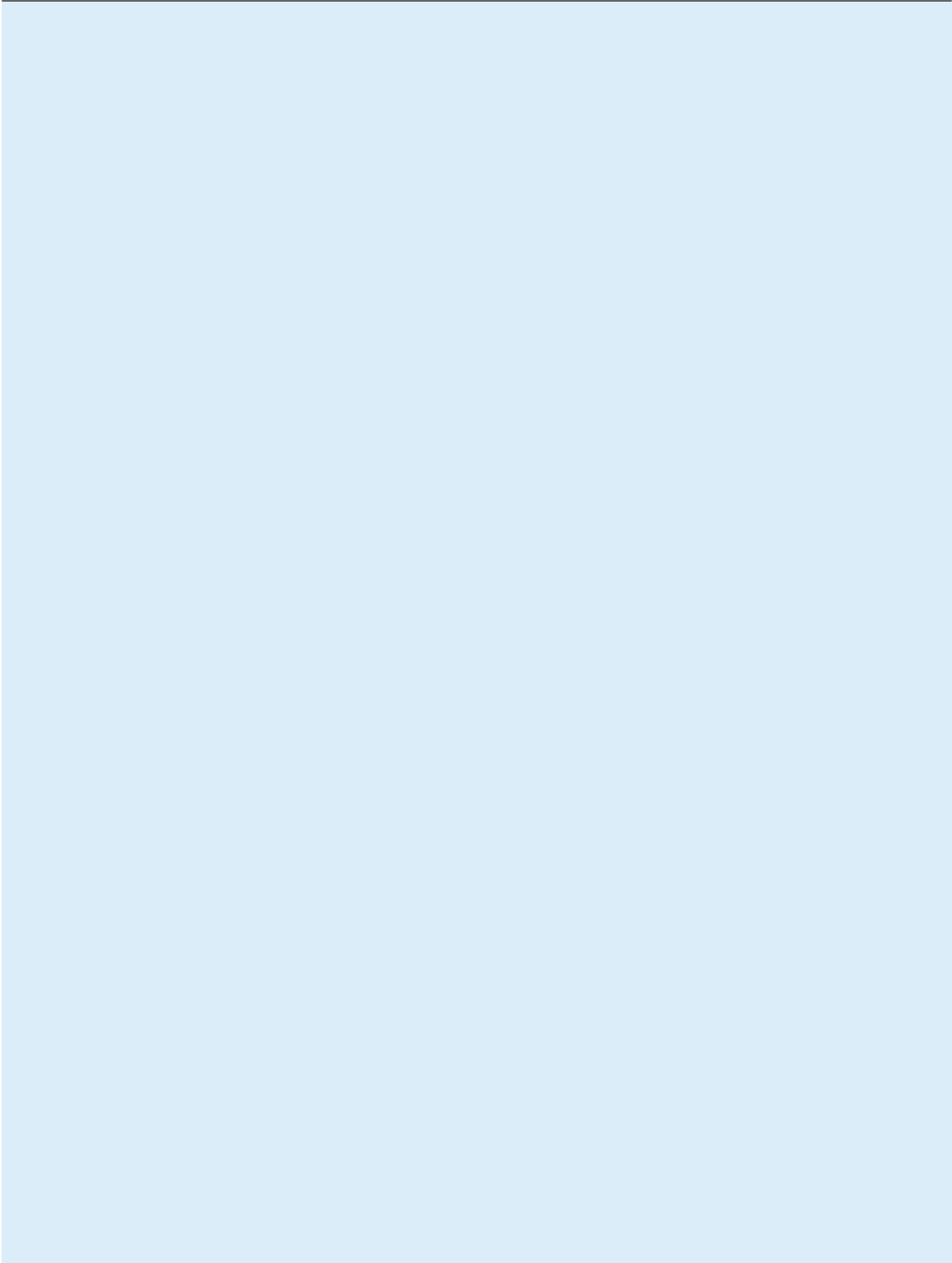
ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Outline of discussions and technical information required for relevant personnel

LO 1.3



Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Which trades will need to be liaised with during work activities? LO 5.1/5.2/5.3

<input type="checkbox"/> Bricklayer	<input type="checkbox"/> Plumber
<input type="checkbox"/> Joiner	<input type="checkbox"/> Decorator
<input type="checkbox"/> Tiler	<input type="checkbox"/> Ground worker
<input type="checkbox"/> Plasterer	<input type="checkbox"/> HV fitter
<input type="checkbox"/> Electrician	<input type="checkbox"/> Gas fitter
<input type="checkbox"/> RAC engineer	<input type="checkbox"/> Other

Outline of topics and dates

Large empty light blue area for writing the outline of topics and dates.

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

What forms of communication will be utilised to maintain effective team working relationships?
LO 3.1/3.2/3.3/5.2/5.3

1. Media

- Newspapers
- Bulletins
- Handbills
- Magazines
- Social media

2. Drawn and visual materials

- Drawings
- Programmes and charts
- Photographs

3. Verbal

- Face to face (meetings)
- Tool box talks
- Phone

4. Written materials

- Specification
- Schedules
- Reports
- Letters
- Fax

5. Notice boards

6. Models and samples

7. Technology

- Email
- Internet

Outline of communication and dates

Large empty area for recording communication and dates.

Continued

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Programme of work activities and operations

LO 2.1/5.1/5.2/5.3

Core details of work programme

Start date:	End date:	Number of days/weeks:
Working hours:	Start time:	Finishing time:

Works description:

Trades on site

<input type="checkbox"/>	Bricklayer	Start date:	Finish date:
<input type="checkbox"/>	Joiner	Start date:	Finish date:
<input type="checkbox"/>	Tiler	Start date:	Finish date:
<input type="checkbox"/>	Plasterer	Start date:	Finish date:
<input type="checkbox"/>	Electrician	Start date:	Finish date:
<input type="checkbox"/>	Plumber	Start date:	Finish date:
<input type="checkbox"/>	Decorator	Start date:	Finish date:
<input type="checkbox"/>	Ground worker	Start date:	Finish date:
<input type="checkbox"/>	HV fitter	Start date:	Finish date:
<input type="checkbox"/>	Gas fitter	Start date:	Finish date:
<input type="checkbox"/>	Others	Start date:	Finish date:

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Electrical work programme			LO 6.1
Week beginning/date:	Labour/resource requirements:	Task description (eg first fix):	

Continued 

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL WORK ENVIRONMENT

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Programme of work activities and operations LO 2.1/5.1/5.2/5.3

Core details of work programme (continued)

Week beginning/date:	Specialist tools and plant required on site:

Client name	Client signature (if available)	Date
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date

UNIT 106

ORGANISE AND OVERSEE THE ELECTRICAL

WORK ENVIRONMENT

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence (two of the following)	Accepted
Delivery note	<input type="checkbox"/>
Variation order	<input type="checkbox"/>
Written quotation	<input type="checkbox"/>
Material/plant order documentation	<input type="checkbox"/>

Professional discussion record (confirmation of evidence)

Feedback and forward planning

Record of behaviours

B1 B2 B3 B4 B5 B6 B7 B8

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name	IQA signature (as required)	Date

THE BRIEF

This unit is designed to enable the candidate to demonstrate the practical skills and apply the associated knowledge required when terminating and connecting conductors and cables in electrical systems in accordance with approved industry practices, statutory and non-statutory regulations:

- Electricity at Work Regulations (1989)
- the current edition of BS 7671 Wiring Regulations
- The Health and Safety Act (1974)
- Building Regulations (2000)

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from you carrying out tasks in your workplace. You will need to provide job records and supplementary evidence to cover the **required ranges**.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- range/evidence tracker
- two candidate job records that include a programme of work activities and operations
- two supplementary evidence forms.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

- photographic evidence for each of the range items claimed.

BEHAVIOURS

B1, B2, B3, B4, B5, B6, B7, B8

LEARNING OBJECTIVE 1

Prepare to terminate and connect cables and conductors

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Evaluate and apply appropriate procedures to include:				
• selecting appropriate tools/equipment to enable termination and connection				
• adopting appropriate PPE				
• following a safe system of work (eg risk assessment, method statement, permit to work procedure)				
2 Assess and confirm it is safe to complete termination and connection in terms of:				
• checking for presence of supply/carrying out safe isolation				
• mechanical soundness of the electrical equipment to be connected to				
• checking for unsafe situations				

LEARNING OBJECTIVE 2

Terminate and connect conductors and cables

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Terminate and connect cables and conductors in accordance with manufacturers' instructions, BS 7671, and any relevant drawing or specification				
2 Connect to electrical equipment in accordance with manufacturers' instructions, BS 7671, and any relevant drawing or specification				
3 Terminate and connect conductors, using appropriate methods				
4 Ensure that terminations and connections are electrically and mechanically sound (eg by simple inspecting and testing terminations)				
5 Ensure cables have appropriate identification in accordance with BS 7671				

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

RANGE/EVIDENCE TRACKER

Terminate and connect cables and conductors in accordance with manufacturers' instructions, wiring regulations and any relevant drawing or specification (Assess a minimum of four from the following)				Connect to electrical equipment in accordance with manufacturers' instructions, wiring regulations and any relevant drawing or specification (Assess minimum of five from the following)			
Indicate the job number in which the range was met and reference the supplementary evidence.				Indicate the job number in which the range was met and reference the supplementary evidence.			
Range	LO 2.1	Job	SE ref	Range	LO 2.2	Job	SE ref
Single core (singles)				Isolators/switches			
Multicore insulated				Socket outlets			
PVC – PVC flat profile cable				Distribution boards/consumer control units			
MICC				Luminaires			
Fire performance				Electric motors/motor control equipment			
SWA cable				Overcurrent protective devices			
GSWB galvanised steel wire braid				Earthing terminals			
Data				Control panels			
Terminate and connect conductors using appropriate methods (Assess minimum of two from the following)				Data socket outlets or data connections Fire detection/alarm components Other appropriate equipment (such as heating system components)			
Indicate the job number in which the range was met and reference the supplementary evidence.							
Range	LO 2.3	Job	SE ref				
Screwing							
Crimping							
Soldering							
Non-screw compression							
Insulation displacement							
For each termination assess:							
Ensure that terminations and connections are electrically and mechanically sound							
Ensure cables have appropriate identification in accordance with the wiring regulations							

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 1

Job address

Job description

Tools and plant required

LO 1.1

Core details of work programme:

- dates
- timings
- work areas

Continued

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Health and safety checks – which of the following are to be implemented/followed during this job?
LO 1.1/1.2

<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Risk assessment
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions

Cables and/or conductors to be installed LO 2.1

<input type="checkbox"/> Single core (singles)
<input type="checkbox"/> Multicore insulated
<input type="checkbox"/> PVC – PVC flat profile cable
<input type="checkbox"/> MICC
<input type="checkbox"/> Fire performance
<input type="checkbox"/> SWA cable
<input type="checkbox"/> Data
<input type="checkbox"/> GSWB galvanised steel wire braid

Equipment to be installed LO 2.2

<input type="checkbox"/> Isolators/switches
<input type="checkbox"/> Socket outlets
<input type="checkbox"/> Distribution boards/consumer control units
<input type="checkbox"/> Luminaires
<input type="checkbox"/> Electric motors/motor control equipment
<input type="checkbox"/> Overcurrent protective devices
<input type="checkbox"/> Earthing terminals
<input type="checkbox"/> Control panels
<input type="checkbox"/> Data socket outlets or data connections
<input type="checkbox"/> Fire detection/alarm components

Continued 

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Method of termination LO 2.3

<input type="checkbox"/> Screw	<input type="checkbox"/> Non-screw compression
<input type="checkbox"/> Crimped	<input type="checkbox"/> Insulation displacement
<input type="checkbox"/> Soldered	

Testing and commissioning LO 2.4/2.5

Have terminations been visually inspected by an expert witness/competent person? Yes No

How are terminations checked for electrical/mechanical soundness in accordance with BS 7671?

Cable identification methods

<input type="checkbox"/> Identification sleeving	<input type="checkbox"/> Circuit charts within CCU
<input type="checkbox"/> Coloured insulation	<input type="checkbox"/> Equipment labels
<input type="checkbox"/> Cable numbering	

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Cables and/or conductors installed	LO 2.1	Cables and/or conductors installed	LO 2.1
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 2.2	Method of termination		LO 2.3
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Client satisfaction verified	Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 2

Job address

Job description

Tools and plant required

LO 1.1

Core details of work programme:

- dates
- timings
- work areas

Continued

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Health and safety checks – which of the following are to be implemented/followed during this job?
LO 1.1/1.2

<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Risk assessment
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions

Cables and/or conductors to be terminated
LO 2.1

<input type="checkbox"/> Single core (singles)
<input type="checkbox"/> Multicore insulated
<input type="checkbox"/> PVC – PVC flat profile cable
<input type="checkbox"/> MICC
<input type="checkbox"/> Fire performance
<input type="checkbox"/> SWA cable
<input type="checkbox"/> Data
<input type="checkbox"/> GSWB galvanised steel wire braid

Equipment to be installed
LO 2.2

<input type="checkbox"/> Isolators/switches
<input type="checkbox"/> Socket outlets
<input type="checkbox"/> Distribution boards/consumer control units
<input type="checkbox"/> Luminaires
<input type="checkbox"/> Electric motors/motor control equipment
<input type="checkbox"/> Overcurrent protective devices
<input type="checkbox"/> Earthing terminals
<input type="checkbox"/> Control panels
<input type="checkbox"/> Data socket outlets or data connections
<input type="checkbox"/> Fire detection/alarm components

Continued 

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Method of termination LO 2.3

<input type="checkbox"/> Screw	<input type="checkbox"/> Non-screw compression
<input type="checkbox"/> Crimped	<input type="checkbox"/> Insulation displacement
<input type="checkbox"/> Soldered	

Testing and commissioning LO 2.4/2.5

Have terminations been visually inspected by an expert witness/competent person? Yes No

How are terminations checked for electrical/mechanical soundness in accordance with BS 7671?

Cable identification methods

<input type="checkbox"/> Identification sleeving	<input type="checkbox"/> Circuit charts within CCU
<input type="checkbox"/> Coloured insulation	<input type="checkbox"/> Equipment labels
<input type="checkbox"/> Cable numbering	

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Cables and/or conductors installed	LO 2.1	Cables and/or conductors installed	LO 2.1
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 2.2	Method of termination		LO 2.3
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Client satisfaction verified		Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No			
Candidate name		Candidate signature	Date
Expert witness name		Expert witness signature	Date
Assessor name		Assessor signature	Date
IQA name (where sampled)		IQA signature (where sampled)	Date

UNIT 108

TERMINATE AND CONNECT CONDUCTORS

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence		Accepted					
Photographic evidence for each of the range items required		<input type="checkbox"/>					
Professional discussion record (confirmation of evidence)							
Feedback and forward planning							
Record of behaviours							
<input type="checkbox"/> B1	<input type="checkbox"/> B2	<input type="checkbox"/> B3	<input type="checkbox"/> B4	<input type="checkbox"/> B5	<input type="checkbox"/> B6	<input type="checkbox"/> B7	<input type="checkbox"/> B8
Candidate name	Candidate signature	Date					
Assessor name	Assessor signature	Date					
IQA name (where sampled)	IQA signature (where sampled)	Date					

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES AND PROCEDURES (OPTIONAL UNIT)

THE BRIEF

This unit is designed to enable the learner to develop the skills required, and apply the associated knowledge, in order that they are able to demonstrate the competence required to plan, prepare and install wiring systems and associated equipment in buildings, structures and the environment in accordance with approved industry practices, statutory and non-statutory regulations:

- Electricity at Work Regulations (1989)
- the current edition of BS 7671 Wiring Regulations
- Health and Safety at Work Act (1974)
- Building Regulations (2000)

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from you carrying out tasks in your workplace. You will need to provide a job record and supplementary evidence to cover the **required ranges**.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- range/evidence tracker
- two candidate job records
- two supplementary evidence forms.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

Photographic evidence to come from the following ranged topics:

- x4 wiring systems to be installed
- x4 cables and/or conductors to be installed
- x4 different types of equipment to be installed.

BEHAVIOURS

B1, B2, B3, B4, B5, B6, B7, B8

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CHECKLIST

LEARNING OBJECTIVE 1

Prepare to install wiring systems, enclosures and associated equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Assess and apply appropriate procedures to include:				
• adopting appropriate PPE				
• following a safe system of work (eg working in accordance with a risk assessment and method statement)				
• selecting appropriate tools/equipment for the installation work				
2 Prepare to install wiring systems, enclosures and associated equipment, to include:				
• confirm secure site storage facilities for tools, equipment, materials and components				
• select materials (equipment and components) in accordance with the installation specification				
• report any pre-work damage/defects to existing equipment or building features to the relevant person (such as customer/client, site/line manager)				
• confirm site readiness for installation work to begin				
• confirm authorisation for the installation work to start				
3 Use documentation to confirm that materials and equipment is of the correct quantity and is free from damage				
4 Ensure the planned locations for the wiring system and associated equipment are compatible with other building services (eg gas, water or other electrical services)				
5 Check the planned locations for the wiring system in terms of:				
• cosmetic appearance				
• external influences				

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 2

Interpret appropriate information for the installation of wiring systems, enclosures and associated equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Use sources of information to enable the installation of wiring systems, enclosures and associated equipment to be carried out including:				
• specifications				
• work schedules/programmes				
• manufacturers' instructions				
• layout drawings				
other appropriate source of information (eg the wiring regulations, other plans or diagrams, 'approved documents', building regulations)				

LEARNING OBJECTIVE 3

Install wiring systems, and equipment in accordance with current relevant statutory and non-statutory regulations

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Use appropriate measuring and marking out techniques which are appropriate to the wiring system, wiring enclosure and/or associated equipment that is being installed				
2 Install wiring systems in accordance with the wiring regulations, the installation specification and agreed planned programme of work				
3 Install cables in accordance with the wiring regulations, the installation specification and programme of work				
4 Install the types of electrical equipment and accessories, in accordance with the IET Wiring Regulations, the installation specification, manufacturers' instructions and the programme of work				
5 Dispose of waste materials in accordance with site procedures and statutory requirements				

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 4

Confirm the quality of the completed work

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Ensure the installed wiring system(s) and enclosure(s) meet specified requirements				

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

RANGE/EVIDENCE TRACKER

Install cables in accordance with the wiring regulations, the installation specification and programme of work
(Assess a **minimum** of **four** from the following)

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 3.2	Job	SE ref
Single core (singles)			
Multicore insulated			
PVC – PVC flat profile cable			
MICC			
Fire performance			
SWA cable			
GSWB galvanised steel wire braid			
Data			

Install wiring systems in accordance with the wiring regulations, the installation specification and agreed planned programme of work

(Assess **minimum** of **four** from the following)

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 3.3	Job	SE ref
PVC conduit			
Metallic conduit			
PVC trunking			
Metallic trunking			
Cable tray			
Cable basket			
Ladder system			
Ducting			
Modular wiring system			
Busbar system or powertrack			

Install the types of electrical equipment and accessories, in accordance with the IET Wiring Regulations, the installation specification, manufacturers' instructions and the programme of work

(Assess **minimum** of **four** from the following)

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 3.4	Job	SE ref
Isolators/switches			
Socket outlets			
Distribution boards/consumer control units			
Overcurrent protective devices			
Luminaires			
Data socket outlets or data connections			
Other appropriate			

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 1

Job address

Job description

Tools and plant required

LO 1.1

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Health and safety/customer checks		LO 1.1/1.2/1.3/1.4/1.5
<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Checks to confirm planned locations for wiring systems in terms of <ul style="list-style-type: none"> • cosmetic appearance • external influences 	
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Check to confirm equipment complies with specification	
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm compatibility of wiring system/equipment with other services	
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Any pre-work damage/defects to existing equipment or building features identified and reported	
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Suitable storage arrangements in place	
<input type="checkbox"/> Warning notices and barriers in place	<input type="checkbox"/> Checks to confirm materials and equipment are of the correct quantity and are undamaged	
<input type="checkbox"/> Site ready for works to begin	<input type="checkbox"/> Authorisation for work to begin confirmed	

Customer name	Customer signature	Date
Expert witness/competent person name	Expert witness/competent person signature	Date

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Describe what measuring and marking out techniques are to be used during the installation LO3.1

Materials list – cable, conductors and equipment

Sources of information utilised to enable installation works LO 2.1	Wiring systems to be installed LO 3.3
<input type="checkbox"/> Specifications	<input type="checkbox"/> PVC conduit
<input type="checkbox"/> Work schedules/programmes	<input type="checkbox"/> Metallic conduit
<input type="checkbox"/> Manufacturers' instructions	<input type="checkbox"/> PVC trunking
<input type="checkbox"/> Layout drawings	<input type="checkbox"/> Metallic trunking
<input type="checkbox"/> Other appropriate source of information (eg the Wiring Regulations, other plans or diagrams, 'approved documents', building regulations)	<input type="checkbox"/> Cable tray
	<input type="checkbox"/> Cable basket
	<input type="checkbox"/> Ladder system
	<input type="checkbox"/> Ducting
	<input type="checkbox"/> Modular wiring system
	<input type="checkbox"/> Busbar system or powertrack
Cables and/or conductors to be installed LO 3.2	Equipment to be installed LO 3.4
<input type="checkbox"/> Single core (singles)	<input type="checkbox"/> Isolators/switches
<input type="checkbox"/> Multicore insulated	<input type="checkbox"/> Socket outlets
<input type="checkbox"/> PVC – PVC flat profile cable	<input type="checkbox"/> Distribution boards/consumer control units
<input type="checkbox"/> MICC	<input type="checkbox"/> Overcurrent protective devices
<input type="checkbox"/> Fire performance	<input type="checkbox"/> Luminaires
<input type="checkbox"/> SWA cable	<input type="checkbox"/> Data socket outlets or data connections
<input type="checkbox"/> Data	<input type="checkbox"/> Other appropriate

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

State methods of communication utilised between other trades and professionals during this installation

LO 3.5

Describe how, in accordance with site procedures and statutory requirements, waste has been disposed of

LO 3.6

Quality check: installed wiring system(s) and enclosure(s)

LO 4.1

Are the correct type and fit for purpose

Meet the installation specification/other relevant plans/instructions

Are installed in accordance with the Wiring Regulations (BS 7671)

Are installed in accordance with any relevant manufacturers' instructions

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Cables and/or conductors installed	LO 3.2	Cables and/or conductors installed	LO 3.2
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Cables and/or conductors installed		LO 3.2	Cables and/or conductors installed		LO 3.2
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Wiring system		Wiring system	
LO 3.3		LO 3.3	
Description		Description	
Supplementary evidence ref. Date		Supplementary evidence ref. Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Wiring system		LO 3.3	Wiring system		LO 3.3
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 3.4	Equipment installed		LO 3.4
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 3.4	Equipment installed		LO 3.4
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	
Client satisfaction verified		Client signature (if available)		Date	
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Candidate name		Candidate signature		Date	
Expert witness name		Expert witness signature		Date	
Assessor name		Assessor signature		Date	
IQA name (where sampled)		IQA signature (where sampled)		Date	

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 2

Job address

Job description

Tools and plant required

LO 1.1

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Health and safety/customer checks		LO 1.1/1.2/1.3/1.4/1.5
<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Checks to confirm planned locations for wiring systems in terms of <ul style="list-style-type: none"> • cosmetic appearance • external influences 	
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm equipment complies with specification	
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm compatibility of wiring system/equipment with other services	
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Any pre-work damage/defects to existing equipment or building features identified and reported	
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Suitable storage arrangements in place	
<input type="checkbox"/> Warning notices and barriers in place	<input type="checkbox"/> Checks to confirm materials and equipment are of the correct quantity and are undamaged	
<input type="checkbox"/> Site ready for works to begin	<input type="checkbox"/> Authorisation for work to begin confirmed	

Customer name	Customer signature	Date
Expert witness/competent person name	Expert witness/competent person signature	Date

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Describe what measuring and marking out techniques are to be used during the installation LO3.1

Materials list – cable, conductors and equipment

Sources of information utilised to enable installation works LO 2.1	Wiring systems to be installed LO 3.3
<input type="checkbox"/> Specifications	<input type="checkbox"/> PVC conduit
<input type="checkbox"/> Work schedules/programmes	<input type="checkbox"/> Metallic conduit
<input type="checkbox"/> Manufacturers' instructions	<input type="checkbox"/> PVC trunking
<input type="checkbox"/> Layout drawings	<input type="checkbox"/> Metallic trunking
<input type="checkbox"/> Other appropriate source of information (eg the Wiring Regulations, other plans or diagrams, 'approved documents', building regulations)	<input type="checkbox"/> Cable tray
	<input type="checkbox"/> Cable basket
	<input type="checkbox"/> Ladder system
	<input type="checkbox"/> Ducting
	<input type="checkbox"/> Modular wiring system
	<input type="checkbox"/> Busbar system or powertrack
Cables and/or conductors to be installed LO 3.2	Equipment to be installed LO 3.4
<input type="checkbox"/> Single core (singles)	<input type="checkbox"/> Isolators/switches
<input type="checkbox"/> Multicore insulated	<input type="checkbox"/> Socket outlets
<input type="checkbox"/> PVC – PVC flat profile cable	<input type="checkbox"/> Distribution boards/consumer control units
<input type="checkbox"/> MICC	<input type="checkbox"/> Overcurrent protective devices
<input type="checkbox"/> Fire performance	<input type="checkbox"/> Luminaires
<input type="checkbox"/> SWA cable	<input type="checkbox"/> Data socket outlets or data connections
<input type="checkbox"/> Data	<input type="checkbox"/> Other appropriate

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

State methods of communication utilised between other trades and professionals during this installation

LO 3.5

Describe how, in accordance with site procedures and statutory requirements, waste has been disposed of

LO 3.6

Quality check: installed wiring system(s) and enclosure(s)

LO 4.1

- | | |
|--|--|
| <input type="checkbox"/> Are the correct type and fit for purpose | <input type="checkbox"/> Meet the installation specification/other relevant plans/instructions |
| <input type="checkbox"/> Are installed in accordance with the Wiring Regulations (BS 7671) | <input type="checkbox"/> Are installed in accordance with any relevant manufacturers' instructions |

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Cables and/or conductors installed	LO 3.2	Cables and/or conductors installed	LO 3.2
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Cables and/or conductors installed		LO 3.2	Cables and/or conductors installed		LO 3.2
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Wiring system		LO 3.3		Wiring system		LO 3.3	
Description				Description			
Supplementary evidence ref.		Date		Supplementary evidence ref.		Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Wiring system		LO 3.3	Wiring system		LO 3.3
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 3.4	Equipment installed		LO 3.4
Description			Description		
			Supplementary evidence ref.		Date

Continued

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Equipment installed		LO 3.4	Equipment installed		LO 3.4
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	
Client satisfaction verified		Client signature (if available)		Date	
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Candidate name		Candidate signature		Date	
Expert witness name		Expert witness signature		Date	
Assessor name		Assessor signature		Date	
IQA name (where sampled)		IQA signature (where sampled)		Date	

UNIT 109

APPLY DESIGN AND INSTALLATION PRACTICES

AND PROCEDURES

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence		Accepted
Supplementary evidence for each of the range items required		<input type="checkbox"/>
Professional discussion record (confirmation of evidence)		
Feedback and forward planning		
Record of behaviours		
<input type="checkbox"/> B1	<input type="checkbox"/> B2	<input type="checkbox"/> B3
<input type="checkbox"/> B4	<input type="checkbox"/> B5	<input type="checkbox"/> B6
<input type="checkbox"/> B7	<input type="checkbox"/> B8	
Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE (OPTIONAL UNIT)

THE BRIEF

This unit is designed to enable the learner to develop the skills required, and apply the associated knowledge, in order that they are able to demonstrate the competence required to maintain electrical systems and equipment in accordance with approved industry practices, statutory and non-statutory regulations:

- Electricity at Work Regulations (1989)
- the current edition of BS 7671 Wiring Regulations
- Health and Safety Act (1974)
- Building Regulations (2000)

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from you carrying out tasks in your workplace. You will need to provide a job record and supplementary evidence to cover the **required ranges**.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- range/evidence tracker
- two candidate job records
- supplementary evidence forms.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

- photographic evidence (copies of each of the range items claimed)
- copies of method statements x 2.

BEHAVIOURS

B1, B2, B3, B4, B5, B6, B8

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CHECKLIST

LEARNING OBJECTIVE 1

Prepare to carry out electrical maintenance

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Produce a maintenance work plan following best practice procedures to include: <ul style="list-style-type: none">• analysing the requirements of task (based on technical and engineering principles and know-how)				
<ul style="list-style-type: none">• planned shut downs/isolations				
<ul style="list-style-type: none">• health and safety precautions (eg provision for release of stored and latent energy)				
<ul style="list-style-type: none">• permits to work				
<ul style="list-style-type: none">• organising tools, equipment and spare parts				
<ul style="list-style-type: none">• liaison with/co-ordination of work with other persons will be necessary				
<ul style="list-style-type: none">• time/cost effectiveness				
<ul style="list-style-type: none">• a method statement (to include the appropriate best practice techniques/procedures/methods to undertake the maintenance activity)				
2 Use appropriate methods to communicate the plan/or key aspects of the planned work to relevant people, such as other workers, colleagues and clients				
3 Perform maintenance duties effectively as part of a team (such as with the employer, other workers, etc.)				
4 Assess and apply appropriate preparation procedures to include: <ul style="list-style-type: none">• adopting appropriate PPE				
<ul style="list-style-type: none">• obtaining authorisation to carry out the maintenance work (such as a permit to work)				
<ul style="list-style-type: none">• notifying relevant personnel of the maintenance work (other trades, users of equipment, etc.)				
<ul style="list-style-type: none">• following risk assessments				

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 1 (CONTINUED)

Prepare to carry out electrical maintenance

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
5 Select appropriate tools and equipment for the maintenance work: <ul style="list-style-type: none">• Hand tools/power tools				
<ul style="list-style-type: none">• Following a safe system of work (eg working in accordance with a risk assessment and method statement)				
<ul style="list-style-type: none">• Secure the work areas (fences, barriers, screens and warning signs)				
6 Ensure relevant shutdown procedures are followed and safe isolation has been carried out (eg electrical systems/pressurised systems (hydraulic/compressed air/water, gas))				
7 Assess and confirm secure storage facilities for tools, equipment, materials and components				
8 Confirm that all appropriate job information is available for use				
9 Verify that proposed materials/equipment/components are in accordance with: <ul style="list-style-type: none">• industry requirements (best practice)				
<ul style="list-style-type: none">• the type of installation, its use, and the environment in which it is installed				
10 Ensure permission for the proposed work has been given (eg from the client)				

Continued

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 2

Carry out electrical maintenance

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Interpret the maintenance schedule/specification to accurately identify and locate electrical systems and equipment that is to be worked upon				
2 Use appropriate tools, equipment and materials for maintenance work				
3 Apply best practice work procedures which are appropriate for the type of maintenance activity being undertaken (planned preventative, breakdown, monitored)				
4 Apply best practice work procedures which are in accordance with: <ul style="list-style-type: none">• manufacturers' instructions• industry approved practices• maintenance schedules and specifications				
5 Complete documented maintenance procedures on electrical circuits/systems				
6 Complete documented maintenance procedures on electrical equipment				
7 Monitor the effectiveness of the maintenance activity against current industry best practice and technical principles				
8 Evaluate and apply the appropriate inspections, tests/ checks to verify the maintenance work has been carried out in accordance with requirements				
9 Complete maintenance work in a professional manner: <ul style="list-style-type: none">• within the timescale agreed by the person ordering the work• advising the relevant person(s) about any anticipated delays or about any further repairs that need to be carried out				
10 Complete maintenance records accurately and submit them to the relevant person(s)				
11 Evaluate the effectiveness of the maintenance activity against current industry best practice and technical principles				
12 Make formal recommendations for the improvement of maintenance activities to the supervisor.				

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

RANGE/EVIDENCE TRACKER

Appropriate job information is available
(Range requirement **minimum** of **five** to satisfy learning outcome)

Electrical circuits/systems of which documented maintenance procedures have been performed
(Range requirement **minimum** of **five** to satisfy learning outcome)

Indicate the job number in which the range was met and reference the supplementary evidence.

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 1.8	Job	SE ref	Range	LO 2.5	Job	SE ref
Maintenance schedules/ specifications				Distribution systems			
Maintenance programmes				Low-voltage circuits			
Drawings/diagrams				Extra-low-voltage circuits			
Regulatory documents (eg current version of the IET Wiring Regulations)				Lighting systems			
Method statements				Heating and ventilating systems			
Servicing records				Air conditioning and refrigeration systems			
Manufacturers' instructions				Drive systems			
Certificates of competency				Security systems			
Permits to work				Earthing systems			
Other relevant information				Data communication/ networking systems			
				Other circuit/systems			

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

RANGE/EVIDENCE TRACKER (CONTINUED)

Electrical equipment of which documented maintenance procedures have been performed
 (Range requirement **minimum** of **five** to satisfy learning outcome)

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 2.6	Job	SE ref	Range	LO 2.6	Job	SE ref
Electrical plant, components and accessories				Contractors			
Motors				Power transmission mechanisms			
Motor control equipment				Luminaries/lamps			
Switchgear/distribution panels				Other relevant information			
Control systems/components							

Complete maintenance work in a professional manner
 (Range requirement **minimum** of **one** to satisfy learning outcome)

Indicate the job number in which the range was met and reference the supplementary evidence.

Range	LO 3.9	Job	SE ref	Range	LO 3.9	Job	SE ref
Within the timescale agreed by the person ordering the work				Other appropriate			
Advising the relevant person(s) about any anticipated delays or about any further repairs that need to be carried out							

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 1

Core details of work programme:	
<ul style="list-style-type: none"> • dates • timings • work areas LO 1.1/1.2/3.1 	
Maintenance analysis/requirements	LO 1.1/1.2/3.1
Maintenance is cost effective <input type="checkbox"/> Yes <input type="checkbox"/> No	

Tools, parts and plant required LO 1.1/1.2/1.8/3.2	Type of maintenance LO 3.3
	<input type="checkbox"/> Planned preventative <input type="checkbox"/> Breakdown <input type="checkbox"/> Monitored

Health and safety/customer checks LO 1.1/1.2/1.4/1.5/1.6/1.7/1.9/1.10	
<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check to confirm notification of relevant personnel of maintenance works to be performed
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Suitable storage arrangements in place
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm materials and equipment are of industry standards
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Checks to confirm materials and equipment are suitable for the environment to which they are to be installed
<input type="checkbox"/> Risk assessment	
<input type="checkbox"/> Work areas secured with warning notices and barriers in place	
<input type="checkbox"/> Appropriate co-ordination with other personnel confirmed	
<input type="checkbox"/> Area ready for works to begin	

Customer name	Customer signature
Expert witness/competent person name	Expert witness/competent person signature

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Describe how maintenance duties will be performed effectively as part of a team LO 1.3

Appropriate job information is available LO 1.8 Tools and equipment required LO 1.5

- | | |
|--|---|
| <input type="checkbox"/> Maintenance schedules/specifications | <input type="checkbox"/> Access equipment |
| <input type="checkbox"/> Maintenance programmes | <input type="checkbox"/> Calibrated test instruments together with leads to GS 38 (as appropriate). |
| <input type="checkbox"/> Drawings/diagrams | <input type="checkbox"/> Positioning/lifting/jacking equipment |
| <input type="checkbox"/> Regulatory documents (eg current version of the IET Wiring Regulations) | <input type="checkbox"/> Trolleys/hand-operated jacks |
| <input type="checkbox"/> Method statements | |
| <input type="checkbox"/> Servicing records | |
| <input type="checkbox"/> Manufacturers' instructions | |
| <input type="checkbox"/> Certificates of competency | |
| <input type="checkbox"/> Permits to work | |
| <input type="checkbox"/> Other relevant information | |

All work procedures in accordance with LO 3.4

- | |
|---|
| <input type="checkbox"/> Manufacturers' instructions |
| <input type="checkbox"/> Industry approved practices |
| <input type="checkbox"/> Maintenance schedules and specifications |

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Carry out electrical maintenance	
Electrical circuits/systems of which documented maintenance procedures have been performed LO 3.5	Electrical equipment of which documented maintenance procedures have been performed LO 3.6
<input type="checkbox"/> Distribution systems	<input type="checkbox"/> Electrical plant, components and accessories
<input type="checkbox"/> Low-voltage circuits	<input type="checkbox"/> Motors
<input type="checkbox"/> Extra-low-voltage circuits	<input type="checkbox"/> Motor control equipment
<input type="checkbox"/> Lighting systems	<input type="checkbox"/> Switchgear/distribution panels
<input type="checkbox"/> Heating and ventilating systems	<input type="checkbox"/> Control systems/components
<input type="checkbox"/> Air conditioning and refrigeration systems	<input type="checkbox"/> Contactors
<input type="checkbox"/> Drive systems	<input type="checkbox"/> Power transmission mechanisms
<input type="checkbox"/> Security systems	<input type="checkbox"/> Luminaries/lamps
<input type="checkbox"/> Earthing systems	<input type="checkbox"/> Other relevant equipment
<input type="checkbox"/> Data communication/networking systems	
<input type="checkbox"/> Other circuit/systems	
Describe how the effectiveness of this maintenance activity will be monitored against current industry best practice and technical principles LO 3.7	

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Testing and commissioning LO 3.8

<input type="checkbox"/> Tests	<input type="checkbox"/> Tests
<input type="checkbox"/> Visual inspection	<input type="checkbox"/> Prospective short circuit
<input type="checkbox"/> Continuity of CPC	<input type="checkbox"/> Earth rod
<input type="checkbox"/> Continuity of RFC	<input type="checkbox"/> Earth plate
<input type="checkbox"/> Insulation resistance	<input type="checkbox"/> Lightning conductor
<input type="checkbox"/> Polarity	<input type="checkbox"/> Photovoltaic cells
<input type="checkbox"/> Earth fault loop impedance	<input type="checkbox"/> Functional tests
<input type="checkbox"/> RCDs/RCBO tests	
<input type="checkbox"/> Functional testing	

Relevant paperwork completed LO 3.8/ 3.10

<input type="checkbox"/> Electrical test certificates
<input type="checkbox"/> Schedules of inspections
<input type="checkbox"/> Schedules of test results
<input type="checkbox"/> Minor work certificate
<input type="checkbox"/> Condition report
<input type="checkbox"/> Maintenance record
<input type="checkbox"/> Maintenance schedules updated
<input type="checkbox"/> Maintenance report

Maintenance records/test results submitted to relevant people LO 3.10

<input type="checkbox"/> Customers
<input type="checkbox"/> Clients
<input type="checkbox"/> Colleagues
<input type="checkbox"/> Other contractors
<input type="checkbox"/> Supervisors

As part of the completed maintenance work, to maintain professionalism, the work was LO 3.9

<input type="checkbox"/> Completed within the timescale agreed	<input type="checkbox"/> Completed with any anticipated delays being reported to the relevant person
--	--

Describe tests/checks carried out to verify maintenance work

Continued

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Evaluate the effectiveness of the maintenance activity against current industry best practice and technical principles LO 3.11

State your recommendations for the improvement of maintenance activities LO 3.12

Client satisfaction verified	Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 2

Core details of work programme:	
<ul style="list-style-type: none"> • dates • timings • work areas LO 1.1/1.2/3.1 	
Maintenance analysis/requirements	LO 1.1/1.2/3.1
Maintenance is cost effective <input type="checkbox"/> Yes <input type="checkbox"/> No	

Tools, parts and plant required LO 1.1/1.2/1.8/3.2	Type of maintenance LO 3.3
	<input type="checkbox"/> Planned preventative <input type="checkbox"/> Breakdown <input type="checkbox"/> Monitored

Health and safety/customer checks LO 1.1/1.2/1.4/1.5/1.6/1.7/1.9/1.10	
<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check to confirm notification of relevant personnel of maintenance works to be performed
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Suitable storage arrangements in place
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm materials and equipment are of industry standards
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Checks to confirm materials and equipment are suitable for the environment to which they are to be installed
<input type="checkbox"/> Risk assessment	
<input type="checkbox"/> Work areas secured with warning notices and barriers in place	
<input type="checkbox"/> Appropriate co-ordination with other personnel confirmed	
<input type="checkbox"/> Area ready for works to begin	

Customer name	Customer signature
Expert witness/competent person name	Expert witness/competent person signature

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Describe how maintenance duties will be performed effectively as part of a team

LO 1.3

Appropriate job information is available LO 1.8

- Maintenance schedules/specifications
- Maintenance programmes
- Drawings/diagrams
- Regulatory documents (eg current version of the IET Wiring Regulations)
- Method statements
- Servicing records
- Manufacturers' instructions
- Certificates of competency
- Permits to work
- Other relevant information

All work procedures in accordance with LO 3.4

- Manufacturers' instructions
- Industry approved practices
- Maintenance schedules and specifications

Tools and equipment required

LO 1.5

- Access equipment
- Calibrated test instruments together with leads to GS 38 (as appropriate).
- Positioning/lifting/jacking equipment
- Trolleys/hand-operated jacks

Continued

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Carry out electrical maintenance	
Electrical circuits/systems of which documented maintenance procedures have been performed LO 3.5	Electrical equipment of which documented maintenance procedures have been performed LO 3.6
<input type="checkbox"/> Distribution systems	<input type="checkbox"/> Electrical plant, components and accessories
<input type="checkbox"/> Low-voltage circuits	<input type="checkbox"/> Motors
<input type="checkbox"/> Extra-low-voltage circuits	<input type="checkbox"/> Motor control equipment
<input type="checkbox"/> Lighting systems	<input type="checkbox"/> Switchgear/distribution panels
<input type="checkbox"/> Heating and ventilating systems	<input type="checkbox"/> Control systems/components
<input type="checkbox"/> Air conditioning and refrigeration systems	<input type="checkbox"/> Contactors
<input type="checkbox"/> Drive systems	<input type="checkbox"/> Power transmission mechanisms
<input type="checkbox"/> Security systems	<input type="checkbox"/> Luminaries/lamps
<input type="checkbox"/> Earthing systems	<input type="checkbox"/> Other relevant equipment
<input type="checkbox"/> Data communication/networking systems	
<input type="checkbox"/> Other circuit/systems	
Describe how the effectiveness of this maintenance activity will be monitored against current industry best practice and technical principles LO 3.7	

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Testing and commissioning		LO 3.8	
<input type="checkbox"/> Tests	<input type="checkbox"/> Tests		
<input type="checkbox"/> Visual inspection	<input type="checkbox"/> Prospective short circuit		
<input type="checkbox"/> Continuity of CPC	<input type="checkbox"/> Earth rod		
<input type="checkbox"/> Continuity of RFC	<input type="checkbox"/> Earth plate		
<input type="checkbox"/> Insulation resistance	<input type="checkbox"/> Lightning conductor		
<input type="checkbox"/> Polarity	<input type="checkbox"/> Photovoltaic cells		
<input type="checkbox"/> Earth fault loop impedance	<input type="checkbox"/> Functional tests		
<input type="checkbox"/> RCDs/RCBO tests			
<input type="checkbox"/> Functional testing			
Relevant paperwork completed	LO 3.8/ 3.10	Maintenance records/test results submitted to relevant people	LO 3.10
<input type="checkbox"/> Electrical test certificates		<input type="checkbox"/> Customers	
<input type="checkbox"/> Schedules of inspections		<input type="checkbox"/> Clients	
<input type="checkbox"/> Schedules of test results		<input type="checkbox"/> Colleagues	
<input type="checkbox"/> Minor work certificate		<input type="checkbox"/> Other contractors	
<input type="checkbox"/> Condition report		<input type="checkbox"/> Supervisors	
<input type="checkbox"/> Maintenance record			
<input type="checkbox"/> Maintenance schedules updated			
<input type="checkbox"/> Maintenance report			
As part of the completed maintenance work, to maintain professionalism, the work was		LO 3.9	
<input type="checkbox"/> Completed within the timescale agreed	<input type="checkbox"/> Completed with any anticipated delays being reported to the relevant person		
Describe tests/checks carried out to verify maintenance work			

Continued 

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Evaluate the effectiveness of the maintenance activity against current industry best practice and technical principles LO 3.11

State your recommendations for the improvement of maintenance activities LO 3.12

Client satisfaction verified	Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

UNIT 110

APPLY PRACTICES AND PROCEDURES

FOR MAINTENANCE

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence	Accepted
Photographic evidence including x2 Electrical circuits/systems and x2 for Electrical equipment for which you have completed documented maintenance procedures	<input type="checkbox"/>
Copies of method statements x2	<input type="checkbox"/>

Professional discussion record (confirmation of evidence)

Large empty light blue area for professional discussion record.

Feedback and forward planning

Large empty light blue area for feedback and forward planning.

Record of behaviours

B1 B2 B3 B4 B5 B6 B7 B8

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

THE BRIEF

This unit is designed to enable the candidate to demonstrate the practical skills and apply the associated knowledge required when inspecting, testing, commissioning and certifying electrical systems and equipment in buildings, structures and the environment in accordance with approved industry practices, statutory and non-statutory regulations:

- The Electricity at Work Regulations (1989)
- the current edition of BS 7671 Wiring Regulations
- Health and Safety Act (1974)
- Building Regulations (2000)

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from you carrying out tasks in your workplace. You will need to provide a job record and supplementary evidence to cover the **required ranges**.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- range/evidence tracker
- two candidate job records
- supplementary evidence forms.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

- supporting evidence test sheets (copies of test certificates, schedules of inspections, schedules of test results, minor works certificates).

BEHAVIOURS

B1, B2, B3, B4, B5, B6, B8

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CHECKLIST

LEARNING OBJECTIVE 1

Be able to confirm safety of the system and equipment prior to completion of inspection, testing and commissioning in accordance with statutory and non-statutory regulations

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Carry out safe isolation procedures in accordance with regulatory requirements for electrical installations				
2 Ensure the health and safety of themselves and others within the work location during inspection, testing and commissioning				
3 Check the safety of electrical systems prior to the commencement of inspection, testing and commissioning				

LEARNING OBJECTIVE 2

Be able to inspect electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Assess whether the safe system of work is appropriate to the work activity				
2 Carry out a visual inspection in accordance with the requirements of the installation specification, the IET <i>Wiring Regulations</i> and IET <i>Guidance Note 3</i>				
3 Complete a schedule of inspections in accordance with the IET <i>Wiring Regulations</i> and IET <i>Guidance Note 3</i> making technical decisions				

Continued 

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CHECKLIST (CONTINUED)

LEARNING OBJECTIVE 3

Be able to test and commission electrical systems and equipment

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Select the correct test instruments and their accessories for tests				
2 Carry out tests in accordance with the installation specification and the IET Wiring Regulations and manufacturers' instructions				
3 Analyse and verify test results, reporting all findings to relevant persons, as appropriate				
4 Complete in accordance with the IET Wiring Regulations and IET Guidance Note 3: <ul style="list-style-type: none">• electrical installation certificates:<ul style="list-style-type: none">– schedules of inspections– schedules of test results• minor electrical installation works certificates				
5 Complete the handover of electrical systems and equipment to relevant persons, including the provision of accurate and complete documentation regarding the completed inspection, testing, commissioning and customer satisfaction				
6 Demonstrate to the customer/client that the operation of the circuits, equipment and components are in accordance with the installation specification and customer/client requirements				

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

RANGE/EVIDENCE TRACKER

Which out of the following tests have been performed in accordance with the requirements of the installation specification, BS 7671 and manufacturers' instructions?

(Assess **minimum** of **two** on two separate occasions.)

Indicate the job number in which the range was met and reference the supplementary evidence.				Indicate the job number in which the range was met and reference the supplementary evidence.			
Range	LO 3.1	Job	SE ref	Range	LO 3.1	Job	SE ref
Visual inspection				Earth fault loop impedance			
Continuity of CPC				RCDs/RCBO tests			
Continuity of RFC				Prospective short circuit			
Insulation resistance				Functional testing			
Polarity							

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 1

Job address

Job description

Test instruments and accessories required

LO3.1

Continued 

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Health and safety checks – which of the following are to be implemented/followed during this job? LO 1.1/1.2/1.3/2.1	
<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check suitable earthing system is in place
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Calibration certificates checked

Details of visual inspection	LO 2.2

Testing and commissioning		LO 3.1/3.2
Tests	Tests	
<input type="checkbox"/> Visual inspection	<input type="checkbox"/> Prospective short circuit	
<input type="checkbox"/> Continuity of CPC	<input type="checkbox"/> Earth rod	
<input type="checkbox"/> Continuity of RFC	<input type="checkbox"/> Earth plate	
<input type="checkbox"/> Insulation resistance	<input type="checkbox"/> Lightning conductor	
<input type="checkbox"/> Polarity	<input type="checkbox"/> Photovoltaic cells	
<input type="checkbox"/> Earth fault loop impedance	<input type="checkbox"/> Functional tests	
<input type="checkbox"/> RCDs/RCBO tests		
<input type="checkbox"/> Functional testing		

Relevant paperwork completed	LO 2.3 /3.4	Relevant people consulted/notified of results	LO 3.3
<input type="checkbox"/> Electrical test certificates		<input type="checkbox"/> Customers	
<input type="checkbox"/> Schedules of inspections		<input type="checkbox"/> Clients	
<input type="checkbox"/> Schedules of test results		<input type="checkbox"/> Colleagues	
<input type="checkbox"/> Minor work certificate		<input type="checkbox"/> Other contractors	
		<input type="checkbox"/> Supervisors	

Continued

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Which procedures did you follow during the handover process?

LO 3.5/3.6

Client satisfaction verified	Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 2

Job address

Blank area for job address details.

Job description

Blank area for job description details.

Test instruments and accessories required LO3.1

Blank area for test instruments and accessories required details.

Continued 

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Health and safety checks – which of the following are to be implemented/followed during this job?
LO 1.1/1.2/1.3/2.1

<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check suitable earthing system is in place
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Calibration certificates checked

Details of visual inspection
LO 2.2

Testing and commissioning
LO 3.1/3.2

Tests	Tests
<input type="checkbox"/> Visual inspection	<input type="checkbox"/> Prospective short circuit
<input type="checkbox"/> Continuity of CPC	<input type="checkbox"/> Earth rod
<input type="checkbox"/> Continuity of RFC	<input type="checkbox"/> Earth plate
<input type="checkbox"/> Insulation resistance	<input type="checkbox"/> Lightning conductor
<input type="checkbox"/> Polarity	<input type="checkbox"/> Photovoltaic cells
<input type="checkbox"/> Earth fault loop impedance	<input type="checkbox"/> Functional tests
<input type="checkbox"/> RCDs/RCBO tests	
<input type="checkbox"/> Functional testing	

Relevant paperwork completed LO 2.3 /3.4	Relevant people consulted/notified of results LO 3.3
---	---

<input type="checkbox"/> Electrical test certificates	<input type="checkbox"/> Customers
<input type="checkbox"/> Schedules of inspections	<input type="checkbox"/> Clients
<input type="checkbox"/> Schedules of test results	<input type="checkbox"/> Colleagues
<input type="checkbox"/> Minor work certificate	<input type="checkbox"/> Other contractors
	<input type="checkbox"/> Supervisors

Continued

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Which procedures did you follow during the handover process?

LO 3.5/3.6

Client satisfaction verified	Client signature (if available)	Date
<input type="checkbox"/> Yes <input type="checkbox"/> No		
Candidate name	Candidate signature	Date
Expert witness name	Expert witness signature	Date
Assessor name	Assessor signature	Date

UNIT 113

INSPECT, TEST AND COMMISSION

ELECTRICAL SYSTEMS

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence	Accepted
Supporting evidence of test sheets (copies of certificates, schedules of inspections, schedules of test results, minor works certificates)	<input type="checkbox"/>

Professional discussion record (confirmation of evidence)

Feedback and forward planning

Record of behaviours

B1 B2 B3 B4 B5 B6 B7 B8

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

THE BRIEF

This unit is designed to enable the candidate to demonstrate the practical skills and apply the associated knowledge required to diagnose and correct electrical faults in electrical systems and equipment in buildings, structures and the environment in accordance with approved industry practices, statutory and non-statutory regulations:

- Electricity at Work Regulations (1989)
- current edition of BS 7671 Wiring Regulations
- Health and Safety Act (1974)
- Building Regulations (2000)

GUIDANCE

The performance criteria in this unit will be met using evidence from workplace opportunities. Evidence will come from you carrying out tasks in your workplace. You will need to provide a job record and supplementary evidence to cover the **required ranges**.

EVIDENCE GUIDE

Evidence must be provided on a minimum of **two** separate occasions.

Due to the nature of this unit, evidence will be primarily captured through direct observation and/or completion of endorsed task records. Please be aware that the templates provided will require completion if you do not use an equivalent type of evidence record in your normal work activities, ie employer documentation.

FORMS TO BE COMPLETED IN THIS UNIT

By candidates

- range/evidence tracker
- two candidate job records
- supplementary evidence forms.

By assessors

- checklists
- feedback and forward planning sign-off sheet.

MINIMUM SUPPLEMENTARY EVIDENCE REQUIRED

Supplementary evidence may include:

- photographs
- copies of test certificates
- company fault diagnosis reports.

All of these must be relevant to the job records completed.

LEARNING OBJECTIVE 1

Prepare to carry out fault diagnosis

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Check it is safe to carry out fault diagnosis				
2 Inform the relevant personnel of the fault diagnosis work (such as personnel on the premises, users of electrical equipment)				
3 Check the safety of electrical systems prior to the commencement of inspection, testing and commissioning				
4 Evaluate and apply appropriate methods to ensure the safety of themselves and others when diagnosing and correcting electrical faults				

Continued 

LEARNING OBJECTIVE 2

Carry out fault diagnosis

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Communicate effectively with relevant personnel (eg customer, premises manager) to ascertain the nature of the fault				
2 Select and interpret appropriate documents (eg layout drawings, schematic diagrams, etc.) which relate to the electrical systems and equipment being worked upon				
3 Assess and communicate potential disruption that may be a consequence of fault diagnosis and correction work to relevant people, such as: <ul style="list-style-type: none"> • other workers/colleagues • customers/clients 				
4 Carry out relevant inspections of electrical equipment, analysing findings				
5 Confirm test instruments are fit for purpose, functioning correctly and are correctly calibrated				
6 Perform suitable diagnostic tests, based on engineering decisions, to identify electrical faults				
7 Use appropriate methods for locating faults including: <ul style="list-style-type: none"> • using a logical approach • using safe working practices • interpretation of test readings 				
8 Use appropriate instruments correctly to carry out fault diagnosis				

Continued

LEARNING OBJECTIVE 3

Carry out fault rectification

Indicate assessment method (AM) when complete DO – PE – RA – PD – WT – OQ – WQ – JR. Indicate job number JobN, where the evidence relates.

Assessment criteria description	JobN	AM	JobN	AM
1 Assess the appropriate repairs, removals and replacements and their implications with relevant people, including one of the following: <ul style="list-style-type: none"> • other workers/colleagues • customers/clients 				
2 Perform fault correction procedures correctly and safely, using appropriate tools, equipment and material				
3 Assess and verify that replacement components and associated equipment maintain: <ul style="list-style-type: none"> • ease of access to enable future maintenance • compliance with relevant regulations • compliance with manufacturers' instructions/ organisational procedures 				
4 Apply appropriate procedures to ensure electrical equipment and components are left safe, in accordance with industry regulations, if the fault cannot be corrected immediately based on technical assessment				
5 Establish and perform an appropriate inspection and testing procedure to confirm that circuits/equipment/ components are functioning correctly after completion of fault correction work				
6 Record test results and other appropriate information regarding the fault correction work clearly and accurately and report it to relevant people				

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

RANGE/EVIDENCE TRACKER

Have electrical faults been identified? (Assess minimum of three from the following)							
Indicate the job number in which the range was met and reference the supplementary evidence.				Indicate the job number in which the range was met and reference the supplementary evidence.			
Range	LO 2.6	Job	SE ref	Range	LO 2.6	Job	SE ref
Loss of supply				High resistance joints			
Overload				Component, accessory or equipment faults			
Short-circuit and earth fault				Open circuit			
Transient voltage				Signal fault			
Loss of phase/line							
Incorrect phase rotation							
Have suitable diagnostic tests been performed, using the following instruments correctly? (Assess minimum of three from the following)				Relevant people consulted/notified of results (Assess one of the following)			
Indicate the job number in which the range was met and reference the supplementary evidence.				Indicate the job number in which the range was met and reference the supplementary evidence.			
Range	LO 2.8	Job	SE ref	Range	LO 3.6	Job	SE ref
Voltage indicator				Customers			
Low-resistance ohmmeter				Clients			
Insulation resistance testers				Colleagues			
EFLI and PFC tester				Other contractors			
RCD tester				Supervisors			
Tong tester/clamp-on ammeter				Local councils			
Phase sequence tester							
Other appropriate							

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 1

Job address

Date

Health and safety checks – which of the following are to be implemented/followed during this job?
LO 1.1/1.3/1.4/2.5/3.2

<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check suitable earthing system is in place
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Calibration certificates checked

Fault description LO 2.1

What logical approach has been taken during this diagnostic procedure, and what are the possible disruptions for your client?
LO 2.3/2.7

Continued

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

If you were unable to rectify the fault immediately, how did you ensure the electrical equipment/ circuits/components are to be left safe, in accordance with industry regulations? LO 3.4

Tools and materials/equipment/components required LO 3.2

Have the relevant inspections and tests been performed? LO 3.5

Yes No

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 1 (CONTINUED)

Component/equipment check		LO 3.3	
Does the repair maintain			
<input type="checkbox"/>	Ease of access to enable future maintenance?	<input type="checkbox"/>	Compliance with manufacturers' instructions?
<input type="checkbox"/>	Compliance with relevant regulations?	<input type="checkbox"/>	Compliance with organisational procedures?

Which procedures did you follow during the handover process following the fault diagnosis and rectification works? Description may include paperwork provided to the relevant people and demonstrations performed.

LO 3.5/3.6

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8
Supplementary evidence ref.		Date	Supplementary evidence ref.		Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	
Client satisfaction verified		Client signature (if available)		Date	
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Candidate name		Candidate signature		Date	
Expert witness name		Expert witness signature		Date	
Assessor name		Assessor signature		Date	

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 2

Job address

Date

Health and safety checks – which of the following are to be implemented/followed during this job?
LO 1.1/1.3/1.4/2.5/3.2

<input type="checkbox"/> Safe isolation	<input type="checkbox"/> Check suitable earthing system is in place
<input type="checkbox"/> Permits to work	<input type="checkbox"/> Checks to confirm mechanical soundness of equipment
<input type="checkbox"/> Method statement	<input type="checkbox"/> Checks to confirm suitability of equipment
<input type="checkbox"/> Wearing correct and appropriate PPE	<input type="checkbox"/> Procedures in place for the reporting of unsafe conditions
<input type="checkbox"/> Risk assessment	<input type="checkbox"/> Calibration certificates checked

Fault description LO 2.1

What logical approach has been taken during this diagnostic procedure, and what are the possible disruptions for your client?
LO 2.3/2.7

Continued

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

If you were unable to rectify the fault immediately, how did you ensure the electrical equipment/ circuits/components are to be left safe, in accordance with industry regulations? LO 3.4

Tools and materials/equipment/components required LO 3.2

Have the relevant inspections and tests been performed? LO 3.5

Yes No

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

CANDIDATE JOB RECORD JOB 2 (CONTINUED)

Component/equipment check		LO 3.3	
Does the repair maintain			
<input type="checkbox"/>	Ease of access to enable future maintenance?	<input type="checkbox"/>	Compliance with manufacturers' instructions?
<input type="checkbox"/>	Compliance with relevant regulations?	<input type="checkbox"/>	Compliance with organisational procedures?

Which procedures did you follow during the handover process, following the fault diagnosis and rectification works? Description may include paperwork provided to the relevant people and demonstrations performed.

LO 3.5/3.6

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8
Description			Description		
Supplementary evidence ref.	Date		Supplementary evidence ref.	Date	

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Electrical faults identified	LO 2.6	Electrical faults identified	LO 2.6
Description		Description	
Supplementary evidence ref.	Date	Supplementary evidence ref.	Date

Continued 

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

SUPPLEMENTARY EVIDENCE: PHOTOGRAPHS (CONTINUED)

Instruments used		LO 2.8	Instruments used		LO 2.8
Description			Description		
Client satisfaction verified		Client signature (if available)		Date	
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Candidate name		Candidate signature		Date	
Expert witness name		Expert witness signature		Date	
Assessor name		Assessor signature		Date	

UNIT 115

APPLY FAULT DIAGNOSIS AND RECTIFICATION

FEEDBACK AND FORWARD PLANNING SIGN-OFF SHEET

Supplementary evidence		Accepted
Photographs		<input type="checkbox"/>
Copies of test certificates (ie schedule of test results, minor works certificate)		<input type="checkbox"/>
Company fault diagnosis reports		<input type="checkbox"/>
Professional discussion record (confirmation of evidence)		
Feedback and forward planning		
Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date

APPENDIX

DIRECT OBSERVATIONS

A **minimum** of **two** direct observations need to be completed to meet the performance criteria in Unit 102, Apply health, safety and environmental considerations. This evidence is to be recorded within the assessor direct observation report within Unit 102. Any other performance evidence observed should be captured on the direct observation forms in this appendix.

As guidance only, direct observations may be carried out at first fix, second fix and inspection and testing. **This is not mandatory**.

DIRECT OBSERVATION RECORD

(COPY AS REQUIRED)

On-site pre-assessment check	
Candidate prepared for assessment	<input type="checkbox"/> Yes <input type="checkbox"/> No
Candidate-specific requirements discussed	<input type="checkbox"/> Yes <input type="checkbox"/> No
Candidate briefed on appeals procedure	<input type="checkbox"/> Yes <input type="checkbox"/> No
Assessment location	
Type of work to be carried out	
Observation report	

Continued 

DIRECT OBSERVATION RECORD (CONTINUED)

Oral Q&A record/video/dictaphone references

Feedback and forward planning

Unit

102
 106
 108
 109
 110
 113
 115

OBSERVED UNIT CONTENT

Candidate name	Candidate signature	Date
Assessor name	Assessor signature	Date
IQA name (where sampled)	IQA signature (where sampled)	Date
EQA name (where sampled)	EQA signature (where sampled)	Date

