

Qualification Manual

EAL Level 3 Electrotechnical Qualification
Qualification Number: 601/7345/2

Issue 5

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1.0 About EAL

For over fifty years, EAL has been the specialist awarding organisation for engineering, manufacturing, building services and related sectors. Developed to the highest technical standards, our qualifications reflect ever-changing industry and regulatory needs. We support the providers of our qualifications with an unparalleled level of service to ensure that learners are well prepared to take the next step in their journeys, whether study, an apprenticeship or work.

Through industry partnerships with EAL centres and training providers, decades of experience supporting our core sectors, and our role as part of the Enginuity Group, we have built unrivalled knowledge and understanding of employer skills needs. As a result, EAL's skills solutions, including apprenticeship End-Point Assessment, External Quality Assurance and qualifications are respected and chosen by employers to deliver real lifelong career benefits for all our learners. That's why in the last ten years, 1.2 million people across the UK have taken EAL qualifications.

1.1 Equal Opportunities and Diversity

EAL expects its centres to enable learners to have equal access to training and assessment for qualifications in line with equalities legislation. Further details can be located in the EAL Equal Opportunities and Diversity Policy:

<http://www.eal.org.uk/centre-support/centre-support/policies-and-important-documents>

1.2 Customer Experience and Feedback

Customer Experience is a fundamental part of EAL's commitment to you. EAL aims to ensure that all customers receive a high-quality efficient service. We are always interested in feedback and if you have any comments or feedback on our qualifications, products or services, please contact the Customer Experience team:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.0 Introduction to the Qualification

What is this qualification?

This qualification forms part of an industry recognised apprenticeship for electrical apprentices. It covers the skills and knowledge needed by an electrician (installation or maintenance). To demonstrate occupational competence the learner must also complete the AM2S. **It is only for apprentices.**

PLEASE NOTE: THIS QUALIFICATION AND THE AM2 IS NOT A RECOGNISED ROUTE FOR AN ECS CARD.

Who is this qualification for?

- Apprentices who are working towards becoming a competent electrician (by completion of this qualification and the AM2S)
- Those wishing to pursue a career in the electrotechnical/building services sector, and who are undertaking an electrotechnical apprenticeship

What does this qualification cover?

This qualification comprises of knowledge and performance units, which between them cover health, safety, and environmental considerations, organising and overseeing, terminating, and connecting, inspection, testing and commissioning; fault diagnosis and rectification, electrical scientific principles, BS 7671; electrical design; and electrical maintenance. It requires occupational evidence from the workplace. Both installation and maintenance electricians will undertake the same knowledge units; thus, streamlining delivery at centres. Unit 08 (Electrical Scientific Principles and Technologies) has two graded assessments; however, the highest grade possible for the qualification is a Pass. Please refer to Section 6 for more information. **Only for new apprentices registered from 04.09.23 in England there is a requirement to evidence work from non-dwelling locations for specified performance units. Please refer to Section 6, for full details.**

2.1 Support for this Qualification

This qualification:

- is regulated at Level 3
- is supported by the IET
- forms part of an industry recognised apprenticeship standard.

2.2 Progression Opportunities

This qualification relates to:

- EAL qualifications in inspection and testing
- EAL Level 3 Award in the In-Service Inspections and Testing of Electrical Equipment (PAT)
- EAL Level 4 Award in the Design and Verification of Electrical Installations
- EAL qualifications in environmental technology systems.

Learners may also be able to progress to other appropriate further or higher-level study.
Further information can be obtained from the EAL Website or alternatively contact:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.3 Qualification Support Materials

The following materials are available for these qualifications:

- Delivery packs: which contain the qualification units, all relevant tutor guidance relating to the delivery and assessment and marking schemes for internally assessed practical and theory assessments
- Learner assessment packs: which contain relevant practical/theory assessments
- Controlled knowledge assessments: which contain knowledge assessments that must be completed by the learner under appropriately controlled conditions

All materials can be accessed by EAL registered centres from the EAL Website

www.eal.org.uk

2.4 Achievement of the Qualification

This qualification is gained when all the necessary units have been achieved. The centre will then be able to apply for the learner's Certificate. The learner will also receive a Certificate of Unit Credit, listing all the achieved units.

3.0 Qualification Structure

3.1 Rule of Combination

This qualification will be obtained by the learner once they have completed the mandatory units and one of the optional pathway performance units. This diploma has 745 guided learning hours (GLH) and a Total Qualification Time (TQT) 866 hours. This is notational time required by the learner to complete the qualification. The learner must complete the relevant knowledge units prior to the performance units. To demonstrate occupational competence the learner must also achieve the AM2S.

IMPORTANT NOTE

Units: NETK3-06A, NETP3-05A, and NETP3-04A, have been added to the qualification for registrations from 04.09.23 (C Suffix on registration code). Learners registered prior to this date will be working toward earlier unit equivalents (NETK3-06, and NETP3-04, 05), and must complete the version of the qualification and related units they have been registered on.

Mandatory Knowledge Units:

EAL Code	Unit Title	GLH	Ofqual Code
NETK3-01	Understand Health, Safety and Environmental Considerations	65	H/507/7334
NETK3-03	Understand How to Plan and Oversee Electrical Work Activities	40	K/507/7335
NETK3-04	Understand Design and Installation Practices and Procedures	170	M/507/7336
NETK3-05	Understand Terminations and Connections of Conductors	93	T/507/7337
NETK3-06A	Inspection, Testing and Commissioning	80	A/650/7479
NETK3-07	Understand Fault Diagnosis and Rectification	32	F/507/7339
NETK3-08	Electrical Scientific Principles and Technologies	115	T/507/7340
NETK3-18ED2	Understand the Requirements for Electrical Installations BS 7671:2018 (2022)	70	T/650/2327

Mandatory Performance Units:

NETP3-01	Apply Health, Safety and Environmental Considerations	10	F/507/7342
NETP3-03	Organise and Oversee the Electrical Work Environment	12	J/507/7343
NETP3-05A	Termination and Connection of Conductors	12	Y/650/7478
NETP3-06	Inspect, Test and Commission Electrical Systems	16	R/507/7345
NETP3-07	Apply Fault Diagnosis and Rectification	10	Y/507/7346

Continued

Learners are to select ONE unit from the following:			
NETP3-04A	Apply Design and Installation Practices and Procedures	20	T/650/7477
NETP3-09	Apply Practices and Procedures for Maintenance	20	H/507/7348

4.0 Centre and Qualification Approval

Centres wishing to run the qualifications will need to comply with the Qualification Manual and EAL's centre recognition criteria for these qualifications upon accreditation and launch. Centres must also put in place the appropriate physical and human resources and administration systems to effectively run the qualifications. Please refer to Section 5 for the requirements of centre staff involved in the delivery of the qualifications.

For existing EAL centres to put the qualification on your centre remit:

- To add these qualifications to your centre qualification remit, create and complete a qualification approval application form in Smarter Touch and submit it to EAL

For non-EAL centres to gain centre approval to run the qualification:

- Please contact the EAL Customer Experience Department, who will be delighted to hear from you:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

5.0 Profiles and Requirements

5.1 Staff Responsible for Registering and Certification of Learners

Centres are required to appoint a suitable member of staff who can take responsibility for registering learners onto qualifications, submitting entries for assessments to EAL, and taking receipt of external assessment procedures (if appropriate). They may also be responsible for applying to EAL for learner certificates. The role may be undertaken by the same person who undertakes quality assurance.

5.2 Teaching Staff

Teachers/instructors involved with the delivery of the knowledge units must demonstrate an understanding of the topics/technical content in this qualification. As a minimum they must have achieved a relevant technical qualification to at least level 3 which covers the key topics in this qualification.

Examples of evidence for this are: City & Guilds Level 2 plus Level 3 Certificates in Electrical Installation Part One and Part Two or EAL L3 Diploma In Electrotechnical Services. Other electrical engineering qualifications such as OND, or HNC/D etc. An example of not meeting this requirement is by only holding a L2 VRQ or a L3 Award – as clearly this person has not demonstrated technical/academic ability to the level of the qualification being delivered.

Teachers/instructors of practical work should in addition to the above be technically skilled for their instruction. This can be evidenced for example through a CV, JIB grading at an appropriate grade, membership of an institution e.g., EngTech; TMIT.

All teachers/instructors must hold (or be working toward) a recognised teaching qualification (to a minimum of L3 standard) such as the Level 3 Award in Education and Training.

Teachers/ Instructors must be able to demonstrate evidence of being up to date with the electrical industry. This can be evidenced for example by either accessing trade publications, undertaking updates to wiring regulations or other courses of learning, attending networking events relevant to this qualification and/or attending industry events.

5.3 Learners

The qualification is only for apprentices. There are no formal academic entry requirements for the qualification; however, centres should ensure that learners have the potential to achieve the qualification. Learners must have the minimum levels of literacy and numeracy to complete the learning outcomes and assessments.

Centres should make learners with particular requirements aware of the content of the qualification and they should be given every opportunity to successfully complete the qualification. EAL will consider any reasonable suggestions for, and from, those with disabilities that would help them to achieve the learning outcomes without compromising the standards required.

Age Restrictions

Learners must be at least 16 years old.

5.4 Assessors

The Centre MUST provide EAL with the names of any individuals who will undertake internal assessment, so that these can be approved prior to them carrying out an assessment role.

Assessors must be working towards or have achieved a relevant recognised assessor qualification such as a Level 3 Certificate in Assessing Vocational Achievement and continue to practice to that standard. Assessors who hold earlier qualifications (D32 or D33 or TQFE/TQSE) should have CPD evidence to the most current standards.

They must be occupationally competent electricians. Evidence which supports this is by the assessor holding a relevant electrotechnical NVQ L3* and/or having registration with the JIB as 'Approved Electrician' status or EngTech status via the IET.

*Assessors who qualified before NVQs were developed should provide evidence of how they are occupationally competent (such as through a CV together with any relevant references).

Assessors must be able to demonstrate evidence of being up to date with the electrical industry. This can be evidenced for example by either accessing trade publications, undertaking updates to wiring regulations or other course of learning, attending networking events relevant to this qualification and/or attending industry events. They must also satisfy any other awarding organisation requirements.

5.5 Markers: Technically Competent

Where centre-based assessments are marked by a person who does not come into the assessor category, the marker must have auditable technical competence in the subject. As an example, for a scientific based assessment the person may have auditable competency in that subject area but not necessarily electrotechnical installation or maintenance. Examples of electrotechnical (occupational) competency are detailed under the requirements for assessors.

5.6 Internal Quality Assurers

This relates to staff undertaking internal verification of assessment. The Centre MUST provide EAL with the names of any teachers, trainers or other individuals who will undertake internal quality assurance, so that these can be approved prior to them carrying out this role.

The focus of internal quality assurance for this qualification is:

- The quality assurance of assessment procedures, including standardisation of assessment practice across different assessors within the Centre
- Internal standardisation of marking and moderation of learner marks awarded for graded assessment

Internal quality assurers must have a minimum of occupational experience evidenced by having a building services engineering related qualification or proven sector competence/experience plus access to relevant 'occupational expertise' to enable them to

conduct their role as an internal quality assurer. This evidence and access to 'occupational expertise' is quality assured by the awarding organisation.

They must be working towards or have achieved a relevant recognised internal quality assurance qualification such as the Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practice and continue to practice to that standard. Assessors who hold earlier qualifications (D34 or V1) should have CPD evidence to the most current standards.

5.7 Expert Witnesses

Where "Expert Witnesses" are used in the assessment process identified above, they must be sector-competent individuals who can attest to the learner's performance in the workplace.

It is not necessary for expert witnesses to hold an assessor qualification, as a qualified assessor must assess the performance evidence provided by an expert witness. Evidence from expert witnesses must meet the tests of validity, reliability, authenticity, and sufficiency.

Expert witnesses will need to demonstrate:

- They have relevant current knowledge of industry working practices and techniques
- That they have no conflict of interest in the outcome of their evidence

5.8 Staff Invigilating On-Screen Examinations

Members of staff with responsibility for invigilating on-screen examinations must know, understand, and comply with the Procedures for Conducting the Exam Component within EAL Qualifications' (EAF 1), which are published by EAL. These members of staff must also:

- Have experience in conducting and controlling exam sessions
or
- Be supervised by an individual experienced in conducting and controlling exam sessions

Note: A teacher/tutor who has prepared the learners for the subject of the exam must not be the sole supervisor at any time during an exam for that subject(s).

6.0 Assessment

The assessment of this qualification involves the following aspects:

Knowledge Units:

- EAL set and marked on-screen exams, which must be invigilated at the centre. EAL carry out moderation of test results. The on-screen exam as part of Electrical Scientific Principles and Technologies (Learning outcomes 1 - 6) is graded on the first attempt only: Pass, Merit, Distinction, or Fail. Any resitting will only be subject to a Pass grade maximum
- Centre marked assignments (theory and practical) - this also includes a project. These require on-going standardisation within the Centre. (EAL will carry out verification and continuous monitoring via EQA visits to QA this aspect). These are Pass or Fail only
- A written controlled knowledge assessment (centre marked) as part of the unit: Electrical Scientific Principles and Technologies (Learning outcomes 7 - 12). This assessment requires standardisation, including moderation of learner marks. EAL will carry out verification of final marks. This is a centre marked and graded short answer written paper. This assessment is graded on the first attempt only: Pass, Merit, Distinction, or Fail. Any resitting will only be subject to a Pass grade maximum. (Practical assessment contributes to approximately 50% of the assessments within the qualification)

Performance Units:

- Locally assessed. (EAL will carry out verification and continuous monitoring via EQA visits to QA this)

The learner must pass **ALL** assessments to achieve the qualification. A breakdown showing the assessment requirements for each unit is shown in this table:

EAL Code	Unit Title	On-Screen Exam	Centre Marked Practical/Theory Assessment
NETK3-01	Understand Health, Safety and Environmental Considerations	25 question MC exam, closed book	Practicals: 01A, 01B, 01C, 01D
NETK3-03	Understand How to Plan and Oversee Electrical Work Activities	45 question MC exam, closed book, covering LOs 1 and 3 on Unit 3 and LOs 1, 2, 3, 6, 7 on Unit 4.	Project covering learning outcomes in both units not covered by the examination (Note only one of the projects needs to be completed)
	Understand Design and Installation Practices and Procedures	Open book: BS 7671	
NETK3-05	Understand Terminations and Connections of Conductors	20 question MC exam, closed book	Practicals: 05A, 05B, 05C, 05D
NETK3-06A	Inspection, Testing and Commissioning	40 question MC exam, closed book	Practical 06

NETK3-07	Understand Fault Diagnosis and Rectification	30 question MC exam, closed book	Practical 07
NETK3-08	Electrical Scientific Principles and Technologies	40 question MC exam (ETK08A) for LOs 1-6, closed book. Graded Pass, Merit, Distinction, or Fail	*Controlled knowledge assessment (ETK08B) (written) for LOs 7-12, closed book. Graded Pass, Merit, Distinction, or Fail. Practical 08 (Transformers)
NETK3-18ED2	Understand the Requirements for Electrical Installations BS 7671:2018 (2022)	60 question MC exam (ETK08A) for LOs 1-6. Open book: BS 7671	N/A

***Both assessments indicated for NETK3/08 are graded on the first attempt only.**

6.1 Assessment of Performance

Evidence that is sourced from the real working environment for Performance Units must be naturally occurring, assessed on a minimum of two occasions, and can be generated by:

- Direct observation of performance in the workplace by a qualified assessor and/or testimony from an expert witness subject to the activity being assessed. This will be the preferred source of evidence
Or
- Candidate's reflective account of performance and work plans / work-based products, e.g., risk assessment documentation, method statements, diagrams, drawings, specifications, customer testimony, authorised and authenticated photographs/images, and audio-visual records of work completed together with candidate questioning
Or
- Evidence from prior achievements that demonstrably match the requirements of the Performance Unit
Or
- Witness testimony only

For apprentices **registered from 04/09/23 in England only**, there will be an expanded assessment requirement for the qualification units:

- NETP3-01: Apply Health and Safety and Environmental Considerations
- NETP3-04A: Apply Design and Installation Practices and Procedures
- NETP3-05A: Termination and Connection of Conductors
- NETP3-09: Apply Practices and Procedures for Maintenance.

At least one of the on-site assessments of performance for each of the above units must occur in a commercial or industrial setting. (i.e., on-site assessment must not occur exclusively in a domestic context).

Domestic premises are:

- designed to accommodate a single family
- houses in multiple occupation comprising a number of self-contained units, each designed to accommodate a single person or family
- sheltered housing, dwelling units
- supported housing.

It also includes bungalows, resident areas of care homes, multi-storey houses, individual flats and maisonettes, apartment buildings, mobile homes, holiday homes, sheltered housing, shared houses and houses divided into several self-contained single-family dwelling units, and student accommodation.

Domestic premises **do not include** large or extensive communal areas used by residents of more than one single dwelling. Large or extensive communal residential areas may suffice for the commercial / industrial assessment requirement. Examples of these areas would be large catering kitchens in care homes, student accommodation communal areas such as receptions, bathrooms intended for the use of more than one residential unit, boiler rooms servicing several individual dwellings, service risers or stairways, and landings servicing many individual flats, typically with an incoming three-phase electricity supply, etc.

Important Note: Performance Unit NETP3/01 is subject to direct observation on at least two separate occasions in the workplace by a qualified assessor. Reflective accounts ARE NOT accepted as evidence for Unit NETP3/01. Any outstanding performance criteria that are not met through direct observation must be supplemented by alternate evidence provided by the employer.

Apprentices must be adequately supervised in the workplace in accordance with relevant legislation. This is particularly important when working toward the performance units when working at heights, inspecting, testing; and diagnosing faults.

Replication (Simulation) (Only for serving HM Forces personnel, undertaking training with the RSME)

Only for serving HM Forces personnel, undertaking training with the RSME; who will then undertake electrical duties as part of their role and who undertake performance-based criteria in environments where it is unlikely that the technical expertise would be available then an alternative assessment approach is required. To verify installation work, the method of ‘replication’ will be permitted. Replication is not for resettlement courses or retraining for civilian duties and the like.

This replication must be of a type that if the electrical work was carried out within a normal electrical contracting environment there is no difference apart from the location of the work. For example, if a work replication was transported to a “real construction site” then no difference in the work practices, quality or function would exist. Suggestions for replication of electrical work should be demonstrated with at least two reproductions covering both the domestic and commercial/industrial sectors.

Typical installations that may be considered for replication could include:

- The wiring of a domestic installation to comply with BS7671. This may simply be a replication of a starter home with the layout commonly found that includes a living

room, kitchen/diner, bedroom, and bathroom. The installation would include general lighting, general power and supplies for an electric cooker, water heater, boiler, extractor fans (as required by building regulations)

- The wiring of a three-phase machine through normal control equipment from an existing distribution board in a factory or other similar installation. This installation would include the different cable types and containment/support systems. The control and overload of the equipment must be appropriate for the machine.

Replication (Simulation) of assessment is not permitted except for the above which must be approved by EAL and the JIB. (Centre guidance for developing assessments for simulation/replication is available Smarter Touch).

Meeting the assessment requirements of Performance Units will need initial discussions and assessment planning between the learner and assessor, as an essential activity to identify opportunities to assess real working environment evidence, gaps that need to be filled or opportunities to recognise the prior achievement of the learner.

Please note any particular assessment requirements of the performance unit - which is detailed in the Unit Information (Assessment).

The learner must complete the relevant knowledge units prior to the performance units.

6.2 On-Screen Exams

A specification for the examination, indicating the number of questions to be set for each learning outcome is provided in Appendix 1.

Key Points

- The external examination is available on demand
- The examination must be undertaken by the learner under controlled examination conditions, in accordance with EAL's Procedures for Conducting the Exam Component within EAL Qualifications' (EAF 1)
- The EAL co-ordinator within the Centre will assume responsibility for liaison and correspondence regarding the external assessment component
- Centres will be sampled, and spot checks will be carried out by EAL to ensure examinations are delivered in accordance with EAL published procedures.

IMPORTANT: The on-screen exam as part of Electrical Scientific Principles and Technologies (Learning outcomes 1 - 6) is graded on the first attempt only: Pass, Merit, Distinction, or Fail. Any resitting will only be subject to a Pass grade maximum.

For this exam there are two versions available:

- 08A (First Attempt): Learners should be entered for this on their first attempt only
- 08A (Resit): For learners who need to re-sit the exam.

The test specifications for all exams are in Appendix 1.

6.3 Centre Marked Assessment for the Knowledge Units

This includes practical and/or theory assessments. These assessments are set by EAL and marked by members of the delivery team at the Centre (see profiles of markers in Section 5). All assessment decisions are then subject to internal standardisation and external quality assurance.

Centre marked assessments involve collecting and evaluating evidence that demonstrates achievement of the learning outcome/criteria. They are accompanied by marking criteria and other materials to ensure that the markers are consistent in their approach to assessment across learners.

Centres are responsible for ensuring that centre marked assessments are suitably controlled to ensure that assessment decisions are valid and reliable, and that work submitted for assessment by learners is prepared and produced by them independently, without assistance from others, and free of plagiarism.

Centres should maintain an assessment and feedback record for each learner, which details the evidence evaluated against the learning outcome and the feedback given to the learner. These records must be available to the External Verifier.

Further guidance on assessment is provided within each unit Delivery Pack.

Written (Controlled Knowledge Paper) for Unit: Electrical Scientific Principles and Technologies

This assessment should be treated as a controlled assessment therefore centres must impose the necessary restrictions on the learner. Guidance sheets have also been created to hand out to the learners to ensure they are aware how to complete the short answer questions. The assessment is graded Pass, Merit, Distinction; (or Fail). This assessment requires standardisation, including moderation of learner marks. EAL will carry out verification of final marks. This is a centre marked and graded short answer written paper.

Important: The short answer controlled written paper as part of Electrical Scientific Principles and Technologies (Learning outcomes 7 - 12) is graded on the first attempt only: Pass 50% (39 Marks), Merit 65% (51 Marks), Distinction 80% (63 Marks), or Fail. Any resitting will only be subject to a Pass grade maximum. This has been stipulated by the employer led trailblazer group. The test specification is in Appendix 1.

The written paper and marking scheme are password protected. Please contact EAL customer care for the password.

Standardisation of Centre Marked Assessment (Knowledge Units)

Members of the internal quality assurance team at the Centre have an important role to play in ensuring that centre marked assessment is standardised. In particular, they should work with tutor/assessors to ensure that the correct procedures are being followed at all times, and to ensure that assessment decisions taken by different assessors are consistent, fair and reliable. Key activities will include:

- Meeting with tutor/assessors (individually and collectively) throughout the course to discuss quality assurance and standardisation issues and provide support and guidance where needed.
- Observing tutor/assessors and giving them feedback to help improve their assessment technique.
- Sampling learner evidence across different learner cohorts to ensure that appropriate standards have been met.
- Arranging cross-marking of learner work to compare results and agree benchmarks.

Learners must achieve ALL components for the qualification to be awarded. If learners are unsuccessful in one or more of the assessment components, then the overall result for the qualification will be 'referred' and a certificate will not be awarded.

The qualification is graded Pass or Fail only, but the two results from theory tests for unit: Electrical Scientific Principles and Technologies (on screen and written controlled knowledge paper) will appear on the learner's certificate.

Additional

The learner must complete the relevant knowledge units prior to the performance units.

7.0 Quality Control of Assessments

There are two major activities in which EAL interacts with the Centre in relation to the External Quality Control of Assessment for this qualification. These are:

- Recognition: When a Centre decides to offer the qualification, the EAL External Quality Assurer (EQA) ensures that the Centre is suitably equipped and prepared for delivery and assessment
- Engagement: Throughout the ongoing delivery of the qualification EAL, through monitoring and other mechanisms will review the quality and consistency of assessment and internal quality assurance and recommend actions to address issues of concern.

Recognition

In granting approval, EAL, normally through its EQAs, will ensure that the prospective Centre:

- Meets any procedural requirements specified by EAL
- Has sufficient and appropriate physical and staff resources
- Meets relevant health and safety and/or equality and access requirements
- Has a robust plan for the delivery, assessment, and QA for the qualifications (including, where appropriate, scope for involving employers).

EAL may decide to visit the Centre to view the evidence provided.

Engagement

EAL, through EQA Engagement and other mechanisms will ensure that:

- A strategy is developed and deployed for the ongoing monitoring of the centre – this will be based on an active risk assessment of the Centre, and will include details of the learner, assessor and internal quality assurer's sampling strategy and the rationale behind this
- The Centre's internal quality assurance processes are effective in learner assessment
- Outcomes of internal assessment are verified, through sampling, to ensure standards are being maintained
- Sanctions are applied to a Centre where necessary and that corrective actions are taken by the Centre and monitored by the EQA
- Reviews of EAL's external auditing arrangements are undertaken.

Appendix 1: Unit Summaries

Unit: NETK3-01: Understand Health, Safety and Environmental Considerations

Unit Summary

This unit will provide learners with an understanding of the relevant health and safety legislation, practices and procedures when installing and maintaining electrical systems and equipment. The knowledge covered in this unit underpins the practical application of health and safety legislation, practices and procedures.

Summary of Learning Outcomes

1. Understand how relevant legislation applies in the workplace.
 2. Understand the procedures for dealing with environmental and health and safety situations in the work environment.
 3. Be able to demonstrate and understand the procedures for establishing a safe working environment.
 4. Understand the requirements for identifying and dealing with hazards in the work environment.
-

Unit: NETK3-03: Understand How to Plan and Oversee Electrical Work Activities

Unit Summary

This unit is designed to enable learners to understand the practices and procedures used when planning electrical installation and maintenance work activities. Its content is the knowledge needed by a learner to underpin the application of skills for overseeing and organising the work environment.

Summary of Learning Outcomes

The learner will:

1. Understand the requirements for liaising with others when organising and overseeing work activities.
 2. Understand the requirements for organising and overseeing work programmes.
 3. Understand the requirements for organising the provision and storage of resources that are required for work activities.
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Unit: NETK3-04: Understand Design and Installation Practices and Procedures**Unit Summary**

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 design, 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:

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

Summary of Learning Outcomes

The learner will:

1. Understand how to prepare for the installation of wiring systems.
2. Understand the applications of wiring systems.
3. Understand the practices and procedures for carrying out electrical work.
4. Understand the characteristics and applications of supply systems and consumer's equipment.
5. Understand earthing and protection.
6. Understand protection against overcurrent.
7. Understand electrical systems and circuits.
8. Understand the electrical design procedure.

Unit: NETK3-05: Terminations and Connections of Conductors**Unit Summary**

This unit is designed to enable learners to understand and interpret the principles, practices and legislation associated with the termination and connection of conductors and cables in electrical systems. Its content is the knowledge needed by a learner to underpin the application of skills for terminating and connecting conductors and cables in electrical systems in accordance with statutory and non-statutory regulations/requirements.

Summary of Learning Outcomes

1. Understand the regulatory requirements and procedures for terminating and connecting conductors and cables in electrical wiring systems and equipment.
 2. Understand the procedures and applications of different methods of terminating, connecting and supporting conductors and cables in electrical wiring systems and equipment.
-

Unit: NETK3-06A: Inspection, Testing and Commissioning**Unit Summary**

This unit is designed to enable learners to understand principles, practices and legislation for the initial verification of electrical installations with statutory and non-statutory regulations and requirements. Its content is the knowledge needed by a learner to underpin the application of skills for the inspection, testing, commissioning and certification of electrical installations.

Summary of Learning Outcomes

The learner will:

1. Understand the requirements for completing the safe isolation of electrical circuits and installations.
 2. Understand the requirements for inspection of electrical installations.
 3. Understand the requirements for completing the inspection of electrical installations prior to their being placed into service.
 4. Understand the requirements for the safe testing and commissioning of electrical installations.
 5. Understand the requirements for testing before circuits are energised.
 6. Understand the requirements for testing energised installations.
 7. Understand the requirements for the completion of documentation.
 8. Be able to confirm safety of system and equipment prior to completion of inspection, testing and commissioning.
 9. Be able to carry out inspection of electrical installations prior to them being placed into service.
 10. Be able to test electrical installations prior to them being placed into service.
 11. Be able to commission electrical systems and equipment.
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Unit: NETK3-07: Understand Fault Diagnosis and Rectification**Unit Summary**

This unit is designed to enable learners to understand principles, practices and legislation associated with diagnosing and correcting electrical faults in electrical systems and equipment in buildings, structures and the environment in accordance with statutory and non-statutory regulations and requirements. Its content is the knowledge needed by a learner to underpin the application of skills used for fault diagnosis and correction in electrical systems and equipment in buildings, structures and the environment.

Summary of Learning Outcomes

The learner will:

1. Understand the health and safety requirements relevant to fault diagnosis.
2. Understand the importance of reporting and communication in fault diagnosis.
3. Understand the nature and characteristics of electrical faults.

-
4. Understand the fault diagnosis procedure.
 5. Understand the procedures and techniques for correcting electrical faults.
 6. Perform fault diagnosis.
-

Unit: NETK3-08:Electrical Scientific Principles and Technologies

Unit Summary

This unit is designed to enable learners to understand the relationship between electrical scientific principles and the competencies required of a qualified electrical operative. Its content is the knowledge needed by a learner to underpin the application of skills in the installation and maintenance of electrical systems and equipment.

Summary of Learning Outcomes

The learner will:

1. Understand mathematical principles which are appropriate to electrical installation, maintenance and design work.
 2. Understand standard units of measurement used in electrical installation, maintenance and design work.
 3. Understand basic mechanics and the relationship between force, work, energy and power.
 4. Understand the relationship between resistance, resistivity, voltage, current and power.
 5. Understand the fundamental principles which underpin the relationship between magnetism and electricity.
 6. Understand the types, applications and limitations of electronic components in electrical systems and equipment.
 7. Understand electrical supply systems.
 8. Understand how different electrical properties can affect electrical circuits, systems and equipment.
 9. Understand the operating principles and applications of D.C machines and A.C. motors.
 10. Understand the operating principles of electrical components.
 11. Understand the principles and applications of electrical lighting systems.
 12. Understand the principles and applications of electrical heating.
-

Unit: NETK3-18ED2:Understand the Requirements for Electrical Installations BS 7671:2018 (2022)**Unit Summary**

This unit gives the learner an understanding of the full content of BS 7671:2018 Amendment 2, and how this applies to electrical installations within its scope.

Summary of Learning Outcomes

The learner will:

1. Understand the scope, object and fundamental principles of BS 7671.
 2. Understand the definitions used within BS 7671.
 3. Understand how to assess the general characteristics of electrical installations.
 4. Understand requirements of protection for safety for electrical installations.
 5. Understand the requirements for selection and erection of equipment for electrical installations.
 6. Understand the requirements of inspection and testing of electrical installations.
 7. Understand the requirements of special installations or locations as identified in BS 7671.
 8. Understand the information contained within Part 8 and the appendices of BS 7671.
-

Unit: NETP3-01: Apply Health, Safety and Environmental Considerations**Unit Summary**

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. Prior to undertaking this unit a learner must provide auditable evidence that they have the relevant knowledge and understanding as detailed in the unit: Understand Health, Safety and Environmental Considerations for Electrical Systems. In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Be able to apply relevant health and safety legislation in the workplace.
 2. Be able to assess the work environment for hazards and identify remedial actions in accordance with health and safety legislation.
 3. Be able to apply methods and procedures to ensure work on site is in accordance with health and safety legislation.
 4. Be able to work in accordance with environmental legislation for electrical services.
-

Unit: NETP3-03: Organise and Oversee the Electrical Work Environment**Unit Summary**

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. Prior to undertaking this unit a learner must provide auditable evidence that they have the relevant knowledge and understanding as detailed in the unit: Understand How to Plan and Oversee Electrical Work Activities. In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Be able to provide relevant people with technical and functional information for work on electrical systems and equipment.
 2. Be able to oversee health and safety during work on electrical systems and equipment.
 3. Be able to co-ordinate liaison with other relevant persons during work activities.
 4. Be able to organise and oversee work activities and operations.
 5. Be able to organise a programme for working on electrical systems and equipment.
 6. Be able to organise the resource requirements for work on electrical systems and equipment.
-

Unit: NETP3-05A: Termination and Connection of Conductors**Unit Summary**

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 terminate and connect conductors and cables in electrical systems in accordance with approved industry practices, statutory and non-statutory regulations:

- The Electricity at Work Regulations (1989)
- BS 7671
- Health and Safety at Work Act (1974)
- Building Regulations (2000).

In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Prepare to terminate and connect cables and conductors.
 2. Terminate and connect conductors and cables.
-

Unit: NETP3-06: Inspect, Test and Commission Electrical Systems

Unit Summary

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 inspect, test, commission and certify 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)
- BS 7671
- Health and Safety at Work Act (1974)
- Building Regulations (2000).

In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

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.
 2. Be able to inspect electrical systems and equipment.
-

Unit: NETP3-07: Apply Fault Diagnosis and Rectification

Unit Summary

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 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:

- The Electricity at Work Regulations (1989)
- BS 7671
- Health and Safety at Work Act (1974)
- Building Regulations (2000).

In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Prepare to carry out fault diagnosis
 2. Carry out fault diagnosis.
-

Unit: NETP3-04A: Apply Design and Installation Practices and Procedures**Unit Summary**

This unit is designed to enable learners 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:

- The Electricity at Work Regulations (1989)
- BS 7671
- Health and Safety at Work Act (1974)
- Building Regulations (2000).

In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit.

This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Prepare to install wiring systems, enclosures and associated equipment.
 2. Interpret appropriate information for the installation of wiring systems, enclosures and associated equipment.
 3. Install wiring systems, and equipment in accordance with current relevant statutory and non-statutory regulations.
 4. Confirm the quality of the completed work.
-

Unit: NETP3-09: Apply Practices and Procedures for Maintenance**Unit Summary**

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:

- The Electricity at Work Regulations (1989)
- BS 7671
- Health and Safety at Work Act (1974)
- Building Regulations (2000).

In delivery of this unit an emphasis shall be made to the learner on the necessity to keep up to date with the latest standards, technologies and practices which relate to and affect the topics covered in this unit. This is in then in keeping with good engineering practice.

Summary of Learning Outcomes

The learner will:

1. Prepare to carry out electrical maintenance
 2. Carry out electrical maintenance.
-

Appendix 2: Centre Examination Specifications

Unit: NETK3-01: Understand Health, Safety, and Environmental Considerations		
Assessment Type: Multiple Choice		
Number of Questions: 25		
Time Allowed: 40 Minutes		
The examination will cover the knowledge learning outcomes of the unit, as follows:		
Learning Outcome	Title	Number of Questions
1	Understand how relevant legislation applies in the workplace	4
2	Understand the procedures for dealing with environmental, health, and safety situations in the work environment	6
3	Understand the procedures for establishing a safe working environment	7
4	Understand the requirements for identifying and dealing with hazards in the work environment	8
	Total:	25
NOTE: The pass mark for the examination is normally expected to be around 60%. To achieve the units, the learner must also achieve the Centre marked practical assessments.		

Units:

- NETK3-03: Understand How to Plan and Oversee Electrical Work Activities AND
- NETK3-04: Understand Design and Installation Practices and Procedures

(A single test covering applicable outcomes indicated below)

Assessment Type: Multiple Choice

Number of Questions: 45

Time Allowed: 80 Minutes

Calculator required. Open book from 01.09.2018. Permitted publications for the on-screen exam: BS 7671, IET OSG, and Unite the Union Book 'Electrician's Guide to Good Electrical Practice'.

The examination will cover the knowledge learning outcomes of the units as follows:

NETK3/03

Learning Outcome	Title	Number of Questions
1	Understand the requirements for liaising with others when organising and overseeing work activities	4
2	Understand the requirements for organising and overseeing work programmes (<i>covered by Centre marked assessment only</i>)	N/A
3	Understand the requirements for organising the provision and storage of resources that are required for work activities	6

NETK3/04

Learning Outcome	Title	Number of Questions
1	Understand how to prepare for the installation of wiring systems	8
2	Understand the applications of wiring systems	10
3	Understand the practices and procedures for carrying out electrical work	7
4	Understand the characteristics and applications of supply systems and consumer's equipment (<i>covered by Centre marked assessment only</i>)	N/A
5	Understand earthing and protection (<i>covered by Centre marked assessment only</i>)	N/A
6	Understand protection against overcurrent	5
7	Understand electrical systems and circuits	5
8	Understand the electrical design procedure (<i>covered by Centre marked assessment only</i>)	N/A
Total:		45

NOTE: The pass mark for the examination is normally expected to be around 60%. To achieve the units, the learner must also achieve the Centre marked practical assessments.

Unit: NETK3-05: Understand Terminations and Connections of Conductors**Assessment Type:** Multiple Choice**Number of Questions:** 20**Time Allowed:** 40 Minutes

Calculator required. Closed book. The examination will cover the knowledge learning outcomes of the unit as follows:

Learning Outcome	Title	Number of Questions
1	Understand the regulatory requirements and procedures for terminating and connecting conductors and cables in electrical wiring systems and equipment	12
2	Understand the procedures and applications of different methods of terminating and connecting conductors and cables in electrical wiring systems and equipment	8
	Total:	20

NOTE: The pass mark for the examination is normally expected to be around 60%. To achieve the units, the learner must also achieve the Centre marked practical assessments.

Unit: NETK3-06A: Inspection, Testing and Commissioning

Assessment Type: Multiple Choice

Number of Questions: 45

Time Allowed: 90 Minutes

Calculator required. Closed book. The examination will cover the knowledge learning outcomes of the unit as follows:

1	Understand the requirements for completing the safe isolation of electrical circuits and installations	6
2	Understand the requirements for inspection of electrical installations	4
3	Understand the requirements for completing the inspection of electrical installations prior to their being placed into service	6
4	Understand the requirements for the safe testing and commissioning of electrical installations	5
5	Understand the requirements for testing before circuits are energised	8
6	Understand the requirements for testing energised installations	12
7	Understand the requirements for the completion of documentation	4
8	Be able to confirm safety of system and equipment prior to completion of inspection, testing and commissioning (<i>covered by Centre marked assessment only</i>)	N/A
9	Be able to carry out inspection of electrical installations prior to them being placed into service (<i>covered by Centre marked assessment only</i>)	N/A
10	Be able to test electrical installations prior to them being placed into service (<i>covered by Centre marked assessment only</i>)	N/A
11	Be able to commission electrical systems and equipment (<i>covered by Centre marked assessment only</i>)	N/A
Total:		45

NOTE: The pass mark for the examination is normally expected to be around 60%. To achieve the units, the learner must also achieve the Centre marked practical assessments.

Unit: NETK3-07: Understand Fault Diagnosis and Rectification

Assessment Type: Multiple Choice

Number of Questions: 30

Time Allowed: 60 Minutes

Calculator required. Closed book. The examination will cover the knowledge learning outcomes of the unit as follows:

1	Understand the health and safety requirements relevant to fault diagnosis	3
2	Understand the importance of reporting and communication in fault diagnosis	3
3	Understand the nature and characteristics of electrical faults	11
4	Understand the fault diagnosis procedure	10
5	Understand the procedures and techniques for correcting electrical faults	3
6	Perform fault diagnosis (<i>covered by Centre marked assessment only</i>)	N/A
Total:		30

NOTE: The pass mark for the examination is normally expected to be around 60%. To achieve the units, the learner must also achieve the Centre marked practical assessments.

Unit: NETK3-08: Electrical Scientific Principles and Technologies**Assessment Type:** Multiple Choice**Number of Questions:** 40**Time Allowed:** 90 Minutes

Graded exam. The first attempt is normally expected to be around the boundaries: Pass 50% (20 marks), Merit 65% (26 marks), Distinction 80% (32 marks). **Any resits will only be subject to a Pass grade maximum.**

The grade from this assessment is stand-alone and does not contribute towards an overall qualification grade.

Calculator required. Closed book. The examination will cover the knowledge learning outcomes of the unit as follows:

Learning Outcome	Title	Number of Questions
1	Understand mathematical principles which are appropriate to electrical installation, maintenance, and design work	2
2	Understand standard units of measurement used in electrical installation, maintenance, and design work	5
3	Understand basic mechanics and the relationship between force, work, energy, and power	7
4	Understand the relationship between resistance, resistivity, voltage, current and power	15
5	Understand the fundamental principles which underpin the relationship between magnetism and electricity	7
6	Understand the types, applications, and limitations of electronic components in electrotechnical systems and equipment	4
Total:		40

NOTE: To achieve the unit, the learner must in total achieve tests 08A (on-screen) and 08B (written paper) and the Centre marked assessment covering Transformers.

Unit: NETK3-08: Electrical Scientific Principles and Technologies

Assessment Type: Controlled written knowledge assessment, Centre marked.

Number of Questions: 26

Number of Marks: 78

Time Allowed: 120 Minutes

Graded exam. The first attempt is graded either Pass 50% (39 marks), Merit 65% (51 marks), Distinction 80% (63 marks), or Fail. **Any resits will only be subject to a Pass grade maximum.**

The grade from this assessment is stand-alone and does not contribute towards an overall qualification grade.

Calculator required. Closed book. The examination will cover the knowledge learning outcomes of the unit as follows:

Learning Outcomes	Title	Number of Questions	Number of Possible Marks
7	Understand electrical supply systems	6	18
8	Understand how different electrical properties can affect electrical circuits, systems and equipment	8	24
9	Understand the operating principles and applications of D.C. machines and A.C. motors	4	12
10	Understand the operating principles of electrical components	3	9
11	Understand the principles and applications of electrical lighting systems	3	9
12	Understand the principles and applications of electrical heating	2	6
Totals:		26	78

NOTE: To achieve the unit, the learner must in total achieve tests 08A (on-screen) and 08B (written paper) and the Centre marked assessment covering Transformers.

Please note: The written paper and marking scheme is password protected. Please contact EAL customer care for the password.

At the time of writing, there are four papers available for the first attempt and resits, if required. Papers can be delivered in any order; however, it is recommended that they are rotated so different learner cohorts can undertake different assessments over time, e.g., in year one, paper 1 is delivered to apprentice groups and paper 2 is the resit.

Unit: NETK3-18ED2: Understand the Requirements of Electrical Installations BS 7671:2018 (2022)

Assessment Type: Multiple choice

Number of Questions: 60

Time Allowed: 120 minutes

The pass mark is notionally set at 60%.

Additional resitting constraints: None

This is an open book exam requiring reference to IET Wiring Regulations Eighteenth Edition to Amendment 2, published by the Institute of Engineering and Technology.

Candidates may also use a non-programmable calculator.

The examination will cover the learning outcomes of the unit as follows:

Learning Outcome	Title	Number of Questions
1	Understand the scope, object, and fundamental principles of BS7671	4
2	Understand the definitions used within BS 7671	2
3	Understand how to assess the general characteristics of electrical installations	6
4	Understand requirements of protection for safety for electrical installations	15
5	Understand the requirements for selection and erection of equipment for electrical installations	14
6	Understand the requirements of inspection and testing of electrical installations	4
7	Understand the requirements of special installations or locations as identified in BS 7671	7
8	Understand the information contained within Part 8 and the appendices of BS 7671	8
Total:		60

Please see the informative note in Appendix 3 in relation to pathway transferring.

Appendix 3: Qualification Amendments

EAL is committed to a policy of continuous improvement, which can sometimes result in changes being made to our publications. Whilst every effort is made to inform customers of any changes that are made it is important that centres, assessors, and candidates use only the latest issue of EAL publications to ensure that all the current requirements are fully met. The table below lists the amendments and the current issue number/s for the Qualification Manual and the Units. The latest edition of the centre theory assessments can be checked on the EAL Website in the publications area and is not included below.

Publication	Amendment	Issue Number	Date
NETK3-01	New publication	1	01.08.15
	Delivery advice updated	1.1	01.07.16
	Cosmetic update	1.2	01.11.16
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.3	14.02.20
NETK3-03	New publication	1	01.08.15
	Cosmetic update	1.1	01.11.16
	Assessment information updated to reflect exam is now open book from the 01.09.18	1.2	01.07.18
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.3	14.02.20
	Updates to range	1.4	16.05.23
NETK3-04	New publication	1	01.08.15
	More delivery advice inserted	1.1	12.09.16
	Cosmetic update	1.2	01.11.16
	Assessment information updated to reflect exam is now open book from the 01.09.18	1.3	01.07.18
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.4	14.02.20
	Learning outcome 5 updated with inclusion of AFDDs and SPDs	1.5	05.08.22
	Updates to range and assessment criteria	1.6	16.05.23
NETK3-05	New publication	1	01.08.15
	Cosmetic update	1.1	01.11.16
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Updates to range and assessment criteria	1.3	16.05.23

NETK3-06	New publication	1	01.08.15
	Cosmetic update	1.1	01.11.16
	Delivery advice updated	1.2	05.07.18
	Minor update to unit numbering in unit overview on page 2	1.3	30.08.19
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.4	14.02.20
	New assessment criteria 1.7 and minor updated for BS 7671 A2	1.5	05.08.22
	Unit withdrawn for new registrations from the 04.09.23	N/A	16.05.23
NETK3-06A	New publication – replaces NETK3-06 – for new registrations from the 04.09.23	1	16.05.23
NETK3-07	New publication	1	01.08.15
	Cosmetic update	1.1	01.11.16
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Updates to range	1.3	16.05.23
NETK3-08	New publication	1	01.08.15
	Cosmetic update	1.1	01.11.16
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Cosmetic update	1.3	01.11.16
	Cosmetic update, and updates to delivery advice in LO 9 and 10	1.4	06.08.18
	Updates to range	1.5	16.05.23
	Marking guide for science papers (x 4) amended following feedback from EQA.	3	20.03.24
NETK3-17ED	Unit withdrawn for new starts from the 01.07.18	N/A	01.07.18
NETK3-18ED	New publication	1	01.08.15
	Unit introduction updated regarding Amendment 1 to BS 7671. A loose-leaf amendment document can be used (where relevant) in the exam.	1.1	01.07.16
	Unit withdrawn for new registrations	N/A	28.03.22
NETK3-18ED2	New publication (wiring regs unit for A2)	1	01.05.22
NETP3-01	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Assessment info updated	1.3	16.05.23
NETP3-03	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
NETP3-04	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Updates to range	1.3	16.05.23
	Unit withdrawn for new registrations from the 04.09.23	N/A	04.09.23
NETP3-04A	New publication – replaces NETP3-04 for registrations from the 04.09.23	1	16.05.23

NETP3-05	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
	Unit withdrawn for new registrations from the 04.09.23	N/A	04.09.23
NETP3-05A	New publication – replaces NETP3-05 for registrations from the 04.09.23	1	16.05.23
NETP3-06	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Reference to simulation removed	1.2	23.11.15
	Cosmetic update	1.3	30.08.19
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.4	14.02.20
	Updated to BS 7671 A2	1.5	05.08.22
	Footer altered to match version number (1.5)	1.5	24/07/24
NETP3-07	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Guidance info updated to reflect where qualification is used in Northern Ireland	1.2	14.02.20
NETP3-09	New publication	1	01.09.15
	Cosmetic update	1.1	11.11.15
	Guidance info updated to reflect where qualification is used in Northern Ireland. Simulation information updated.	1.2	14.02.20
	Assessment info updated	1.3	16.05.23
Qualification Manual	New publication	1	01.09.15
	Various updates	1.1	10.09.15
	New Appendix added	1.2	11.11.15
	Qualification Amendments (this page) updated - no other Qualification Manual changes.	1.3	23.11.15
	Total Qualification Time added to Section 3	1.4	14.06.16
	Appendix 3 updated	1.5	01.07.16
	Appendix 3 updated	1.6	12.09.16
	Appendix 3 updated	1.7	01.11.16
	Reference to AM2 replaced by End-Point Assessment (EPA)	1.8	06.04.18
	18th Edition unit (NETK3/18ED) incorporated into qualification. Exam specification also included for this unit. 17th Edition unit (NETK3/17ED) and specification removed. Registration information updated in Appendix 3. Further detail given in Section 1 about the AM2S and the ECS card. Assessment information updated for on-screen exam for units 03, 04, to reflect	1.9	01.07.18

	exam is now open book from the 01.09.18		
	Appendix 3 updated	1.10	05.07.18
	Appendix 3 updated	1.11	06.08.18
	Appendix 3 and 4 updated	1.12	03.10.18
	Section 6 updated to include note about direct observation for unit 1.	1.13	01.04.19
	Deletion of minor text in Section 6 referring to an annex.	1.14	30.08.18
	Centre exam specification for unit NETK3/18ED updated in Appendix 1. A loose-leaf amendment document can be used (where relevant) in the exam.	1.15	14.01.20
	Info about 08 written paper updated on exam specification in Appendix 2	1.16	17.01.20
	General updates to wording to prepare the qualification for use in Northern Ireland. Reference to Smarter Touch included in Section 6.	1.17	14.02.20
	Learner entry requirements updated	1.18	01.08.21
	Manual updated for Amendment 2 unit. New document style.	2	01.05.22
	Appendix 3 updated	2.1	05.08.22
	Note included in assessment summary table in Section 6 to clarify only one centre marked project needs to be completed for electrical design (unit 03 and 04)	2.2	23.09.22
	This appendix updated (typo corrected) no qualification changes.	2.3	20.01.23
	Updated unit titles for NETK3-06A & NETP3-05A	2.4	15.05.23
	Appendix 4 updated		15.05.23
	Practical Learner pack and Centre instructions annotated as NETK3/06A	1.3	23/11/23
	Section numbering (2.2/2.3) altered	5	24/07/24

Appendix 4: Learner Registration and Certification

Learners must be registered with EAL on a code which relates to the qualification -this must be completed prior to assessment. Both learner registration and certification can be completed online at the EAL Website www.eal.org.uk. For paper-based registration and certification use the appropriate forms. These are located on the EAL Website, for guidance on registration and certification please refer to the Registration and Certification User Guide. To register the learner on the chosen qualification/pathway code:

Qualification Title:	Code:
Pathway NETBI – Installation	601/7345/2BI
Pathway NETBM – Maintenance	601/7345/2BM
A new version of the qualification from 04.09.23: EAL Level 3 Electrotechnical Qualification <i>(Installation or maintenance will no longer appear on the learner's certificate as a pathway, but will be indicated instead as the chosen optional unit, on the certificate of unit credit)</i>	601/7345/2C
Units: NETK3-06A, NETP3-05A, and NETP3-04A have been added to the qualification for registrations from 04.09.23 (C Suffix on registration code). Learners registered prior to this date who are working toward earlier unit equivalents on B suffix (NETK3-06, NETP3:04, and 05), and must complete the version of the qualification they have been registered on.	

Please note that the registration code with the 'BI' or 'BM' suffix applies to registrations for Amendment 2 of BS 7671:2018. Any learners registered prior to this change will be working toward the previous version of the qualification with the older wiring regulation unit (NETK3-18ED).

Learners can be transferred by the Centre from the previous version of this qualification to the Amendment 2 version by completing a 'pathway transfer'. Instructions on how to do transfer a learner pathway can be found within the EAL Hub's Help Centre:

- EAL Hub > Help Centre > Online Services > Learner Pathway Transfer.

For further information, please contact EAL Customer Experience:

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Email: Customer.Experience@eal.org.uk

Published by:

EAL

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