

End-Point Assessment Apprentice Guidance for:  
**Level 2 Engineering Operative**

Standard Reference: ST0537

## Contents

<b>Document Purpose</b> .....	<b>3</b>
<b>Overview</b> .....	<b>3</b>
<b>End-point Assessment Gateway</b> .....	<b>4</b>
<b>Assessment Methods</b> .....	<b>4</b>
<b>Assessment Method 1: Practical Skills Observation</b> .....	<b>4</b>
<b>Assessment Method 2: Final Professional Discussion</b> .....	<b>5</b>
<b>Behaviours Assessment</b> .....	<b>8</b>
<b>Grading</b> .....	<b>8</b>
<b>Re-sits and Re-takes</b> .....	<b>9</b>
<b>Roles and Responsibilities</b> .....	<b>10</b>
<b>Grading of Professional Discussion</b> .....	<b>11</b>
<b>Appendix 1: Portfolio Matrix Recording Sheet</b> .....	<b>19</b>
<b>Appendix 2: Portfolio Reference</b> .....	<b>20</b>
<b>Appendix 3: Gateway Checklist</b> .....	<b>24</b>

## Document Amendments

Amendment Made	Issue Number	Effective From
New document	1.0	01.09.2019
Changes to the forms within the appendixes to include the addition of a portfolio matrix recording sheet. Changes to wording under portfolio requirements and enhancements to formatting.	2.0	01.11.2019
Updated document	2.1	03.06.2020

## Document Purpose

To ensure a consistent approach when carrying out the practical skills observation, professional discussion and overall grade across all independent assessment panel members, assessment sites, apprentices and assessment decisions.

This document, and its contents, will be used to **guide** you on the outcome of the assessment decisions.

It supports the Assessment Recording Document, which has been developed to record the outcome of the practical skills observation, professional discussion and overall grade. The Assessment Recording Document is an auditable record of the End-point Assessment (EPA) activity.

This document should be used in conjunction with EAL's End-point Assessment Policies and Procedures Handbook.

## Overview

The EPA is designed to enable you to demonstrate that you are fully conversant in the knowledge, skills and behaviours (KSBs) expected of individuals working at this level. It is designed to provide assessors with a holistic view of you, and to allow them to assess to what extent you meet, or exceed, the level 2 engineering operative apprenticeship standard. The EPA may only be completed after a minimum of 12 months training has taken place and at a time that accommodates work scheduling and cost effective planning of resources, the End-point assessment must commence within 3 months from confirmation that you have met the gateway requirements.

The Apprenticeship Standard and End-point Assessment Plan defines when, what, who and how the EPA is assessed. All those participating and delivering this EPA, which includes you, assessors and employers, **must** refer to the following principle documents for the full details of the EPA requirements:

### Engineering Operative

- Apprenticeship Standard – ST0537, approved for delivery 24<sup>th</sup> September 2018.
- End-point Assessment Plan – ST0537/AP01

Both of which are currently available here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative>

Whilst elements of the Apprenticeship Standard and End-point Assessment Plan have been reproduced within this document under the following licence: <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>, it is the responsibility of the independent assessors to ensure you are being assessed against the correct version of the Apprenticeship Standard and End-point Assessment Plan.

## End-point Assessment Gateway

Your employer must satisfy themselves that you are ready for your end-point assessment, which is evidenced by you consistently working at or above the level set out in the occupational standard.

In addition to the employer's confirmation that you are working at or above the level in the occupational standard, the following gateway requirements must be met prior to you starting the EPA:

- You have satisfactorily completed training covering the skills, knowledge and behaviours as described in the standard
- You have achieved all Mandatory qualifications – Level 2 Diploma in Engineering Operations (competence) or Level 2 Certificate or Diploma in Engineering Operations (knowledge)
- You have achieved <sup>1</sup>English and mathematics at level 2 or those without English and mathematics at level 2 must have achieved level 1 English and mathematics and have taken the tests for level 2.
- You have <sup>2</sup>sufficient evidence in the form of a reflective portfolio to allow you to consistently demonstrate knowledge, skills and behaviours as described in the standard. Guidance on what should be included in the reflective portfolio can be found within the professional discussion section.

<sup>1</sup>Those without level 2 English and maths will need to achieve this level prior to taking the End-point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship English and mathematics minimum requirement is Entry Level 3. British Sign Language qualifications are an alternative to English qualifications for whom this is their primary language.

<sup>2</sup>Sufficient evidence in the form of a reflective portfolio authenticated by the employer to allow the you to consistently demonstrate knowledge, skills and behaviours as described in the standard. The Employer will be required to confirm that the reflective portfolio provides an accurate representation of work carried out by you and is not embellished. The portfolio must include samples of work carried out within the last three months of the on programme period, and must include a minimum of 2 and no more than 3 activities carried out by the apprentice that demonstrates the higher order knowledge, skills and behaviours of the standard. **Please refer to the assessment plan for this standard for full details.**

To assist you demonstrating the requirements of the End-point Assessment Gateway have been met; please find within **Appendix 1** a Portfolio Matrix Recording Sheet detailing the apprenticeship standard competencies for which you will need to present evidence. This should be placed at the front of your portfolio along with a completed End-point Assessment **Gateway Checklist** document (**Appendix 2**) which has been signed by your employer.

## Assessment Methods

The end-point assessment is made up of the two elements below:

1. Practical Skills Observation
2. Professional Discussion

## Assessment Method 1: Practical Skills Observation

The practical observation will be completed prior to the professional discussion taking place. The practical observation will be carried out at a location chosen by EAL as the EPAO; this may be your place of work or an in-centre practical assessment in a suitable area away from the work place where it is not feasible to use the employer's premises and will be carried out by an end point assessor, approved by EAL as the EPAO.

You will be observed and will be assessed against both the core and your chosen specific job role option KSBs as identified within the standard. Typically, this will be covered within **one** task but may be covered over **two** separate tasks if required.

The end point assessor will provide you with both written and verbal instructions on the task(s) that you are expected to undertake, including timescales. The end point assessor will identify/devise a suitable task(s) which presents sufficient opportunity for you to demonstrate your application of core knowledge, skills and behaviours for the specific job role being worked towards.

Observations will be carried out over an assessment time period of **2 hours +/- 10 minutes**. There may be breaks during the observation to allow you to move from one location to another. Observations will be conducted in a realistic work situation under normal conditions. It is anticipated that assessment organisations will use your normal work environment to carry out the observation but if this is not possible a suitable alternative area may be used. The end point assessor will record a factual account of the observation utilising the apprentice recording documents provided to them.

The practical skills observation will be graded either **Pass** or **Fail**, to achieve a pass for the practical skills observation you must achieve all of the pass criteria that is laid out in the grading matrix which can be found within **Annex 2** of the End-Point Assessment Plan for this standard.

### Questioning Component

During the observation the end point assessor will ask between 3 - 6 open questions to assess the related underpinning knowledge. Questioning should be completed within the total time allowed for the observation. Questions may be asked both **during** and **upon** completion of the observation. Following up questions may be asked where clarification is required.

The end point assessor will decide on the timing and frequency of the questioning to ensure that they are unobtrusive, **should not** distract you from your activity or **compromise safety**. The questioning component will be conducted on a one-to-one basis, under controlled conditions free from influence. A quiet room free from distraction should be made available to you if you wish to use it. However, due to the nature of the questions, you may choose to demonstrate part or all of your understanding whilst within the working area (e.g. by providing a narrative response during a walk through if applicable).

## Assessment Method 2: Professional Discussion

On completion of the professional discussion you will be awarded a grade of **Pass**, **Distinction** or **Fail**. The purpose of the professional discussion is to enable you to showcase to the panel how you have carried out the role of an Engineering Operative, integrating the knowledge, skills and behaviours expected and for the review panel to be assured you have achieved the requirements of the standard. To help ensure that the professional discussion is practicable and cost effective, it may be carried out at the employer's site, an assessment centre approved by EAL as the EPAO or via video link appropriate. If a video link is used then appropriate measures will be in place to ensure EAL as the EPAO is satisfied that the responses given are

yours e.g. use of a 360 degree camera to allow the end point assessor to look around the room during the interview.

You will be asked between 5 – 7 open questions using criteria **set** by the end point assessor; follow up questions may be asked to seek clarification. Where follow up questions are asked, they will be recorded and attached to the assessment recording document. The professional discussion should be completed during a **40-minute period +/- 2 minutes**. Questions must seek to assess KSBs and can be informed by information within the reflective portfolio, assessing performance against the pass and distinction criteria and enable the review panel to explore areas they consider warrants further investigation in order to assure themselves that you have the competence to work as an Engineering Operative. You may refer to your reflective portfolio during the professional discussion if required.

The purpose of the professional discussion is to:

- Demonstrate that you can apply the broad range of knowledge, skills and behaviours in the standard, as indicated in **Annex 1** of the assessment plan for this standard.
- Clarify any questions the end point assessor has from their review of the reflective portfolio submitted.
- Explore aspects of your work, including how it was carried out, in more detail.
- Enable the review panel to draw a conclusion on the holistic EPA and the final grade to be awarded on the aggregated achievement of the individual assessments using the grading criteria in **Annex 2** of the assessment plan for this standard.

The panel may consist of 2 members; an employer representative (if requested to do so by EAL as the EPAO) and the end point assessor (acting as Chair) appointed by EAL as the EPAO. The employer representative should be occupationally competent. The employer representative will be sourced by your employer and will provide technical support, advice and guidance such as confirming company policies, procedures, processes, providing context on technical information or on emerging technologies. Any information provided by the employer technical expert must only be at the request of the end-point assessor who has the final say over the assessment and grade awarded. The employer technical expert must not provide evidence on your behalf.

The end point assessor will review the reflective portfolio and decide how the professional discussion will be conducted and relevant key questions to ask you to confirm the broad range of knowledge, skills and behaviours have been achieved. At the end of the professional discussion, the end point assessor (acting as Chair) will make the final judgement on **Distinction, Pass, or Fail** for this assessment method. To achieve a pass for the professional discussion you must achieve all of the pass criteria; to achieve a distinction the you must achieve all of the pass criteria and the distinction criteria, both of which is laid out in the grading matrix which can be found in **Annex 2** of the assessment plan for this standard.

The professional discussion (supported by a reflective portfolio of evidence) shall be a face-to-face session involving you and the end point assessor. The reflective portfolio itself will not be assessed but, will be used by the end point assessor as a source of evidence to prepare the questioning for the professional discussion and by you to exemplify your responses to the questions.

Summary of key points:

- The professional discussion will assess the knowledge, skills and behaviours as specified in **Annex 1** of the End-Point Assessment Plan for the standard.
- The professional discussion shall be supported by a reflective portfolio. The reflective portfolio shall be made available to EAL as the EPAO no less than **2 weeks** prior to the professional discussion to allow for preparation.
- The professional discussion shall last **40-minute period +/- 2 minutes**.

- The professional discussion shall be carried out by an independent end-point assessor appointed by EAL as the EPAO. EAL as the EPAO may request that an employer representative who is occupationally competent also forms part of panel for the professional discussion.
- The professional discussion shall take place in an environment which is free from interruptions and at a date, time and location agreed with EAL as the EPAO.
- Prior to the assessment you shall be given suitable notice, not less than **5 working days**, to provide preparation time (for example to make travel arrangements if necessary).
- End point assessor must ask you between **5 – 7 open questions**, follow up questions may be asked to seek clarification.

### The End-Point Assessor Will:

- Plan the professional discussion (supported by the reflective portfolio of evidence) prior to it taking place and ensure that it is relevant to the standard.
- Ensure that you understand the process, the possible outcomes and how it is graded.
- Ensure they take steps to put you at ease.
- Ensure that he/she has the grading criteria and relevant documentation to hand before commencing the professional discussion.
- Complete the relevant documentation prepared by EAL as the EPAO, taking notes of what is said using the assessment recording document.
- Ensure that the outcome of assessment is notified to EAL as the EPAO within the timescale set by them.
- Ensure any special needs highlighted by the employer and training provider are taken into consideration in line with EAL's Reasonable Adjustments policy.

The professional discussion is graded **pass, distinction or fail** with the **outcome** contributing to the overall grade.

### Portfolio of Evidence Requirements

At least **2 weeks** prior to professional discussion, you must submit a reflective portfolio setting out examples of work you have undertaken. The reflective portfolio will be used to inform the professional discussion through which you will demonstrate competence of the broad range of knowledge, skills and behaviours set out in the standard. The Employer will be required to confirm that the reflective portfolio provides an accurate representation of work carried out by you and is not embellished. The portfolio will not be graded as part of the EPA but will be used to ascertain the level of explanation given during the graded professional discussion. The reflective portfolio will be reviewed by an end point assessor, approved by EAL as the EPAO.

The reflective portfolio should include samples of work carried out by you. Being a demonstration of work carried out over a period of time and must **include** evidence of work carried out within the **last three months** of the on programme period, and will include a **minimum of 2 and no more than 3 activities** carried out by you that demonstrates the higher order knowledge, skills and behaviours of the standard. Where practicable this should include photographs, images, diagrams, together with on the job observations and witness evidence/testimony. This should also include situations that have been difficult or challenging, and how these have been overcome e.g. equipment breakdown which has resulted in a change in working practice while still adhering to company procedures. Any employer contributions must

focus on direct observation of evidence (e.g. reviews/witness statements) of competence rather than opinions. The portfolio cannot include any methods of self-assessment or self-appraisal.

On commencement of the apprenticeship, you should begin to retain a reflective portfolio which is compiled throughout the apprenticeship. EAL as the EPAO advises that this portfolio is finalised before passing through the gateway. A sufficiently evidenced portfolio is a mandatory requirement of the EPA gateway requirement that supports the EPA professional discussion component.

Employers/training providers are free to devise their own version of the portfolio of evidence, but it is recommended that the portfolio of evidence contains the following information:

- Your name.
- Details of your workplace.
- Evidence to support the knowledge, skills and behaviours of the apprenticeship standard that are mapped to the professional discussion assessment method. Each of these **knowledge, skills and behaviour** (KSB) statements must be sufficiently evidenced (evidence can be provided through a range of sources, for example work reviews, department feedback) and mapped to the relevant KSBs. Each piece of evidence will cover multiple KSBs.
- Confirmation from your employer that the tasks evidenced in the portfolio were completed to the required standard of the organisation.
- Document the off-the-job training that has taken place during the on-programme phase, with at least **20%** of their employed time **off-the-job**.
- Copy of English and mathematics certificates.

Your **employer** must sign-off the **reflective portfolio**, thereby confirming the demonstration of competence against the KSBs assigned to this assessment component and authenticating its contents.

You must submit your reflective portfolio to EAL as the EPAO when applying for the EPA. An end point assessor will check and review the portfolio to glean personalised information that will assist the professional discussion component of the EPA.

The full details of the professional discussion requirements can be found in the End-Point Assessment Plan for this standard here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative>

## Behaviours Assessment

You are expected to demonstrate the behaviours, as detailed within **Annex 1** of the assessment plan for the standard throughout the end-point assessment. Furthermore, your portfolio must evidence the required behaviours that have been displayed during the apprenticeship. All behaviour statements **must** be sufficiently evidenced.

The end point assessor will assess the behaviours during the practical observation and professional discussion. The required behaviours are detailed within **Annex 1** of the assessment plan here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative>



## Grading

The practical skills observation and professional discussion will be individually graded – the Practical skills observation is graded **Pass** or **Fail** and the professional discussion will be graded **Fail**, **Pass**, or **Distinction**. A **fail** in one or more of the assessment methods will result in a **fail** in the EPA. Evidence from the reflective portfolio will be used to inform the professional discussion but will not be assessed.

End point assessor will grade each assessment method according to the requirements set out in this document and in the End-Point Assessment Plan for this standard. Restrictions on grading apply where you re-sit/re-take an assessment method (see re-sit/re-take section in the End-Point Assessment Plan).

You will be graded **Fail**, **Pass**, or **Distinction**. The final grade will be determined by collective performance in the two assessments within the End-Point assessment. The end point assessor will combine the grades from the practical skills observation and professional discussion to determine the overall apprenticeship grade in line with the grading table below.

Assessment method 1 – Observation	Assessment method 2 – professional discussion	Overall grade
<b>Fail</b>	<b>Any grade*</b>	<b>Fail</b>
<b>Any grade*</b>	<b>Fail</b>	<b>Fail</b>
<b>Pass</b>	<b>Pass</b>	<b>Pass</b>
<b>Pass</b>	<b>Distinction</b>	<b>Distinction</b>

\*'Any' = **Fail**, **Pass**, or **Distinction**

A **fail** in any assessment method will result in an EPA **fail**.

To achieve an EPA **pass**, you must achieve a minimum of a **pass** in the practical observation and professional discussion.

To achieve an EPA **distinction**, you must achieve a minimum of a **pass** in the practical observation and **distinction** in the professional discussion

End point assessors' decisions will be subject to **moderation** by EAL as the EPAO. Decisions **will not** be confirmed until after moderation.

The full details of the grading requirements can be found in the End-Point Assessment Plan for this standard here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative>

## Re-sits and Re-takes

Your **employer** should ensure that you have the relevant knowledge and skills as required for the standard and are **fully prepared** to complete the EPA to the best of your ability. Re-sits/re-takes **will not be offered** to those wishing to move from pass to distinction. If you fail one or more EPA method, you will be offered the opportunity to take a re-sit/retake. A re-sit does not require further learning, whereas a re-take does. A re-sit can be taken where there is supporting evidence from your employer and provider that you have the relevant knowledge and skills required and failure has been as the result of you not performing to the best of their ability on the day.

Your employer will need to agree that a re-sit/re-take is an appropriate course of action. You should have a supportive action plan to prepare for the re-sit/re-take. Resits/retakes should be taken once you have received sufficient training to address the shortfall in the KSB's required for the standard that have been identified within the result of the EPA. The timing of the resit/retake should be agreed with the employer and EAL as the EPAO and is dependent on the amount of learning required to meet the KSBs.

The maximum grade awarded to a re-sit/re-take for the practical observation will be graded pass/fail and a re-sit/re-take of the professional discussion will be graded pass/fail/distinction and combined to determine the EPA grade. EAL as the EPAO must ensure that you are observed doing different activities within the practical skills observation when taking a re-sit/re-take. If you are unsuccessful, your employer will decide when you should re-apply for the EPA once additional training has taken place.

## Roles and Responsibilities

There are four main roles involved in this end-point assessment process: the **apprentice**, the **employer**, EAL as the **EPAO** and **independent end point assessor**. An explanation of their main responsibilities can be found in the End-Point Assessment Plan for this standard here:

<https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative>

## Grading of Professional Discussion: Grading Criteria

### Professional Discussion (including evidence) and questioning

The apprentice will fail the assessment method if they do not meet the pass criteria. The fail criteria can be found within **Annex 2** of the Assessment Plan for this standard on page 29. Independent assessors must consider the fail criteria when making their assessment decisions.

To achieve a **Pass** the apprentice must:

- Demonstrate an acceptable level of behaviour that meets the minimum level of behaviour expected
- Achieves all of the core skills pass criteria, all of the core knowledge pass criteria, all of the behaviour pass criteria and all of the pass criteria for one of the specialist job role options as laid out below

To achieve a **Distinction** the apprentice must:

- Demonstrate consistent and positive behaviour
- Achieves all of the core skills pass criteria, all of the core knowledge pass criteria, all of the behaviour pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
- Achieves at least **2 of the 3 core skills distinction criteria** (where indicated) and the distinction criteria for the specialist job role they are working towards
- Achieves **all of the distinction criteria for core behaviours**

Core Skills, Core Knowledge and Core Behaviours to be assessed	Name of grade	Grade Descriptor The apprentice:
Higher order core skills: Works safely at all times ensuring that all appropriate legislation, regulation and environmental compliance requirements have been adhered to in-line with company policies, procedures and practice.  Lower order core skills: <b>S1, S2, S6, S7</b>	Distinction	Demonstrates they have the ability to take on additional safety responsibilities, over and above the expectation of an engineering environment. Evidence including:
		Challenges other people on H&S compliance, where appropriate
		Can dynamically assesses/controls risk at all times regardless of environment
	Pass	Can suggest ideas for improvement along with possible solutions
		Demonstrates their ability to work safely in an engineering environment to approved procedures. Evidence including:
		Can identify, assesses/ and controls risk within work environment
		Can use effective communication using a range of techniques
		Can complete documentation accurately, efficiently and legibly using the correct terminology
		Can select and use appropriate tools, equipment and materials to carry out the engineering operations
		Can deal with problems that occur within the engineering environment

		Can plan and prepare prior to starting engineering activity
		Can work efficiently and effectively while adhering to appropriate job instructions
Higher order core knowledge: Knows how to complete tasks, solve problems and implement preventive measures in-line with appropriate legislation, regulation and environmental compliance and company policies, procedures and practices.  Lower Order Core Knowledge: <b>K2, K4</b>	Distinction	N/A
	Pass	Demonstrates their understanding of statutory, quality, environmental compliance procedures, systems, organisational and health and safety regulations Evidence including: Able to outline the specific statutory, quality, environmental compliance procedures/systems, organisational and health and safety regulations relevant to their work activities
		Demonstrates their understanding of improvement techniques Evidence including: Able to outline the specific operational practices, processes and procedures relevant to their work activities
Core Behaviour: <b>B1</b>	Distinction	Can challenge others on H&S compliance
		Can proactively assesses/controls risk without the need to be prompted
		Sets an example to others by always working hard even when on own
		Can reflect on how to do things more effectively
	Pass	Demonstrates they comply with H&S guidance & procedures Evidence including: Always demonstrates understanding & importance of H&S requirements
		Assesses/controls risk in current environment
		Can be trusted to work on own when appropriate, knowing who & where to seek help from if needed
		Can manage own time & workload
		Stays motivated & committed, when facing small challenges
Core Behaviour: <b>B2</b>	Distinction	Proactively & regularly supports others
		Seeks support & advice and will share learning
		Provides encouragement as appropriate to keep the team on track
	Pass	Demonstrate they can work well within a team Evidence including: Makes effort to integrate within a team
		Will help and support when asked
		Considers impact of own actions on other people or activities
		Contributes positively to team deliverables
Core Behaviour: <b>B3</b>	Distinction	Proactively shares information, openly & honestly
		Checks understanding of others by asking open questions
	Pass	Demonstrate they can communicate in an efficient and effective way Evidence including:

		Can communicate open and honestly
		Communicates clearly using appropriate methods
		Pays attention & asks relevant questions to clarify understanding
		Has a positive and respectful attitude
Core Behaviour: <b>B4</b>	Distinction	Can make suggestions to improve instructions
		Can escalate issues as appropriate
		Applies the most appropriate technique for problem solving
		Can reflect upon lessons learnt after problem solving activity
	Pass	Demonstrate they can follow instructions and guidance and can follow a logical approach to problem solving Evidence including:
		Understands & can follow instructions/processes
		Demonstrates attention to detail
		Follows a logical/right approach to problem solving
		Identifies opportunities to improve, but may need prompting for ideas
Core Behaviour: <b>B5</b>	Distinction	Recognises needs and continually seeks learning opportunities
		Can transfer learning, applying it to different situations
		Can adapt quickly and effectively to new Situations, Environments or Technologies
		Proactively seeks feedback & acts upon it
	Pass	Demonstrate they can take ownership of their personal development and will seek opportunities to develop Evidence including:
		Can reflect on Knowledge and seeks opportunities to develop
		Can reflect on skills and seeks opportunities to develop
		Can reflect on behaviours and seeks opportunities to develop
		Can adapt to different Situations, Environments or Technologies
		Has a positive attitude to feedback and advice

The standard for the L2 Engineering Operative has 6 specialist job roles; only ONE ‘Specialist Skills & Knowledge’ table below that relates to the apprentice’s specialist job role should be completed in addition to the core skills, knowledge and behaviours.

In-depth\* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g. processes, equipment, materials used and the reason behind their use

Option 1 - Maintenance Role		
Specialist Skills and Knowledge to be assessed	Name of grade	Grade Descriptor The apprentice:
Higher order specialist skills: Carries out fault-finding and maintenance activities in-line with company processes, procedures and practice.  Lower order specialist skills: <b>S9, S10, S11, S12</b>	Distinction	Demonstrates that they can consistently carryout fault finding and maintenance efficiently and can overcome problems
	Pass	Demonstrates their ability carry out maintenance activities in line with work instructions. Evidence including: Provides evidence of having followed the correct work instructions as part of their work commitments and shows an understanding of any operating rules in place within the instruction
		Carries out fault location using suitable diagnostic techniques
		Carries out sufficient tests on the maintained equipment
		Carries out correct completion activities and restores equipment to a serviceable condition
Higher order specialist knowledge: Knows how to carryout maintenance activities and a range of fault-finding techniques  Lower order specialist knowledge: <b>K6, K7</b>	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the maintenance activities they have been involved in
	Pass	Demonstrates their understanding of a maintenance operations Evidence including:
		Use of technical language and detail covering the key elements of the knowledge relating to the maintenance activities they have been involved in
		Can describe the planning carried out prior to the start of the maintenance operation
	Can describe the diagnostic and fault-finding techniques they used and the reason for using them	
Option 2 - Mechanical Manufacturing Engineering Role		
Specialist Skills and Knowledge to be assessed	Name of grade	Grade Descriptor The apprentice:
Higher order specialist skills: Produces parts to the required specification.	Distinction	Demonstrates that they can consistently produce high quality parts efficiently and can overcome problems.
	Pass	Demonstrates their ability to produce components sub-assemblies or completed assemblies to the required specification. Evidence including:
Provides evidence of having used appropriate mechanical manufacturing techniques to produce individual components, sub-assemblies or		

Lower order specialist skills: <b>S13, S14, S15, S16</b>		completed assemblies, showing an understanding of the techniques used
		Mounts and sets the required work holding devices
		Can plan mechanical manufacturing operation before they start
		Carries out appropriate quality checks during and after mechanical manufacturing operation to confirm components sub-assemblies or completed assemblies meet the required specification
Higher order specialist knowledge: Knows how to carryout manufacturing activities using a range of techniques and equipment  Lower order specialist knowledge: <b>K9, K10</b>	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the mechanical manufacturing activities they have been involved in
	Pass	Demonstrates their understanding of a mechanical manufacturing operations Evidence including:
		Use of technical language and detail covering the key elements of the knowledge relating to the mechanical manufacturing activities they have been involved in
		Can describe the specific equipment operating parameters
		Can describe the mechanical manufacturing techniques they have used
<b>Option 3 - Electrical and Electronic Engineering Role</b>		
<b>Specialist Skills and Knowledge to be assessed</b>	<b>Name of grade</b>	<b>Grade Descriptor The apprentice:</b>
Higher order specialist skills: Tests and assembles parts to the required specification.  Lower order specialist skills: <b>S17, S18, S19, S20</b>	Distinction	Demonstrates that they can consistently assemble and test electrical and electronic equipment efficiently and can overcome problems.
	Pass	Demonstrates their ability to assemble and test a range of electrical and electronic components. Evidence including:
		Provides evidence of having used appropriate assembly and testing, showing an understanding of the techniques used
		Can wire and terminate different types of cabling
		Can follow completion activities and restores equipment to a serviceable condition
		Carries out appropriate quality checks during and after the assembly and testing operation to confirm required specification requirements are met
Higher order specialist knowledge: Knows the uses for different cable types for a range of tasks and the techniques used	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the electrical and electronic engineering activities they have been involved in
	Pass	Demonstrates their understanding of electrical and electronic engineering operations Evidence including:

Lower order specialist knowledge: <b>K12, K13</b>		Use of technical language and detail covering the key elements of the knowledge relating to the electrical and electronic engineering activities they have been involved in
		Can describe the different cable types and where they have used them
		Can describe the electrical and electronic assembly and testing techniques they have used
<b>Option 4 - Fabrication Role</b>		
Specialist Skills and Knowledge to be assessed	Name of grade	Grade Descriptor The apprentice:
Higher order specialist skills: Produces parts to the required specification.  Lower order specialist skills: <b>S21, S22, S23, S24</b>	Distinction	Demonstrates that they can consistently produce high quality parts efficiently and can overcome problems.
	Pass	Demonstrates their ability to produce components which meet the specification requirements. Evidence including:
		Provides evidence of having used appropriate work instructions to produce components as part of their work commitments and shows an understanding of any operating rules in place within the instruction
		Can shape the materials using the appropriate methods and techniques
		Can join the materials using the appropriate methods and techniques
		Carries out appropriate quality checks during and after the fabrication operation to confirm required specification requirements are met
Higher order specialist knowledge: Knows how to prepare appropriately for tasks in-line with safe working practices and procedures.  Lower order specialist knowledge: <b>K15, K16</b>	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the fabrication activities they have been involved in
	Pass	Demonstrates their understanding of fabrication operations Evidence including:
		Use of technical language and detail covering the key elements of the knowledge relating to the fabrication activities they have been involved in
		Can describe the marking out and preparation techniques and where they have used them
	Can describe the different fabrication and joining techniques they have used	



Option 5 - Materials, Processing, Finishing Role		
Specialist Skills and Knowledge to be assessed	Name of grade	Grade Descriptor The apprentice:
<p>Higher order specialist skills: Prepare for and carryout material processing finishing operations to the required specification efficiently.</p> <p>Lower order specialist skills: <b>S25, S26, S27, S28</b></p>	Distinction	Demonstrates that they can consistently carryout material processing finishing operations efficiently and can overcome problems.
	Pass	Demonstrates their ability to carry out material, processing, finishing operations which meet the specification requirements. Evidence including:
		Provides evidence of having used appropriate work instructions to carry out material, processing, finishing operation as part of their work commitments and shows an understanding of any operating rules in place within the instruction
		Can plan material, processing, finishing operation before they start
		Can prepare equipment, tooling, materials and complete appropriate set up activities
Carries out appropriate quality checks during and after the material, processing, finishing operation to confirm required specification requirements are met		
<p>Higher order specialist knowledge: Knows the uses of a range of equipment and the associated quality outputs of that equipment.</p> <p>Lower order specialist knowledge: <b>K18, K19</b></p>	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the materials, processing, finishing activities they have been involved in
	Pass	Demonstrates their understanding of materials, processing, finishing operations Evidence including:
		Use of technical language and detail covering the key elements of the knowledge relating to the materials, processing, finishing activities they have been involved in
		Can describe the machinery, equipment and tooling required for the materials, processing, finishing operation and where they have used them
Can describe the different materials, processing, finishing techniques		
Option 6 - Technical Support Role		
Specialist Skills and Knowledge to be assessed	Name of grade	Grade Descriptor The apprentice:
<p>Higher order specialist skills: Prepare and carryout the technical support activities in line with company procedures, processes and practices</p>	Distinction	Demonstrates that they can consistently carryout technical support activities efficiently and can overcome problems.
	Pass	Demonstrates their ability to carry out technical support role which meet the specification requirements. Evidence including: Provides evidence of having used appropriate work instructions to carry out technical support operation as part

Lower order specialist skills: <b>S29, S30, S31, S32</b>		of their work commitments and shows an understanding of any operating rules in place within the instruction
		Can plan technical support operation before they start
		Can prepare equipment, tooling, materials and complete appropriate set up activities
		Carries out appropriate quality checks during and after the technical support operation to confirm required specification requirements are met
Higher order specialist knowledge: Knows the uses of a range of manufacturing equipment, the quality requirements of their tasks and the safe working practices.  Lower order specialist knowledge: <b>K21, K22</b>	Distinction	Use of technical language and detail to give an <b>in-depth*</b> explanation the key elements of the knowledge relating to the to the technical support activities they have been involved in
	Pass	Demonstrates their understanding of technical support operations Evidence including:
		Use of technical language and detail covering the key elements of the knowledge relating to the technical support activities they have been involved in
		Can describe the machinery, equipment and tooling required for the technical support operation and where they have used them
		Can describe the different technical support techniques



To achieve an overall pass for the apprenticeship, the apprentice must achieve a minimum of a **Pass** in both the practical skills observation and the professional discussion in all of:

- the higher order core skills grading descriptors
- the higher order core knowledge grading descriptors
- the core behaviours grading descriptors
- the higher order specialist skills grading descriptors for their job role
- the higher order specialist knowledge grading descriptors for their job role

To achieve an overall distinction for the apprenticeship, the apprentice must meet the criteria for a **Pass**; **Plus** for the professional discussion, the apprentice must achieve a **Distinction** grade in:

- the higher order core skills grading descriptor
  - the higher order specialist skills grading descriptor for their job role
  - the higher order specialist knowledge grading descriptor for their job role
- all of the core behaviours grading descriptors

## Appendix 1: Portfolio Matrix Recording Sheet

<p>I confirm the information and evidence contained within this portfolio is my own work, relates to my performance and it is current and sufficient against the knowledge, skills and behaviours contained in the L2 Engineering Operative Apprenticeship Standard.</p>	
<p>I can confirm that I authorise EAL as the EPAO to make the application for my apprenticeship certificate following successful outcome of End-Point Assessment.</p>	
<p><b>Apprentice Name:</b></p>	<p>enter text.</p>
<p><b>Apprentice Signature:</b></p>	
<p><b>Date:</b></p>	<p>enter a date.</p>
<p><b>Employer details:</b></p>	
<p>I confirm that the information and evidence contained in this portfolio is the work of the apprentice, named above <input type="checkbox"/> (tick)</p>	
<p><b>Employer Name:</b></p>	<p>enter text.</p>
<p><b>Employer Job Title:</b></p>	<p>enter text.</p>
<p><b>Relationship to Apprentice:</b></p>	<p>enter text.</p>
<p><b>Employer Signature:</b></p>	
<p><b>Date:</b></p>	<p>enter a date.</p>

## Appendix 2: Portfolio Reference (Apprentice complete)

### Portfolio Evidence (PE)

Core Knowledge = CK, Core Skills = CS, Specific Knowledge =SK, Specific Skills = SS Behaviours = B

Before completing the matrix below, please ensure you have read and understood the requirements for a reflective portfolio of evidence which have been outlined on page 7 within the EPA Apprentice Guidance document.

Completed (v)	Evidence Reference	KSB Code	Core Skills & Core Knowledge to be assessed	Assessment Method
<input type="checkbox"/>	enter text.	S1	Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines	PE
<input type="checkbox"/>	enter text.	S2	Identify and deal appropriately with any risks, hazards, hazardous situations and problems that may occur within the engineering environment within the limits of their responsibility	PE
<input type="checkbox"/>	enter text.	S3	Demonstrate effective communication skills which include oral, written, electronic	PE
<input type="checkbox"/>	enter text.	S4	Complete appropriate documentation accurately, efficiently and legibly using the correct terminology where required	PE
<input type="checkbox"/>	enter text.	S5	Obtain and follow the correct documentation, specifications and work instructions in accordance with time constraints and the roles and responsibilities identified for the engineering activities, extracting the necessary data/information from specification and related documentation	PE
<input type="checkbox"/>	enter text.	S6	Select and use appropriate tools, equipment and materials to carry out the engineering operation	PE
<input type="checkbox"/>	enter text.	S7	Deal appropriately with any problems that may occur within the manufacturing environment within the limits of their responsibility	PE
<input type="checkbox"/>	enter text.	S8	Work efficiently and effectively at all times maintaining workplace organisation and minimising waste	PE
<input type="checkbox"/>	enter text.	K1	How to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them	PE
<input type="checkbox"/>	enter text.	K2	Relevant statutory, quality, environmental compliance procedures/systems, organisational and health and safety regulations relating to engineering operations	PE
<input type="checkbox"/>	enter text.	K3	Their individual roles and responsibilities within the organisation and the flexibility required to support the achievement of company targets	PE
<input type="checkbox"/>	enter text.	K4	Engineering operational practices, processes and procedures	PE
<input type="checkbox"/>	enter text.	K5	Potential problems that can occur within the engineering operations and how they can be avoided	PE
Completed (v)	Evidence Reference	KSB Code	Core Skills & Core Knowledge to be assessed	Assessment Method
<input type="checkbox"/>	enter text.	B1	Personal responsibility and resilience – Comply with the health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently regardless of how much they are	PE

			being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.	
<input type="checkbox"/>	enter text.	B2	Work effectively in teams – Integrate with the team, support other people, consider implications of their own actions on other people and the business whilst working effectively to get the task completed.	PE
<input type="checkbox"/>	enter text.	B3	Effective communication and interpersonal skills – An open and honest communicator, communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude.	PE
<input type="checkbox"/>	enter text.	B4	Focus on quality and problem solving – Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed and efficiency.	PE
<input type="checkbox"/>	enter text.	B5	Continuous personal development – Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice.	PE

**The standard for the L2 Engineering Operative has 6 specialist job roles; in addition to completing the core skills, core knowledge and core behaviours above, please complete ONE ‘Specialist Skills & Knowledge’ table below that relates to your job role.**

Completed (v)	Evidence Reference	KSB Code	Option 1 – Maintenance Role	Assessment Method
<input type="checkbox"/>	enter text.	S9	Carryout fault location on appropriate equipment using suitable maintenance diagnostic techniques	PE
<input type="checkbox"/>	enter text.	S10	Carryout maintenance activities in line with work instructions	PE
<input type="checkbox"/>	enter text.	S11	Carryout tests on the maintained equipment in accordance with test schedule/defined test procedures	PE
<input type="checkbox"/>	enter text.	S12	Follow appropriate completion activities and restore equipment to service by replacing or repairing components	PE
<input type="checkbox"/>	enter text.	K6	Maintenance planning	PE
<input type="checkbox"/>	enter text.	K7	Diagnostic and fault finding techniques	PE
<input type="checkbox"/>	enter text.	K8	Specific safe working practices, maintenance procedures and environmental regulations that need to be observed	PE
Completed (v)	Evidence Reference	KSB Code	Option 2 - Mechanical Manufacture Engineering Role	Assessment Method
<input type="checkbox"/>	enter text.	S13	Plan the mechanical manufacturing operation before they start	PE
<input type="checkbox"/>	enter text.	S14	Mount and set the required work holding devices	PE
<input type="checkbox"/>	enter text.	S15	Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques	PE
<input type="checkbox"/>	enter text.	S16	Carryout quality checks during and after mechanical manufacturing operations	PE
<input type="checkbox"/>	enter text.	K9	Specific equipment operating parameters	PE
<input type="checkbox"/>	enter text.	K10	Mechanical manufacturing techniques	PE
<input type="checkbox"/>	enter text.	K11	Specific quality specifications for mechanical manufacturing operations	PE

Completed (v)	Evidence Reference	KSB Code	Option 3 - Electrical and Electronic Engineering Role	Assessment Method
<input type="checkbox"/>	enter text.	S17	Wire and terminate different types of cabling e.g. single core, multi core, screened, fire resistant, armoured, etc.	PE
<input type="checkbox"/>	enter text.	S18	Assemble and test a range of electrical components e.g. component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.	PE
<input type="checkbox"/>	enter text.	S19	Assemble and test a range of electronic components e.g. resistors, capacitors, diodes, transistors, etc.	PE
<input type="checkbox"/>	enter text.	S20	Follow appropriate completion activities and restore equipment/system to service after the assembly and testing has been completed	PE
<input type="checkbox"/>	enter text.	K12	Cable types and where they should be used	PE
<input type="checkbox"/>	enter text.	K13	Electrical and electronic assembly and testing techniques	PE
<input type="checkbox"/>	enter text.	K14	Specific safe working practices, isolation procedures and safe reinstating of equipment/system that need to be observed	PE
Completed (v)	Evidence Reference	KSB Code	Option 4 - Fabricator Role	Assessment Method
<input type="checkbox"/>	enter text.	S21	Shape the materials using the appropriate methods and techniques	PE
<input type="checkbox"/>	enter text.	S22	Join the materials using the appropriate methods and techniques	PE
<input type="checkbox"/>	enter text.	S23	Produce components which meet the specification requirements	PE
<input type="checkbox"/>	enter text.	S24	Carryout quality checks during and after the fabrication activities	PE
<input type="checkbox"/>	enter text.	K15	Specific marking out and preparation techniques	PE
<input type="checkbox"/>	enter text.	K16	Different fabrication and joining techniques	PE
<input type="checkbox"/>	enter text.	K17	Specific safe working practices, isolation procedures and safe reinstating of equipment/system that need to be observed	PE
Completed (v)	Evidence Reference	KSB Code	Option 5 - Material, Processing, Finishing Role	Assessment Method
<input type="checkbox"/>	enter text.	S25	Plan the materials, processing, finishing operation before they start	PE
<input type="checkbox"/>	enter text.	S26	Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the materials, processing, finishing operation	PE
<input type="checkbox"/>	enter text.	S27	Carryout the material, processing, finishing operation in line with specific safe working practices and specification requirements	PE
<input type="checkbox"/>	enter text.	S28	Carryout quality checks during and after the materials, processing, finishing operation	PE
<input type="checkbox"/>	enter text.	K18	Specific machinery, equipment and tooling required for the materials, processing, finishing operation	PE
<input type="checkbox"/>	enter text.	K19	Different materials, processing, finishing techniques	PE
<input type="checkbox"/>	enter text.	K20	Specific quality specifications for materials, processing, finishing operations	PE
Completed (v)	Evidence Reference	KSB Code	Option 6 - Technical Support Role	Assessment Method



<input type="checkbox"/>	enter text.	S29	Plan the technical support operation before they start	PE
<input type="checkbox"/>	enter text.	S30	Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the technical support activity	PE
<input type="checkbox"/>	enter text.	S31	Carry out the technical support operation in line with specific safe working practices and specification requirements	PE
<input type="checkbox"/>	enter text.	S32	Carryout quality checks during and after the technical support operation	PE
<input type="checkbox"/>	enter text.	K21	Specific machinery, equipment and tooling required for the technical support operation	PE
<input type="checkbox"/>	enter text.	K22	Different technical support techniques	PE
<input type="checkbox"/>	enter text.	K23	Specific safe working practices, procedures and quality requirements that need to be observed	PE

### Appendix 3: Gateway Checklist

The EPA must only start once the employer is satisfied that you are consistently working at, or above, the level set out in the occupational standard; that means you have achieved occupational competence. In making this decision, the employer may take advice from your training provider(s) but the decision must ultimately be made solely by the employer.

In addition to the employer’s confirmation that you are working at or above the level in the occupational standard, the following gateway requirements must be met prior to you starting the EPA:

The apprentice has:	Evidence reference	Employer/provider confirmation (v)	EPAO confirmation (v)
Satisfactorily completed training covering the skills, knowledge and behaviours as described in the standard.	enter text.	<input type="checkbox"/>	<input type="checkbox"/>
Achieved a Level 2 Diploma in Engineering Operations (competence)	enter text.	<input type="checkbox"/>	<input type="checkbox"/>
Achieved a Level 2 Certificate or Diploma in Engineering Operations (knowledge)	enter text.	<input type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> Achieved English and mathematics at level 2 or Apprentices without English and mathematics at level 2 must have achieved level 1 English and mathematics and have taken the tests for level 2.	enter text.	<input type="checkbox"/>	<input type="checkbox"/>
<sup>2</sup> Submitted a completed portfolio of evidence authenticated by employer	enter text.	<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup>For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language.

<sup>2</sup>Sufficient evidence in the form of a reflective portfolio authenticated by employer to allow the apprentice to consistently demonstrate knowledge, skills and behaviours as described in the standard. The Employer will be required to confirm that the reflective portfolio provides an accurate representation of work carried out by the apprentice and has not been embellished. The portfolio must include samples of work carried out within the last three months of the on programme period, and must include a minimum of 2 and no more than 3 activities carried out by the apprentice that demonstrates the higher order knowledge, skills and behaviours of the standard.

**Please refer to the assessment plan for this standard for full details.**





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