JIB 2011 TRAINING SCHEME FOR MECHANICAL ENGINEERING SERVICES APPRENTICES

Joint Industry Board for the Electrical Contracting Industry

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Preface

The JIB 2011 Training Scheme for Mechanical Engineering Services Apprentices (hereinafter referred to as the JIB 2011 Mechanical Training Scheme) encompasses the framework of an Advanced Level Apprenticeship for Apprentices (“the apprenticeship”) following Mechanical Engineering Services (MES) routes in the occupational fields of Heating, Ventilation, Air Conditioning and Refrigeration, as defined by SummitSkills, the Sector Skills Council for the Building Services Engineering Sector. The routes covered by this JIB 2011 Mechanical Training Scheme include:

- Heating & Ventilating - Ductwork Installation
- Heating & Ventilating - Engineering
- Heating & Ventilating - Welding
- Heating & Ventilating - Service and Maintenance (tbc.)
- Domestic Heating
- Refrigeration – Installing and Commissioning
- Refrigeration – Service and Maintenance
- Air Conditioning and Heat Pump Systems – Installing and Commissioning
- Air Conditioning and Heat Pump Systems – Service and Maintenance

Additions and alterations to this Scheme shall only be made by the JIB National Board.
1. **TRAINING AGENTS**

The JIB 2011 Mechanical Training Scheme is operated by Training Agents who must be registered with the JIB.

Applications to become a Training Agent must be made through the JIB. The JIB will hold a register of Training Agents.

In most instances the Training Agent will be JTL which is the Industry’s preferred training body.

The Training Agent can be an employer, a Training Organisation or any organisation capable of ensuring that the JIB 2011 Mechanical Training Scheme is properly delivered and monitored.

Training Agents are responsible for providing an approved delivery and assessment plan that will enable full completion of the apprenticeship.

The role of the Training Agent will include:

(a) Requiring that all apprentices are registered with the JIB
(b) Ensuring and monitoring training to ensure it is carried out to the required standard
(c) Requiring that the training is provided at no cost to the apprentice
(d) Requiring that Field Evidence Records (or approved equivalents) are maintained
(e) Requiring that a mechanism by which disputes or grievances raised by the apprentice can be dealt with exists. Should disputes/grievances not be resolved through this mechanism then the apprentice will have the right to refer the matter initially through the JIB’s Disputes Procedure
(f) Liaising and providing secretarial and other support for local Training Forums.
2. **ENTRY INTO THE INDUSTRY**

All persons who wish to enter the MES [see Note 1] within the Building Services Engineering Industry must have completed their statutory education.

A selection test must be undertaken to ensure the applicant understands the specific nature of the Industry and has the necessary aptitude, including numeracy and literacy, to make completion of the apprenticeship a realistic prospect.

All applicants must be examined by a Registered Medical Practitioner to certify physical fitness, normal vision, (this can be achieved by the wearing of vision corrective glasses/contact lenses) and absence of colour blindness in order to carry out the role to the degree necessary to ensure no impediment to safe working and in accordance with disability discrimination law.

With regard to colour blindness, this may be confirmed by production of suitable evidence from a Registered Medical Practitioner or optician at the point of selection testing having undertaken the Ishihara Test in compliance with the HSE Guidelines for Employers.

The JIB 2011 Mechanical Training Scheme is open to either gender and there must be no discrimination on the grounds of, age, racial origin, nationality, creed, sexual orientation, or disability - subject to the safety requirements of the industry.

**[Note 1]** The Mechanical Engineering Services (MES) industry within the Building Services Engineering sector embraces technical operations and projects relevant to, installing, commissioning, servicing, repairing and maintaining all forms of piping, gas installations, plastic pipework, boilers including oil fired installations, dry and wet risers, sprinkler systems and deluge systems, heated ceilings, ductwork installation, associated thermal insulation, and associated Environmental Technologies.
3. **PRE-REGISTRATION PERIOD**

A period of employment may precede the formal commencement of the apprenticeship.

Following a site safety induction, which will include Health & Safety Awareness, entrants may spend this time on site when they will be treated and paid as a Stage 1 Apprentice.

**Please note that an apprentice can be registered onto the JIB 2011 Mechanical Training Scheme at any time.**

Apprentices working for JIB member companies will be covered for Death and Disability Benefit during this pre-registration period, providing the Company notifies the JIB immediately employment commences.

Non-member companies must provide for this entitlement through their own insurance.

The maximum hours which can be worked per week are governed by the Working Time Regulations 1998 (as amended) and, where applicable, the Young Workers Directive.
4. **REGISTRATION OF APPRENTICES**

Electronic registration must take place within 4 weeks of completion of formal registration with the Training Agent.

The Training Agent will register the apprenticeship with the JIB, providing an electronically submitted photograph of the apprentice and the appropriate registration fee of £65.

After successful registration the apprentice will receive:

- JIB Handbook
- Unite membership form
- Apprentice ECS card
- Safe Isolation card (Refrigeration and Maintenance apprentices only)

The JIB will also make an online Registration Certificate available for download.

JIB registered apprentices are entitled to Life Assurance, Accidental Death Benefit and Permanent & Total Disability benefit.

JIB members meet these obligations by complying with the Industry’s Benefits Scheme arrangements.

Non-JIB companies must provide the same level of cover either through their own insurance company or via insurance purchased from the JIB. For details of the current premium, please contact the JIB.

These benefits are:-

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Life Assurance</td>
<td>£7,500</td>
</tr>
<tr>
<td>Accidental Death Benefit</td>
<td>£6,250</td>
</tr>
<tr>
<td>Permanent &amp; Total Disability Benefit</td>
<td>up to £7,500</td>
</tr>
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The apprentice and employer must keep the JIB advised, in writing, of any changes such as new address or employer or email address.
5. EMPLOYMENT

(a) Terms and Conditions

Apprentices must be provided with a statement of their main terms and conditions of employment in accordance with the Employment Rights Act 1996 or the Employment Rights (Northern Ireland) Order 1996.

For JIB members, apprentices registered under the JIB 2011 Mechanical Training Scheme are covered by the JIB National Working Rules, including rates of pay.

The JIB National Working Rules will be considered as best practice for non-member companies.

Full details of JIB rates of pay and Travelling Time and Travel Allowances are covered within National Working Rules 6 and 11 which are contained within the JIB Handbook and on the JIB’s website at www.jib.org.uk

Guidance on the National Minimum Wage

From 1st October 2011 the National Minimum Wage for apprentices under the age of 19 or those that are aged 19 and over (but in their first year of apprenticeship) will be £2.60 per hour.

Outside of these the National Minimum Wage for those aged:

16-17 years old will be £3.68 per hour
18-20 years old will be £4.98 per hour
21 years old and over will be £6.08 per hour.

(b) Holidays

(i) Annual holiday

During each year, apprentices are entitled to 22 days’ paid annual holiday.

The apprentices’ holiday year runs from 1st June to 31st May.
The pay for each week of holiday shall comply with the Working Time Regulations 1998. Factors to take into consideration when calculating a week’s pay are set out in National Working Rule 13 which is contained within the JIB Handbook and on the JIB’s website at www.jib.org.uk

During the first year of training the apprentice’s holiday will be based on completed months of service.

All holidays will be taken at dates agreed in advance with the employer.

In the event of termination or transfer, the old employer will pay the apprentice any outstanding holiday pay.

The new employer’s holiday liabilities will commence from the date the apprentice starts with the new employer. Holiday pay will be paid on a pro rata basis.

(ii) Statutory holiday

In addition to annual holidays, apprentices are entitled to 8 statutory holidays.

For details of statutory holidays, please refer to National Working Rule 12 which is contained within the JIB Handbook and on the JIB’s website at www.jib.org.uk

(c) Sick pay

Apprentices will be required to comply with their employer’s procedure for the notification of absence due to illness. After three waiting days they will be entitled to Statutory Sick Pay.

After the same waiting days, they will become entitled to an additional payment of £15.00 per week from their employer for an aggregate period of 12 weeks in any consecutive 12 months.
(d) **Tool Kits**

The apprentice will be required to provide a

- a quality tape measure
- a small spirit level

The employer will provide all other tools.

For the avoidance of doubt the JIB Handtool Replacement Scheme will NOT apply to mechanical apprentices.

(e) **Disciplinary and grievance procedures**

All employers are required to have disciplinary and grievance procedures in place which comply with current employment legislation.

In the absence of any disciplinary or grievance procedure, JIB National Working Rules 19 and 20 (which comply with statute) shall be deemed as the default.

All signatories to the apprenticeship and, if the apprentice is a member of Unite, the Regional Officer, must be kept informed of any instances where formal disciplinary action may be necessary.

As a final stage, all disputes or grievances arising from the operation of the JIB 2011 Mechanical Training Scheme, by either JIB or non-member companies, shall be referred to the JIB for resolution within the Industry’s procedures.

(f) **Transfer**

If either the apprentice or employer is dissatisfied with the progress of the training, an application can be made (by either party) to the Training Agent, for a transfer to be considered.
The Training Agent shall conduct a full investigation of the facts surrounding the request and any final decision to transfer to another employer can only be made with the full agreement of the current employer.

Such agreement must not be unreasonably withheld.

If either party feels a transfer is being unreasonably withheld then the matter can be referred by either party to be investigated by the JIB.

(g) **Termination of the Apprenticeship**

(i) **Failure to achieve the appropriate standard**

The employer may terminate the apprenticeship if the apprentice is unable, due to lack of application and/or capability, to reach the standard necessary to progress.

Before such a decision is taken, the employer must involve the Training Agent, parent or guardian and, if the apprentice is a member of Unite, the Regional Officer.

The employer will be required to demonstrate that the necessary support and guidance has been provided to assist the apprentice achieve the relevant targets.

(ii) **Redundancy**

In the event of a downturn in work which could result in redundancies, the employer may, with the consent of the apprentice, parent or guardian and, if the apprentice is a member of Unite, the Regional Officer, apply to the Training Agent for a transfer of the apprenticeship to be considered.

The Training Agent will make all reasonable endeavours to arrange a transfer - full details of which must be recorded - but this cannot be guaranteed.
Until such time as a transfer has been arranged and recorded with the JIB, the original employer remains liable for all the obligations of the apprenticeship, including wages.

Only in the event that an alternative employer cannot be found, may the apprenticeship be terminated on the grounds of redundancy.
6. TRAINING PROGRESS

(a) Stages of apprenticeship

There are currently pathways leading into:

Heating & Ventilating (Appendix C)
Domestic Heating (Appendix D) and
Refrigeration and Air Conditioning (Appendix E).

Progression through the different stages of the 2011 Mechanical Training Scheme is based purely on achievement, not age (see (d)).

Best endeavours will be used to ensure the apprenticeship is completed within a 4 year period.

(b) Qualifications

The qualifications that are required to be attained within the 2011 JIB Mechanical Training Scheme are based on National Occupational Standards developed by the Building Services Engineering Sector Skills Council (SummitSkills) for the MES Industry.

The minimum requirement for apprentices to attain skilled status has been agreed by the parties to the JIB as a full Level 3 Advanced Level Apprenticeship Framework.

The National Occupational Standards identify the various tasks a competent qualified operative working in a specific occupation will be required to undertake, and provide the measure against which competence to carry out this work can be judged.

Apprentices will be required to demonstrate their competence through building a portfolio for assessment against these standards using various forms of recorded evidence. It is essential that these portfolios are accurately completed by the apprentice, and kept up to date. To assist in this process sufficient support and guidance from both the employer and Training Agent is crucial.
(c) Attendance at Classes

All apprentices will be required to attend college, or any other approved training establishment, as specified by the Training Agent. By the contractual agreement to train, the employer must allow the apprentice to attend college at the designated times in order to complete the off-the-job vocational education and training elements required to complete the apprenticeship.

For each college/training day the employer will pay the apprentice a normal working day’s pay plus the actual fares incurred and, where not recoverable from other sources, the employer will meet any fees applicable.

(d) Advancement

Please note that advancement is linked to both service AND attainment of qualifications. There are various targets within each stage of the apprenticeship which must be achieved before advancement to the next stage can occur.

Throughout the apprenticeship it is important that continuous consultation takes place between the employer and the Training Agent. This process will monitor learning and competence progression and identify any shortfalls at the earliest possible opportunity.

In September of each year, the employer must review the progress of their apprentices to establish whether they have achieved the training targets defined in their Individual Learning Plan.

Apprentices who do not meet their annual training targets will remain at their current stage for a further period of six months when the situation will be reviewed. Failure to progress may result in termination of the apprenticeship but only after the process outlined under paragraph 5 (g) has been exhausted.
Once the employer is satisfied that the targets have been met - guidance on this can be obtained from the Training Agent - they must advance the apprentice to the next stage.

The enhanced hourly rate will be paid from the following pay week.

(e) **Appeals**

Apprentices who believe they are eligible for advancement and consider this is being unreasonably withheld have a right of appeal to the JIB.

However, this should be regarded as a final stage and before taking this course of action, every attempt must be made by the apprentice to resolve the issue with their employer through, if necessary, the company’s grievance machinery.

Apprentices who are members of Unite should contact their Regional Officer for guidance.
7. **COMPLETION OF APPRENTICESHIP**

The onus rests with the **employer** to initiate the formal completion of the apprenticeship (see Appendix D).

Completion of the apprenticeship at the end of Stage 4 requires attainment of the Advanced Level Apprenticeship Completion Certificate which includes the following components:

- Level 3 NVQ Diploma in the appropriate Mechanical Engineering Services discipline
- Appropriate Functional Skills qualification

Please note that for completion of an apprenticeship, it is a requirement of Government that the apprentice must attain the awards for Functional Skills stipulated within the relevant industry apprenticeship framework.
APPENDIX A

Advanced Level Apprenticeships in Heating & Ventilating (H&V) Systems (QCF – Qualifications and Credit Framework)

The following job titles and roles are covered in the SummitSkills Advanced Level Framework for those following Heating and Ventilating occupational pathways to:

- H&V Ductwork Installer
- H&V Engineer
- H&V Welder
- H&V Service and Maintenance Engineer

To achieve one or more of these occupational disciplines, the structure of the pathways for this framework at level 3 are outlined below:

PATHWAY 1 – HEATING & VENTILATING DUCTWORK INSTALLER

Pathway 1: Installing and Pre-commissioning Industrial and Commercial H&V Ductwork Systems - leading to:

Qualification: Level 3 NVQ Diploma in Heating & Ventilating - Ductwork Installation

Successful completion of the above framework entitles the candidate to:

Job title / Occupational discipline: Heating & Ventilating Ductwork Installer
Job role: Completes and oversees the installation, assembly, fitting, testing, pre-commissioning and de-commissioning of ductwork systems.
JIB Grade: Craftsperson
Progression: Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the grading definitions within section 4 of the JIB Handbook.

PATHWAY 2 – HEATING & VENTILATING ENGINEER

Pathway 2: Installing and Pre-commissioning Industrial and Commercial H&V Pipework Systems - leading to:

Qualification: Level 3 NVQ Diploma in Heating & Ventilating - Industrial and Commercial
Including optional pathway P1

**Knowledge unit from P1:** Understand industrial and commercial H&V maintenance techniques

**Competence unit from P1:** Maintain industrial and commercial H&V systems

Successful completion of the above framework entitles the candidate to:

**Job title / Occupational discipline:** Heating & Ventilating Engineer

**Job role:** Completes and oversees the installation, testing, pre-commissioning and maintenance of industrial and commercial H&V systems including hot water, cold water, heating, fire protection and compressed air systems.

**JIB Grade:** Craftsperson

**Progression:** Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the grading definitions within section 4 of the JIB Handbook.

**Or:**

**HEATING & VENTILATING WELDER**

**Pathway 2:** Installing and Pre-commissioning Industrial and Commercial H&V Pipework Systems - leading to:

**Qualification:** Level 3 NVQ Diploma in Heating & Ventilating - Industrial and Commercial

Including optional pathways P2 (oxy-acetylene) and/or P3 (metal arc):

Optional pathway P2

**Knowledge unit from P2:** Understand industrial and commercial oxy-acetylene pipe jointing techniques.

**Competence unit from P2:** Perform industrial and commercial oxy-acetylene pipe jointing techniques.

Optional pathway P3

**Knowledge unit from P3:** Understand industrial and commercial manual metal arc pipe jointing techniques.

**Competence unit from P3:** Perform industrial and commercial manual metal arc pipe jointing techniques.
Successful completion of the above framework entitles the candidate to:

**Job title / Occupational discipline:** Heating & Ventilating Welder - H&V Welder (oxy-acetylene) and/or H&V Welder (metal arc).

**Job role:** Completes and oversees the installation, fabrication, welding and specialist jointing of industrial and commercial H&V pipework systems.

**JIB Grade:** Craftsperson

**Progression:** Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the grading definitions within section 4 of the JIB Handbook.

**PATHWAY 3 – HEATING & VENTILATING SERVICE AND MAINTENANCE ENGINEER**

**Pathway 3:** Servicing and Maintaining H&V Systems - leading to:

**Qualification:** Level 3 NVQ Diploma in Planned and Reactive Maintenance on Heating & Ventilating Systems

Successful completion of the above framework entitles the candidate to:

**Job title / Occupational discipline:** Heating & Ventilating Service and Maintenance Engineer

**Job role:** Completes and oversees the servicing and maintenance, fault-finding, repairs, rectification and modification of complex H&V systems, components, pipework and appliances.

**JIB Grade:** Craftsperson

**Progression:** Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the grading definitions within section 4 of the JIB Handbook.
APPENDIX B

Advanced Level Apprenticeships in Domestic Heating (QCF – Qualifications and Credit Framework)

The following job titles and roles are covered in the SummitSkills Advanced Level Framework for those following Domestic Heating occupational pathways to:

- Advanced Domestic Heating Installer (Domestic oil firing pressure jet appliances)
- Advanced Domestic Heating Installer (Domestic oil firing vaporising appliances)
- Advanced Domestic Heating Installer (Solid mineral fuel burning appliances)
- Advanced Domestic Heating Installer (Biomass fuel burning appliances)
- Advanced Domestic Heating Installer (Solar thermal hot water systems)
- Advanced Domestic Heating Installer (Heat pump systems – non-refrigerant circuits)
- Advanced Domestic Heating Installer (Gas-Fired Warm Air Appliances)
- Advanced Domestic Heating Installer (Gas-Fired Water and Central Heating Appliances)

Via one of the following pathways:

- Pathway 1: Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options)
- Pathway 2: Domestic Heating (Gas-Fired Warm Air Appliances)
- Pathway 3: Domestic Heating (Gas-Fired Water and Central Heating appliances)

To achieve the above occupational discipline, the structure of the pathways for this framework at level 3, depending on the pathway taken, then split into a number of specialist routes and options as outlined below:
**PATHWAY 1 – ADVANCED DOMESTIC HEATING INSTALLER (OIL-FIRED, SOLID FUEL OR ENVIRONMENTAL OPTIONS)**

**Pathway 1:** Domestic Heating (Oil-Fired, Solid Fuel or Environmental Options) - leading to:

**Qualification:** Level 3 NVQ Diploma in Domestic Heating

With the above Diploma including one of the following **Optional Groups:**

**PG1 - Oil Firing Pathway:**

Pathway Mandatory group

**Knowledge units**
- Understand core oil firing safety principles in domestic building services engineering

**Competence units**
- Apply core oil firing safety in domestic building services engineering

**Plus:**

Optional Units Route 1 (Domestic oil firing pressure jet appliances)

**Knowledge Units**
- Understand the principles of domestic oil firing pressure jet appliances

**Competence Units**
- Install, test and commission domestic oil firing pressure jet appliances
- Service and maintain domestic oil firing pressure jet appliances

**Or:**

Optional Units Route 2 (Domestic oil firing vaporising appliances)

**Knowledge Units**
- Understand the principles of domestic oil firing vaporising appliances
**Competence Units**
- Service and maintain domestic oil firing vaporising appliances
- Install, test and commission domestic oil firing vaporising appliances

**PG2 - Solid Fuel Pathway:**

**Pathway Mandatory Group**

**Knowledge Units**
- Understand core solid fuel safety principles in domestic building services engineering

**Competence Units**
- Apply core solid fuel safety in domestic building services engineering

**Plus one of the following Optional Units Routes:**

**Optional Units Route 1 (Solid mineral fuel burning appliances)**

**Knowledge Units**
- Understand the principles of domestic solid mineral fuel burning appliances

**Competence Units**
- Service and maintain domestic solid mineral fuel burning appliances
- Install, test and commission domestic solid mineral fuel burning appliances

**Optional Units Route 2 (Biomass fuel burning appliances)**

**Knowledge Units**
- Understand the installation and commissioning principles of biomass fuel burning appliances
- Understand the service and maintenance principles of biomass fuel burning appliances

**Competence Units**
- Service and maintain domestic biomass fuel burning appliances
- Install, test and commission domestic biomass fuel burning appliances
**PG3 - Environmental Technologies Pathway:**

**Pathway Mandatory Knowledge Unit**
Understand the fundamental principles and requirements of environmental technology systems

Plus:

**Optional Units Route 1 (Solar thermal hot water systems)**

**Knowledge Units**
- Know the requirements to install, commission and handover solar thermal hot water systems
- Know the requirements to inspect, service and maintain ‘active’ solar thermal hot water systems

**Competence Units**
- Install, commission and handover ‘active’ solar thermal hot water systems
- Inspect, service and maintain ‘active’ solar thermal hot water systems

**Or:**

**Optional Units Route 2 (Heat pump systems – non-refrigerant circuits)**

**Knowledge Units**
- Know the requirements to install, commission and handover heat pump systems - non-refrigerant circuits
- Know the requirements to inspect, service and maintain heat pump system installations - non-refrigerant circuits

**Competence Units**
- Install, commission and handover heat pumps - non-refrigerant circuits
- Inspect, service and maintain heat pump installations - non-refrigerant circuits

**Or:**

**Optional Units Route 3 (rainwater harvesting and greywater reuse systems)**
Knowledge Units

- Know the requirements to inspect, service and maintain rainwater harvesting and greywater reuse systems
- Know the requirements to install, commission and handover rainwater harvesting and greywater reuse systems

Competence Units

- Install, commission and handover rainwater harvesting and greywater reuse systems
- Inspect, service and maintain rainwater harvesting and greywater reuse systems

Successful completion of the above framework Pathway 1, in one or more of the required specified routes and options, entitles the candidate to:

Job titles / Occupational disciplines:

One or more of the following, relevant to their path of study:

- Advanced Domestic Heating Installer (Domestic oil firing pressure jet appliances)
- Advanced Domestic Heating Installer (Domestic oil firing vaporising appliances)
- Advanced Domestic Heating Installer (Solid mineral fuel burning appliances)
- Advanced Domestic Heating Installer (Biomass fuel burning appliances)
- Advanced Domestic Heating Installer (Solar thermal hot water systems)
- Advanced Domestic Heating Installer (Heat pump systems – non-refrigerant circuits)

Job role: Completes and oversees work to install, service, maintain and commission domestic hot water, cold water and central heating systems.

JIB Grade: Craftsperson

Progression: Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the Mechanical Trades Agreement in section 4 of the JIB Handbook.
PATHWAY 2 – ADVANCED DOMESTIC HEATING INSTALLER (GAS FIRED WARM AIR APPLIANCES)

Pathway 1: Domestic Heating (Gas-Fired Warm Air Appliances) - leading to:

Qualification: Level 3 NVQ Diploma in Domestic Heating (Gas-Fired Warm Air Appliances)

With the above Diploma including the following units:

Knowledge Units
- Understand how to organise resources in building services engineering
- Understand core gas safety principles for natural gas in domestic building services engineering

Competence units
- Understand and carry out electrical work on domestic plumbing and heating systems and components
- Tightness test, purge, commission and de-commission gas pipework up to 35mm 1¼ diameter in small natural gas installations
- Install, commission and de-commission gas pipework up to 35mm 1¼ diameter in domestic and small commercial premises
- Specific core installation and maintenance
- Install, commission, service and maintain domestic heating systems
- Maintain gas warm air central heating systems and appliances
- Install domestic gas warm air central heating appliances
- Understand and apply domestic cold water system installation, commissioning, service and maintenance techniques
- Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques
- Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques

Successful completion of the above framework Pathway 2, entitles the candidate to:
Job title / Occupational discipline: Advanced Domestic Heating Installer (Gas-Fired Warm Air Appliances)
Job role: Completes, oversees and organises work to install, service, maintain and commission domestic heating systems, components and gas-fired warm air appliances
JIB Grade: Craftsperson
Progression: Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the Mechanical Trades Agreement in section 4 of the JIB Handbook.

PATHWAY 3 – ADVANCED DOMESTIC HEATING INSTALLER (GAS FIRED WATER AND CENTRAL HEATING APPLIANCES)

Qualification: Level 3 NVQ Diploma in Domestic Heating (Gas-Fired Water and Central Heating Appliances)

With the above Diploma including the following units:

Knowledge Units
- Understand how to organise resources in building services engineering
- Understand core gas safety principles for natural gas in domestic building services engineering

Competence Units
- Understand and carry out electrical work on domestic plumbing and heating systems and components
- Tightness test, purge, commission and de-commission gas pipework up to 35mm 1¼ diameter in small natural gas installations
- Install, commission and de-commission gas pipework up to 35mm 1¼ diameter in domestic and small commercial premises
- Maintain gas water heating and wet central heating appliances
- Install domestic gas water heaters and wet central heating appliances
- Specific core installation and maintenance
- Install, commission, service and maintain domestic heating systems
- Understand and apply domestic cold water system installation, commissioning, service
- and maintenance techniques
• Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques
• Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques

Successful completion of the above framework Pathway 3, entitles the candidate to:

**Job title / Occupational discipline:** Advanced Domestic Heating Installer (Gas-Fired Water and Central Heating Appliances)

**Job role:** Completes, oversees and organises work to install, service, maintain and commission domestic heating systems, components and gas-fired water and central heating appliances

**JIB Grade:** Craftsperson

**Progression:** Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the grading definitions within section 4 of the JIB Handbook.
APPENDIX C

Advanced Level Apprenticeships in Refrigeration and Air Conditioning (RAC) (QCF – Qualifications and Credit Framework) (SummitSkills)

The following job titles and roles are covered in the SummitSkills Advanced Level Framework for those following Refrigeration and Air Conditioning occupational pathways to:

- Refrigeration Technician
- Refrigeration Service and Maintenance Technician
- Air Conditioning Technician
- Air Conditioning Service and Maintenance Technician

To achieve one or more of these occupational disciplines, the structure of the Advanced Level Apprenticeship pathways for this framework at level 3 are outlined below:

PATHWAY 1 – REFRIGERATION TECHNICIAN

Pathway 1: Refrigeration - leading to:


Successful completion of the above framework entitles the candidate to:

Job title / Occupational discipline: Refrigeration Technician
Job role: Completes and oversees the installation, testing, commissioning and de-commissioning of refrigeration systems and components.
JIB Grade: TBA (Level 3 NVQ Certificate, not Level 3 NVQ Diploma)
Progression: TBA

PATHWAY 2 – REFRIGERATION SERVICE AND MAINTENANCE TECHNICIAN

Pathway 2: Refrigeration Service and Maintenance - leading to:

Qualification: Level 3 NVQ Diploma in Servicing and Maintaining Refrigeration Systems.
Successful completion of the above framework entitles the candidate to:

**Job title / Occupational discipline:** Refrigeration Service and Maintenance Technician  
**Job role:** Completes and oversees the servicing and maintenance of refrigeration systems and components  
**JIB Grade:** Craftsperson  
**Progression:** Subject to meeting the requirements of the grading definitions, the Craftsperson can then progress to the grade of Advanced Craftsperson and so on, as defined under the Mechanical Trades Agreement in section 5 of the JIB Handbook.

**PATHWAY 3 – AIR CONDITIONING TECHNICIAN**

**Pathway 3:** Air Conditioning - leading to:

**Qualification:** Level 3 NVQ Certificate in Installing and Commissioning Air Conditioning and Heat Pump Systems

Successful completion of the above framework entitles the candidate to:

**Job title / Occupational discipline:** Air Conditioning Technician  
**Job role:** Completes and oversees the installation, assembly, fitting, testing, commissioning and de-commissioning of air conditioning and heat pump systems and associated components.  
**JIB Grade:** TBA *(Level 3 NVQ Certificate, not Level 3 NVQ Diploma)*  
**Progression:** TBA

**PATHWAY 4 – AIR CONDITIONING SERVICE AND MAINTENANCE TECHNICIAN**

**Pathway 4:** Air Conditioning Service and Maintenance - leading to:

**Qualification:** Level 3 NVQ Certificate in Servicing and Maintaining Air Conditioning and Heat Pump Systems

Successful completion of the above framework entitles the candidate to:

**Job title / Occupational Discipline:** Air Conditioning Service and Maintenance Technician.  
**Job role:** Completes and oversees the servicing and maintenance of air conditioning and heat pump systems and associated components.  
**JIB grade:** TBA *(Level 3 NVQ Certificate, not Level 3 NVQ Diploma)*  
**Progression:** TBA
APPENDIX D

COMPLETION PROCEDURE

Apprenticeships have a special status in law. They are deemed as a strictly one-off contract which is incapable of being renewed. Therefore completion of an apprenticeship and non-engagement of an apprentice is not deemed as a dismissal.

However employers are obliged to ensure that the apprenticeship is correctly completed and in line with the stipulated timescales set out by the JIB. Failure to do so can still lead to Unfair Dismissal claims.

1. Continuation of the employment after the attainment of skilled status.

Companies intending to retain the services of the apprentice following completion must complete the relevant section of the ECS/Grading Application Form.

The

- Advanced Apprenticeship Completion Certificate;
- copy of the Level 3 NVQ Diploma in a relevant Mechanical Engineering Services apprenticeship framework and the
- completed ECS application form.

must be sent to the ECS Registration Department at the JIB.

The documentation must be sent to the JIB within 14 days of receipt of the completed ECS form to the employer by the apprentice.

(Please note the standard fee for an ECS card is waived for registered apprentices.)

The JIB will issue an ECS card which will be valid for three years. A Completion Diploma will also be made available online for download.

A completed apprentice becomes entitled to the electrician's rate of pay from the pay week following the date of grading. The JIB will electronically notify both the employer and the newly-graded electrician.
A new Contract of Employment should be issued to mark the change of status.

It should be noted however that as there has been no break in service, the date of commencement of employment remains unchanged. The total period of employment is regarded as continuous and must be used for the calculation of entitlements in the event of a future redundancy or dismissal with notice.

2. **Termination of the employment upon completion of Apprenticeship**

Companies **not** intending to retain the services of the apprentice following completion are required to complete the relevant section of the ECS/Grading Application Form.

The

- Advanced Apprenticeship Completion Certificate;
- copy of the Level 3 NVQ Diploma in a relevant Mechanical Engineering Services apprenticeship framework and the
- completed ECS application form.

must be sent to the ECS Registration Department at the JIB.

The documentation must be sent to the JIB within 14 days of receipt of the completed ECS form to the employer by the apprentice.

(Please note the standard fee for an ECS card is waived for registered apprentices.)

The JIB will issue an ECS card which will be valid for three years. A Completion Diploma will also be made available online for download.

A completed apprentice becomes entitled to the Craftsperson’s rate of pay from the pay week following the date of grading. The JIB will electronically issue this notification to both the employer and the newly-graded Craftsperson.

To ensure that companies do not become liable for claims of Unfair Dismissal, adherence to the following procedure, which has been written in line with National Working Rule 19, is recommended:-
(i) Advise the apprentice at the earliest opportunity that they will not be offered a job upon completion and confirm this in writing.

(ii) Hold a meeting with the apprentice to determine a finite date for completion of the apprenticeship and the date of termination.

The apprentice has a right to be accompanied at this meeting by a fellow employee or, if appropriate, a Union Official.

If, following the meeting, the original decision is unchanged then again, confirm this in writing.

A right of appeal against the company's decision must be offered.

(iii) If an appeal is lodged, a further meeting should take place for this to be considered. As before, the apprentice has a right to be accompanied.

If the outcome is unchanged then, upon conclusion of the internal procedure, an application can be made to the JIB for formal completion of the apprenticeship.

The date of termination needs to take account that at least 14 days must be allowed for the administration of the completion and grading process.

Within the documentation the employer must inform the JIB of the termination/completion date. The JIB will use this date on the Completion Diploma and ECS card. It will also mark the apprentice's last day of employment.

If, for whatever reason, the ECS Card is issued after the termination date it will not have any effect upon either the employer or the apprentice as the apprenticeship will have already been completed.