

## ELECTROTECHNICAL CAREERS IN WALES

The electrotechnical industry is fast moving and exciting. It offers a vast range of career opportunities, covering the following main occupations:

An installation electrician is responsible for installing and commissioning modern electrical systems within buildings. This can include power, lighting, fire protection, security and structure cabling.

### INSTALLATION ELECTRICIAN

### MAINTENANCE ELECTRICIAN

Maintenance electricians ensure that modern electrical systems and the equipment they serve run effectively and efficiently.

An electrotechnical panel builder uses programmable logic controllers and information technology to build and manage the electrical control panels that ultimately control a building's heating, ventilation, air conditioning and refrigeration equipment.

### ELECTROTECHNICAL PANEL BUILDER

### INSTRUMENTATION ELECTRICIAN

The job of instrumentation electrician involves commissioning, testing, fault finding and repairing of building environmental control systems, such as large air conditioning units, heating and refrigeration.

### ELECTRICAL MACHINE REPAIRER & REWINDER

Skilled electrical machine repair and rewind specialists are required to repair and maintain equipment and machinery such as transformers, compressors, pumps and fans within buildings.

Highway electrical systems play an important part in our everyday lives; trained highway electrical systems electricians ensure that our street lighting, including traffic management systems, are continuously managed and maintained to a high standard.

### HIGHWAY ELECTRICAL SYSTEMS ELECTRICIAN

## WHAT SORT OF PERSON DO YOU NEED TO BE?

- Are you good at working with your hands?
- Are you prepared to undertake a physically demanding job, working in a variety of environments, often on site, at heights and in all sorts of weather?
- Do you have full colour vision?\*
- Are you presentable and of smart appearance?
- Are you able to work both on your own initiative as well as in a team?
- Are you able and willing to follow all safety instructions given by persons in authority?
- Are you a good communicator with the ability to take direction and advice from supervisors, managers and other people in positions of authority?

\* For safety reasons, if you are colour blind or colour confused you may have to undergo specialist assessment to ascertain your suitability



## WHERE DO I GO NEXT?

You can contact your local careers advisor and / or contact one of the following organisations to seek advice on your next step towards working in the electrotechnical industry.

- SummitSkills Careers Advice Line: 08000 688 336
- SummitSkills website: [www.summitskills.org.uk](http://www.summitskills.org.uk)
- JT Limited: [www.jtlimited.co.uk](http://www.jtlimited.co.uk) or telephone 08000 852 308
- Your local college
- Your local careers office: [www.careerswales.com](http://www.careerswales.com)

You can also start looking for a suitable apprenticeship by sending a letter with your CV to employers in your area.

## HOW LONG DOES IT TAKE?

Your training will take between three and four years.

## QUALIFICATION CHART

The chart shows you what you will be studying while on your apprenticeship programme. Your learning and training programme will depend on the occupation route chosen.

Programme	Occupation Route	Technical Cert.	Key Skills	Other Learning
Foundation Modern Apprenticeship	NVQ Level 2 – Installing Electrotechnical Systems NVQ Level 2 – Installing Highway Electrical Systems	C&G 2330: Certificate in Electrotechnical Technology – Level 2		Employment Rights and Responsibilities (mandatory)
Modern Apprenticeship	NVQ Level 3 – Electrotechnical Services ● Electrical Installation – Buildings & Structures or ● Electrical Maintenance or ● Installing Instrumentation or ● Installing Highway Electrical Systems NVQ Level 3 – Electrotechnical Panel Building NVQ Level 3 – Electrical Machine Rewind & Repair	C&G 2330: Certificate in Electrotechnical Technology – Level 3	Communication Level 2 Application of Number Level 2 Information Technology Level 1	Practical Performance Assessment – Level 3 (mandatory)

*Any reference to training providers in this documentation does not imply endorsement or approval by SummitSkills. Other suitable training providers may also be available in your area.*

## TRAINING AND QUALIFICATIONS

For those aged between 16 and 19 years old an apprenticeship scheme is the best way to start a career in the electrotechnical industry. For those outside this age group, apprenticeship schemes may be available depending on certain entrance criteria. Please call the Careers Advice Line for specific details.

### What does this involve?

- A foundation modern apprenticeship is a work-based training programme that offers you paid employment while you learn.
- During your apprenticeship you will gain valuable work experience to develop all the practical and technical skills you need to be a competent electrotechnical professional, while you work towards an National Vocational Qualification (NVQ) Level 2 in your specialist electrotechnical area. There is also the opportunity to progress to a modern apprenticeship.
- As a modern apprentice, you will be employed by an employer in the industry, with an appropriate wage, aiming for a craft or technical role as a qualified operative in your chosen electrotechnical occupation.
- A modern apprenticeship generally takes four years to complete and leads to an NVQ Level 3 in your chosen career area. NVQs are widely recognised by employers.
- Your training will be structured so that you spend some of your time at a training centre completing your NVQ in addition to Key Skills and Technical Certificates.
- The rest of your time will be on-the-job learning from skilled colleagues. Generally, a training provider will appoint a training officer who will develop the appropriate training programme for you, monitor your progress, help and support you, your employer and the training centre staff.
- Above all it is very important that both you and your employer make a commitment to complete the full course of training.