

MAIN ELECTRICAL TRAINING ELECTRICIAN COURSE SYLLABUS

GENERAL OVERVIEW 2009

Course Description

The course is a flexible training program structured in such a way, that without any prior knowledge you would be guided from a standing start to a level of competency enabling you to operate as a Domestic Electrical Installer (subject to passing all internal / external examinations and assessments). Flexible study time, fully recognized industry qualifications and a great new career for you.

Who is the course for?

It is aimed at people with no electrical installation knowledge or those who have some prior knowledge wishing to upgrade their skills. We consider all ages from 18 upwards.

Course outcome

To provide new students with the theoretical knowledge and practical skills to enable you to work in a safe and responsible manner.

What qualifications do I receive?

Successful conclusion of the full course will provide you with several recognized qualifications:

- 1) 17th Edition of the IEE Wiring Regulations City and Guilds 2382
- 2) Inspection and Testing of Electrical Equipment /Portable Appliance Testing City and Guilds 2377/002
- 3) EAL Level 2 Certificate for Domestic Electrical Installers Qualification including Testing and Inspecting of Domestic Electrical Installations - single phase.

Please note you will then require a compulsory independent assessment day with one of the Part P scheme providers to obtain your Part P certificate, and this therefore IS NOT part of the course. However we offer a unique guarantee. **If you failed the above assessment for whatever reason we will give further training free of charge**

- 4) Certificate in Fundamental Inspection, Testing and Initial Verification of Electrical Installations City and Guilds 2392-10
- 5) Certificate in Inspection, Testing and Initial Verification City and Guilds 2391-10
- 6) Advice on obtaining a job / business set up support is included in the course syllabus
- 7) Work experience is possible through some of our contacts but is not guaranteed

The above qualifications will enable you to operate as an Electrician self-certifying your own work once you've registered and passed your independent assessment day. If you wish to complete private work (whilst you have an employed job) and / or become self employed, you will need to pass this assessment day to avoid paying for a Building Regulations person to inspect most Domestic jobs you complete that come under the Part P regulations.

However If you decide to gain work experience you would come under that companies Part P compliance and tackle the assessment at a later stage when / if becoming self employed, setting up in business.

The City and Guilds 2392–10 is designed as a first step qualification in Inspection, Testing and Verification processes.

The City and Guilds 2391-10 is the full award for Inspection, Testing and Verification processes and will allow you to offer your services for Periodic Inspection and Testing for single phase AND 3 phase commercial premises that must by law have periodic inspections. This award is technically challenging but offers high rewards for those motivated to use it particularly if self employed where several hundred pounds per inspection is not uncommon. There is usually a period of work experience before you will pass this award but each individual is assessed on merit during the course.

8. We offer free technical support beyond the course which is invaluable during your early days whilst you tackle "real life" installations. We do not stop helping you after the course but will help you for as long as you need us.

Practical hands on Exercises

During the course there are several "hands on" exercises and assessments provided by your Tutor to give you the necessary understanding of electrical domestic installations as well as additional testing experience to ensure you can confidently pass the course syllabus and then your subsequent independent assessment day.

We cover things like:

Wiring of basic electrical boards

Earthing and Bonding, Intermediate switching

Add third light circuit with a single light controlled by three switches

Add a second light to the third circuit

Sockets

Create a radial circuit incorporating three double sockets

Add a fourth double socket and convert circuit into a ring

Add a spur by using a junction box

Add a fused spur from one of the socket outlets

General

Mount a distribution board

Mount main switch

Mount correct Mcb'S

Wire a cooker outlet

Wire a shower outlet to double pole isolator

Wire boiler pump thermostat and time clock to central heating box (boiler and pump are virtual)

Wire tails to distribution board

Install main Equipotential bonding conductors

Install supplementary Equipotential bonding conductors

Install RCD

Introduction to Test and Inspection

Visual Inspection board

Safe Isolation

Testing circuit to ensure isolation (test probe and known source)

Measurement of R1 and R2

The above is not conclusive, but gives you an idea of the comprehensive nature of this course.

We use a mixture of training aids. These consist of portable training boards, fixed wall training boards and Stud walls, which recreate a similar situation to that which you will come across in the home.

How do I study?

The syllabus will consist of home study theory plus up to 6 weeks practical instruction. The practical instruction is delivered via separate weeks at the end of each Course Manual in our Watford training centre.

There are several self study theory manuals with revision exercises.

You have Tutor Marked Revision at key stages to verify your satisfactory progress.

What about Tutor Support?

You receive fully qualified Electrical Tutor support via e-mail or telephone. It is important that you receive dedicated help, so if you're ever unsure about anything we aim to respond to you promptly.

What about class sizes?

We limit the class sizes to small groups. This ensures quality instruction for you.

Stage One – Week One

Home Study Theory and Practical Instruction

We will provide a structured learning / reading plan via the use of self-study manuals which will be linked where necessary to chapters and related passages / diagrams within reference books supplied.

There are several revision exercises so you can gauge your progress.

To ensure you are ready for practical instruction the required pass mark is 70% without which you would have to re-sit to obtain the required level BEFORE coming to the centre. Once you have reached that level then we invite you at a date to be agreed for your -

Practical Instruction

Having demonstrated a good degree of competent theory knowledge you will attend your first block of 5 days practical instruction.

This week we will cover such items as:

Health and Safety: The UK standards applied to Health and Safety specifically relating to steps, ladders, hazard warning signs, electric shock prevention, person removal etc.

Electrical Regulations: statutory and non statutory

Generation transmission and distribution voltages: how it works

Site verification

- a) Is that rating and condition of any existing equipment, which will have to carry any additional load, adequate for the altered circumstances?
- b) The earthing and bonding arrangements also adequate
- c) Is it safe to proceed with work?
- d) Establish the type of electrical system present
- e) Understand the need for earthing and bonding
- f) Dispel some myths about bonding

Safe use of tools: knives, side cutter, screw drivers and power tools

Safe Isolation: Test and locking off, remove fuse

Types of cable: Twin and cpc, singles etc

Identification of conductors: Phase, Neutral, CPC, etc

Final circuits

RCD's

Lamps/Bulbs etc

Special Location: Bathrooms

IP coding

Fuses and Breakers: BS3036, BS88, BS 60898, BS1361, BS1362

Earthing Systems: TN-S, TN-C-S, TT, TN-C

Types of earthing: earth, cpc, main bonding and supplementary bonding

Installation Methods: Conduit, Trunking, plastic, steel etc

Inspection and Testing: Overview of test and what they are used for

Wiring of basic electrical boards

Earthing and Bonding, Intermediate switching

Testing electrical circuits and interpreting results

Electrical circuits: An overview

Construction of circuits using different wiring systems:

Having successfully completed Stage One you will then be ready for Stage 2 Home Study Theory

Stage 2– Week Two

Home Study Theory and Practical Instruction

In this section you will focus on the 17th Edition City and Guilds 2382, Portable Appliance Testing City and Guilds 2377 and additional practical training. As in stage one, we will provide several revision papers to confirm your understanding of all that you cover.

For the 17th Edition we will provide multiple-choice revision. For this stage you will need to obtain a pass mark of 70% prior to coming into centre.

For the City and Guilds 2377, to gauge your theoretical knowledge and understanding of the UK standards applied to Portable Appliance Testing you will be assessed by multiple-choice revision. For this stage you will need to obtain a pass mark of 70% prior

to coming into the centre.

Practical Instruction

During Stage 2 of the Practical Instruction we will include a review of the 17th Edition in preparation for taking your examination this week.

We then concentrate on the Portable Appliance Testing Process leading to the combined theoretical and practical assessment requirements of the full City and Guilds 2377/002. The examination is taken this week.

Course content will consist of -

1. Relevant Regulations
2. Visual Inspections
3. Test equipment and instrumentation
4. Appliance testing
5. Fixed electrical installations
6. Types of Inspection and Testing
7. Formal visual inspection
6. Recording of findings
7. Labeling and Identification
8. Legal requirement (Electricity at Work Act 1989)
9. Equipment construction

Successful conclusion of Stage Two will be City and Guilds 2382 and City and City and Guilds 2377/002.

Stage 3– Week Three

Home Study Theory and Practical Instruction

In the next two weeks you will focus on the:

- 1) EAL Level 2 Certificate for Domestic Installers including Testing and Inspecting of Domestic Electrical Installations (single phase) and more practical “hands on” sessions

and assessments.

In order for electrical installers to self-certify that their domestic electrical installation work in England and Wales is compliant with the Building Regulations, they must be registered with a Competent Persons Scheme. All applicants must meet a number of key requirements, in particular be able to demonstrate they have the ability to install, inspect, test and certify their own work in accordance with BS7671, and to comply with the relevant Building Regulations.

This is an intensive program comprising of training and 9 major assessments to meet all the needs of the Competent Person scheme. The emphasis of the qualification is on understanding regulations, standards and terminology, and having the ability to identify unsafe electrical situations and perform electrical test procedures. Knowledge and appreciation of the relevant requirements of other appropriate Building Regulations is also covered on the course.

We therefore thoroughly prepare delegates wishing to take a Part P assessment visit at a later stage and to give you every confidence in your new career.

This Certificate for Domestic Installers qualification is the essential “must have” for any Domestic electrician. There is a full practical assessment and a short written examination. All delegates who successfully pass this qualification will still be required to undertake a separate Part P assessment visit - the relevant Part P scheme provider carries this out. Further information and the background behind the regulations are provided within the course itself.

There is comprehensive revision for Weeks 3 and Weeks 4 with a pass mark required of 70%

Practical Instruction

Stage three and four of your practical instruction will include:

1. Legislation affecting Testing and Inspection
2. Selecting and using appropriate testing equipment
3. Instrument accuracy
4. Testing procedures as required by BS 7671
5. Practical hands on testing of both “live” and “dead” systems
6. Verification and Certification
7. Completion of Electrical Works Certificates, (when to use and how to complete) Minor

Works Certificates (when to use and how to complete) and Periodic Inspection Reports.

We then have more time given over to practical instruction on various tasks

- a. Wiring of basic electrical boards
- b. Earthing and Bonding, Intermediate switching
- c. Testing electrical circuits and interpreting results
- d. Electrical circuits: An overview
- e. Construction of circuits using different wiring systems:

This week has no formal qualification but it will quickly accelerate your development as you approach the final stage.

Stage 4– Week Four

Home Study Theory and Practical Instruction

In this section you will learn the remaining aspects of the EAL Level 2 Certificate for Domestic Installers including Testing and Inspecting of Domestic Electrical Installations (single phase)

Practical Instruction

This week we will cover the assessment requirements of Part P not covered in week three, ensuring you have a thorough understanding of Domestic Installations and in the future be able to self certify your own Domestic work. This will involve after completion of your course, depending upon the career path you choose, a final assessment day with one of the independent awarding bodies. This is a compulsory requirement for issuing of your Part P "Competent Person" certificate.

You will cover during week 3 and week 4:

1. Applicable Building Regulations for Domestic Electrical Installations
2. Electrical safety legislation regulations, standards and terminology
3. Domestic electrical installation - pre work survey/inspection
4. Domestic electrical installation - safe isolation procedures
5. Identifying unsafe electrical situations

6. Domestic electrical earthing and bonding requirements
7. Electrical test procedures
8. Selecting domestic electrical cable and components
9. Installing and replacement of electrical components
10. Checking the correct and safe operation of installed electrical components
11. Recording of electrical test results and completing certificates
12. Installing and/or re-routing domestic electrical cables
13. Domestic electrical installation - special locations
14. Understanding of new domestic electrical circuit requirements
15. Installing domestic lighting circuits
16. Maintaining domestic electrical installations
17. Basic understanding of 3 phase supplies

Delegates will receive the EAL Level 2 Certificate for Domestic Installers following successful completion of the assessments for all the competencies.

Stage Five – Week Five

City and Guilds 2392-10. Certificate in Fundamental Inspection, Testing and Initial Verification.

This award is designed to introduce you to the basic aspects of the Inspection, Testing and Verification process.

The practical and theory is all completed in the training centre.

Stage Six – Week Six

City and Guilds 2391-10 Certificate in Inspection, Testing and Initial Verification

The practical and theory is all completed in the training centre. Consisting of formal practical assessments and a 2.5 hours written examination. This award is highly advantageous to hold and will greatly enhance your electrician skills

Course Fees

The course fee for the full distance learning / practical instruction package can be obtained by calling **0800 043 1962** or via email to sales@mainelectricaltraining.co.uk

If you have experience of electrical installation work or have worked alongside someone who is experienced, then you may join the course at the second stage.

The course fee for the shorter course is from Stage 2 to Stage 6 of the distance learning / practical instruction package.

As a general rule of thumb if in any doubt about which course is suitable, we recommend you enroll on the full course.

Please note – other Electrical Training Companies may charge you in excess of £6000.00 without the same level of qualifications. Our course fees are widely acknowledged to be the most competitive in the UK for those looking to change career.

How to Pay

We do offer assistance for those that need help.

Please email sales@mainelectricaltraining.co.uk or telephone 0800 043 1962 for details.

Student Testimonials

Here at Main Electrical Training, we take great pride in the quality of our training and the feedback we receive from our Students.

If you're new to the industry, here are some examples of the comments we receive from our Students.

"I liked how much practical work there was - really hands on - great stuff!!" - Seb Sagar, Bristol

"Very good course" - Jayendra Patel, Harrow

"The course has given me the relevant knowledge and confidence to carry out electrical work in domestic dwellings" - Martin Lipscombe, Ware, Hertfordshire

Further testimonials are published on our website and are updated frequently

Please call 0800 0431962 for further information, the call is free to you.