

HEEA

Highway Electrical Association

Information Required and Learner Actions

1. The Learner must bring:
 - Functioning calculator.
 - A pen, pencil and rubber

401.1 - Basic Electrical Theory

Duration: 2 days

Suitable for: This course provides the required level of underpinning knowledge as required for the Level 2 and Level 3 Highway Electrical Competence Based Qualification (NVQ) where a good understanding of common calculations for resistance and power are required and recognition of a range of common components, for example during installation processes

Course aim: This course aims to provide employees working within the Highway Electrical Sector with the knowledge and key skills to facilitate the understanding of fundamental electrical principles, and the application within day-to-day activities.

Prerequisites: In order to gain maximum benefit and learning outcomes from this course there are a number of training modules, which are required before attending. A complete list of pre-course requirements are available from the Training Specification located in the Download section of the HERS web site at: <https://thehea.org.uk/hers-hesa/hers-resources/> - Category: HERS Handbook and Training Specification

** Confirmation will be required that the prerequisites have been achieved **

Course Objectives: On completion of the course learners will be able to:

- State how electricity works
- Explain the difference between AC and DC circuits
- Define current, voltage, resistance, power, common conductors and common terms
- State and use Ohms Law
- Define parallel and series circuits
- State & use Power calculations
- Identify a limited range of common electrical components and their functions
- State typical earthing arrangements and bonding
- Read basic electrical circuit diagrams

What to do now: Further details and booking may be made from the website: <https://thehea.org.uk/hea-specialist-training/>
Or by contacting the HEA (Highway Electrical Association) Office, on 01903 705140

Course Programme

Please note that timings may vary from course to course – and the detailed order may change, to take into account individual learning needs and to ensure an effective learning experience for all Learners

Time (All timings approximate and may vary)	Content of Learning Sessions
Day 1 08:45	Arrival, coffee and Learner Introductions
AM	<ul style="list-style-type: none">• Introduction, How electricity works• Voltage, current, Resistance Power and Inductance• Direct Current, Alternating Current in Power Circuits• Series and Parallel Circuits
PM	<ul style="list-style-type: none">• Ohms Law
Day 2 08:45	Refreshments
AM	<ul style="list-style-type: none">• Day one recap• Using Power Calculation• Common Circuit Components
PM	<ul style="list-style-type: none">• Typical Earthing Arrangements and Bonding• Electrical Circuits, depending on the cohort either PL, Traffic
13:00	Summative assessments/ Review Mark
17:00	Course Conclusion / Feedback


HEA Training

Include ▶▶ Involve ▶▶ Inspire!™

Course 401.1 - Basic Electrical Theory

at The Granary, Manor Farm, Brogborough, Milton Keynes MK43 0YD (<http://www.thegranarypage.co.uk/Location.htm>)

(By completing this booking form, you are confirming that the Employing Organisation has the employee consent to provide the information required below for Learner registration and certificate processing)

Learner First Name	Learner Surname	 Operative register to HERS? (Yes / No / Working Towards)	Have the Prerequisites been met (See Page 1) (Yes / No)				Special requirements (e.g. dietary needs)	Course Date Required	Course Location (see website)	HEA Your Organisation Status HEA Member? (Yes / No)
** YOU WILL NOT BE ISSUED WITH A CERTIFICATE UNLESS THE ABOVE INFORMATION IS FULLY COMPLETED **										

The cost of this course per learner is **£270 + VAT for HEA MEMBERS** and for **HERS REGISTERED** and **Non - HEA MEMBERS - £340 + VAT** (Inclusive of course material, course certificate, food and refreshments on the day).

Organisation Name:		Contact Name:	
Organisation Address:		Contact Person:	
		Contact Email:	
Postcode:		Contact Tel:	

CANCELLATION FEES - Where cancellation is made 14-28 days before course date fee will be charged at 50%. Where cancellation is made less than 14 days before course date fee will be charged at 100%. Prices are inclusive of food & course venue – please arrange your own accommodation if required. HEA Training reserves the right to change the date of the training if minimum viable learner numbers are not met

Purchase Order No.:		Signed:		Date:	
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Please email your completed form to training@thehea.org.uk or fax to HEA on 01903 705149 or post to HEA, Highdown House, Littlehampton Road, Ferring, West Sussex, BN12 6PG

2011 Census Classification of Ethnic Group

Location of this course / NVQ assessment: England and Wales		Location of this course / NVQ assessment: Northern Ireland		Location of this course / NVQ assessment: Scotland	
White:		19	White	White:	
01	English/Welsh/Scottish/ Northern Irish/British	20	Chinese	30	Scottish
		21	Irish traveller	31	British
02	Irish	22	Indian	32	Irish
03	Gypsy or Irish Traveller	23	Pakistani	33	Any other White background
04	Any other White background	24	Bangladeshi	Mixed:	
Mixed / multi-ethnic groups:		25	Black Caribbean	34	
05	White and Black Caribbean	26	Black African	Asian, Asian Scottish or Asian British:	
06	White and Black African	27	Black other	35	Indian
07	White and Asian	28	Mixed ethnic group	36	Pakistani
08	Any other Mixed/multiple ethnic background	29	Any other ethnic group	37	Bangladeshi
Asian / Asian British:				38	Chinese
09	Indian			39	Any other Asian background
10	Pakistani			Black, Black Scottish or Black British:	
11	Bangladeshi			40	Caribbean
12	Chinese			41	African
13	Any other Asian background			42	Any other Black background
Black / African / Caribbean / Black British				Other ethnic background:	
14	African			43	Any other ethnic group
15	Caribbean				
16	Any other Black / African / Caribbean background				
Other ethnic group:					
17	Arab				
18	Any other ethnic group				