

## C9, C12, Electrical Courses for Refrigeration Engineers

We provide two electrical courses to meet the different needs of refrigeration maintenance and service engineers at all levels:

	Suitable for ...	Length
C9, Basic Electrical Safety and Safe Isolation	Maintenance engineers, e.g. case cleaners	1 day
C12, Refrigeration Electrics	Service engineers	1 day

The table below shows the topics included in each course.

Topic	C9	C12
RoSPA eLearning and assessment	✓	Recommended as self-study prior to attendance
Basic electrical science	✓	✗
Electrical safety - facts and measures	✓	✓
Using electrical test meters – what they tell you and what to expect	Voltage tester	Voltage tester Amp probe Multi meter Capacitor tester Megger
Single and three phase supplies	✓	✓
Safe isolation, lock off (working dead) and reinstatement	✓	✓
Electrical component replacement	✓	✓
How to read a ladder wiring diagram	✗	✓
Single phase compressor electrics, including PTC, current and potential relays	✗	✓
Three phase compressor electrics, including DOL, PWS and SD starting	✗	✓
Measuring voltage	✓	✓
Measuring resistance, current and capacitance	✗	✓
Electrical fault finding	✗	✓

The eLearning comprises two RoSPA (Royal Society for the Prevention of Accidents) accredited modules:

- Electrical Safety - What Everyone Needs to Know (approx. 1 hour + assessment);
- Electrical Safety - Principles for Maintenance Work (approx. 30 minutes + assessment).

The course is a mix of theory, practical, discussion sessions and “toolbox talks” with the emphasis on active participation. As well as the e-learning exams, practical assessments are carried out during the session:

Practical assessment	C9	C12
Isolation and reinstatement	✓	✓
Measuring voltage	✓	✓
Measuring resistance, current and capacitance	✗	✓
Metering relays	✗	✓
Metering compressors	✗	✓
Reading wiring diagrams	✗	✓
Jointing cables	✓	✗



Numbers on the course are usually limited to six. Trainees are provided with high quality course notes. The course can be tailored to suit individual RAC sectors, businesses and equipment types.

## Cost

Each course is £295 per person excluding VAT. The cost of the combined courses (C9 + C12) is £495 per person excluding VAT. The costs include course notes, lunches and certification. For trainees attending only the C12 course we recommend studying the RoSPA eLearning and taking the assessments remotely prior to attending. The additional cost for this is £40 per person excluding VAT. Log on information will be provided when booking.

## Location

The courses are run at our training centre a few minutes from junction 8 of the M5. We provide joining information with directions, start time and a list of local hotels.

## About Cool Concerns Training

Our training is developed by the working directors Jane Gartshore and Stephen Benton and delivered by our training centre manager Alan Snelling. We are engineers with a wide and varied range of practical and theoretical experience within the refrigeration and air conditioning industry.

### For more information or to book contact:

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