

SwitchedOn

News for the industry from The Electrical Safety Council



ESC launches socket overload calculator



FROM THE DG'S DESK



I think it's fair to say that, unless you have just come out of winter hibernation, you will have noticed that there has been a lot of comment on the appearance of two registers; one launched by ESC and ECA in November and, by some extraordinary coincidence, one by NAPIT the Friday before.

I have no intention of going over ground that has already been well documented on the merits, or otherwise, of such registers. However, I do want to update you on what the ESC and the ECA have been doing to support industry and how this support adds value to the consumer safety focus of the ESC.

Not surprisingly, the comments made by other parties, both in the press and direct to government, have meant that there has been a spotlight on the industry and how it operates. The ESC has been proactive in its response to questions levelled at it since the announcement of its joint venture with the ECA and attended the CLG's select committee meeting in January to discuss the concerns of the committee over the existence of two registers. A delegation from ESC, ECA and CertSure also met with the CLG Minister, Don Foster, to outline the objectives of the JV and to offer support to

him and his department in the promotion of *Part P* to consumers.

Some of the points made in those meetings are also worth highlighting here - the whole basis of the Electrical Safety Register (ESR, see page 6) is that it is the outward manifestation of a committed partnership between the ESC and ECA that will, on 1 April 2013, see the launch of Certsure.

Certsure, as the joint venture company, will have responsibility for the assessment of electrical contractors registered with the NICEIC, ELECSA or through the ECA. Bringing together all of the assessment activities will help to maintain and develop the high standards of competence of electricians, whether they are installers of domestic or industrial and commercial installations.

Through Certsure, the ESC and ECA will also be able to offer support and services, such as training and technical advice, that will have behind it the accumulated knowledge of the industry's experts, including the authors of the much-acclaimed books provided by the NICEIC.

Importantly, the register will make it easier for consumers and specifiers to find a competent electrician that works to the high standards that all parties expect. In addition, all of the surplus monies generated will be returned to the

joint venture partners to support their respective activities. This will mean that over the next few years the ESC's funding will increase, and we will therefore be able to reach more people through our public safety campaigns and grant schemes, which aim to keep the most vulnerable people in our society safe from the dangers that electricity can create. This is something you can all feel proud of.

We are also positive that as the JV develops we will be able to invite other industry organisations to join us and we are already in discussions with bodies that share our values and culture to see how we can work more closely. Through this ongoing dialogue we will see the development of a vibrant, competent well-trained industry that will provide safe electrical installations for use by the public.

Lastly, by the time you have read this edition of *Switched On* I'm hopeful that we will have held a Summit on future cooperation across the industry and how ESC can support the wider publicity of *Part P* to consumers. I'll update you more on that in the next edition.

As always, we would welcome feedback on *Switched On*, to help us improve the content. Email feedback@esc.org.uk

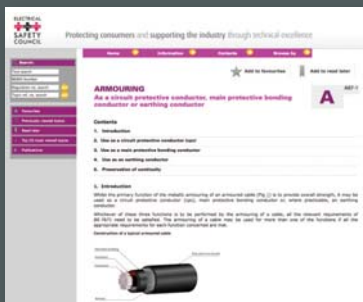
Phil Buckle Director General

ESC Essential Guide now available **FOR JUST £35**

A year's subscription to the ESC's online Essential Guide to the Wiring Regulations is now available for a limited period at the bargain price of just £35 (plus VAT)!

Well respected in the industry as a source of authoritative technical information concerning the application of the requirements of the Wiring Regulations (BS 7671), this fully

searchable online resource contains over 300 topics covering a wide range of relevant subjects to help you in your work or studies. Subjects are clearly explained with the aid of full colour illustrations, diagrams and tables. Each topic can be printed out for ease of reference as required. During the subscription year, the topics will be updated as necessary to take account of the changes that were introduced by Amendment 1 to BS 7671: 2008.



To subscribe or for a **7 day free trial**, visit www.esc.org.uk



Over 3000 entries for electrical safety poster competition - see page 8.

switchedon

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Letters

I'm sure that there are many within the electrical industry that will have strong feelings about some of the issues raised in *Switched On*. So feel free to shout about them.

Please email your letters to the Editor of *Switched On* at: andrewbrister@gmail.com



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Published by:
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IN BRIEF

Electrotechnical Assessment Specification

A revised version of the Electrotechnical Assessment Specification (EAS), first published in October last year, comes into effect on 6 April.

The EAS describes the minimum criteria for an electrical contractor to be recognised by a certification or registration body as competent to undertake electrical installation work (design, construction, installation and verification) in England and Wales. It includes the minimum technical competence requirements for electrical contractors to be considered competent to carry out electrical installation work in dwellings in England and Wales in accordance with *Part P* of the Building Regulations.

The EAS has been developed over a number of years by a management committee that includes representatives of the competent person scheme operators, trade associations, the Department for Communities and Local Government, the Electrical Safety Council and the Institution of Engineering and Technology (IET). The IET has accepted ownership of the specification, and provides administrative support to the management committee.



As announced in the winter issue of *Switched On*, new technical competence requirements for proposed Qualified Supervisors also come into effect on 6 April.

Further details of the Electrotechnical Assessment Specification and the new competence requirements can be found on the IET website at <http://electrical.theiet.org/building-regulations/eas/index.cfm>



Changes to fire alarm system standards imminent

BSI has recently issued an updated version of *BS 5839-6, Fire detection and fire alarm systems for buildings - Part 6: Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises* as a draft for public comment. The date planned for publication of *BS 5839-6* is currently May 2013.

The new edition of *BS 5839-6* introduces a number of technical changes, but does not constitute a full revision of the document. Amongst the proposed changes are an extension of the scope to include the common parts and facilities used within sheltered housing. The use of a smoke detector, rather than a heat detector, is now recommended for installation in the principal habitable rooms of new premises and there is now recognition that suitable carbon monoxide detectors are an alternative to smoke detectors in the principal habitable room(s) of premises.

Similarly, BSI is updating *BS 5839-1, Fire detection and fire alarm systems for buildings Part 1: Code of practice for design, installation, commissioning and maintenance*, and has recently completed a public comment process. The planned date for publication of *BS 5839-1* is currently March 2013.

The new edition of *BS 5839-1* also proposes a number of technical changes but does not constitute a full revision of the documents. The principal changes introduced by the new edition include, amongst other things:

- a change in title and the definition of certain terms
- the importance of providing accurate and unambiguous information to care home staff about the location of a fire
- clause 15 has been updated with

guidance and recommendations on the provision of automatic transmission of fire alarm signals

- the guidance and recommendations of Clause 19 and subclause 35.2.7 have been updated to address the need to avoid delay in summoning the fire and rescue service when the fire alarm system of a residential care home operates
- the normative requirements of Annex C – Control and transmission equipment for tactile alarm devices provided for people with impaired hearing systems.

More electrical intake fire warning labels issued

In the winter issue of *Switched On* the Council reported that, in addition to supplying around a quarter of a million fire warning labels to Fire and Rescue Services throughout Great Britain for use by fire officers making home safety visits, a further 1.6 million had been supplied to a small number of electricity supply industry bodies for use, where appropriate, when electricity meters are replaced.



The ESC is pleased to report that since then, again in collaboration with the Association of Meter Operators, a further 2.5 million labels have been requested by a number of other supply industry bodies, bringing the total supplied to date to almost 4.5 million.

Whilst the ESC has supplied the labels free of charge to Fire and Rescue Services, the supply industry bodies have kindly funded most of the cost of providing their labels, a small contribution being made from charitable funds in recognition of the industry's assistance in raising awareness of the risk of fire in electrical intake areas.

SWITCHED ON READERSHIP SURVEY – RESULTS AND FUTURE PLANS

In the winter issue of *Switched On*, the ESC asked for your views about the future of the magazine, with a view to a full or partial move to a digital rather than paper version.

60% of those who responded were in favour of a digital version, with positive comments being made about sustainability, ease of access via smartphones and other devices, and the potential to link to further online content.

However, there was also strong opinion in favour of retaining the current printed version from those not having convenient access to computers or mobile devices, or who would find it difficult to print articles of interest. A significant proportion of those responding also expressed a general preference for paper rather than online versions of publications.

Based on the results of the survey, we have decided to introduce a digital, page-turning version of *Switched On* with immediate effect. If you're not already reading it, the digital version of this issue can be found at www.esc.org.uk/switchedon.

The ESC will continue to distribute printed versions free of charge via the existing channels (as inserts in *Professional Electrician* and SELECT's *Cabletalk* magazine, and to those on the ESC's direct mailing list, up to and including the autumn issue.

With effect from the winter issue, paper copies will continue to be available on subscription only (by direct mail), at a price intended to cover the cost of printing and distribution.

Details of how to subscribe and of the cost of subscription will be given in the summer issue of *Switched On*.

Thanks to all of you who took the time to complete the readership survey and to give us your views. Winner of the iPad was Luke Glanville from Shrewsbury.

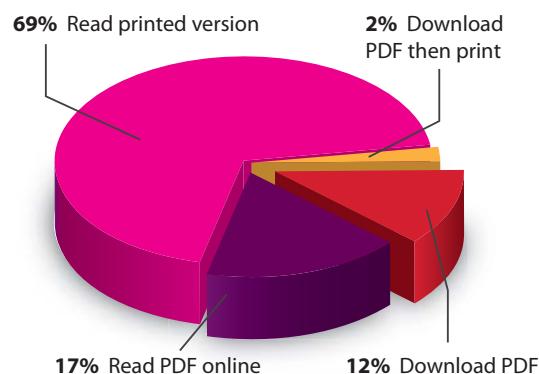
Congratulations! We hope your prize will help you keep up to date with all the latest news from the ESC now and in the future!



Summary of survey results

How do you read Switched On at the moment?

69% said they currently read a paper copy of *Switched On*, 17% said they read the online (PDF) version, 12% said they download a copy of the PDF, and 2% said they print a downloaded copy (presumably to read at their convenience offline).



Would you be happy to switch to a digital version?

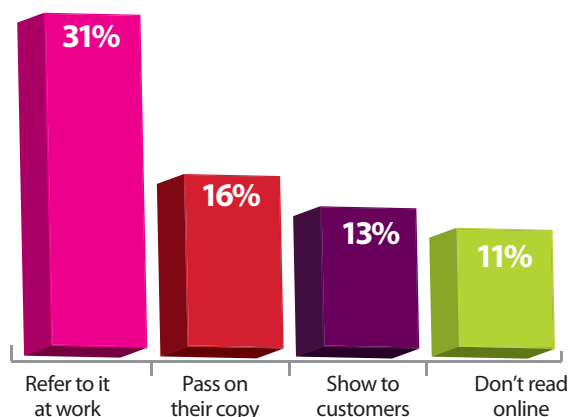
60% said they would be happy to switch, 25% said they did not wish to switch, 12% were undecided and 3% said they didn't know.

Do you subscribe to any other online publications?

60% said that they already subscribe to professional and/or personal interest publications online, and 40% said they didn't.

What is the main benefit to you of having a paper copy?

31% said they can refer to it whilst at work, 13% said they liked to show articles to customers, 16% said they like to pass on their copy, none said they had no access to an online copy, 11% said they didn't like reading publications online, and 29% couldn't see any benefit in a paper copy and would be happy to switch to digital.



What would be the most important to you in a digital version?

26% said the ability to search for specific information, 23% said a copy that can be read offline, 9% said a copy to print out, 18% said links to related information, 15% said ease of use and 9% wanted more frequent issues to get more up-to-date news.

ESC AND ECA PARTNER IN CERTSURE GROUP

From the re-election of Barak Obama to the Arab Spring and London's Summer Olympics, 2012 was an eventful year on the world stage. The UK's electrical contracting industry also experienced significant - and welcome - change with an historic partnership between the ESC and the Electrical Contractors' Association (ECA).

Last year, in an unprecedented move towards a unified approach to the competent person schemes, the ESC and the ECA established a new organisation called the Certsure Group. This new organisation, which operates and amalgamates NICEIC and ELECSA, will offer a range of benefits to both contractors and consumers. One of the first examples

of this was Certsure's recent launch of the Electrical Safety Register, a searchable database of registered contractors.

The Register lists over 36,000 commercial and domestic contractors in the UK (who undertake around 80% of all domestic electrical work) and offers a one-stop shop for consumers seeking a competent, registered electrician

"This partnership marks a new beginning for the electrical contracting industry," explains Paul McNaughton, president of the ECA. "Our alliance unites the key electrical industry players - the sector trade association, the electrical consumer charity and the leading certification body -

while offering clarity to the consumer and a consolidated voice to government on common issues."

Certsure will act as the sole registration, certification and assessment body, not only for NICEIC's current customer base but also for the ELECSA and ECA brands. Certsure will provide the industry with a stronger voice when engaging with government and key stakeholders and be able to offer various benefits - including marketing support - to its registered contractors.

"We believe this collaboration brings significant advantages for everyone involved," notes Phil Buckle, director general of the ESC. "As a charity, the ESC obtains most of its funding from our trading subsidiary, the Ascertiva Group. Our new partnership will increase our funding, allowing us to enhance our campaigning activities and improve consumer awareness of the dangers of electricity."

This is a view echoed by Charles Tanswell, chair of the ESC, who adds: "With this partnership the benefits to the consumer and electrician are significant. For the consumer it means more can be done to raise awareness of the benefits of using registered electricians, while ensuring solid industry support for the charity and its work."



ECA president Paul McNaughton (left) and ESC chair Charles Tanswell shake on the historic agreement.

ELECTRICAL SAFETY WORKSHOP HELD FOR COMMUNITY SAFETY

The ESC ran a workshop on electrical fire safety for Welsh community safety services in January, hosted and supported by Mid & West Wales Fire and Rescue Service at its headquarters in Carmarthen.

The event was attended by 33 delegates with representation from all three of the Fire & Rescue Services in Wales. A range of other community safety organisations, including British Red Cross, Care and Repair Agencies and Age UK, were also present.

The workshop provided the ESC with an opportunity to build on its relationship with community safety services in Wales, to increase its shared understanding of electrical fire safety issues and to consider how safety services can increase electrical

safety messaging in their fire prevention activities in their local communities.

One of the workshop sessions looked at the ways that a poorly maintained electrical installation or faulty portable electrical appliances can cause fires in homes. It also highlighted the ways that these risks can be increased by the behaviour of the occupants. Topics covered included particular areas of risk, such as downlighters and specific electrical appliances, and provided advice on what Fire & Rescue Services, in particular, should look for when carrying out their fire safety check visits.

The second session covered the issue of fires in homes that are caused by the effects of overloading or faults in electricity

cut-out fuses, meters and consumer units (fuseboxes), which is equipment often located under the stairs or adjacent to other escape routes. This session also provided an overview of the forthcoming UK-wide smart meter installation programme.

Feedback received on the event was very positive, with all attendees agreeing that, following the workshop sessions, they had a greater understanding of electrical safety issues and an increased knowledge of the ESC, including its aims and objectives.

Many of the services agreed to review their current guidance for householders with a view to increasing their electrical safety messages, which the ESC hopes will contribute to householders having a greater

PART P – REVISED APPROVED DOCUMENT FOR ENGLAND

The long-awaited revised edition of *Approved Document P* was published last December. It applies to work begun after 5 April, unless it is subject to a building notice, full plans application or initial notice submitted before 6 April.

The revised edition applies to electrical installation work in dwellings in England only. Building regulation powers were devolved to Wales at the end of 2011, so the 2006 edition of *Approved Document P* will continue to apply there until further notice.

The main changes in the 2013 edition of *Approved Document P* are:

- a reduction in the range of electrical installation work that is notifiable
- an installer who is not a registered competent person may use a 'registered third-party certifier' to certify notifiable electrical installation work as an alternative to using a building control body*
- the technical requirements relate to *BS 7671: 2008* incorporating Amendment 1: 2011
- the content is much reduced.

As anticipated, the scope of notifiable work in England has been significantly reduced and now includes only:

- the installation of a new circuit
- the replacement of a consumer unit, and
- any addition or alteration to existing circuits in a 'special location'.

For the purposes of *Part P*, a 'special location' means within zones 1 and 2 of a bathroom or shower room, and a room containing a swimming pool or sauna heater.

There is also provision to introduce a third-party inspection scheme for notifiable work carried out by someone other than a *Part P* registered company, as an alternative to certification by a building control body.

Whether or not the work is notifiable, it remains a requirement that reasonable provision is made in the design and installation of electrical installations in and around dwellings in order to protect persons operating, maintaining or altering the installations from fire or injury. This legal requirement can be met by complying with all the relevant technical requirements of *BS 7671*.

The government intends that greater promotion of the benefits of using a *Part P* registered competent person will mitigate against the risks arising from the reduction in the scope of notifiable work.

According to ESC consumer research, only 20% of the public are aware of the

requirements surrounding *Part P*.

Consequently, one of the Council's aims this year will be to ensure that messages are united across scheme operators and the electrical industry more generally.



The 2013 edition of *Approved Document P* can be downloaded free of charge from the Planning Portal at www.planningportal.gov.uk/buildingregulations

**Requirements for the third-party inspection scheme had yet to be developed when the revised Approved Document was published, so it is not expected to come into effect until later this year.*

Y SERVICES IN WALES



awareness and understanding of the risks associated with electricity.

The workshop was followed by a session to discuss the possibility of introducing Electrical Fire Safety Week (EFSW) into Wales this year, with all three Welsh FRSS supportive of the idea.

Last year's EFSW was supported by the DCLG's Fire Kills campaign team and Fire and Rescue Services in England. The Week helped to raise awareness of electrical fire safety issues at local level. This year, EFSW will run from the 23-29 September and will involve Fire & Rescue Services from England, Scotland and Wales.

Positive feedback from Welsh workshop.

COUNCIL EMBARKS ON BUSY 2013 EVENTS SCHEDULE

Working with a variety of organisations to raise awareness of electrical safety means that every year the ESC gets involved in a diverse range of events to help it to keep in touch with the groups with whom it needs to communicate. These range from public events to raise awareness of electrical safety generally, to stakeholder events to raise the profile of the Council and facilitate effective partnerships. The ESC also provides speakers to help educate those with an interest in electrical safety.

2013 will be another busy year with a programme of events designed to complement all of the Council's activities and provide opportunities to reach different audiences.

Elex	7-8 March	Harrogate
Industry Summit	12 March	London
RoSPA Public Health seminar	21 March	London
RETRA Annual Industry Conference	22-23 April	London
NICEIC Live South	16 May	Epsom, Surrey
ESC's Product Safety Conference	16 May	London
Trading Standards Conference & Exhibition	17-20 June	Brighton
ARMA Seminars	6 & 13 June	London
The Electric Event	20-22 June	Birmingham
Elex	19-20 September	Coventry
Electrical Fire Safety Week events	23-29 September	Various
Elex	7-8 November	Sandown Park

Building on the success of the experiential events that took place in town centres up and down the country in 2012, the ESC will do more of these events throughout the course of this year. They provide a great opportunity for the team to discuss electrical safety with members of the public in a familiar environment, often alongside likeminded organisations such as Fire and Rescue Services.

In addition, the charity will continue to deliver talks to groups such as landlords and trading standards professionals and maintain a presence at industry symposiums and conferences.

The schedule shows the Council's current commitments but keep up to date by visiting the events page on the website: www.esc.org.uk/events as the programme will be expanded throughout the year.



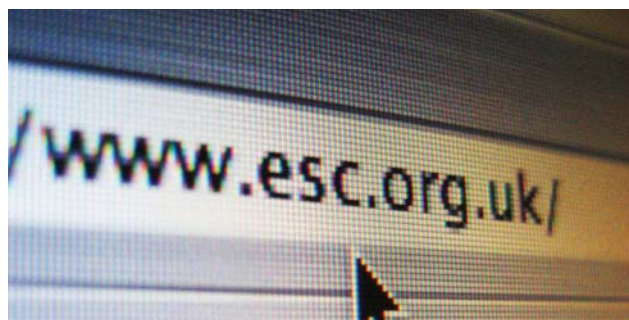
ELECTRICAL INSTALLATION FORUM NEW QUESTIONS AND ANSWERS

The agreed answers to several new questions have been added to the 'Industry guidance on the Wiring Regulations' section of the ESC website, including:

- In a multicore flexible cable that includes a protective conductor coloured green-and-yellow (having the same csa as the other conductors), can the protective conductor be used as a live conductor if it is suitably overmarked at each end of the cable?
- What form of certificate should be issued for the addition of a voltage optimisation unit to an existing electrical installation?
- The external earth fault loop impedance at an installation is so high that it seems likely that there is a fault on the distribution system. Is it sufficient to install RCDs in the installation to enable the required disconnection times to be achieved?
- Is it permissible to terminate cables with conductors having a rated operating temperature exceeding 70°C (such as with 90°C

thermosetting insulation) in accessories having a maximum rated operating temperature of 70°C?

For the industry-agreed answers to these and many other commonly-asked questions relating to the application of BS 7671: 2008 as amended, please visit www.esc.org.uk/forum





OVER 3000 ENTRIES FOR ELECTRICAL SAFETY POSTER COMPETITION

To help promote Electrical Fire Safety Week 2012, ESC launched a poster design competition in UK-wide primary level schools to encourage children and their families to use electricity safely.

The competition, themed around the dos and don'ts of electrical safety around the home, was very well received by schools and attracted a great response with 3,000 entries submitted. The overall winner and winner of the age 4-6 category was six-year-old Zara Miah from Christ Church Bentinck School in Marylebone, London. Zara won her school £500 as well as a prize for herself.

The prizes were presented at a special school assembly by ESC's director general Phil Buckle, Karen Buck MP for Westminster North and Tom George, acting deputy head of community safety for London Fire Brigade.

Sandra Tyrell, head of Christ Church Bentinck Primary School, said: "Taking part in the Electrical Safety Council's



Poster competition winner Zara Miah along with Phil Buckle, Karen Buck MP for Westminster North and Tom George, acting deputy head of community safety for London Fire Brigade.

competition helped children to learn about electrical safety and the risks around electricity in the home. The children enjoyed the interactive learning tools available on the ESC's SwitchedOnKids website, which linked closely to our science topic of electricity. It also enabled the children to display what they had learned in a fun and creative way."

Zara's winning poster was chosen for its creativity, appeal to children, and clear

safety messages and will now feature, for a limited period, on the ESC's junior electrical home safety checklist. The leaflet is available to encourage children to carry out an electrical home safety check with their parents or carers.

Later this year, the ESC will again partner DCLG's Fire Kills campaign team and Fire & Rescue Services around the UK to run Electrical Fire Safety Week from 23-29 September.

Zara Miah's winning poster that won her school £500 as well as a prize for herself.



ESC launches **socket over**



‘...to help the public understand the risk of overloading their sockets and so reduce the risk of fire in their homes...’

The Electrical Safety Council has created a simple to use, web-based calculator for householders to check whether they are overloading their sockets. The move follows concerns raised by Fire & Rescue Services about the risks associated with householders overloading their electrical sockets.



The purpose of the calculator is to help householders understand that different types of domestic electrical appliance use different amounts of power and to make them aware that the load on an extension lead and socket should not exceed a current of 13A or 3 kW of energy.

This interactive calculator will help the public understand the risk of overloading their sockets and so reduce the risk of fire in their homes. As well as the calculator, the website has some other useful guidance including a list of commonly-used domestic

appliances and their power ratings and a number of home safety tips.

The ESC is using the socket overload calculator to promote electrical safety as part of its Appliance Safety Campaign to raise awareness of the wider issues of misuse of electrical appliances. The ESC would like to encourage householders to carry out regular visual checks of their electrics and appliances, and to stop them using those with known faults.

If you would like to find out more about the Appliance Safety Campaign or would like to upload the socket overload calculator onto your own website to raise awareness of the issues around overloading sockets, and promote the use of the calculator, you can do so free of charge. Just visit the website at:

www.esc.org.uk/overloadingsockets and follow the simple instructions on how to do so.



Overload calculator



Top tips for householders to avoid overloading sockets

- Check the current rating of the extension lead before plugging appliances into it. Know its limit - most are rated at 13 A, but some are rated at only 10 A or less. The rating should be clearly marked on the back or underside of the extension lead. If not, refer to the manufacturer's instructions
- Never overload an extension lead by plugging in appliances that together will exceed the maximum current rating stated for the extension lead. This could cause the plug in the wall socket to overheat and possibly cause a fire
- Only use one socket extension lead per socket, and never plug an extension lead into another extension lead as this poses a greater risk of

overloading your wall socket and the extension lead plugged into it

- Use a multi-way bar extension lead rather than a block adaptor, as this will put less strain on the wall socket. Also, some block adaptors do not have a fuse, which increases the risk of overloading and fire

Check regularly for the following danger signs:

- a smell of hot plastic or burning near an appliance or socket
- sparks or smoke coming from a plug or appliance
- blackness or scorch marks around a socket or plug, or on an appliance
- damaged or frayed leads
- coloured wire inside leads showing at the plug or anywhere else
- melted plastic on appliance casings or leads
- fuses that blow or circuit-breakers that operate for no obvious reason

Consider having additional sockets installed if you regularly rely on extension leads and adaptors - and use a registered electrician to carry out the installation work. To find an electrician, go to: www.esc.org.uk/findanelectrician

'You can install this useful socket overload calculator on your own website.'

ESSENTIAL GUIDE PROVES ITS WORTH

The statistics from 2012 show that the ESC's *Essential Guide* continues to be a regularly used reference resource, having been accessed by 4264 individual users and 3657 individual company users.

Essential Guide is a searchable online resource that provides users an easy to access source of relevant and authoritative

information and guidance. The Guide consists of over 350 topics and can be searched in a number of ways, including: regulation number, topic number or keyword. Commonly used search terms include: cable, earth, bond, lighting, socket-outlets, test, RCD, TT and voltage. The most commonly accessed topics

relate to bonding, special locations containing a bath or shower, armouring as a protective conductor and standard circuit arrangements.

Essential Guide is used by building services consultants, local authorities, government, housing associations, large and small companies as well as electrical contractors and installers.

Access to the *Essential Guide* can be achieved either as part of the benefits of being an Approved Contractor or a Domestic Installer with NICEIC, or through annual subscription directly via the Electrical Safety Council. The cost of the annual subscription is £35.00 plus VAT.

The Electrical Safety Council strongly recommends that all those involved in the design and installation of electrical systems within buildings, give serious consideration to a regular annual subscription to enable them to access the Guide.



ESC PARTNERS WITH RoSPA TO IMPROVE ELECTRICAL SAFETY

The ESC has provided material to support a series of free safety workshops run by RoSPA Northern Ireland. The workshops ran between June and November 2012, in conjunction with the Southern Health and Social Care Trust and were delivered by RoSPA's home safety training development officer Colin Wallace.

The workshops aimed to help attendees identify the community groups most at risk from fire and provided guidance on spotting early warning signs and identifying near misses. They also explained what is involved in the home fire safety check offered by the Northern Ireland Fire & Rescue Service and how to arrange one.

The sessions also highlighted the range of electrical fire safety information that the ESC offers and provided samples, including the home safety DVD that was used as a training aid during the workshops. Attendees were also given a selection of the ESC's information to take away. For further information and general advice please visit www.rosipa.com/homesafety

The ESC has a range of leaflets and DVDs covering general electrical safety issues, as well as giving specific advice in areas of higher risk such as electric blankets, phone chargers, online shopping, use of electrical equipment outdoors and downlighters.

Should you wish to obtain copies of leaflets to support a local community event, you can download free copies from www.esc.org.uk or request hard copies by contacting leaflets@esc.org.uk





ESC'S 2013 CONFERENCE TAKES A 360° APPROACH TO PRODUCT SAFETY

The Electrical Safety Council is to stage its third Product Safety Conference at Church House, London on 16 May 2013. The theme – **“Safety of electrical products – a 360° approach”** – will look at issues of product design, recall effectiveness and methods and processes for informing best practice to protect consumers, manufacturers, retailers and suppliers.

With electrical products accounting for the highest number of deaths caused by electricity, and around 350 fires a week in UK homes, the conference programme has been designed to appeal to a wide audience.

Keynote speaker, Malcolm Harbour MEP, will open the conference, highlighting the importance of product safety and traceability. A packed agenda will follow and will provide the opportunity for consumer product safety professionals to share information and exchange ideas.

As well as addressing the issues of design and potential improvements that can be made to the traceability and recall process, delegates will be invited to consider how best to educate consumers on safer buying habits and safer use of electrical appliances in the home.

The conference will feature speakers from across the product safety spectrum and the agenda will cover:

- Communication of risk
- Product recall processes
- Traceability, particularly from point of sale to consumer
- Safety in design

The content will appeal to anyone involved with manufacture or distribution of electrical products including regulators,

product safety professionals, retailers, lawyers, consultants, standardisation personnel, designers, manufacturers and people from consumer protection organisations. All are welcome to attend and places are available on a first-come, first-served basis.

For further information on the conference programme, details on how to register or become a sponsor or exhibitor at the conference, please visit: www.esc.org.uk/conference



Phil Buckle, director general of the ESC speaks at the last event.

Council investigates safety and performance claims of energy-saving devices

The ESC reveals hazardous safety failures on plug-in energy-saving equipment, while manufacturers' energy saving claims are shown to be unjustified.

The prospect of a 'plug and go' device for saving money on electricity bills is likely to appeal to consumers given the continuing rise in energy prices. Such devices, designed to be simply plugged into a domestic socket-outlet sharing a circuit with appliances, are becoming increasingly available, particularly online.

Manufacturers of the equipment claim an energy saving, or a reduction in electricity costs, of up to 35%. However, in recent months the Electrical Safety Council has received a number of reports that such energy-saving devices do not provide any net energy saving and might actually be electrically unsafe.

As part of the Council's electrical product safety screening programme, an independent laboratory was commissioned to carry out limited safety and performance testing on a selection of commercially-available products.

Five energy-saving samples were randomly selected and purchased. Each sample had a voltage range of 90-250 volts, with rated loads ranging from 2500 watts through to 50,000 watts.

The Council's investigation revealed hazardous safety failures for all products tested, and all manufacturers' energy saving claims were shown to be unjustified.

As there is not a specific product standard covering plug-in energy-saving devices, the Council decided to subject each sample to testing and inspection under the general safety provisions of the following standards:

- *EN 60335-1: General requirements for the safety of household and similar electrical appliances*



- *BS 1363-1: British standard for 13 A plugs, socket-outlets, adaptors and connection units*
- *BS 5733: British standard covering the general requirements for electrical accessories.*

The UK plug portion of each sample was subjected to a dimensional measurement only.

None of the products passed the safety assessment. The electrical safety testing criteria and corresponding test results are shown in table 1.

The test laboratory considered many of the failures as hazardous. Problems found included:

- Accessible live parts
- Absence of internal fuse
- Supply of non-standard UK fitted plug
- Exploding fuses and printed circuit board deformation under fault conditions
- Plug pins outside standard tolerances
- Accessible conductive enclosure not earthed
- Insufficient internal creepage distances

Table 1: Electrical safety testing criteria and corresponding test results

Safety criteria	Sample number and test result				
	1	2	3	4	5
Plug dimensions	Fail	Fail	Fail	Fail	Fail
Initial operation	Pass	Pass	Pass	Pass	Pass
Classification, marking and instructions, power input	Fail	Fail	Fail	Fail	Fail
Protection against access to live parts	Pass	Pass	Pass	Pass	Fail
Heating	Pass	Pass	Pass	Pass	Pass
Touch current and electric strength	Pass	Pass	Pass	Pass	Pass
Abnormal operation	Fail	Pass	Fail	Fail	Pass
Mechanical strength	Pass	Pass	Pass	Pass	Pass
Construction	Fail	Pass	Fail	Pass	Fail
Internal wiring	Fail	Fail	Fail	Fail	Fail
Components	Fail	Pass	Fail	Fail	Fail
Clearance, creepage distances and solid insulation	Fail	Fail	Fail	Fail	Pass
Resistance to heat and fire	Pass	Pass	Pass	Fail	Pass

- Insufficient resistance to heat and fire
- Poor internal construction with absence of critical component markings
- Absence of information in manufacturers' instructions concerning vulnerable users
- No CE-marking, power input, Class II symbol or WEEE symbol (crossed out wheeled bin)
- Suggestion of fake product approval marking
- Internal live and neutral wires reversed.

For performance testing the power consumption of a typical domestic television was measured with and without the energy-saving device in circuit. None of the samples provided an energy saving. An overview of the results is shown in table 2.

Table 2: Performance test results

	Television only (watts)	Device and television (watts)	Energy saving
Sample 1	75.14	76.23	None
Sample 2	75.14	75.93	None
Sample 3	75.14	75.92	None
Sample 4	75.14	75.66	None
Sample 5	75.14	75.83	None

Product testing results

Plug dimensions

The test laboratory used a *BS 1363-1* standard gauge to evaluate the plug pin configuration before more detailed measurements of the individual plug pins. The plug portion for four of the samples did not fit the standard gauge, as shown in figure 1.

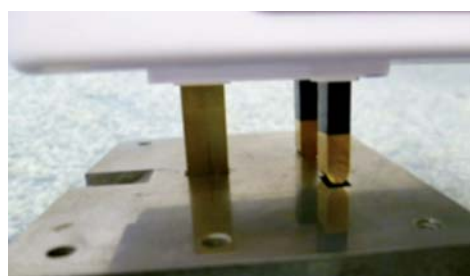


Figure 1: Plug pin configuration tests.

Further measurements revealed line and neutral plug pins shorter than the standard requirements for one sample. This can lead to poor connections with the internal contacts of a socket-outlet, which in severe conditions may lead to arcing and overheating. Inserting plug pins that do not fit the standard gauge may also damage a socket-outlet. Again this may cause damage over the longer term, with the potential for overheating and cracking of the external surface of the socket-outlet.



Figure 2: Use of non-standard plug.

One of the four samples was supplied with a fitted plug. The UK *Plugs and Sockets etc (Safety) Regulations 1994* require the fitted plug to conform to *BS 1363*. In this case the plug was non-standard. It also falls way short of the required dimensions and has no fuse link as shown in figure 2.

Protection against access to live parts

On one sample a live screw thread is accessible by hand when the external fuse cap is unscrewed, as shown in figure 3.



Figure 3: A live screw thread is accessible by hand when the external fuse cap is unscrewed.

Internal creepage distances between the visible LED and internal live connections were below standard allowable limits.

Abnormal operation

A short-circuit was applied on the internal capacitor. In this condition, when connected to the mains the internal fuse is expected to remain intact owing to its high breaking capacity characteristics. The internal fuse in two samples exploded resulting in a conductor detaching in one of the samples and scorching of the printed circuit board in the other sample, as shown in figure 4.



Figure 4: Damage under short-circuit test.

One sample had no internal fuse, such that when subjected to the short-circuit test it caused the circuit-breaker in the laboratory to trip. Plug-in devices such as these must not rely on protective devices in the electrical installation to provide short-circuit protection.

Construction

The ends of internal conductors in three of the samples had soldered connections only. This type of connection is acceptable provided that the conductors are secured independently of their soldered connections. A conductor connected by soldering alone might break free and reduce creepage and clearance distances resulting in a potential hazard to the user as shown in figure 5.



Figure 5: Soldered-only connections present a potential hazard.

Continued over....

Internal wiring

The line and neutral conductors in all five samples were reversed. While that did not prevent the operation of the device, the internal fuse link should be located in the line conductor side of the circuit. One sample considered to be of class I construction was found to be unearthed. The protective conductor was cut away and visible just a couple of millimetres from the outer sheath of the supply cord, as shown in figure 6.

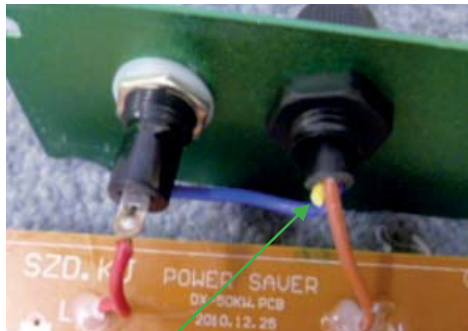


Figure 6:
Protective
conductor has
been cut away.

protective conductor cut away

Resistance to heat and fire

The enclosures of four of the samples were non-metallic. A standard glow wire was applied to the enclosure of these samples to determine their resistance to heat and fire. In one sample the flame resulting from the application of the glow wire did not extinguish within the required maximum 30 seconds.

Components

The assessment of safety critical components was limited to a visual inspection for the presence of manufacturers' ratings and third-party approval markings. Such markings provide a degree of confidence in the component's performance and reliability. The internal fuse in three of the samples had no approval marks or identification of current rating. Internal capacitors in one sample also had no approval markings.

The rating label for one sample has third-party approval markings indicating testing by a competent body for electrical safety. However, in view of the non-compliances, it is likely that these marks are fake.

User instructions

User instructions must be provided with electrical products to ensure that they are used safely and in applications for which they are made. One sample was not provided with user instructions. This sample happened to be electrically identical in construction to another test sample, which was provided with user instructions. This highlights a potential disadvantage of buying products from an online retailer where it is not always clear from the marketing information that full instructions are included.

These energy-saving devices are within the scope of the *EU Low Voltage Directive 2006/95/EC* for electrical equipment. They must therefore carry the CE-marking to indicate conformity with the essential safety provisions of the directive and the corresponding UK *Electrical Equipment (Safety) Regulations 1994*. Three of the samples were missing the CE-marking.

Most of the samples were also missing markings for rated power input, the symbol for class II construction and the crossed out wheeled bin symbol required under the *Waste Electrical and Electronic Equipment (WEEE) Regulations*. Safety information concerning

children and other vulnerable users was missing from user instructions supplied with three of the samples. The absence of such information may not necessarily be considered safety critical, but in certain circumstances it might give rise to a hazard. The absence of CE-marking is a concern however; as it suggests that EU and corresponding UK safety laws are blatantly not being applied or not understood.

Performance testing results

The energy-saving devices tested have internal capacitors that are effectively connected directly across the mains terminals. The principle behind connecting capacitors across the mains is often seen in industrial applications; more commonly known as 'power factor correction', to offset high inductive currents caused by, for example, induction motor drives. This has the effect of improving the efficiency of the connected loads in terms of power consumption by maintaining a high power factor and so reducing electricity costs. Electrical utilities will usually charge a higher cost to industrial or commercial customers where there is a low power factor.

However, domestic tariffs are not subject to any penalty for low power factor. Furthermore, power factor correction does not reduce or alter active or true power and hence will have no effect on the energy consumption measured by the electricity meter in a domestic installation.

In fact, due to the energy losses in the capacitors and other components in the samples, there was an overall, albeit small, increase in energy consumption. Manufacturers' claims for cost savings are therefore not substantiated. Consequently, none of the samples provided an energy saving when connected in a typical domestic installation.

Conclusions

The plug-in energy-saving devices attempt to deliver savings in electricity costs by a form of power factor correction. The testing has shown that the design of these devices is fundamentally flawed for a domestic installation and none of the manufacturers' claims could be proven by the laboratory.

This is further compounded by the fact that all samples exhibited hazardous safety failures. The testing suggests that these devices are not safe when connected to a domestic socket-outlet.

The absence of markings and instructions are not necessarily safety critical. The lack of CE-marking is a concern however, as it suggests that manufacturers do not understand their legal obligation under EU and corresponding UK safety laws. The cumulative effect of so many hazardous failures means that the products do not provide the level of safety that consumers are entitled to expect when connecting such products to the domestic electricity supply.

Given the extent of the poor performance and electrical safety failures identified during this screening programme, the Council has been liaising directly with Trading Standards on the findings so that appropriate enforcement action can be taken.

If necessary, an update will be published in a future edition of *Switched On*. A copy of the full laboratory test report can be viewed on the Council's website www.esc.org.uk

ESC takes another look at the adequacy of RCD main contacts

Since its inception in 2005, the Electrical Safety Council (ESC) has commissioned several research projects that have looked into the in-service reliability of residual current devices (RCDs), used in premises to protect against electric shock and fire.

That research has, amongst other things, investigated a number of issues, ranging from circuit conditions that could affect the operation of RCDs (including those from connected loads and fault conditions) to the adequacy of RCD main contacts under fault conditions.

As expected, the research produced some interesting results that were often shared with the RCD manufacturers. In return, some of them (and members of the RCD Research Steering Committee, a group of specialists originally formed by the ESC to advise on the aforementioned issues) provided feedback or offered valid reasons for some of the outcomes.



Figure 1: Fixed contact and conductor after 500 A test.



Figure 2: Moving and fixed contacts after 1000 A test.

The feedback from the last phase of testing indicated that the damage to the RCD main contacts, caused by the earth fault current, was commensurate with expected results and was within acceptable limits - see figures 1 and 2. However, it was generally believed that an earth fault applied at, or very close to, the outgoing terminals of an RCD was highly unlikely to happen in real-life. So, a more realistic situation, which would probably result in less damage to the RCD main contacts, would be to repeat the testing but this time include an appropriate form of overcurrent protection (by means of a fuse or circuit breaker) between the fault and the outgoing terminals of the RCD.

To find out if this is the case, the ESC again commissioned ERA Technology to test another batch of new RCDs, with the laboratory time also used to:

- measure and record the resistance between the incoming and outgoing terminals of each RCD, before and after it was subjected to earth fault current
- verify that the RCD test button still performed its intended function, after the RCD had been reset
- determine whether the RCD, the overcurrent protective device, or both, operated to break the earth fault current, and
- scrutinise the fixed and moving RCD main contacts for alignment issues.

Requirement to ascertain the adequacy of RCD main contacts

As reported in issue 18 of *Switched On* (autumn 2010), the product standards *BS EN 61008 1* and *BS EN 61009 1* (covering RCDs for use in consumer units and distribution boards etc) require the RCD main contacts to be subjected to a test current of either 500 A or $10 I_{\Delta n}$, whichever is the greater, to determine their

adequacy. However, real-life testing has shown that prospective earth fault currents upwards of 1000 A are common in domestic installations.

To allow for these higher values of fault current, ERA Technology was instructed to test the first batch of nine RCDs at a test current of 500 A and second batch of nine RCDs at 1000 A. Each RCD was subjected to either fault current once only.

Product testing results

Interestingly, the theory of having an appropriate means of overcurrent protection upstream of the fault - to reduce the let-through energy (I^2t) - does help the performance of the RCD main contacts in practice. Out of the 18 RCDs tested, most showed little to moderate damage. Sample 13, however, showed serious signs of damage to its main contacts, similar to the levels of damage seen during the last phase of testing.

The damage to the main contacts, and other internal components of sample 13 - see figures 3 and 4 respectively - was simply down to the fact that it was paired with a 30 A rewirable fuse, which did not blow when the 500 A fault current was applied.

Undeniably, the pairing of an RCD with a 30 A rewirable fuse was not a realistic combination as most, if not all, modern consumer units and/or distribution boards do not accept the installation of such devices. However, the decision to test such a combination was made on the assumption that such a combination could be found in older installations where, for example, RCD protection was installed remote from a consumer unit that incorporated rewirable fuses.

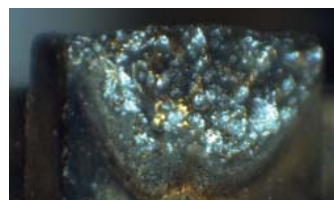


Figure 3: Contact damage to sample 13, after 500 A test when 30 A rewirable fuse did not blow.

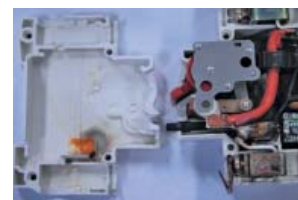


Figure 4: Extent of damage within sample 13 after 500 A test.

Alignment of contacts

In all but two of the samples put under the microscope, the fixed and moving contacts appeared to be reasonably well aligned.

However, samples 9 and 12 revealed potential alignment issues, one of which can be seen in figure 5.

As with all safety investigations, the ESC has informed the relevant RCD manufacturers of its findings. A copy of the full laboratory test report, which includes more photographs, is available in the 'Industry' section of the Council's website www.esc.org.uk



Figure 5: Potential alignment problems of fixed and moving contact of sample 9 after 500 A test.

Inspection and testing of portable equipment in low risk environments – time for a rethink

The 'Have you ever been asked' feature in the Autumn 2012 issue of *Switched On* discussed the Health and Safety Executive's (HSE's) revised guidance leaflet *Maintaining portable electric equipment in low-risk environments*, relating to how often portable appliances in places like offices and shops need to be inspected and tested. In this article, the ESC explains the background to the revision of the guidance.

In March 2011, Chris Grayling, then Minister of State for Employment, commissioned an independent review to consider 'the scope for reducing the burden of health and safety regulation on business, whilst maintaining the progress that has been made in health and safety outcomes'. This review was chaired by Professor Ragnar Löfstedt, director of the King's Centre for Risk Management, King's College, London. In November 2011, the resultant report *Reclaiming health and safety for all: An independent review of health and safety legislation* (hereafter referred to as the Löfstedt Report, or simply the Report), was presented to Parliament.

In his foreword to the Report, Professor Löfstedt concluded that, in general, there was no case for radically altering current health and safety legislation, that the existing regulatory requirements were broadly right and there was evidence to suggest that proportionate risk management could make good business sense.

However, Professor Löfstedt continued by stating that there were a number of factors "that drive businesses to go beyond what the regulations require and beyond what is proportionate."

In the Executive Summary of the Report, Professor Löfstedt stated that:

"In general, the problem lies less with the regulations themselves and more with the way they are interpreted and applied. In some cases this is caused by inconsistent enforcement by regulators and in others by the influences of third parties that promote the generation of unnecessary paperwork and a focus on health and safety activities that go above and beyond the regulatory requirements."

The *Electricity at Work Regulations 1989 (EWR)* was highlighted in the Löfstedt Report as an example of a regulation that is being applied too widely and disproportionately. In particular, the report criticised the current widespread practice relating to portable appliances.

"... many businesses are currently having their portable appliances, such as kettles and microwaves, tested annually, which is both costly and of questionable value. Furthermore, it has been indicated that businesses are going further and applying testing to all electrical equipment, not just to items that are truly portable."

The Report acknowledged that HSE had sought to redress the widely-held misconception that EWR required portable appliances to be tested annually when its publication *Maintaining portable electric equipment in offices and other low-risk environments* (INDG236) was reissued in April 2011. However, Professor Löfstedt still recommended that HSE should:

- further clarify the requirement for portable appliance testing to stop over-compliance
- ensure that this message reached all stakeholder groups.

This concern over the unnecessary testing of electrical equipment in low-risk environments was not new. As far back as July 2007, HSE issued advice as part of its 'Myth of the month' series clarifying that not all office equipment need be tested every year (see figure 1).

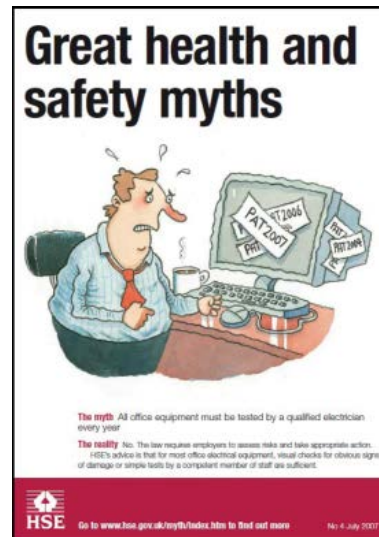


Figure 1: HSE Myth of the month poster, July 2007.

The Government has accepted the recommendations made by Professor Löfstedt in the Report, and on 28 November 2011 the HSE stated in a press release that it welcomed the Review and the reforms recommended therein.

In another HSE press release, dated 2 May 2012, launching its revised guidance on portable

appliance testing as *INDG 236(Rev2)*, it is estimated that unnecessary safety testing of portable electrical appliances is costing office-based businesses around £30 million a year. In the release, HSE chair Judith Hackett said: "We know that low-risk companies are being misled over what the law requires when it comes to maintaining portable electrical appliances... HSE has always advocated a proportionate, risk-based approach to maintenance."

Broadly speaking, there are three levels of inspection or testing that are employed when determining whether a portable appliance remains suitable for use:

- basic user checks
- formal visual inspection
- combined inspection and testing.

The revised guidance leaflet *Maintaining portable electric equipment in low-risk environments* (INDG236(rev2)) indicates, in table 1, that in low-risk environments, such as offices, shops and residential care homes:

- no checks are required for battery-operated equipment operating at less than 40 V or extra-low voltage equipment
- for non-handheld, infrequently moved Class II* equipment, such as table lamps and fans, combined inspection and testing is not required and a simple user check and visual inspection is enough
- for other equipment, such as floor cleaners and electric kettles, combined inspection and testing may be needed, but not necessarily every year.

Where the duty holder decides that combined inspection and testing is required, the interval between such inspection and testing should be based on the risk presented to the user of the equipment. Where the risk of damage to the equipment, its lead or plug is considered to be high and the equipment is handheld, an interval of between one

and two years might be more appropriate. Where the risk is lower, such as would be the case for large, infrequently moved items such as vending machines or photocopiers, the interval between inspections might be up to five years. Further guidance on initial intervals for checking a range of portable electrical equipment is contained in table 1 of INDG236(rev2).

The duty holder should of course review the results of user checks, formal visual inspections and combined inspection and testing and, based on this information, adjust the periodicity of inspections and testing accordingly.

**Class II equipment is sometimes referred to as 'double insulated' equipment. This means that there is extra insulation within the construction of the equipment to prevent accidental contact with live parts, even if there is a fault. Class II equipment does not need an earth connection to maintain safety.*

Further information on portable appliance testing can be found on the HSE website, at <http://www.hse.gov.uk/electricity/faq-portable-appliance-testing.htm>

The revised guidance leaflet Maintaining portable electric equipment in low-risk environments can be downloaded at <http://www.hse.gov.uk/pubns/indg236.pdf>

The Löfstedt Report can be downloaded from the Department for Work and Pensions website:

<http://www.dwp.gov.uk/docs/lofstedt-report.pdf>

Have you ever been asked...

why do electrical installations need to be periodically inspected and tested?

The wiring system, switches, socket-outlets and all other parts of an electrical installation deteriorate with age and the wear and tear of everyday use. Consequently, every electrical installation needs to be periodically inspected and tested at suitable intervals during its life by a competent person.

The purpose of periodic inspection and testing is to find out whether the installation is in a satisfactory condition to remain in service at least until the next inspection is due and, if this is not the case, to identify any remedial work necessary to make the installation satisfactory.

The owner of the installation is responsible for arranging for periodic inspection and testing to be carried out and also for arranging for any recommended remedial work to be done by a competent person.

Periodic inspection and testing should be carried out in accordance with the requirements of *BS 7671*, the UK national standard for the safety of electrical installations. *BS 7671* requires that the inspection and testing shall provide for:

- the safety of persons and livestock (in places intended for them) against the effects of electric shock and burns
- protection against damage to property by fire and heat arising from an installation defect
- confirmation that the installation is not damaged or deteriorated so as to impair safety
- identification of installation defects and departures from the requirements of *BS 7671* that may give rise to danger.

The findings of each periodic inspection and test of an installation should be recorded in an Electrical Installation Condition Report (EICR) based on the model form in *BS 7671*. The EICR, together with schedules of inspection and test results, should be issued to the customer by the person or company that carried out the inspection and testing.

The EICR should state the period of time until the next periodic inspection and test is due, assuming that any remedial work recommended in the report will be carried out without delay.

Any remedial work should be carried out in accordance with the requirements of *BS 7671*. A certificate confirming that this is the case should be issued to the customer by the person or company that carried out the work.

The certificate should be based on the appropriate model certificate in *BS 7671*. This is either an Electrical Installation Certificate (accompanied by schedules of inspection and test results) or a Minor Electrical Installation Works Certificate, the latter being only for minor work that does not include the provision of a new circuit.

The remedial work must also comply with national building regulations.

A correctly compiled EICR provides an important record of the condition of the installation at the time it was inspected and tested, for the benefit of the owner of the premises, occupants other than the owner, and electrical contractors who might work on the installation.

The information in an EICR can be particularly useful for subsequent periodic inspection and testing of the installation. Without this information, a degree of costly exploratory work might be necessary on each occasion. Comparison of results obtained during periodic inspection and testing with those obtained in the past may indicate that the installation parameters, although within those deemed safe by *BS 7671*, are deteriorating, and that investigation as to the reason may be desirable.

In the event of injury or fire alleged to have been caused by an electrical installation, a current EICR (together with the certificate covering any related remedial work) can provide documentary evidence to help demonstrate that the installation had been maintained to a satisfactory standard of safety.

Further information about periodic inspection and testing of electrical installations, including how often it should be carried out, can be found on the Electrical Safety Council's website, at: www.esc.org.uk/public/find-an-electrician/periodic-inspection-explained/

ELECTRICAL SAFETY COUNCIL HELPS SHOPPERS AVOID A COUNTERFEIT CHRISTMAS

The Electrical Safety Council hit the headlines in the run-up to Christmas after launching a media campaign to warn people of the dangers of buying counterfeit products. The campaign, launched ahead of the biggest shopping weekend of the year, raised the issue of counterfeit goods before consumers went in search of Christmas gifts on the High Street and online stores.

Supported by the Trading Standards Institute, the timing of the campaign was particularly pertinent, with 2012 seeing the highest level of counterfeit goods crossing over the border in three years. Around 4.1 million electrical items were seized throughout the year, with hair stylers, mobile accessories and electronic games amongst the top electrical fake goods.

These counterfeit electrical products almost always contain incorrect or faulty parts that can overheat or break just days after purchase, increasing the risk of fire, serious shock or even electrocution.

To support the campaign, the ESC carried out some research¹ which identified a worrying lack of public awareness of the risks involved in buying products that are often available at prices that are "too good to be true". It revealed that:

- one in five Britons intended to buy an electrical item as a festive gift in 2012

- two thirds of those buying an electrical item would go online, where it is even easier for 'dodgy' goods to slip through the net
- one third of adults considered getting a bargain a top priority when shopping for Christmas gifts
- one in four people surveyed would happily have bought fake goods to give to a loved one or friend.

The story was covered by a range of national and regional broadcast and print media, with national coverage including BBC Breakfast, Sky News, The Sun, Woman's Weekly and Radio 4's You and Yours programme.

Emma Apter, the ESC's head of communications, said: "This was a particularly important campaign ahead of Christmas – but it's a problem that needs tackling throughout the year. Many people see cheap electrical goods as a bargain, but if the product turns out to be fake or faulty these goods are, at best, a waste of money. At worst, they could result in a house fire, severe injury or even the death of a loved one.

"Worryingly, our research shows that a quarter of people would happily buy counterfeit goods to give to a friend or loved one. Whilst everyone loves a bargain these goods could actually put lives at risk."

To support the campaign and help people to stay electrically safe throughout the year, the ESC offers tips and advice on its website, as well as the Safe Shopper's Guide, which is available as a free download at

www.esc.org.uk/safeshopping

¹The attitudinal consumer research has come from Populus who interviewed 2,049 adults from Great Britain online between 26-28 October 2012.



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All the previous issues of Switched On are available to read or download from the 'Business & Community' section of our website.

