

# Fuse Spurs...

## A CASE in point?

In this article Peter Moss, a Technical and Training Consultant (Security and Fire,) expresses his frustration and raises a number of concerns about standards of installation and compliance with regulations when it comes to the issue of fuse spurs.

I have read with interest details in connection with the official launch of CASE - to the uninitiated, the Campaign for State Education - its aim to raise standards in our Industry and its desire to provide and ensure professional training. It is with respect to the issues of training and qualifications that I write, in the hope of raising several important questions. I have tried to address my concerns directly to CASE by telephone, but to my frustration their only contact number diverts to a voice mail box. I have resorted therefore, to making my concerns public in the hope of raising awareness and in the hope (perhaps forlorn) that they and other official bodies might read this and take note.

As an award winning training provider, a long established member of the Security & Fire Industry, a College Lecturer and past SITO external verifier (retired), I have some knowledge of the issues of which I write and a number of concerns. Not least amongst these is the considerable hype associated with CASE and its aims. In particular, there is, or seems to be, a significant lack of knowledge, plus non-observance of codes of practice in connection with the technical and official requirements when fitting a fuse spur. Add to this my concerns over performance verification and a lack of required documentation and you are beginning to get the picture.

I often hear students quoting one of two scenarios:

- Scenario A: that their company does not fit the fuse spur but relies upon the service of an electrical contractor who may receive a contract to install the required mains supply via a fuse spur - leaving a prescribed length of cable attached to the spur unit so that the alarm engineer can affix his/her equipment. This equipment is then

attached to nearby suitable wall, where the alarm engineer can connect the cable to the control equipment, pop in the fuse and start to programme the settings and functions.

- Scenario B: the electrical contractor installs and leaves the fuse spur, probably, in a 'live condition' or perhaps removes the fuse for safety sake and allows the alarm engineer to connect his/her own required cable to the fuse spur; pop in a fuse and thus enable a connection to be established between said spur and control equipment.

While hopefully 'alarm bells' are already ringing with respect to either of the above possibilities, I shall not for now go into the realms of the alarm company who fails to use, or even consult, a qualified electrician and who relies hopefully on DIY skills and good luck.

### Questions and issues that come to mind from the two scenarios outlined above are:

1. What paper work (small works certificate) does the electrical contractor hand over to the alarm engineer to verify that the modification or extension to the electrical circuit meets with all approvals in connection with the Electricity at Work Regulations: 1989, plus possibly BS 7671: 2001 Electrical Installations in Buildings? Also, what legal (contractual) obligation does he/she have with respect to the company who ordered the electrical installation when the electrician does not leave the test results to show that CPC is continued or that polarity and insulation have been verified or that the Earth loop impedance meets with safety requirements? How does the alarm engineer verify that all of the above is as it should be?
2. What essential electrical tests and verification is carried out by the alarm engineer before and after installation, to ensure:
  - (a) his/her own safety and well being are maintained;
  - (b) that the contract electrical engineer has carried out his/her functions in a safe and approved manner to assuage possible litigations for unsafe and dangerous workmanship;
  - (c) that the installation is in keeping with recent legislation (Building Regulations: 2005, Part P - Electrical Safety in Dwellings) and that all is safe for the end user and that it meet Local and Government Building regulations and Insurance Specifications; to say nothing of the numerous appointed bodies who require their various amounts of money to say 'Yes - you are a competent person'.
3. What qualification does the alarm engineer hold? Has he/she taken training, received certification or been approved as a

'competent person' (EAW Regulations) in connection with extending and making modifications to an existing electrical circuit? If not they are unable to complete the required paperwork - the small/minor works certificate - to enable the alarm installation to be regarded as fully compliant with all the requirements of the Health & Safety at Work Acts; the Electricity at Work Regulations: 1989; Provision and use of Work Equipment; the Construction (Design and Management) Regulations ...to mention just a few.

Very few people seem to realise that the scope of the Electricity at Work Regulations is a much wider and more far reaching publication than BS 7671. It is also concerned with service and maintenance, training and the competency of all staff ensuring good working practices are maintained and that suitable and recognised equipment has been used. More to the point, BS 7671 is regarded as a guidance document, whereas The Electricity at Work Regulations is a statutory document.

We are now faced with the imposition of Part P and its requirements i.e. the requirement for people undertaking electrical installations to be registered with one of various bodies, especially when looking at working in certain areas of domestic dwellings. One thing that is clear is that it is not possible for a third party to carry out verification and certification of an installation, but it is possible for installers to extend, modify or replace old for new, as long as the fuse rating and cable size remain the same. This all creates a confusing and contradictory picture for the alarm system installer.

I would appreciate comments and feedback on how others feel above this subject and, in particular, I would like to know how CASE, SSAIB or even NSI feel. Can they suggest how we might rectify the problems outlined above and comply with the required legislation?

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