

ADVICE SHEET #3



THE LOFT CONVERSION

What it takes to satisfy the
Building Control Officer....

Firstly, a few words about The Building Regulations themselves...

Anyone wanting to carry out building work which is subject to the Building Regulations is required by law to make sure the work complies with them. Their main purpose is to secure the health, safety, welfare and convenience of people in or about buildings and they apply to building design and construction and the provision of services or fittings in them or in connection with them.

The Regulations are divided into fourteen 'parts' ranging from structural matters and fire safety to access and facilities for disabled people and electrical safety. They all have their part to play in building safety, although not all of them will be mentioned in this advisory sheet. Electrical safety is covered by Part P, which is why the public are being made aware of it. Until recently, it was at the discretion of the electrician to issue a certificate to confirm that the work was of a sufficient standard. Now, in order to show that the work satisfies the high standards of the Regulations, he has to. And only electricians that belong to one of a number of trade bodies are allowed to certify their own work. The NICEIC is one such body.

How the Regulations relate to a loft conversion

A loft conversion is invariably used to provide more working/living space for the occupants of the building. Rather than the irregular visits made to a loft space located on the other side of a trap door and reached via an extending ladder it is to be assumed that the rooms created will be used regularly and that often a significant number of people will gather in them. It is this change of use that brings the Building Regulations into play. It must be the case that the structure is strong enough to take the extra loads that will be placed upon it and that people can move around easily. There must be provision for fast and safe exit in the case of a fire and adequate warning that one has started, as the third floor of a building is not a safe place to be when the fire breaks out on the ground floor.

Furthermore, the provision of good ventilation, drainage and sound proofing etc. applies to the new rooms as much as to those of the originals. The provision of these services must be in accordance with the Regulations if the ideals of the introductory paragraph are to be met.

The role of the Building Control Officer

A properly planned loft conversion, designed to comply with all aspects of the Law, will involve the services of the Building Control Officers from the local council offices. It is their job to ensure that the builders and the customer comply with the Building Regulations and that the calculations and designs of the Structural Engineer or Architect are acceptable to the council. They will visit the site as the work progresses, checking the construction techniques and the materials used throughout the build and will finally sign off the job if all is to their satisfaction. They will certainly want to see, from the electrician, the [Electrical Installation Certificate](#) and [Fire Alarm Certificate](#) that prove to them that these aspects of the work have been carried out in accordance with the [BS7671 Wiring Regulations](#), under [Part P](#) of the Regulations.

What this means when it comes to the wiring

Adding another floor to a building will mean the provision of further electrical circuits. Let us consider, as an example, an extension that provides an office, a bedroom and a bathroom....

- ◆ The office will require plug sockets, lights and possibly a telephone point.
- ◆ The bedroom will also require plug sockets and lights and possibly a TV aerial socket.
- ◆ The bathroom will require lights, an extractor fan, a shaver socket and perhaps a supply for a power shower.
- ◆ The boiler, or the hot water tank with immersion, may also be re-located to this new floor.
- ◆ The hallway at the top of the new stairs (known as the 'common parts') will require lights, a plug socket for a vacuum cleaner and a smoke detector linked to other smoke detectors throughout the house.

The first job for the electrician is to see if the existing electrical installation is of a suitable standard and has enough spare capacity to take the extra wiring required. If the [consumer unit](#) has few or no spare fuses or the [main bonding conductors](#) are insufficient then this is where the work shall start- upgrading the existing installation to make sure that it can support the new demands to be placed on it.

Secondly, the electrician must check to see whether there is an existing smoke alarm system that can be extended up into the new area. If there is no such system, the Regulations are quite clear that one needs to be fitted.

Lastly, the electrician must install the new circuits, following the rules contained in the [IEE Wiring Regulations \(BS7671\)](#) and then issue the correct certificates as required by [Part P](#) of the Building Regulations.

The problems that might be encountered

As the electrician assesses the existing installation it will soon become clear whether or not it is going to be of sufficient quality to supply the new rooms as there are a number of basic criteria that must be satisfied before new work can be joined to the system.

A good analogy can be found in the Eurostar train service. France has a purpose built line to carry the trains at their maximum speed of 180mph. This could represent the new wiring of the loft extension. But, the swish new line does what when it arrives in England? It joins the aged track laid many years ago. This could well represent the existing wiring in the house. Trying to go at top speed on this track would soon lead to an accident, which is why there are speed restrictions placed on the Eurostar trains on this side of the Channel. Both tracks have to be of the same build quality for the system to work safely and at full capacity.

Here are some potential problems:

- ◆ No main bonding conductors present at all.
- ◆ Main bonding conductors undersized.
- ◆ Main supply tails undersized.
- ◆ Consumer unit full, with no spare ways.
- ◆ Consumer unit/fuse way overloaded.
- ◆ Old consumer unit, with parts unavailable.
- ◆ No mains powered smoke alarm system present.
- ◆ Not enough smoke alarms fitted.
- ◆ Incorrect values measured at the point of supply.

All of the above can be rectified, but these are the sort of problems that must be addressed before the new wiring for the loft extension can be connected up. The certificates for the Building Control Officer can only be signed if the necessary work has been carried out. Remember the Eurostar story.....

This Advice Sheet has been produced to explain the reasons why electrical work is so often better left to the professionals or to at least indicate why a simple job can sometimes turn into a more complex one!

Should you have any questions, please call me on 07812 000 658 to discuss them.

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