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A to Z of Church Maintenance

Wiring

GUIDANCE NOTES ON ELECTRICAL WIRING IN CHURCHES

Despite increasingly high standards of installation, numerous church fires can be attributed to faulty electric wiring or apparatus. It is therefore important that electricity should be treated with respect.

General

All electric wiring should be installed in accordance with the *Regulations for Electrical Installations* issued by the Institution of Electrical Engineers (IEE), Current Edition, under British Standard BS7671.

Electrical contractors enrolled with the National Inspection Council for Electrical Installation Contracting (NICEIC) or the Electrical Contractors Association (ECA) should be employed for work in churches.

The NICEIC carries out periodical and random inspections of contractors' work; should any remedial work be required to repair faulty work, then this is carried out at the contractor's expense. The Electrical Contractors' Association (ECA) operate a guarantee scheme for the work of their members - work done which does not comply with the safety requirements of the Wiring Regulations will be rectified, at the member's expense.

Inspection and Testing

The Council for the Care of Churches recommends that churches have their electrical installations inspected and tested every five years. The inspection and testing should be carried out in accordance with IEE Regulations, Nos. 712 and 713, and an inspection certificate obtained in every case.

The switchgear in the church should be labelled to show:

a. the date of the most recent inspection, and

b. the date of the recommended future inspection.

The Church Authorities should ensure that a thorough physical examination of all portable appliances is conducted regularly to ensure that worn flexes, broken plugs or sockets etc. are replaced immediately.

The Health and Safety Executive publication *Maintaining portable electrical equipment in offices and other low-risk environments*, Ref. INDG236 11/97 C1250, gives guidance on how and when inspections should be carried out.

The Organ

Most churchwardens are rightly aware that the organ presents a "danger area" yet they often allow the danger to be increased substantially by tolerating "non-standard" or "amateur" wiring on the organ. Organ lights, whether for illuminating keyboards or for internal inspection, should be installed by a qualified electrician using permanent wiring.

Lights should be installed so that there is no danger of them igniting timber or music sheets if they are accidentally left on. The wattage of light bulbs should be kept as low as possible.

It is suggested that maintenance lights are fitted above each section of pipework within the organ. The lights should be of the non-heat producing fluorescent type. A "wander lead" from a 13 amp socket should be fitted in the lower section of the organ with a proper inspection lamp. All maintenance light switches should be fitted at the entrance to the organ chamber or casework.
If a portable electric heater is required for the organist, it should be of the convector or fan assisted type fitted with a thermostatic cut-out that operates in the event of overheating. The plug should always be disconnected from the socket at the end of each service.

Inspection, maintenance or repair of all pipe organs, particularly those having electric or electro-pneumatic actions should only be entrusted to an experience professional organ builder. Reliance should not be placed on the fact that an organ is regularly tuned because the tuner may not have the detailed technical knowledge required to detect dangers in the complex electrical circuitry of a modern organ. The organ builder should be consulted and arrangements made for a detailed inspection to be carried out at agreed intervals.

The electric organ blower is frequently overlooked as is the specialised humidifying apparatus that often sits alongside the blowing equipment. The electric organ blower should be examined at regular intervals by a qualified electrician. This is in addition to regular visual inspections when the organ tuner may be able to observe the blowing apparatus during the course of a tuning contract visit and report anything felt to be suspect. Where humidifying apparatus is installed such equipment has to be maintained twice yearly and it is therefore the recommended trade practice that organ blowers, and when present, humidifiers are inspected every six months to keep them in good running order.

Switches incorporating pilot warning lights should be installed in the mains circuits to the organ and ancillary equipment to ensure that they are switched off whenever the instrument is not in use.

The Institute of British Organ Building, the trade association for church pipe organ builders, will be happy to provide help and assistance and can be telephoned on 020 7689 4650.

Temporary Wiring

Temporary or extension wiring should only be allowed in exceptional circumstances. All temporary circuits should be physically disconnected from the mains when not in use (even where the mains switches are turned off).

Temporary wiring should always be installed in accordance with the *IEE Regulations for Electrical Installations* (BS 7671) and be protected against mechanical damage by means of armoured cable or conduit.

Temporary wiring should only be allowed for a maximum period of six months.

Permanently wired socket outlets should be installed as near to the location of lecterns, cribs or Christmas trees etc., as possible.

Mains Circuits

Wiring should be arranged so that as many circuits as possible can be isolated at the mains switches when the church is not in use.

Mechanical Damage

Any evidence of damage to wiring, plugs, sockets or other fittings should be attended to immediately upon discovery. Any wiring installations should take into account the possibility of mechanical damage and be protected accordingly. Trailing cables are a health and safety hazard. Where essential, they should be kept to the absolute minimum length and should never be hidden under carpets as the risk of mechanical damage from sharp heels etc. is considerable.

Electricity at Work Regulations 1989

The Electricity at Work Regulations have wide application and apply to most churches. They require that electrical installations are safe and regularly checked by a qualified electrician working to the current IEE regulations (BS7671). In no circumstances should an untrained person attempt any electrical work. The Health and Safety Executive guidance notes indicate that even the changing of a light bulb or replacing a fuse should be left to trained individuals.

This guidance note is based on one issued by Ecclesiastical Insurance Group.

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