

# **Electrical Safety**

## Church electrical work

As a rule, only qualified electricians should work on your electrical systems. This is safer for your people, your property and the individual working on the system. If you do use volunteers, only use registered electricians and sight their registration and record their details.

# **Electrical wiring**

Deteriorating electrical wiring causes many fires.

Have your Church's wiring checked regularly by a licensed electrician. Obtain a written report on its condition and act on any safety concerns.

This is important if you have an old switchboard or if you're using a lot of new equipment. New equipment or increased use of electricity also places a greater drain on the switchboard. Faulty fuses on switchboards are prone to overheating and can easily ignite combustible material such as wood panels or other combustibles that may be stored nearby.

# Safety switches

Safety switches protect your property and they save lives. Have them fitted at the electrical distribution board.

#### **Surge protectors**

Power surges can easily damage electronic equipment like data projectors, computers and electronic musical instruments. Fitting power surge protectors protects Church property and the property of others. It's best to fit them at the electrical distribution board.

#### Information protection

Protecting important information is easy and relatively inexpensive.

A daily or weekly backup of all computer files minimizes the possibility of data loss. This data should be stored away from the Church premises. This way, if there is an electrical malfunction, fire or failure of the hard disk, most records and work will be retained.

# **Thermal Imaging Survey**

Infra-red thermal imaging is a recognised technique for detecting loose or corroded connections. A poor electrical connection under load will rise in temperature. Arcing will occur and eventually the connection will fail, or at worst cause a fire.

A thermal imaging survey involves taking thermal images of electrical equipment including distribution fuse boards, contactors, switch boards, transformers, motors, battery banks, UPS's, control panels etc.

With these thermal images it is possible to identify such faults as loose connections and over loaded circuits (the most common cause of electrical fires), transformer cooling faults, motor winding faults and induced currents.

Following the survey, a report will be produced which will identify equipment found to be displaying faults. For each fault, a diagnosis will be given together with recommendations on how to repair.

## **Temporary wiring**

Too many adaptors and socket boards can overload electrical power points. This, in turn, can cause electrocution, or fire. While they are convenient, please ensure only appropriate adaptors are used in offices and kitchens, for musical instruments and sound desks. If adaptors are repeatedly used, consider installing additional power-points to the fixed wiring system.

If you need to use an extension cord, tape it securely to the floor for the whole length of the cord.

## Water and electricity

Water and electricity don't mix. Be sure that the roofs of your Church buildings are in good condition and that external electrical fittings are weatherproof.

Check that all appliances in the kitchen are well clear of damp or wet areas. Take care of stand-alone spring water dispensers connected to power outlets. Electrocutions have occurred using these appliances in recent years.