

# Upgrading your Electrical Installation

The wiring in your home is the backbone to your electrical installation. In many older homes (circa 1890's to 1970's) the wiring is decayed and inadequate. The original wiring in these earlier homes is cloth insulated wire and rubber insulated in the latter. In both cases, the cable breaks down creating a short circuit. The Short circuit is responsible for blown fuses and arcing, which is the cause of many house fires. Another reason to upgrade your cabling is to ensure your Electrical System can meet the demands of modern times. We have become reliant upon our Air Conditioners, Home Entertainment Systems, Electric Ovens, Hot Water Systems, Pool Pumps etc. So the cabling needs to be able to carry the required power to facilitate the operation of these appliances. Today's electrical standard also requires that all power and light circuits be protected by RCD (safety switches). Your Electrical system should be able to meet these Safety Requirements and also be capable of supplying enough power to accommodate the needs of the modern home.

## Why should you upgrade

- Your homes safety starts at the Switchboard/Fuse Box. Despite changes in the electrical code there remain a lot of homes in Australia that remain unprotected from Earth Leakage faults. Australian Standards require all light and power circuits be protected by a Residual Current Device- RCD.
- Many homes still use Fuses to protect against Overload. The problem with this is Fuses do not respond to an overload as quickly as a Circuit Breaker. Fuses by their very nature are easily tampered with, and are a major cause of electrical fires. Circuit Breakers are a cost effective way to reset an overloaded circuit. Australian Standards have banned their use.
- The increase demand for electricity in homes means that additional circuits may need to be installed. Extra circuits are needed if you plan on installing air conditioning, pumps, laundries, extra appliances, or building a shed or an extension/renovating.
- Including Surge Protection is a safe guard against power spikes. Home contents such as Entertainment Systems, Computers, Washing Machines, AC, Fridges are all controlled by micro-processors, which require a steady voltage. Power spikes from Electrical Storms or voltage drop or spikes from the grid will damage the processor and therefore your appliances.
- 95% of an electrical installation is hidden from the Human Eye. Therefore most potential hazards are not detected before it is too late. Upgrading your switchboard, including the install of RCD's and Circuit Breakers greatly reduces the risk of injury, harm and damage.

# LIGHTING

At GAD Electrical we believe the right lighting advice can help transform your home into a modern, sophisticated and energy efficient environment in which to live. You will be surprised how light can bring a room to life, adding charm, vibrancy and a feeling of added space. This can be achieved with various types of lights and arrangements.

**Recessed Lighting** - The Halogen Downlight, and the increasingly popular recessed LED lights are a great way to achieve that modern, sophisticated and vibrant atmosphere in your home. Whilst the Halogen Downlight is cheaper to buy, the LED is a cost effective choice in the long term. This is because the LED lights are low maintenance and use far less energy. The LED uses 1/6 of the power (comparable light in Lumens) and has a life expectancy of 40000 hours compared to 4000 hours for a halogen lamp. Whichever option you choose, the Recessed Downlight creates a sleek, modern and effective look to your home.

**Pendant lighting** is a nice way to create an affect/mood to match in with your colour scheme, trimmings and finishes. The Pendant is really effective in homes with high ceilings and adds character to rooms without taking over the space. They are available in numerous designs and have become quite popular for this reason. Pedestal Lights are a fantastic idea. Whether it be in the lounge, living or bedroom it gives the homeowner greater flexibility when creating that ideal setting. Like the Pendants, they come in many designs but, they also allow you to light which ever area of the room you choose. For instance, reading areas, dark lit spots, and voids which need enhancing.

**Sconce Lights** are a perfect way to light up the hallway. They provide light where light is often minimised and illuminates wall features or become the feature itself.

**Directional Lights** are especially effective when illuminating those special photos, artworks or wall features. They are particularly effective when used with a Dimmer. The various types of lighting mentioned can be further enhanced with the use of Dimmers and Digital Controllers such as Clipsal C-Bus, Dynalite. Furthermore, using control gear to create ambiance also saves on power usage helping you and the environment.

**Ceiling Fans** are another way to create mood while serving to cool down rooms and displace stale air. Today, there is a lot of choice when it comes to choosing the style of fan that best suits your needs. All fans can be controlled with the use of fan controllers, helping to regulate temperatures and saving on costs. With the use of a Remote Control, you can have a Fan/Light combination with no extra wiring required. This is especially good where the Fan will replace the existing Light in the middle of the room.

## **Installing, Replacing and Upgrading Power Points**

No matter if a Power Point needs to be replaced, added to, or a new power circuits have to be installed, GAD Electrical can take care of this. We can install any type of Power Point whether it be 10 Amp or larger. We only install quality brands like Clipsal and HPM. These two brands offer a wide variety of styles.

Tripping Circuit Breakers/Blown Fuses Flickering Lights Cables heating up- this includes extension cables plugged into appliances, indicating an overload. Cabling which is damaged by rodents eating the insulation causing short circuiting. Pre-existing cabling that is out-dated i.e. cabling that is insulated by rubber, or older cabling sheathed in cloth.

## **Commercial Electrical Services**

GAD Electrical provides Cafe/Restaurant and Shop owners professional advice and service. With informed and creative ideas we can help create a functioning, attractive and safe atmosphere for your clients to enjoy and relax. Whether it is an entire fit-out or additions to Lighting, Power and Data, GAD Electrical can provide you with solutions.

### **What we do**

- **Installation, Repairs and Maintenance**
- **Switchboard Upgrades and Repairs**
- **Emergency and Exit Lighting**
- **Office and Architectural Lighting**
- **Power**
- **Data and Telephony**
- **Testing and Tagging**
- **Surge Protection**
- **Earthing Systems**
- **Fire Detection**