



## Permanent wiring

All additions or alterations to permanent wiring must be inspected by Electrical Safety Authority.

### Check for:

- ◆ Loose joints or connections inside metal boxes. All joints must be soldered or mechanically tight or they may produce excessive heat.
- ◆ Sparking from switches or receptacles, or receptacles which heat up in use.
- ◆ Objects hung on open wiring, or wiring hung on nails or other bare metal objects.
- ◆ Flexible cords permanently connected to circuit wiring by splices or joints.
- ◆ Metal switches or receptacles with metal cover plates and metal lampholders or light fixtures which are not grounded and are within reach in the kitchen, basement, bathroom, utility room and garage. Receptacles in the above areas which are not of the three-prong type, i.e. which will not accommodate plugs with grounding pins.
- ◆ Interference on radio or television receivers - this may be caused by poor electrical connections in your wiring system.

If switches and receptacles connected to aluminum wiring are overheating, make sure they are replaced with devices marked "CO/ALR".

Seek professional advice immediately from the nearest inspection office of Electrical Safety Authority or an electrical contractor.

Is your home safe  
from these common  
electrical fire  
hazards?



### MARKHAM FIRE & EMERGENCY SERVICES

101 Town Centre Boulevard, Markham, Ontario, L3R 9W3  
[www.city.markham.on.ca](http://www.city.markham.on.ca)  
Phone: (905) 415-7521 Fax: (905) 479-7770



# Electrical Fire Hazards



MARKHAM FIRE & EMERGENCY SERVICES

**The misuse of electricity in Ontario causes over 3,000 fires each year, about one-seventh of the total number.**



## ***Fuses***

Fuses are the safety valves in your electrical circuits, preventing wires from overheating and thus possibly causing fire. Fuses greater than 15 amperes should never be used in ordinary lighting and receptacle circuits, as the wires in these circuits can safely carry 15 amperes. If fuses keep blowing, then the circuit is overloaded, defective or has a defective unit plugged into it and must be checked by a qualified electrician.

When an ordinary fuse in a motor circuit blows during start up, it should be replaced by a time-delay fuse, which will allow the passage of the high starting current.

### **Check for:**

- ◆ Fuses with a rating greater than 15 amperes.
- ◆ Fuses replaced with pennies, washers or metal foil.

## ***Flexible cords***

Flexible cords must not be used as a substitute for permanent wiring, i.e. to make permanent extension to circuits. These cords do not have the capacity to carry as much current as permanent wiring without becoming dangerously overloaded. They are also continually exposed to strain or insulation damage.

### **Check all flexible cords for:**

- ◆ Bare or badly deteriorated condition.
- ◆ Cords running under rugs.
- ◆ Cords nailed to baseboards, doors or window frames.
- ◆ Cords running through partitions, walls and floors.
- ◆ Cords permanently connected to permanent wiring by splices or joints.
- ◆ Cords with splices — splices in flexible cords are not permitted by Electrical Safety Authority.



When replacing the cord set operating an appliance which has a heating element such as a kettle, toaster, iron or room heater, purchase the set made by the manufacturer of the appliance only.

## ***Fixtures and appliances***

All fixtures and appliances must be approved by the Canadian Standards Association or Electrical Safety Authority. If you ever receive an electrical shock from any appliance, have it checked immediately by a qualified electrician.

### **Check for:**

- ◆ Home-made or unapproved fixtures and appliances.
- ◆ Loose or improperly made joints and connections — these may cause overheating and fire.
- ◆ Deteriorated wiring or insulation in fixtures — usually caused by heat.
- ◆ Wattage of light bulbs too high for fixtures — causing overheating.
- ◆ Fixtures and appliances containing bare wires, broken sockets and fittings, or defective insulation.
- ◆ Light bulb sockets used to operate appliances.
- ◆ Damaged or spliced appliance cord.
- ◆ Appliance plugs which heat up in use.

