Extension Cord Safety

The extension cord is a wonderful invention, a convenience we take for granted, but it’s important we understand the science involved to fully understand their proper use. Extension cords are often misused which too often results in tragedy.

Extension cords are a means to temporarily supply electrical power to an appliance. Extension cords are made from flexible conductors that will allow the user to easily store them in a minimum amount of space, when not in use. This requires the conductors to be as small as possible, most often made of many strands of tiny copper wires. The insulation around the wire is also thin to maintain this flexibility. So, what is the problem?

The flow of electricity through a conductor generates heat from the resistance to the flow. The amount of heat is affected by the conductor, its size, and the amount of electricity forced through the conductor. For this reason it becomes critical we know the cord’s designed capacity. Cords are designed to dissipate heat into the surrounding atmosphere. By connecting an appliance to a cord which can’t handle the amount of power required by the appliance, heat develops which exceeds the cord’s ability to dissipate it. Covering or hiding the cord allows heat to build up damaging the cord which can result in fire.

By placing furniture or other objects on the cord, we compress or damage the wires increasing the resistance to the flow of electricity and increasing the heat generated, often causing the cord to fail and result in a fire.

Extension cords are very unforgiving. Slight damage will continue to build and if used long enough the cord will fail resulting in a fire safety hazard.

EXTENSION CORD SAFETY TIPS

- Use extension cords only when necessary and only temporarily.
- Use polarized extension cord with polarized appliances.
- Make sure cords don’t dangle from counter or table tops where they can be pulled down or tripped over.
- Replace cracked or worn extension cords with new, appropriately sized cords with the listing of a nationally recognized testing laboratory, safety closures, and other safety features.
- When cords lack safety closures, cover unused outlets with electrical tape or plastic caps to prevent the chance of a child making contact with the live circuit.
- Insert plugs fully so that no parts of the prongs are exposed when the extension cord is in use.
- Pull the plug, not the cord when disconnecting.
- Teach children not to play with plugs or outlets.
- Where furniture may be pushed against an extension cord at the plug, use a special “angle extension cord,” specifically designed for this purpose.
- Noticeable warming of plastic parts or softening of the plastic is a warning that the wires or connections are failing and the cord should be discarded and replaced.
- Don’t use staples or nails to attach extension cords to walls or baseboards as this often damages the cord and presents a shock or fire hazard.
- Use heavy duty extension cords for high wattage appliances like air conditioners, heaters or freezers.
- Use only three wire extension cords for appliances with three prong plugs. Never remove the third round or U-shaped prong.
- When using outdoor tools and appliances, use only extension cords labeled for outdoor use.

ALABAMA ARSON HOTLINE
1-800-654-0775
Established in 1919, the State Fire Marshal’s Office (SFMO) now consists of State Fire Marshal Ed Paulk, Assistants Scott Pilgreen and Jeff Thompson, along with 22 deputies representing a combined total of some 180 years of experience. In addition, the SFMO employs an in-office full time administrative support staff consisting of five dedicated public servants.

Our Mission:

- Conduct investigations of fires and explosions
- Prevent Arson and related crimes
- Enforce Alabama’s Fire Codes to provide visitors and citizens of Alabama a safe environment in which to live, work and play.

Inspections

Over 1600 inspections were conducted in 2008 including more than 1,000 for fireworks, but inspections of educational facilities, day cares, assemblies and residential housing also make up a large percentage of that total.

Investigations

In 2008 the SFMO conducted 958 investigations in Alabama were residential in ’08. Three hundred sixty five fires, one for each day of the year, were determined by the SFMO to have been the result of Arson.

In order to report a suspicious fire or to provide information which might be helpful in solving or preventing Arson crimes in Alabama, the State Fire Marshal’s Office offers a toll free telephone line on which witnesses may remain anonymous.

The Alabama Arson Hotline:

1-800-654-0775