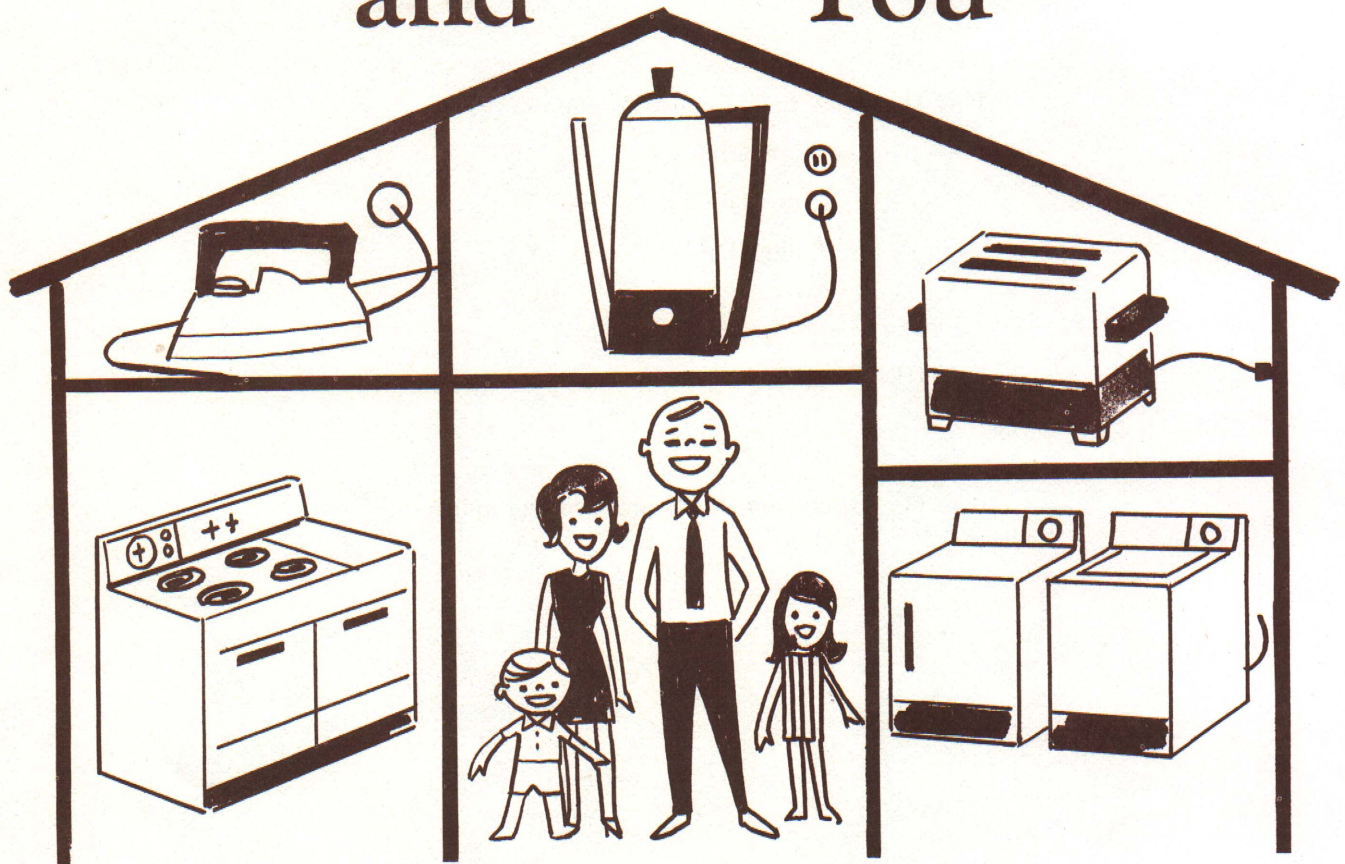


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Electrical Safety and You



A Program For Presentation
or Individualized Study

PREPARED BY R. G. PFISTER, D. M. FARMER, T. C. SURBROOK, AGRICULTURAL ENGINEERING DEPARTMENT,
MICHIGAN STATE UNIVERSITY

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The authors gratefully acknowledge the assistance provided by the Michigan Rural Safety Council, Michigan Committee of Rural Electrification, and Michigan Association of Extension Homemakers in the design and development of this slide program.

I. How To Use This Bulletin

Its Purpose

This program was developed to help create a better understanding of electricity and how to use it efficiently and safely. Study of this program should reduce fires and shock associated with improper use of electricity or inadequate wiring in the home.

Who Can Use It?

This program should be of interest to everybody—since every individual uses electricity as a servant. An individual can study this program alone, or a set of colored slides can be obtained and the program can be presented to a group, using both the slides and this publication together.

“Electrical Safety and You” is geared for a 30-minute to 1-hour presentation. It can be of interest to county extension groups, women’s social or service clubs, high school home economics or homemaking classes, church groups, and child study groups. Mixed groups such as P.T.A., 4-H clubs, or labor union study clubs, will also find this topic of interest and concern to a broad cross section of people.

Source of the Slide Set

Sets of 35-mm color slides are available as illustrated in the slide-script section that follows. These are available for \$5.00 per set. Make checks payable to Michigan State University and send to:

Family Living Education
Cooperative Extension Service
108 Agricultural Hall
Michigan State University
East Lansing, Michigan 48823

Handling of orders may take up to 3 weeks.

In some counties, this set of slides is available for loan through the County Extension Office. Inquire at your County Extension Office.

Local Resource Persons

Additional help in preparation and presentation of this program is available from the following sources:

Electric Power Supplier—Home Advisor and Rural Advisor.

Cooperative Extension Service—Home Economics Agent, Agricultural Agent, 4-H-Youth Agent.

High School—Vocational Agriculture Teacher, Industrial Arts Teacher.

Resource Material Available

“Electricity in the Home.” Extension Bulletin CE-29, Michigan State University, East Lansing, Mich. 48823

“Proper Fusing.” Information Series Number 223, Agricultural Engineering Department, Michigan State University, East Lansing, Mich. 48823

“Electrical Grounding for Personal and Equipment Safety.” Guide 1022, Publication Mailing Room, 417 South Fifth St., University of Missouri, Columbia, Missouri 65201 (available in quantity at 4¢ per copy).

“What Everyone Should Know About Safety.” Number 1015D, Channing L. Bete Co., Inc., Greenfield, Mass. 01301 (1 to 99 copies available at 25¢ each).

Many electrical power suppliers have films available. Check with your power supplier for the latest film listing.

II. How To Present A Meeting Program

Preparation

1. Obtain a copy of the slide set. See page 3 for details.
2. Read the slide program aloud for familiarity and confidence.
3. Obtain copies of this publication for members of the group. Copies are available from your County Extension Office.
4. Obtain reference material and, if so desired, arrange for resource persons to participate.
5. Make sure the meeting room can be darkened and arranged to show slides. Arrange for a slide projector, screen, and projector operator. Give a copy of the script to the operator to follow during the presentation.
6. Read the "Questions for Discussion and Evaluation," pages 13 and 14.
7. Promote attendance by advance announcements, personal contact, postcards, or other methods that tell "the where, what, when, who and why" of the meeting.

Presentation

1. Some local information or illustration regarding the importance of electrical safety.

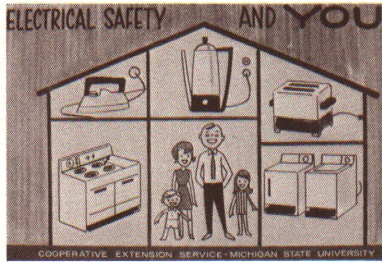
2. Present the slide-script program (about 20 minutes).
3. Present "Questions for Discussion and Evaluation" on page 13.
 - a. Read the introduction paragraph aloud.
 - b. Read Situation 1 and Response A, and ask how many agree. Then ask why they agree (or disagree) with Response A. Read answers on the following page. Continue with agree-disagree discussion on Responses B, C, and D.
 - c. Proceed in the same way with Situations 2, 3, 4, and 5.

Follow-up

1. At a later meeting, pass a sheet around for each person to indicate the number of changes made in improving electrical safety in the home or found necessary as a result of studying this program.
2. Arrange for use of this program at P.T.A., church groups, 4-H clubs, or other community groups.
3. Fill out the "Program Report" provided on page 15, fold, staple and mail to: "Safe Use of Electricity," 223 Agricultural Engineering, Michigan State University, East Lansing, Mich. 48823.

III. Program Script for "Electrical Safety and You"

SLIDE NO. 1



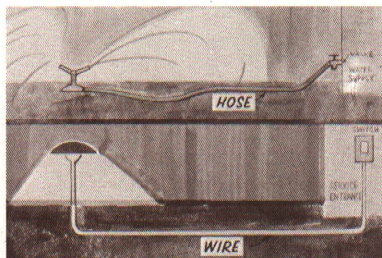
Each of us has an invisible servant. This servant emerges from the walls of our home any hour of the day to provide light, entertainment, wash and dry clothes, cook meals and a variety of other jobs. However, when this servant is misused or mistreated he will shock people or even start a fire in your home. "Electrical Safety and You" tells you about this servant. It was developed by the Cooperative Extension Service, Michigan State University in cooperation with the Michigan Rural Safety Council, Michigan Committee on Rural Electrification, and Michigan Association of Extension Homemakers to help you to better understand electricity.

SLIDE NO. 2



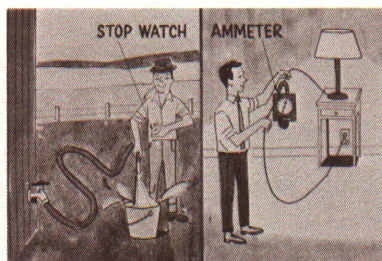
How many jobs did electricity do for you today? You immediately think of the range and refrigerator. But how about your lighting, iron, clock, or vacuum cleaner? Or perhaps a can opener, blender, or dishwasher? Electricity has taken much of the drudgery out of handling food as well as providing greater comfort throughout the home. But, are you getting the most work out of your electrical dollar? An understanding of electricity can save you money, as well as help avoid injury, inconvenience, or damage.

SLIDE NO. 3



To understand electricity, let's compare its behavior with that of water from your garden hose. If you hook your hose to the water tap and turn on the valve, water flows through the hose, out the end, and onto the ground. In your electrical system, the wires entering your home are the source of electricity, the switch on a light or appliance acts like a water valve, and the wires carry the electricity as the hose carries water. Electricity, like water, also flows to the ground. In a two-wire appliance cord, one wire supplies electricity to the appliance and the second wire runs the electricity safely to the ground.

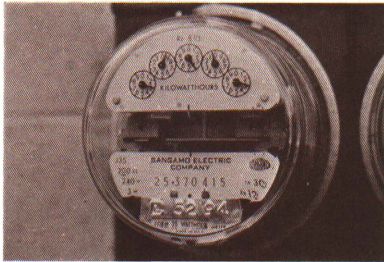
SLIDE NO. 4



Suppose we fill a gallon pail with water from the garden hose while noticing how much time it takes to fill the pail. This would tell us the *rate of flow of water* through the hose in gallons per minute. Similarly, with an instrument called an *ammeter*, we can measure the *rate of flow of electricity* through a wire. The rate of flow of electricity through an electrical system is measured in *AMPERES*, or *AMPS*, for short.

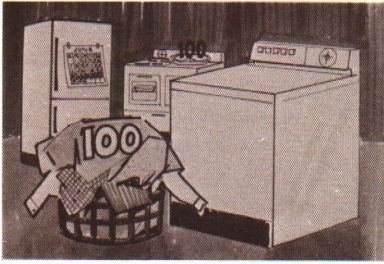
If we use a larger diameter garden hose, more water can flow through the system. And so, if we use larger electric wire, more *AMPS* of electricity can flow through the electrical system.

SLIDE NO. 5



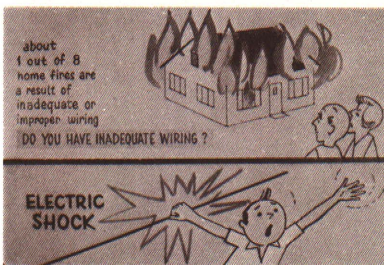
Electrical systems have a *meter* to measure the *amount* of electricity used. The meter records how much work the electricity did for you during the month, and you are billed accordingly. This work is measured in *kilowatt-hours*. One kilowatt-hour of electrical work will probably cost between 1½ to 2½ cents and will light a 100-watt bulb for 10 hours.

SLIDE NO. 6



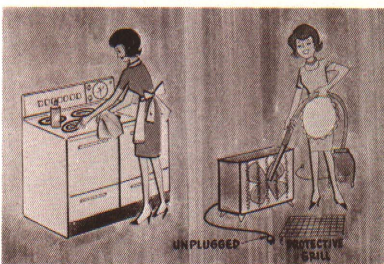
Electricity is inexpensive. For example, a dollar's worth of electricity will wash 100 loads of clothes, bake 100 pies, or run the refrigerator about one week.

SLIDE NO. 7



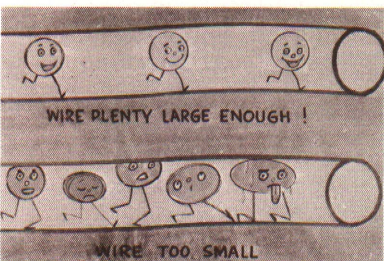
But electricity *can* be misused. In Michigan each year, several thousand home fires are linked to electrical causes; and nearly a dozen Michigan residents lose their lives due to electrical shock in the home. Ironically, many of these troubles were clearly signalled in advance. Knowing the danger signs and acting promptly, could have prevented them. Let's look at one of the major electrical hazards—*fire*.

SLIDE NO. 8



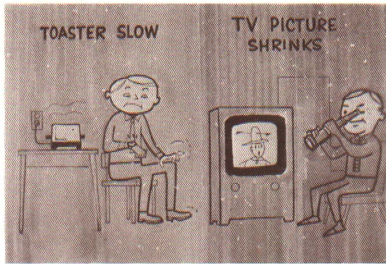
Household cleanliness is not only next to Godliness—it is an excellent fire prevention measure. Unless wiped up, a grease spill on the range unit may blaze the next time the heat is turned on. Dust collecting in a space heater or in the vent of a clothes dryer can smolder and flame. Dust and grease also act as insulation which prevents a heater from doing its job effectively and therefore costs you money. Any sparks, smoke, or burnt odors from an electrical appliance are *danger signals*. Do not use the appliance until the problem is located and fixed.

SLIDE NO. 9



If your home is over 10 years old, chances are some of your house wiring is too small to carry the current or amperage of all the appliances you want to use. This overload of electricity causes the wires to overheat which in turn may destroy insulation and expose the live wire and result in fires inside your walls. This type of fire is especially dangerous since it may burn for a while before its source is discovered.

SLIDE NO. 10



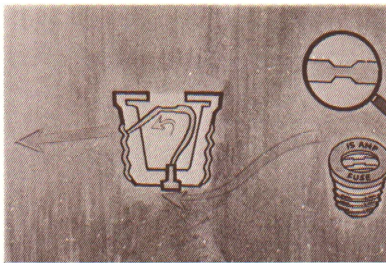
Several danger signals can warn you of electrical overloads. You should suspect overloaded wiring when your TV picture shrinks, if a toaster or electrical heaters are slow to warm up, or if appliances seem to run slow. Overloaded wiring is dangerous, wastes electricity, and costs you money. Electric motors which do not get enough electricity run poorly and burn out early, causing additional expense and inconvenience.

SLIDE NO. 11



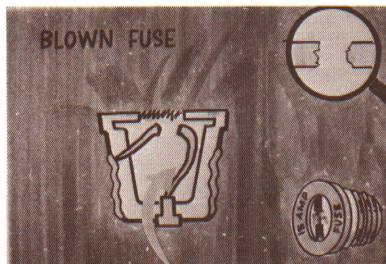
A common sign of electrical overload is blowing fuses or tripping circuit breakers. This is quite annoying since it most likely happens in the midst of cooking dinner or at other times when you are using a number of appliances at a time. But remember, there is a reason for fuse blowing, and this is a *danger* signal. A blown fuse or tripped circuit breaker telegraphs this message—"Your electrical wires are carrying too much electricity for their size." Fuses and circuit breakers are "safety valves." By stopping the flow of electricity, they prevent wires from overheating. Be sure that fuses are the right size and type for the circuits, otherwise nothing is left to prevent overloads, heating, and quite possibly, fire.

SLIDE NO. 12



Let's look at how a fuse protects your home. When electricity enters your home and travels through the wires into the fuse box, it must pass through the fuse before it is allowed to continue to your appliances. Electricity enters the fuse through the round metal button at the bottom, passes through the thin metal strip seen in the window, and leaves the fuse through the threaded metal on the sides.

SLIDE NO. 13



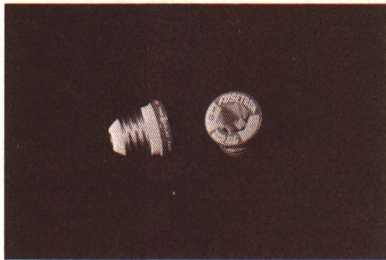
But, what happens when too much electricity is demanded by your appliances? As the extra electricity passes through the fuse, the thin metal strip inside the fuse becomes too hot and melts. With no path left for electricity to follow, all the appliances and lights fed through this fuse go off. Let's look at some of the common types of fuses found in the home. Although each may look different, they will protect your home in basically the same way.

SLIDE NO. 14



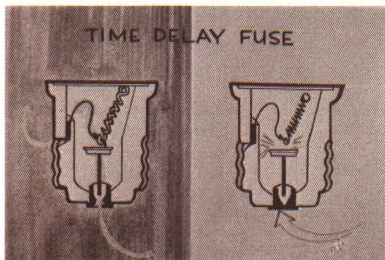
The ordinary "plug fuse" is most commonly available in 15, 20, 25, or 30-amp sizes. Be sure to replace the blown fuse with one of the same amperage. A larger amperage fuse will allow too much current to pass through the wiring, and this removes your protection against fire. The most common wire size in homes is No. 14 copper wire which safely carries 15 amps. In general, use a 15-amp fuse unless a competent person suggests a different size. Be suspicious of any fuse over 20 amps since it is likely too large to safeguard against fire from overloaded wiring.

SLIDE NO. 15



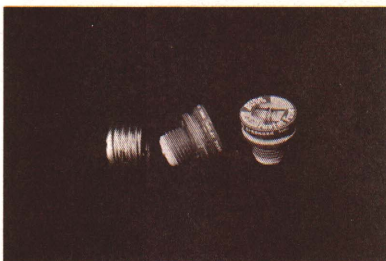
An electric motor such as that found on your washing machine needs a lot of electricity for starting; but, after its running speed is reached, it needs much less. The ordinary plug fuse will burn out or "blow" when the machine starts, although no danger is present during the short starting period. To overcome this problem, another type of fuse was developed. This fuse is called a *fusetron* or time-delay fuse, and it looks exactly like an ordinary plug fuse on the outside.

SLIDE NO. 16



But, if you cut the fuse in half you would see a small spring inside. The spring is attached to the metal fuse strip which is held in place by a drop of solder. When a motor starts, the high flow of electricity begins to heat the drop of solder. However, as the motor reaches running speed, the amount of electricity required to run the equipment decreases and the solder holding the spring cools off. If there is something wrong and the high flow of electricity continues, the solder would melt, the spring would contract, and the fuse would "blow."

SLIDE NO. 17



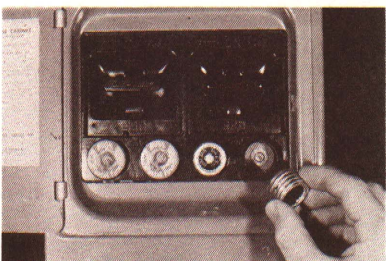
Another type of fuse is called a FUSESTAT, and it was developed to prevent using the wrong size fuse.

SLIDE NO. 18



The FUSESTAT has two parts—a smaller diameter base than an ordinary plug fuse, and an adapter ring which is necessary to make the FUSESTAT fit the fuse box.

SLIDE NO. 19



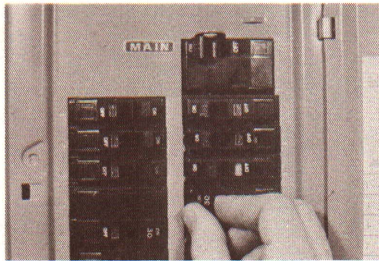
Adapters come in different sizes according to the amperage of the fusestat. A 15-amp adapter will accept only a 15-amp fusestat. Once the right adapter is screwed into the fuse box, it cannot be removed and only fusestats fitting that adapter can be inserted in the fuse box. This simple safety measure prevents needless fires due to using the wrong fuse size. It is especially useful in preventing overloads in cottages or other rental properties.

SLIDE NO. 20



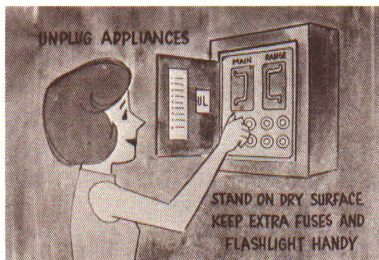
Another type of fuse you will see in the fuse box is the cartridge fuse. These protect appliances which use the most electricity, such as the range, clothes dryer, or water heater. Be sure they are also replaced with the same amperage fuse. Always keep an extra supply on hand of each type and size of fuse you use to avoid inconvenience or problems when stores are closed.

SLIDE NO. 21



Most new homes or rewired older homes do not use fuses at all. Instead, they have another protection device called a "circuit breaker." Circuit breakers look much like wall light switches and are located in a box similar to the fuse box. When an electrical overload occurs, the switch automatically flips from the "on" to "off" position. After the trouble is corrected, however, there is no fuse to replace. Instead, the "circuit breaker" is reset by simply flipping the switch to the "on" position.

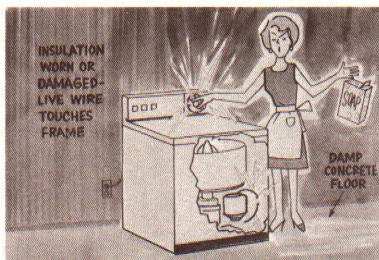
SLIDE NO. 22



What if a fuse in your home "blows"? Do you know how to change it safely? Here are some suggestions:

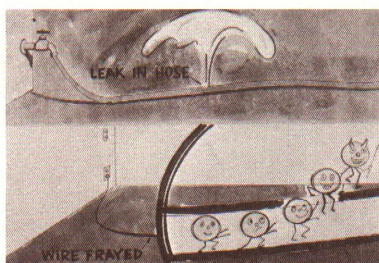
1. Unplug the appliances that may have caused the problem. Correct the problem or have the appliance repaired.
2. Before touching the fuse box, dry your hands and stand (wearing shoes) on a dry surface.
3. Use a flashlight to locate the burned-out fuse. It may have a smudged window and look like a used photo flash cube. In the case of a time-delay fuse (fusatron), notice whether the spring has contracted. In a regular fuse you may see the break in the melted metal strip inside. Remove the fuse by grasping its rim and unscrewing it. Replace it with a fuse of the same type and amp rating.

SLIDE NO. 23



Now let's take a look at another major hazard—shock. Remember, electricity *always* tries to get to the ground. It chooses the easiest route. This route is usually through the electric wires. But sometimes through carelessness, ignorance, or damage to an appliance, a human body becomes an alternate path for the electricity to travel on its way to the ground. This results in **SHOCK**. A slight shock is a *warning* of **DANGER!** Next time it could be worse. Find out what is wrong and get it fixed right away.

SLIDE NO. 24



How can we prevent electricity from using *you* as a path to the ground? One means of protection is good insulation on the electrical cords of your appliances. Just as the garden hose keeps the water inside, insulation on wires prevents electricity from escaping.

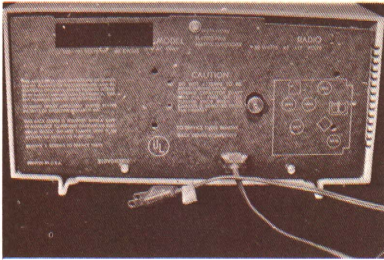
On lamps and appliances, watch for cracked, cut, or worn insulation on electrical cords. Wear often occurs at the junction of the cord and appliance, or on bends where the cord is wrapped for storage like on a vacuum cleaner.

(Continued on page 10)

Use the correct type of electrical cord for the job. There are special cords for electric frying pans, irons, and vacuum cleaners. The insulation on these will withstand more punishment than ordinary cords.

Remember that extension cords are for *temporary use only*. If you regularly use an extension cord to operate an appliance or lamp, you have inadequate wiring. Have an outlet installed where you need it and do away with permanent extension cords.

SLIDE NO. 25



A sign of good insulation on new appliances is the Underwriters' Laboratories (UL) Label. UL, an independent testing laboratory, allows its seal to be used only on items found to be safe when used properly. The seal must be on both the cord and the appliance itself. If the seal is on the cord only, the cord alone has the UL approval. The UL label should be located on or near the nameplate of approved appliances.

SLIDE NO. 26



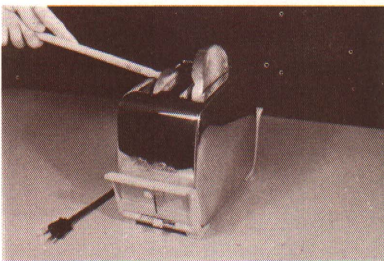
Here are some more tips on preventing electrical shock: Dry your hands before touching appliances. The human body is a pretty good insulator when dry. But, touching a radio while washing dishes invites stray current to flow through you to ground. Water and water pipes are just like the ground for electricity, so don't touch them while in contact with a radio, hair dryer, or other electrical appliance.

SLIDE NO. 27



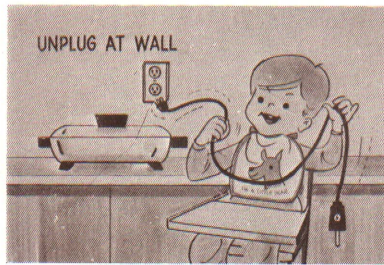
To keep curious young children from sticking a knife, fork, or bobby pin into a wall plug, buy plastic inserts for the plug. These are easily removed by an adult when the plug needs to be used and protects little explorers from shock.

SLIDE NO. 28



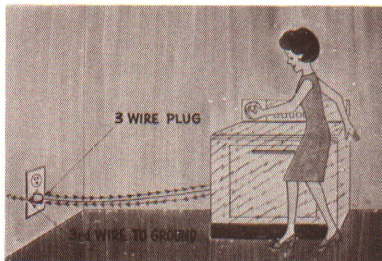
Toasters and electric space heaters have wires inside the unit that are not covered by insulation. This helps them provide heat more efficiently. So, to prevent shock, always unplug the appliance before removing toast that is caught or before cleaning the heating elements.

SLIDE NO. 29



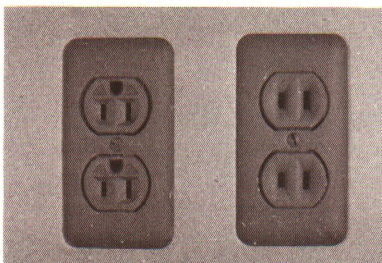
To avoid shock hazards, develop the habit of always unplugging appliances directly at the wall outlet first before unplugging at the appliance. Electric frying pans, coffee makers, shavers, and sewing machines should be unplugged at the appliance only after being unplugged at the wall. Always connect the appliance first before plugging the cord into wall outlet. Even when unplugged, the probe on a skillet plug may remain too warm to handle and can burn the hand or discolor the counter top. It's best to allow the entire unit to cool before unplugging at the appliance.

SLIDE NO. 30



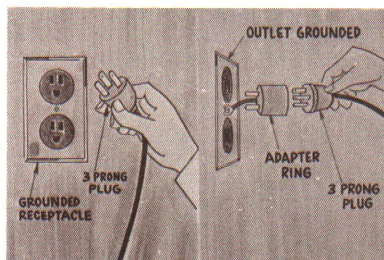
In spite of all our caution, sometimes the insulation inside an appliance cracks or wears and the metal parts become electrically "hot." If you are touching a defective washing machine with moist hands while standing on a damp basement floor, you are a path to the ground for electricity. To lessen this hazard, give electricity a better and quicker path to the ground than through you. This safeguard is called "grounding." In a grounded system a third wire is needed to carry an electrical leak from the frame of the appliance to the ground.

SLIDE NO. 31



How can you tell if your wiring is equipped with the safeguard of "grounding"? If your home is new or has been recently rewired, most wall plug outlets should have three slots for the three prongs on the plug. This is an indication of a grounded electrical system. If the wall outlet has only two slots like that on the right, the system probably isn't grounded. In either case, have a qualified person check your home to see if outlets are grounded. Grounding can be added inexpensively and you need it to have a safe electrical system.

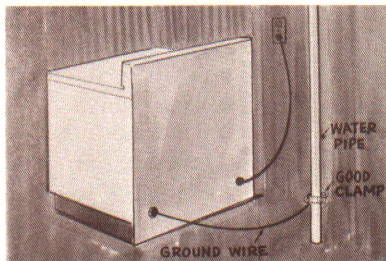
SLIDE NO. 32



Even with a grounded electrical system, you must follow several simple rules to insure safety. Appliances with three-prong plugs are safe without any changes. But, if you use an adapter to make a three-prong plug fit a two-hole outlet that is grounded, the small green wire on the adapter should be fastened to the screw at the center of the receptacle. (A plug joins the electrical circuit in a receptacle.)

In either case you must start with either a grounded three-slots outlet or a grounded outlet box. But even then, guard against destroying this safeguard by using 3-wire extension cords for 3-wire grounded plugs. A 3-prong plug fastened to a 2-hole extension cord also stops your protection. Also, clipping the third prong off a three-prong plug to make it fit a two-hole outlet destroys the grounding system.

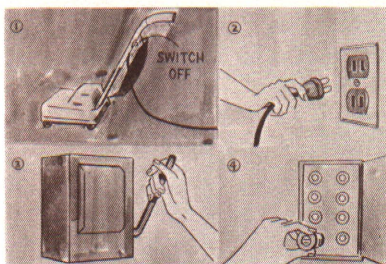
SLIDE NO. 33



But, what if your system is not grounded? You can still improve its safety by grounding those appliances which are the most likely to be hazardous, such as a clothes washer or dishwasher, and the major appliances such as the refrigerator or air conditioner.

You can ground an appliance with a wire, connecting the frame of the appliance to the nearest metal, cold water pipe. Simply loosen a bolt or screw on the frame of the appliance and fasten one end of the wire under it. Clean the outside of the cold water pipe with sandpaper to make a tight connection and securely clamp the other end of the wire to the pipe. This can provide a "better than human" path to ground from the appliance in case of electrical leaks or shorts.

SLIDE NO. 34

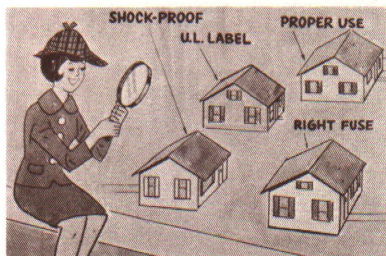


In case of emergency, you should know how to quickly disconnect each appliance four different ways:

1. Turn the appliance switch off.
2. Pull the wall plug from the outlet.
3. Pull the lever on the side of main fuse box to the off position, or trip the main circuit breaker.
4. Remove the fuse controlling the appliance from the fuse box.

At the first sign of trouble, have your appliances checked and repaired.

SLIDE NO. 35



Check your home for electrical safety. Shock-proof your home by keeping lamp and appliance cords in good condition and installing and using grounded outlets. Select appliances that have met minimum safety requirements as indicated by the U.L. label. Make sure the right size and type fuses are serving as safety valves to prevent overloaded wiring and fire. Finally, clean, maintain, and use all electrical appliances properly.

PLAY IT SMART—take action to maintain and improve safety in your home. Use and maintain electrical appliances and systems properly and your invisible servant will also work for electrical safety in your home.

IV. Questions for Discussion and Evaluation

The following statements describe typical problem situations followed by four responses for each situation. Check the "agree box" if the response described is an action you would take. You may agree with all, some, or none of the responses.

SITUATION #1

You are using an electric food mixer and shut it off to answer the telephone. Upon returning, you receive a slight shock as you touch the mixer. In this situation you would:

Agree

- A. Try using it again, provided it has a 3-prong plug and is plugged directly into a 3-hole grounded outlet.
- B. Reverse the wall plug and try using the appliance again.
- C. Take it out of use immediately and have it checked and repaired by a competent person.
- D. Try a different outlet and see if the appliance gives off a shock in that location.

SITUATION #2

You decide to move the ironing board into the living room to watch TV while you iron. Shortly after turning the iron, the TV, iron and living room lights go off. You unplug the iron and TV and check the fuse box to locate the fuse that has blown. You would replace the fuse with:

Agree

- A. One of the same size and type. Turn the TV back on. Then plug the iron into the regular outlet where you usually iron to see if the fuse blew because of a defective iron or if there were simply too many appliances on the living room circuit.
- B. The same size fuse, but switch to the time delay (Fusetron) type.
- C. One of the same size and type. Plug TV into a different outlet so that the iron and TV were not on the same fuse or circuit.
- D. A fuse about 10 amps larger, but use it on a temporary basis only to allow for the iron when it is used in the living room.

SITUATION #3

You have purchased a new electric frying pan; but when you try to plug it in, the 3-prong plug will not fit your kitchen outlets. You would:

Agree

- A. Return the appliance to the store and get one that fits the 2-hole outlet.
- B. Buy an adapter that will connect the 3-prong plug to the 2-hole outlet.
- C. Have a competent person install a grounded 3-hole outlet in the kitchen.
- D. Use an adapter, provided the outlet box was grounded. The green wire on the adapter would be installed under the faceplate screw to contact the box.

SITUATION #4

Your refrigerator and washing machine are on the same fuse or circuit. Occasionally, both will start at the same time and then the fuse blows. You would correct this problem by:

Agree

- A. Calling an electrician and having him install new wiring that will handle the load.
- B. Exchanging the plug fuse with a time-delay (Fusetron) fuse.
- C. Unplugging the refrigerator when washing clothes.
- D. Keep using larger and larger fuses until they don't blow anymore.

SITUATION #5

A number of your electrical appliances need to be replaced in the next several years to provide greater convenience, reliability, and safety. Sources of these appliances will vary from a local dealer to mail order catalogs, and from prestige department stores to discount houses. Product safety is important to you and your family. As you shop for electrical appliances you would:

Agree

- A. Check "Consumer Bulletins" or "Consumer Reports" type magazines to check safety features that they look for in rating various brand appliances.
- B. Look for the Underwriters' Laboratories name or symbol on the nameplate of each appliance.
- C. Purchase appliances after you are sure that the electrical wiring in your home is adequate to operate the appliance.
- D. Avoid low-priced models because they tend to be more hazardous than the more expensive models.

(Turn page for answers)

Answers to Situations

SITUATION #1

(Applies to script for slides #24, 30, 32)

- A. **Agree** —The slight shock may have been caused by static electricity you generated in walking from the phone. This static may jump to the grounded frame of the appliance and create a slight shock.
- B. **Disagree** —Reversing the plug would not affect the cause of the shock.
- C. **Agree** —Unless the shock is due to static electricity, any shock received is an indication of an electrical leak and it will continue to seek ground through you until it is repaired.
- D. **Disagree** —This would make no difference unless the outlet was grounded and your appliance had a grounded plug.

SITUATION #2

(Applies to script for slides #10, 11, 13, 15, 22)

- A. **Agree** —Plugging the iron into the outlet that is used regularly can be done to see if it has become defective.
- B. **Disagree** —The time-delay fuse will only prevent fuse-blowing when starting an electric motor is involved.
- C. **Agree** —Dividing the electrical load between two circuits is good management, especially when fuse-blowing from overload occurs.
- D. **Disagree** —Will reduce fuse-blowing, but results in serious fire loss problems.

SITUATION #3

(Applies to script for slides #31, 32, 33)

- B. **Disagree** —Safety codes require all new electric frying pans to have the grounded plug.
- A. **Disagree** —If your outlets are not grounded you are destroying the shock protection provided by the 3-prong plug.
- C. **Agree** —This is the best solution. All new equipment comes with the 3-prong plugs, so the grounded outlet is needed.

- D. **Agree** —Although this is not as modern and flexible, it will provide a ground.

SITUATION #4

(Applies to script for slides #15, 16)

- A. **Disagree** —This is not a necessary expense.
- B. **Agree** —The time-delay fuse will eliminate the problem of fuse blowing caused by brief overloads that occur when electric motors start.
- C. **Disagree** —This would probably work, but the inconvenience is not justified when all that is needed is the right type fuse.
- D. **Disagree** —You honestly wouldn't do this? Good! This is a leading cause of fire in the home. (Maybe you better check fuse size to be sure?)

SITUATION #5

(Applies to script for slides #9, 25)

- A. **Agree** —This helps develop an awareness of some of the features to check. You need not accept the ratings to benefit from reading these reports.
- B. **Agree** —This is standard procedure for the wise shopper who wants to know that an appliance has been tested and met minimum standards of safety.
- C. **Agree** —Plan ahead and have home wiring updated so new appliances can be plugged in without extension cords, without overloading, and without creating shock hazards. Use wiring for the 70's in feeding 1970 appliances.
- D. **Disagree** —Cheaper models tend to be "stripped of extras," but if it has the Underwriters' Laboratories label on the nameplate, it has met minimum safety standards. A high-priced model that lacks the U.L. label on the nameplate is like buying unlabeled cans of food in the grocery store. Price does not determine whether a can contains cat food or string beans. Price doesn't always indicate safety either.

PROGRAM REPORT — "ELECTRICAL SAFETY AND YOU"

(Evaluation Questionnaire relating to Extension Bulletin E-690—Home and Family Series)

Requested by R. G. Pfister, Agricultural Engineering Department
Cooperative Extension Service, Michigan State University
East Lansing, Michigan 48823

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1. Cut along broken line at left.
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1. Who presented the program? _____

2. What type of group was involved? _____

3. Where was this shown (city or county)? _____

4. How many attended? _____

5. Were slides shown? _____

6. Were discussion questions used? _____

7. Did any resource people participate? _____ Who? _____

8. What did you like most about this program? _____

9. What do you think might be improved? _____

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