

LIVING GREEN PROGRAM



DIY MINOR HOME REPAIR REFERENCE MANUAL



This manual is not for the experienced home handyperson.

This manual is for the person wanting to improve their skills.

The repairs in the manual are very basic and simple repairs that anyone can do.

They all can help avoid a repair bill and save you money.

NOTES:

- There is always a possibility that your home may have fixtures that are different from those pictured.
- Whenever you are replacing items, the first rule is "Put back the same kind as you took off." Always take the worn or used part to the store with you so that you can buy a replacement that is identical.

Labor can account for 45-60% of a professional's cost to do the project. It may take you longer, but it will save you money. Next time a friend, neighbor or repair person is working on a repair ask the following:

- Could you please explain to me what you are doing? I'm really interested.
- What does this product/tool do?
- Do you use this order of steps for a reason?
- What are the safety risks of this repair?
- Can I help you with anything?
- If I were to perform this repair myself, do you have any recommendations?
- Where did you get that replacement part?
- How did you know which one to choose?



LANDLORD TENANT LAW

Tips for Renters:

- Document all communication with landlord in writing. (RCW 59.18.070)
- Always Get Receipts for Money Paid to the Landlord. (RCW59.18.063)
- Do Not Withhold Rent if the Landlord is Not Making Repairs.
- Document the Condition of Your Unit When You Move In and Move Out.
- Eviction Always Requires a Court Process (RCW 59.12). Lockouts are illegal (RCW 59.18.290)
- Protect Yourself by Verifying When You Move Out of a Unit (RCW 59.18.200)
- Landlords Can Only Enforce Rules Written in the Lease (RCW 59.18.140)
- There is No Rent Control in Washington State.

“What should I do if my unit needs repairs?”

Step 1: Write a letter to your landlord.

- What needs repaired? Describe the details.
- Include name, address and apartment number.
- Deliver the letter in person or by certified mail.
- Make a copy to keep yourself.

Step 2: Wait for your landlord to fix the problem.

- Number of days depends on the type of problem.
- No water, heat, electricity or life threatening problem = 24 hours
- Refrigerator, stove, oven or plumbing fixture is broken = 72 hours
- All other repairs = 10 days

Step 3: Landlord doesn't fix the problem in the required time.

You can: move out, go to court, hire someone or perform repairs yourself.

The basic tool box



- ④ Double-sided adhesive tape (1)
- ④ Staple gun and staples (2)
- ④ Shifter (3)
- ④ Stillson wrench (4) (Also known as a jaw wrench or adjustable pipe wrench.)
- ④ PVA glue
- ④ Utility knife (5)
- ④ Set of 5 or 6 open-end spanners (6)
- ④ Spirit level or laser level (7)
- ④ Measuring tape (8)
- ④ Sandpaper (9)
- ④ Hammer drill (10) For concrete.
- ④ Cordless drill (11)
- ④ Electric sander (12)
- ④ Small workbench (13)
- ④ Pliers (14) Including one set of cutting pliers.
- ④ Caulking gun (15)
- ④ Glue gun (16) With glue sticks.
- ④ Insulating tape (17)
- ④ Teflon tape (18)
- ④ Broadknives (19) Have two sizes.

NAILING AND DE-NAILING

- ④ Mallet (20)
- ④ Hammer and nails (21)
- ④ Pincers (22)

SCREWING

- ④ Phillips screwdriver (23) Have several sizes.
- ④ Flat screwdriver (24) Have several sizes.
- ④ Screwdriver tester (25)
- ④ Screws (26) Wood screws, screws and plugs of different sizes, screws and plugs for hollow partitions.

SAWING

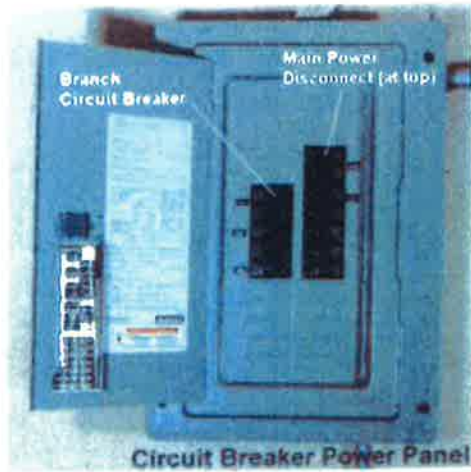
- ④ Mitre with matching saw (27)
- ④ Wood file (28)
- ④ Hacksaw (29)
- ④ Handsaw (30)

PROTECTIVE EQUIPMENT

- ④ Gloves (31)
- ④ Goggles (32)
- ④ Mask

Main Electric

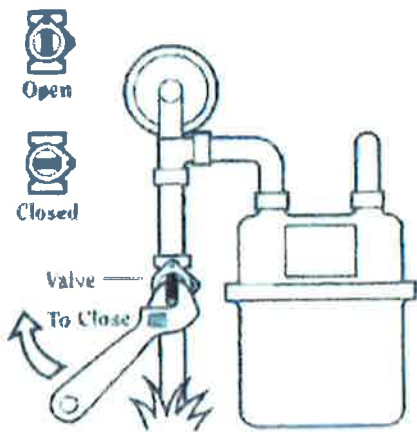
The amount of current in your home has more than enough strength to kill you!



Main Power Switch is located in the fuse box.

Label the breakers, so you know what is affected by the switch.

GAS LINE SHUT-OFF SWITCH



The switch is located on the gas meter.

Turn it off by moving 90 degrees.

Label the switch with an OFF arrow.

Main Water Shut-Off Valve



If you need to shut off the water to the whole home look for where the main water supply enters your home. This can be found along outside wall closest to the street or basement.



PLUMBING

SHUTTING OFF THE WATER MAIN

- Nearly all plumbing emergencies (i.e. burst pipes) can be helped by shutting off the water.
- Know where your water shut-offs are and tag them.
- To shut off the water to the house plumbing system, use the main shut-off valve. This is usually located near the front of the house, by the water meter or in the basement.
- SHUT OFF VALVES are CLOSED by turning CLOCKWISE.
- SHUT OFF VALVES are OPEN by turning COUNTER CLOCKWISE.

LEAKY FAUCETS

"The faucet is dripping from the spout?"

Need: Philips screwdriver, crescent wrench, washers and adhesive tape.

- Turn off the water to the sink that has the leak. This means shutting the valves under the sink. Turn CLOCKWISE to turn off the water.
- If you don't see any shut-off valves, then you need to shut off the water main.
- Turn on the tap to make sure the water supply is really shut-off and run any excess water out of the tap. Close or cover the sink drain in case you drop any parts into it.
- Remove cap if there is one (a). You can either pry or pop it off.
- Unscrew the screw (b) that holds the faucet handle (c). Remove the faucet handle.
- Unscrew the packing nut (d) with crescent wrench by turning counter-clockwise. Make sure to protect the chrome finish by wrapping it with adhesive tape first.)
- After removing packing nut, lift out packing material (e), and stem (f). Stem can usually be removed by turning it in the same direction as you would turn the faucet to turn the water on.
- Remove washer (g) and brass screw (h). Be sure the new washer is the same size as the old one. Screw the new washer on with the brass screw.
- Replace all items in the reverse order of removal.

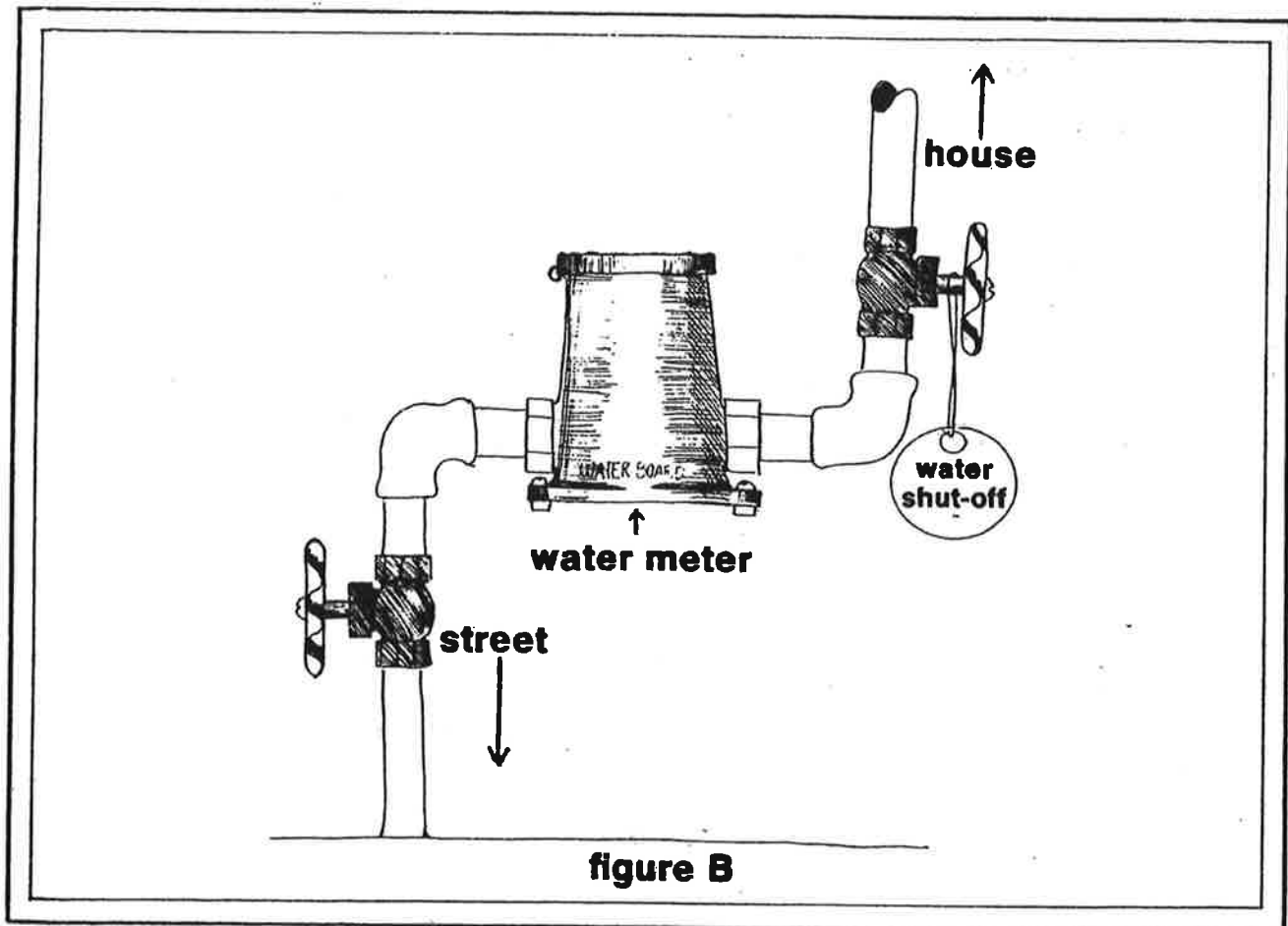
TIPS FOR CLOGGED DRAINS

- Notice when your drain begins to get sluggish. This may mean that there is a slight clog.
- When you have to clean drains, pour a pot of boiling water down them. You can add a little bit of detergent to cut any grease build-up.
- Don't use chemical drain cleaners. They contain harmful chemicals, which can be corrosive on drains and bad if it gets on you.
- If several fixtures at once stop working, or drainage from the second floor shows up on the first floor, a main line has a problem and you need a plumber.

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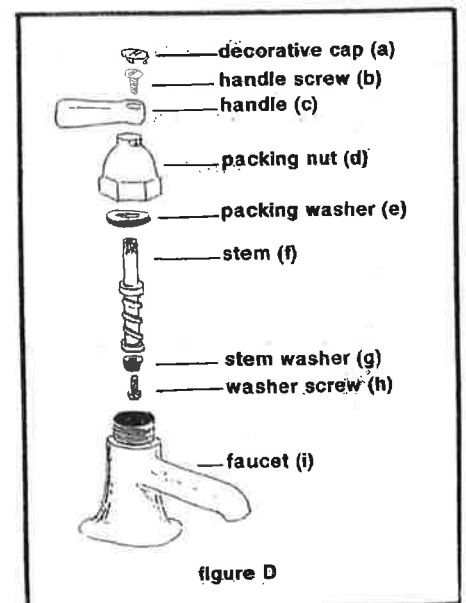
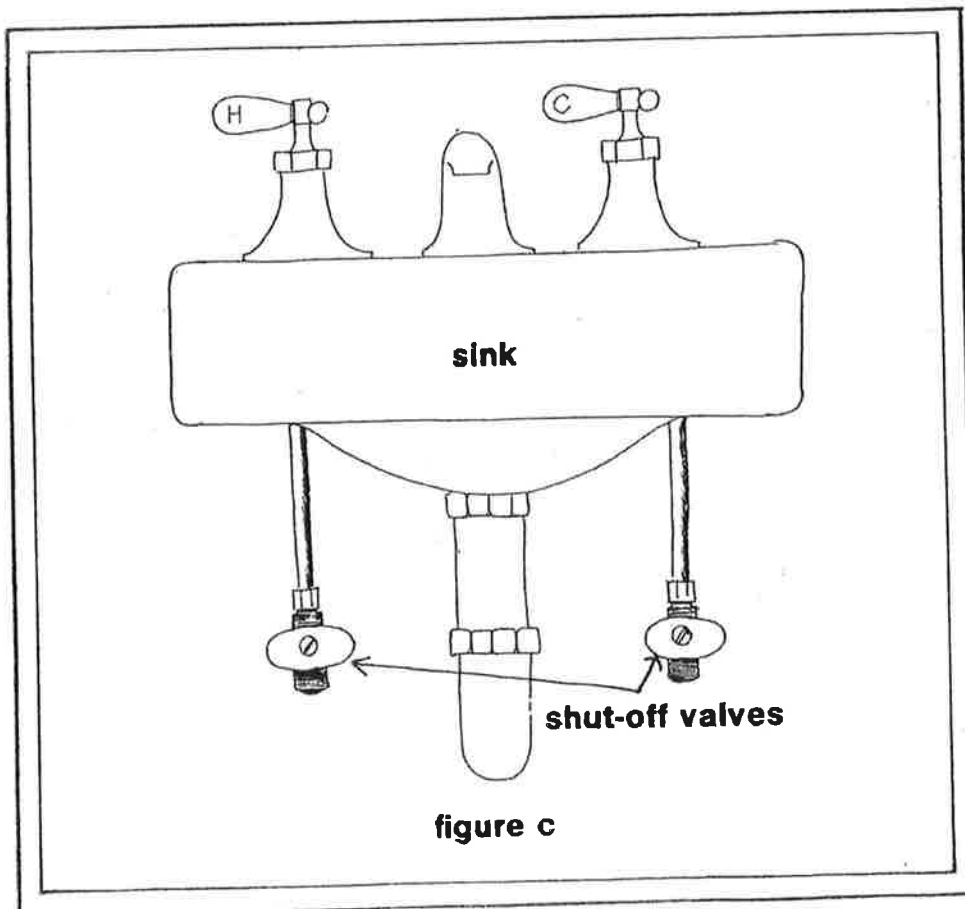


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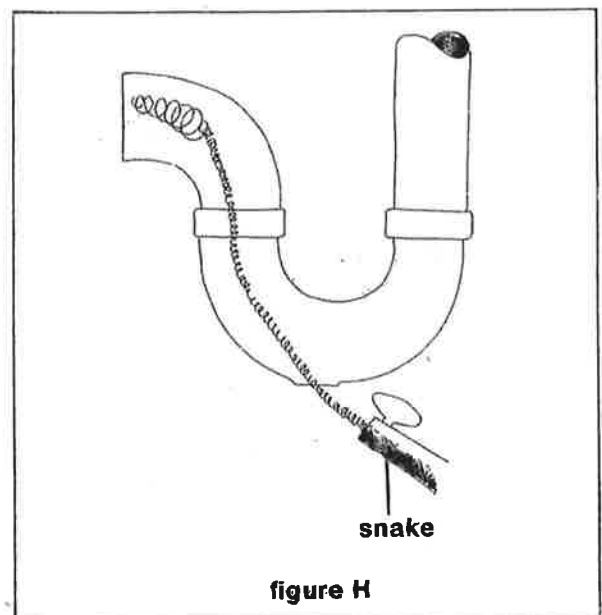
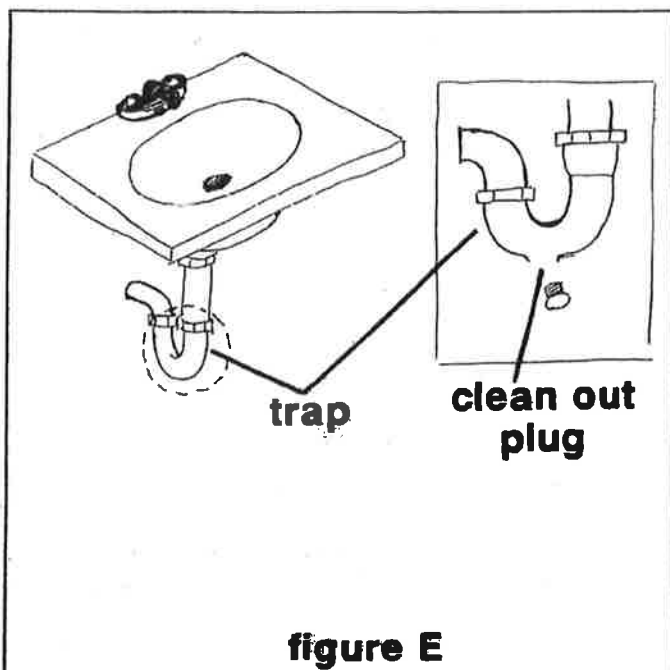


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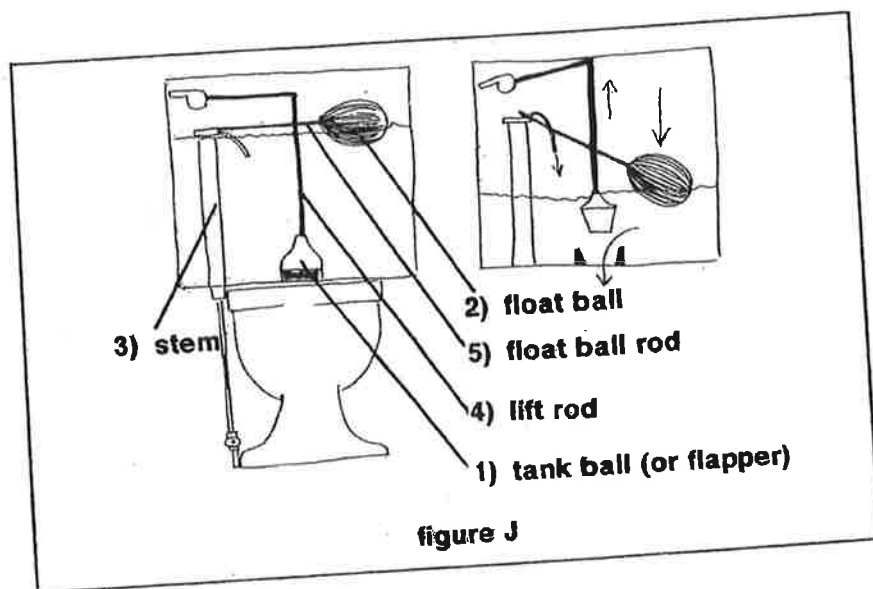
"How to Unclog a Drain"

- 1) Pour quickly a large pot of boiling water into the sink. Sometimes the sudden pressure and heat will start to clean the drain.
- 2) Put a rubber plunger over the drain opening and run about 2 inches of water into the sink. Move the plunger up and down for a couple of minutes. You will begin to see the water go down. Once the drain is running, pour a pot of boiling water down the sink.
- 3) Clean the trap located under every sink. It is a U-shaped pipe. Place a container directly under the trap. If there is a clean out plug, then remove by turning clockwise. To remove the trap, loosen the nuts on the pipe and remove the U section of the pipe. The water & obstruction may come out or you can use a piece of wire hanger to get it out. Put the plug or trap back on.
- 4) If that still didn't work. Get a plumber's snake, drain or trap auger. They can be bought at a hardware store. Insert the snake into the pipe a few inches at a time and twist. When it feels blocked, twist with a back & forth motion. As you pull the snake out it will be messy, so good thing you have a pail to dump it in.



"How does it work?"

1. When you press on the handle, it pulls up on the TANK BALL (1).
2. This allows water to rush out a hole in the bottom of the tank and into the toilet bowl.
3. When the tank is completely empty, the FLOAT BALL (2), which had dropped with the water level turns the STEM (3) on to refill tank with water. At this point the tank ball has dropped back and re-plugged the hole at the bottom of the tank.
4. As the tank fills with water and water level rises, float ball is lifted and shuts off the water.
5. Pressure of water in full tank holds tank ball in hole until flush handle is pushed again.



"Toilet tank fills but water keeps running?"

1. Check the FLOAT BALL. If lifting it by hand stops the flow of water you have probably found the problem.
2. Try bending the FLOAT ROD (5) downward.
3. If ball doesn't float at all, you may need a new FLOAT BALL. Unscrew the old ball and replace with the same type. **MAKE SURE TO SHUT THE WATER OFF FIRST.**
4. If raising the float ball by hand didn't shut off the water, the intake valve may need fixing. **CALL A PLUMBER.**

"Water runs on and tank doesn't refill?"

- When the tank ball doesn't fit correctly over the hole or is falling apart, water will leak through hole at bottom of the tank, causing this problem.
1. Look into tank with a flashlight. If the tank ball doesn't seem to be falling snugly into the hole, straighten or bend the LIFT ROD as needed until ball falls into place.
 2. Check the tank ball - if it has holes or feels rotted, it needs replacing. Turn off the water supply at the floor valve. If your toilet doesn't have one, you need to shut off water main. Flush toilet to empty the tank. Unscrew the old tank ball and replace with new one.

ELECTRICAL

SAFETY

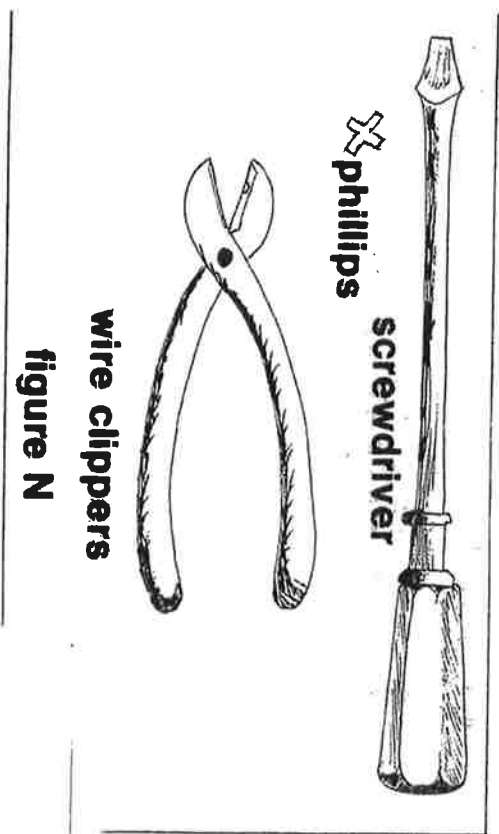
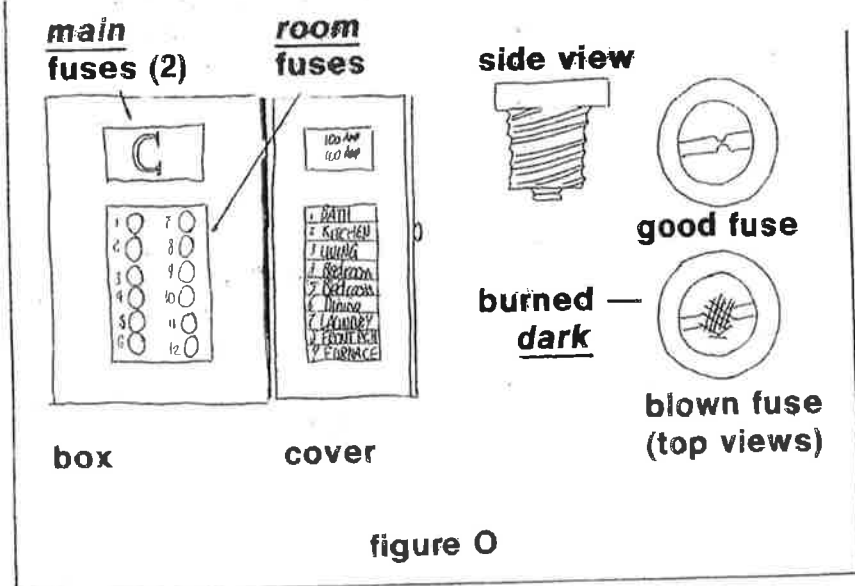
- Treat electricity with respect. Don't try shortcuts.
- Inspect cords and plugs regularly. DON'T use them if they are frayed, cracked, loose, etc.
- Use electrical appliances that are UL approved.
- Don't use electrical appliances in wet areas.
- Don't take apart or repair something that is still connected.
- Turn off large appliances if there is a power failure.
- If you smell burning plastic or a switch feels warm, you may have a short or overload. PLEASE CALL AN ELECTRICIAN.

POWER FAILURES

1. If all the lights go out, check with neighbors to see if their lights went out as well.
2. Unplug the refrigerator, freezer and air conditioner.
3. Leave a light switch on, so you know when the power comes back on.

FUSE BOX

- Know the location of fuse box. A "fuse" blows when there is too much current entering the system and melts a wire in the fuse.
- Keep a box of fresh fuses near the fuse box.
- Find out which fuses control which rooms.



BLOWN FUSES

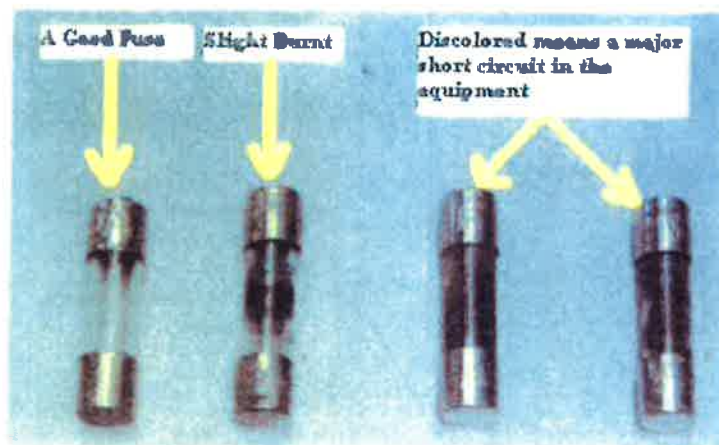
- If a large appliance with a motor (i.e. refrigerator or freezer) regularly blows a fuse, there is a solution. Get a time lag, time delay or slow blow fuse to replace the one that keeps blowing. This type of fuse prevents a blown fuse when the appliance motor starts up.

OVERLOADS

1. When the fuse blows, unplug everything that went out with the fuse.
2. Turn off the main switch at the fuse box.
3. Find the blown fuse – either labeled or a blackened face.
4. Screw in a new fuse of the same size. It should screw in **CLOCKWISE**.
5. Turn on the main switch.
6. Turn everything back on one at a time. If the fuse blows again after the last item, you probably have an overload.
7. Don't use so many electrical items on that circuit.

SHORT CIRCUITS

1. When the fuse blows, unplug everything that went out with the fuse.
2. Turn off the main switch.
3. Remove the blown fuse. If there has been a short circuit, the fuse window should be smokey.
4. Put in a new fuse.
5. Turn on the main switch. If the fuse blows again immediately, the short is in the circuit itself and you need an electrician.
6. If it didn't blow out when the main switch was pulled, then begin to turn everything back on one by one.
7. If the fuse blows again, when a particular item (such as a lamp) is turned on, then the short is in that item and it should not be used until it is repaired by an electrician.
8. If turning on the main switch blows the fuse, there is a short in the house circuit and you need an electrician.



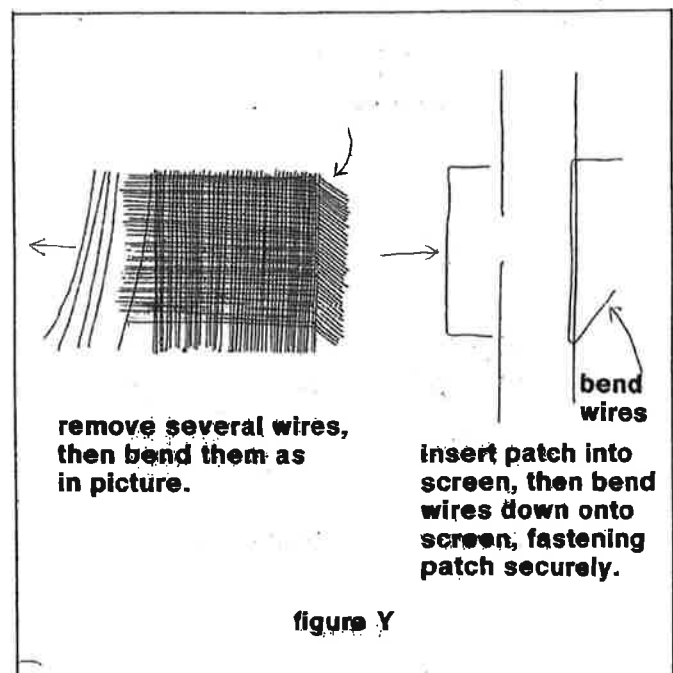
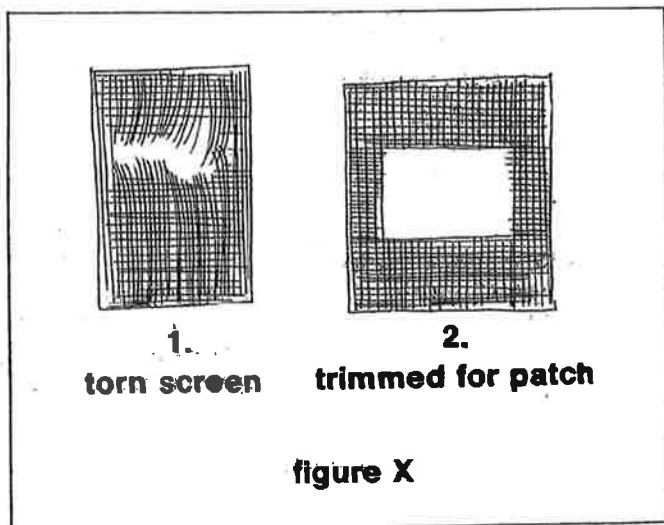
WINDOWS

"Broken Glass?"

- To replace a window you will need some assistance. You can temporarily repair a broken pane and keep the cold air out.
1. Pick up and remove any loose pieces of glass.
 2. Get a piece of cardboard that is slightly larger than the hole.
 3. Place the cardboard over the hole and tape all the edges securely with waterproof tape.

"Holes in a Screen?"

- For very small holes, a little clear nail polish applied in several coats will seal the hole.
 - For larger holes, you can sew closed with needle, nylon thread or yarn.
 - For super large holes, the screen will have to be patched.
1. Find a piece of old screen or get a piece from the hardware store. The piece should be at least 1 inch bigger than all around the hole.
 2. Trim the hole in the screen, so that it has square edges.
 3. Remove 3 outside wires from the patch.
 4. Bend these free ends down all 4 sides.
 5. Put the patch over the hole from the inside and push the bent wire ends through the screen.
 6. Bend the wires down on the outside.



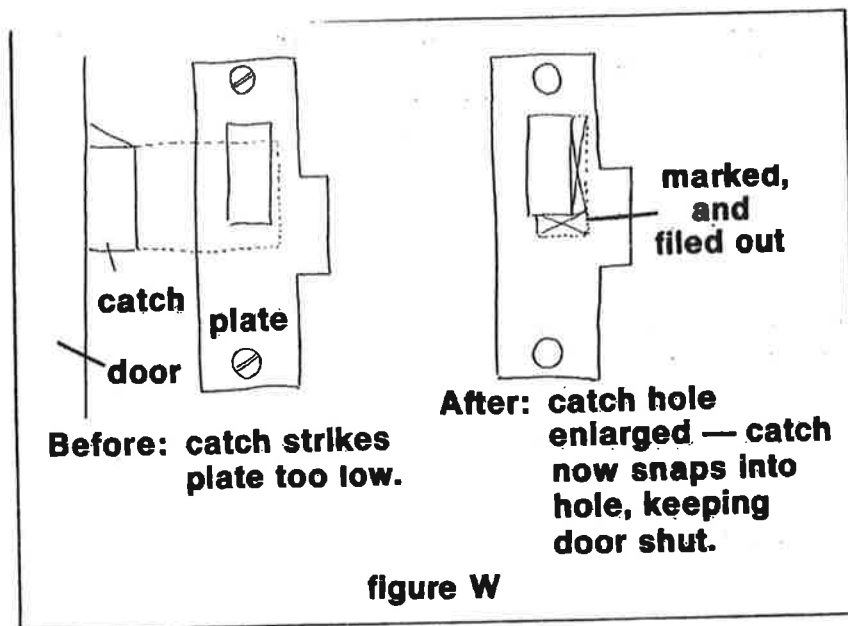
DOORS

"Door squeaks when it opens and shuts?"

- Apply a few drops of common household oil at the top of each hinge on the door.

"Sticking Door?"

- A door that sticks could have several things wrong with it. Many of them can only be fixed by taking the door off its hinges. We will walk you through how to repair one thing that could make the door stick.
 1. Close the door, open it and look to see where the bolt hit the plate.
 2. Unscrew the strike plate.
 3. Clamp the strike plate to a table, and with a file enlarge the opening on the plate where the bolt was hitting.
 4. Screw strike plate back into the door.



Crooked Door?

You can tell that the hinges are loose if the door is hitting the top or bottom of the door frame.

To tighten them:

- Locate the 3 screws attaching each hinge plate to the wood.
- Get someone to lift the doorknob-side of the door.

While the door is being held up, tighten the offending screws with a flathead screwdriver or a power drill.



Standard door sizes

Top and side clearance: 1/16" inch

Bottom clearance: 1/4" inch to a 1/2" inch

Top hinge distance from top: 7" inches

Lower hinge distance from bottom: 10" inches

Height: 6', 8" to 7'

Width: 2-3'

Thickness: 1 1/4 inch to 1 3/4 inch

Doors are attached to the wall by hinges.

Weather, wear and tear, and incorrectly hung doors can cause misaligned hinges.



You hang items on your wall and want to patch the hole.

What do you do?

You can use:

- White toothpaste
- Caulk
- Plaster & Sandpaper
- Spackle

