

The City of Apache Junction Home Maintenance Manual



This booklet will help you understand what you need to do to maintain your home in working order and to keep problems to a minimum. Should your home require major repairs, consult a qualified professional who is both licensed and insured.

The City's Housing Rehabilitation Program is not a remodeling program, rather a health and safety program. The program goals are:

1. Eliminate health and safety hazards in homes;
2. Benefit very low-, low- and moderate-income residents; and
3. Improve neighborhoods and encourage stability.

Because of the guidelines of the program, do not have unrealistic expectations about the process, construction or the finished product. Lots of repairs are not noticeable however they make your home safer and bring it up to health and safety codes.

For details about the program, refer to the most recently adopted Housing Rehabilitation Program Guidelines which may be found either online at www.ajcity.net/rehab or at City Hall located at 300 East Superstition Blvd. Apache Junction, Arizona 85119.

INDOOR AIR

Cigarette smoke, pets, materials used in furniture or carpet, and other factors may affect the quality of the air in your home.

Regularly change the air filter in your heating, ventilation, and air conditioning system (if you have a forced-air system).

Replacing air filters and regularly letting in fresh air by opening windows and doors are simple ways to help keep your indoor air healthy.

Your kitchen and bathrooms have exhaust fans. Use them to eliminate excessive moisture and odors.

Kitchen exhaust fans (and some bathroom exhaust fans) have filters for grease or dust. Clean or replace exhaust fan filters as necessary.

AIR CONDITIONING SYSTEMS

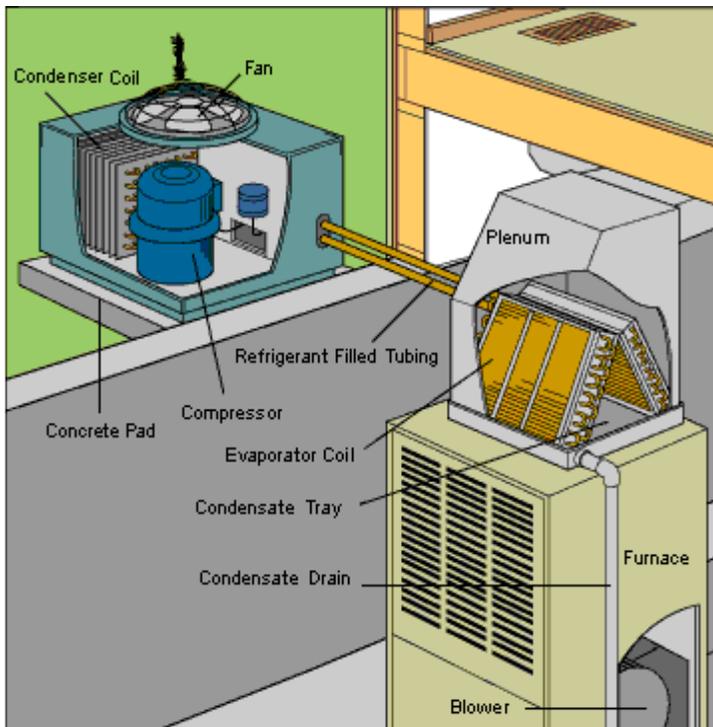
If your home has a central air conditioning system, it should give you years of reliable comfort if properly maintained. The following information can help you get the maximum benefit from your central air conditioner.

Registers - The registers throughout your house help regulate the flow of air and maintain the desired temperature. By opening and closing the registers and dampers, you can regulate the amount of cool air that enters a room. Carefully adjusted dampers will work with the thermostat to maintain the temperature of your home. Closing registers and doors to rooms not in use is a good way of reducing cooling costs. If you have a combined air conditioning and heating systems, the same registers and dampers will be used to regulate the flow of heat to the rooms.

In addition to the air outlets, your house will have one or more air return registers. Make sure that no furniture, drapes, hanging plants or any other object, obstructs return air registers or air outlets.

Filters - Most central air conditioners have an air filter to help clean the air in your home. The filter needs to be cleaned or replaced at least once a month.

Reducing Cooling Cost - Open doors, windows, fireplace flues and clogged filters can negate the effects of insulation and cause inadequate cooling. For increased energy savings and comfort during the summer, keep windows and doors closed. Run heat-generating appliances such as dishwashers or conventional ovens late in the evening. During the summer more heat is generated by use of lights, appliances and people inside the house, which causes the air conditioning system to work harder to produce more cool air.



Annual Inspection - The central air conditioning system should be checked and maintained periodically by a professional.

EVAPORATIVE COOLERS

Float Adjustment - From time to time, water will flow over the swamp cooler. The float, located where the water supply line feeds into the swamp cooler, is either frozen or needs to be re-adjusted. To free the float, clean it and use a silicone lubricant. To re-adjust the float, follow the manufacturer's guidelines.

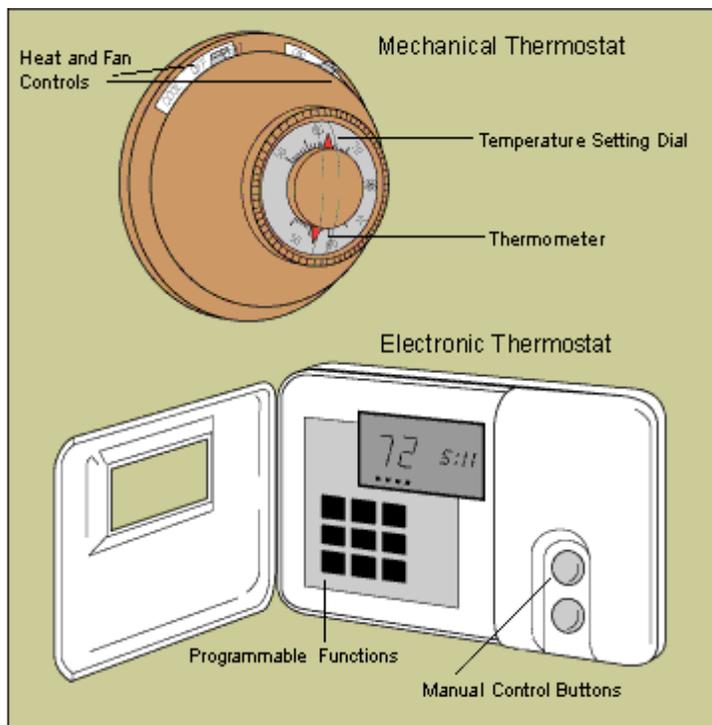
Winterization – Shut off the supply valve. Find the plug, located in the bottom of the cooler pan, attach a hose at the plug opening and drain the water from the cooler by removing the plug. Use a brush and broom to clean the entire exterior cooler. Install a cover and the cooler is ready for winter.

Cooler start-up - Use a brush and broom to clean the entire **interior of the cooler**. Check the belts and make sure they are not worn. Check the oil bearings at all oil indicators (two or three). Re-insert the plug, open the water supply valve and fill the swamp cooler with water. Install the evaporative pads, turn the cooler on and make sure the water is going through the plastic tubing, also called spider web, and get the pads wet.

HEATING SYSTEMS

Heating systems, methods, and installation vary widely. The design of the system in your home has been carefully matched to the size of your home and the climate of your region.

Thermostats - The thermostat, usually located on an inside wall, helps to keep your entire house at a comfortable temperature.



Adjusting the registers in the various rooms or the dampers in the ducts from the furnace to the registers may further regulate individual room temperatures.

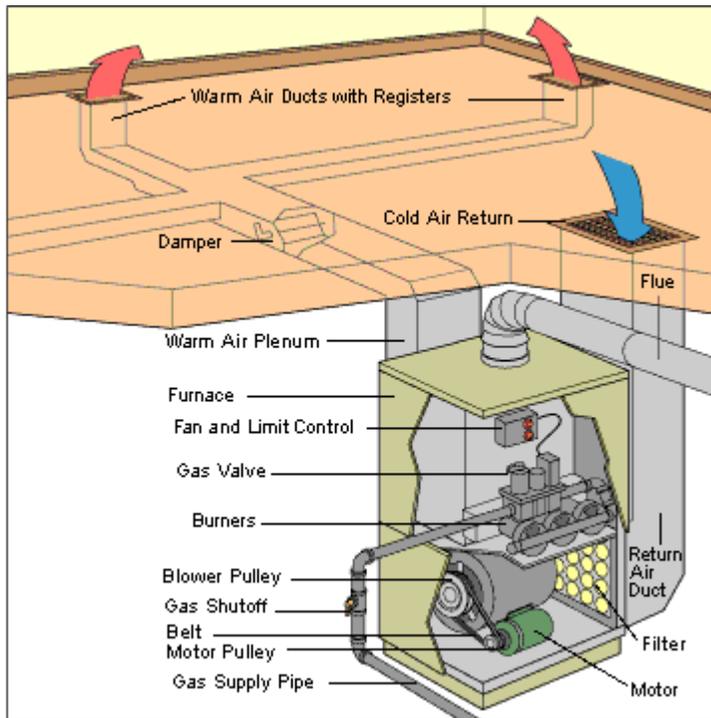
If your home is heated by a forced-air system, your thermostat may also contain controls for the cooling system.

You can significantly reduce your heating bill by lowering the thermostat during the sleeping hours and when your home will be unoccupied for a prolonged period.

Filters - Many forced-air systems have air filters, usually found near where the cooled air returns from other rooms. These filters remove dirt and dust from the air. For efficient heating, the filters should be replaced on a regular basis, during the heating season.

Usually, replacement involves removing one or two metal screws; pulling out the dirty filter, and inserting a new one bought from a home supply store. Other systems have latches or screws holding the filter cover. Some systems may have electronic air filtering systems.

Pilot Light - Some gas furnaces have standing pilot lights for ignition, while higher efficiency units have a pilotless electronic ignition. Have a qualified technician check your furnace before using it, each winter.



Reducing Utility Bill - Your household's lifestyle is the most significant variable affecting your utility bills. By living smart in your home, you can maximize the benefits from insulation and other energy saving features your builder has installed. Think about the way you live in your home and look for ways to improve the efficiency of your heating and cooling system.

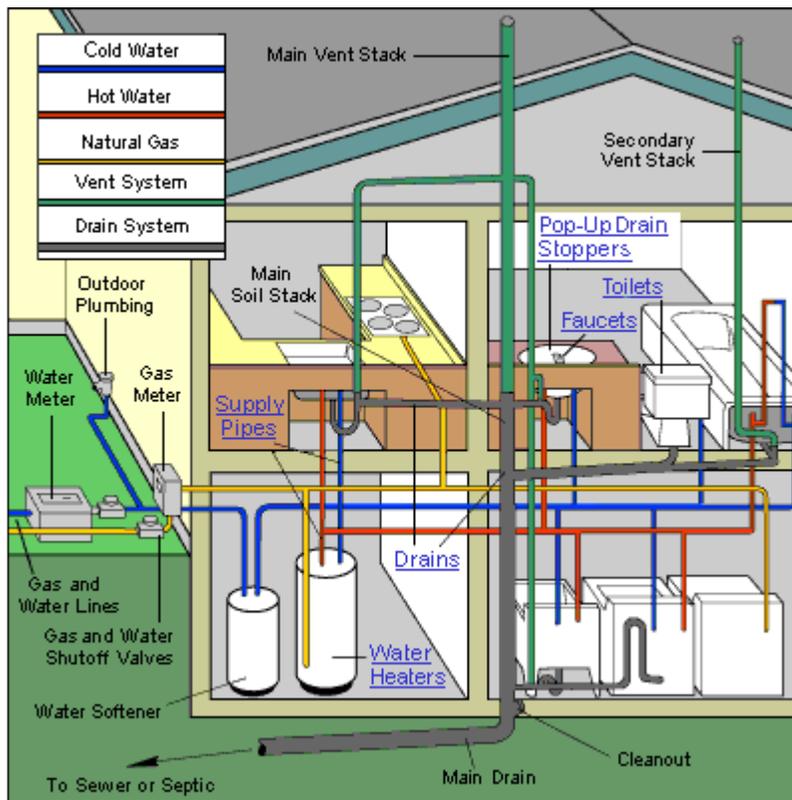
- Common sense activities can produce substantial savings.
- Closing the windows and doors when the heating-cooling system is working
- Not running the dryer, stove, or oven on a hot summer day
- Adjusting thermostat settings to 68 F (or lower) in the winter and to 80 F (or higher) in the summer
- Opening drapes or blinds on the sunny side of the house during winter days to take advantage of passive heating from the sun's warmth
- Closing drapes, blinds, or curtains on hot summer days when the sun shines into your home

Identical homes on the same street may have utility bills that vary by 100 percent
During winter vacations, do NOT shut off the heat completely

PLUMBING

The plumbing in your house installed by a professional should need only minimum maintenance if you care for it properly. If any problem arises, attend to it promptly to prevent a bigger and often more costly problem.

Shut off Valves - All members of your household should become familiar with the water shut off valves. You should check those valves for proper operation at least yearly. You will rarely use the shut off valves, but in the event of an emergency or if you need to make minor repairs, they will be easy to locate. Shut off valves for toilets are usually under the water chamber. Those for sinks are usually under the sink, while the main shut off valve is usually near the point at which the water enters the house.



Leaks - Copper and plastic pipes should last the lifetime of the house, but if a joint should loosen, it will need to be soldered or repaired. This job is best left to a plumber.

If your washing machine, dishwasher, or other water-using appliance appears to leak, first check to see that the drain trap is completely open. Sometimes a partially clogged drain can cause an overflow within the appliance.

Noisy Pipes - Pipes makes noise for a variety of reasons. Among the most common is a worn washer, a loose part in a faucet, or steam in a hot water pipe. The condition causing noisy pipes should be corrected promptly if the noise is accompanied by vibration. A strong vibration can cause fittings to loosen and leak.

Frozen Pipes - To prevent pipes from freezing, never leave a house unheated during cold weather. During an extended period of severe cold, provide at least a little heat for unused rooms and baths that are generally not heated.

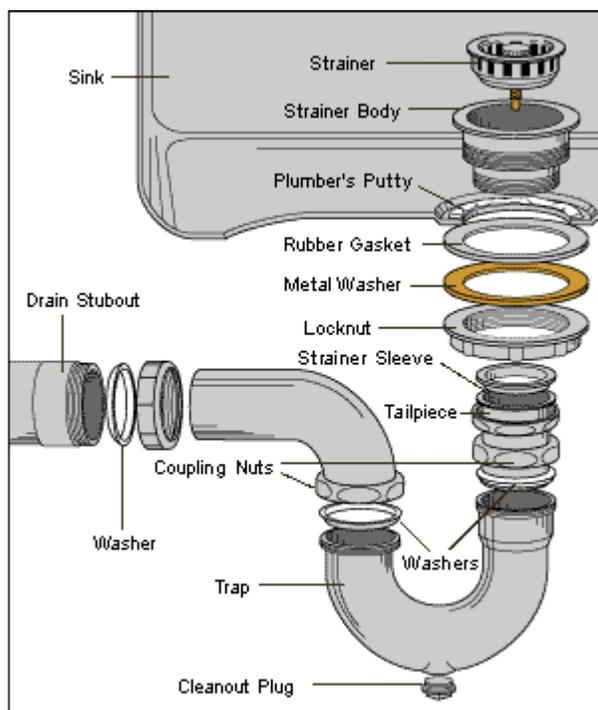
DRAINS

To avoid clogging drains or toilets **DO NOT** pour grease into them.

Prevention - Ordinary washing soda (not baking soda) added to a drain on a regular basis will help to keep it clear of the grease from soap and cooking utensils. Run hot water through the drain, turn off the water, add 3 tablespoons of washing soda, and follow it with just enough hot water to wash it down the drain opening. Let stand for 15 minutes and run more hot water. Do not use caustic drain openers, they may damage your plumbing system.

Each plumbing fixture in your house has a drain trap. This P-shaped piece of pipe is designed to provide a water barrier that prevents the airborne bacteria and odor of sewer gas from entering the house.

Infrequently used fixtures should be turned on regularly to replace evaporated water and ensure that the barrier remains intact. Because of their shape, traps are also the source of most clogging problems.



When the drainpipe from a tub, sink, or shower becomes clogged, try unclogging it with a plunger first. The rubber cup of the plunger should cover the drain opening, and the water should come well up over the cup edge. Work the plunger up and down rhythmically 10 to 20 times in succession. Working the plunger in this manner will cause pressure to build up in the pipes. Plug any overflow outlet with a piece of old cloth. When working on a double sink, be sure to close the other drain.

If the plunger does not work, use a plumber's snake. You can rent or buy one at a hardware or plumbing store. Turn the handle of the snake in the same direction when removing it as

you did when inserting it. This technique will keep anything attached to the snake from coming loose before it is removed.

If using the plunger or the snake partially opens the drain, run hot water down the drain and it may open up the drain completely.

If not, you can open the trap under the fixture or cabinet. Put a bucket or pan under the trap to catch the water. Unscrew the trap, clean out and re-install.

BATHTUBS, SINKS AND SHOWERS

To prolong the life of bathtubs and sinks, follow these precautions:

- Do not let food waste stand in the sink. If you have a garbage disposal, dispose of food waste as it accumulates. If you do not have a disposal, put these wastes in an appropriate container.
- Do not use bathtubs or sinks to hold paint cans, trash, or tools when you are redecorating; cover bathroom fixtures when painting walls and ceilings.
- Do not wear shoes in a bathtub for any reason. Shoe soles carry hundreds of gritty particles that will scratch the surface.

By observing these suggestions and using proper cleaning techniques, bathtubs and sinks will retain their luster for many years. However, once damage has occurred, the best plumber in town cannot undo it completely.

Bathtubs can be made of enamel on cast iron or fiberglass-reinforced plastic. Bathroom sinks are usually made of enamel on cast iron, marble resin or fiberglass-reinforced plastic. Showers are made of ceramic tile, fiberglass-reinforced plastic, or molded plastic. Kitchen sinks are generally made of porcelain enamel or stainless steel. Laundry tubs or sinks are usually made of fiberglass or plastic.

Vitreous China and Porcelain Enamel - The surfaces of these fixtures are smooth and glossy like a mirror and harder than steel, but they are not indestructible. Carelessness causes chipping, scratches, and stains. A blow from a heavy or sharp object will chip the surface, and scraping or banging metal utensils will gradually scratch and dull the surface. Shiny new fixtures can be dulled or stained within a short time through improper or excessive use of strong abrasive cleansers. Most household cleaners are mildly abrasive but are safe if used with plenty of water. A nonabrasive cleaner is safer. If you prefer a dry material, baking soda is nonabrasive.

Stainless steel fixtures generally resist staining and require a thorough scrubbing only occasionally. Use a nonabrasive cleanser or a household stainless steel cleanser.

Plastic and Other Substances. A nonabrasive cleaner usually works well with plastic and other substances, but you may ask your plumbing contractor to recommend a good cleaner for the particular material in question. Special commercial cleansers are also available.

Glass Shower Enclosures or Stalls. To clean glass shower enclosures, an ordinary dishwashing detergent (not soap) should do a good job. If hard water minerals have built up, use a household glass cleaner. **Warning:** Use ample ventilation, avoid breathing the vapor from the spray, and wear rubber gloves.

Caulking - when the caulking around your bathtub or sink dries out or cracks, remove

the old caulking and replace it. If you don't have a caulking gun, you can buy caulking material in applicator tubes or in disposable caulking guns from a home supply store.

Food Stains - For most food stains, use a mild solution of chlorine bleach (about 3 tablespoons to a quart of water), and rinse well. For stubborn stains wait five minutes before rinsing. (Do not use chlorine bleach on stainless steel.) You can also use a paste of equal parts of cream of tartar, 6% hydrogen peroxide solution, and a household cleaner. Leave paste on the stain for ten to fifteen minutes before rinsing.

Mildew - Although today's homes are carefully climate controlled, mildew can appear in bathrooms and other areas that collect water vapor-especially in humid regions of the country. Always use the exhaust fan during baths and showers to help remove water vapor. Wiping condensation from tiles after bathing or showering is also a good idea.

To eliminate mildew, clean with a mildew remover (available in non-aerosol spray), rinse, and dry; then use a disinfectant to retard mildew growth and eliminate odor.

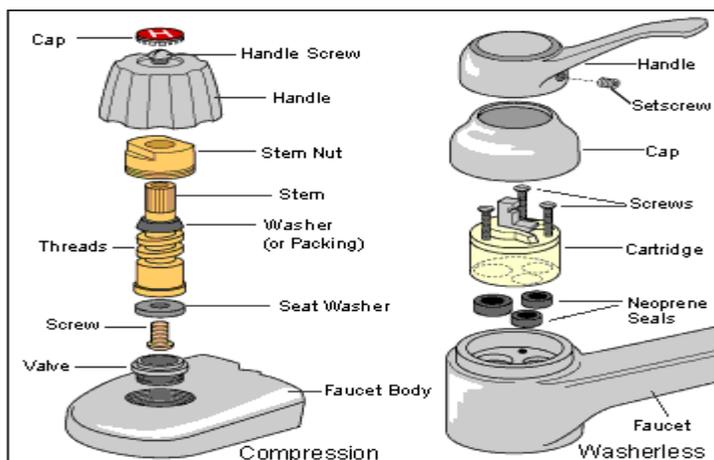
Rust Stains - Rust stains occur when wet metal utensils are left on the surface of a sink. Steel wool soap pads also will rust and stain when wet and should be kept in an appropriate container.

FAUCETS

Even with normal use, the faucets in your home will require occasional maintenance or repair.

Aerators - Cleaning the aerators will be your most frequent task in maintaining faucets. An aerator adds air to the water as it leaves the faucet and eliminates splashing. It also reduces water usage, thereby saving you money. Aerators are most common on kitchen and bathroom sinks.

To clean an aerator, unscrew it from the mouth of the faucet, remove any deposits, remove and rinse the washers and screens, replace them in their original order, and put the aerator back on the faucet. The frequency of the need for cleaning will depend on the condition of the water, but generally every three or four months is adequate.



Leaks - All leaks increase your water bill, and a leaking outside faucet can cause structural damage. Whether they are inside or outside, leaking faucets generally can be fixed by replacing the washers.

Before attempting to repair a faucet, turn off the water at the nearest supply valve.

Some faucets with single controls for hot and cold water have no washers, but their cartridges, which last longer than washers, must still be changed periodically. Washers and cartridges are available at most hardware or plumbing supply stores.

TOILETS

Never flush down the toilet materials such as hair, grease, garbage, lint, diapers, sanitary products, and rubbish. Such waste clogs up the toilet and sanitary sewer lines.

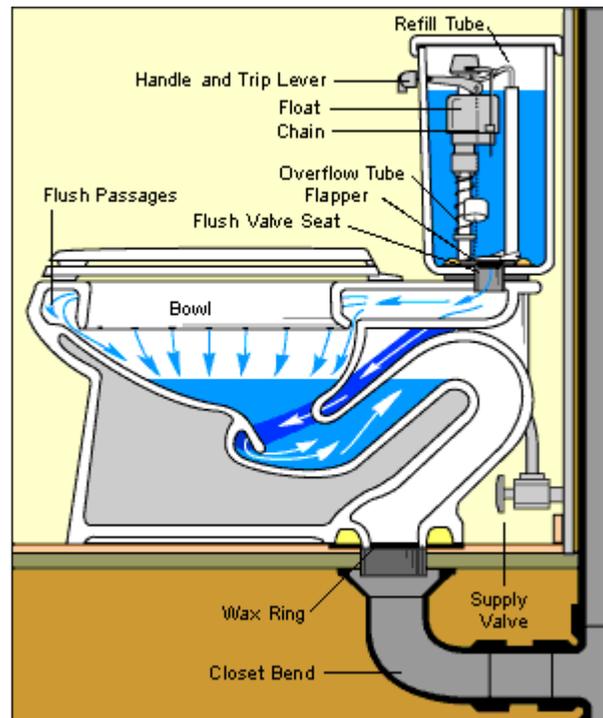
A clogged toilet should be treated the same way as a clogged drain. A trap is built into the toilet and is therefore less accessible.

Instead of a snake, use a coil spring-steel auger, which can be bought or rented from a hardware or plumbing supply store. Insert the auger so that the point goes up into the trap. Turning the handle of the auger will break up the blockage or catch it so that it can be removed.

Leaks - Most toilets have a water chamber, flush valve, overflow pipe, float and ball valve. If the water chamber appears to leak, the moisture may only be condensation forming on the outside of the tank and dripping to the floor.

If water leaks into the bowl through the overflow pipe, try bending the rod so that the float will be closer to the bottom of the tank. Flush the toilet, and if it still leaks, the inlet valve washer probably needs to be replaced. Most newer toilets do not have a float and valve, but have a valve with a screw adjustment.

If the water trickles into the bowl but is not coming through the overflow pipe, it is coming through the flapper. The connections between the flapper and the flushing handle may need adjusting so that the flapper will drop straight down after the handle has been pushed. A worn flapper, dirt, or rust on the flush valve seat will let water leak into the bowl. If the flapper or ball seat is dirty, clean it with fine sandpaper. If the flapper is worn, replace it.



DISPOSALS

Always use cold water when using the disposal. Also, always turn on the water first, and then gradually feed the disposal. Never fill the entire garbage disposal and then turn it on.

Many people erroneously conclude that because their waste disposal is capable of grinding up most food waste, it is also capable of eliminating grease and other substances they would not otherwise pour down a drain. Do not pour grease down the disposal. In addition, avoid putting fibrous materials such as banana peels, cornhusks or celery down your disposal. Avoid grinding bones or other hard materials.

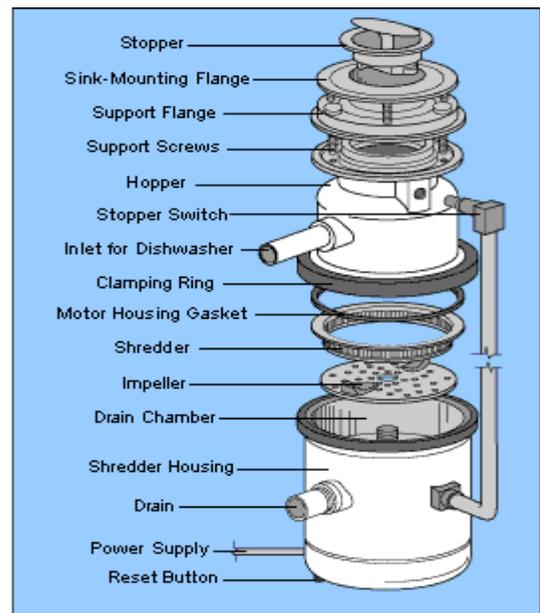
Should the drain become clogged, do not put chemicals down the disposal.

Reset Buttons - Most disposals have a reset button that works in much the same way as a circuit breaker. If the disposal becomes overloaded, turn the switch off, remove the substance obstructing the disposal's operation, wait about three minutes, and push the reset button. It is usually located underneath or on the side of the disposal.

Turn the switch on, and if it still does not start, turn it off again and check to see if you have tripped the circuit breaker. If the circuit breaker has been tripped, turn off the circuit breaker (as a safety precaution) and turn the rotating plate in the disposal until it turns freely. Never do this with your hand in the disposal--even if it is turned off--use a stick or piece of broom handle.

Restore the electrical current, push the reset button again, and turn the disposal switch on. Some disposals come equipped with a special wrench or tool that can be inserted either in a hole in the bottom of the disposal (under the sink) or into the top of the rotating plate. Turning the wrench a couple of times should loosen the material enough so that the disposal will start.

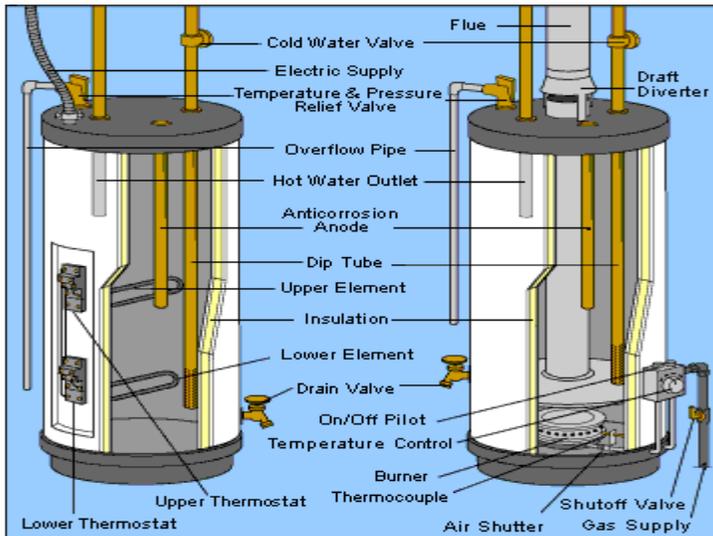
Warning. Be absolutely sure that the circuit breaker is off, before inserting anything into the disposal an/or rotating the plate to remove material when the disposal is stalled.



WATER HEATERS

All water heaters (whether gas or electric) have a control mechanism to govern water temperature. The dial should be set at 120 F or lower. The lower the temperature setting, the less fuel you will use, which could produce considerable savings on your utility bills.

A temperature-controlled electronic timer can provide a means of reducing your electric bill when the hot water is not being used. Avoid storing anything near the water heater that might obstruct the flow of air or create a fire hazard.



Water heaters normally collect small quantities of scale and dirt at the bottom of the tank. You should flush the tank once a year to get rid of this settlement. To remove this material, first shut the water supply valve and turn off the power source for your water heater (gas, electric, etc.) Failure to turn off the power source could cause the heating element to burn out. Hook up a garden hose to the drain valve at the bottom of the heater, open the drain valve and drain the

tank completely. Open the water intake valve and allow some water to flow through to flush out the remaining sediment. Shut the valve at the bottom of the tank, open the supply valve and fill up water heater. When the tank is full, restore power or follow the manufacturer's instructions for restoring heat.

Temperature and Pressure Relief Valve - Every three or four months you should check the temperature and pressure relief valve on your water heater to be sure the lever works properly. If the thermostat should fail to operate properly, this valve would prevent a dangerous increase in water temperature and pressure, and possible bursting of the tank.

Noisy Pipes - If you hear noises in the pipes when the hot water is turned on, it could mean that air or steam is in the pipes. The steam may result from the water being too hot. Reducing the temperature of the water may help.

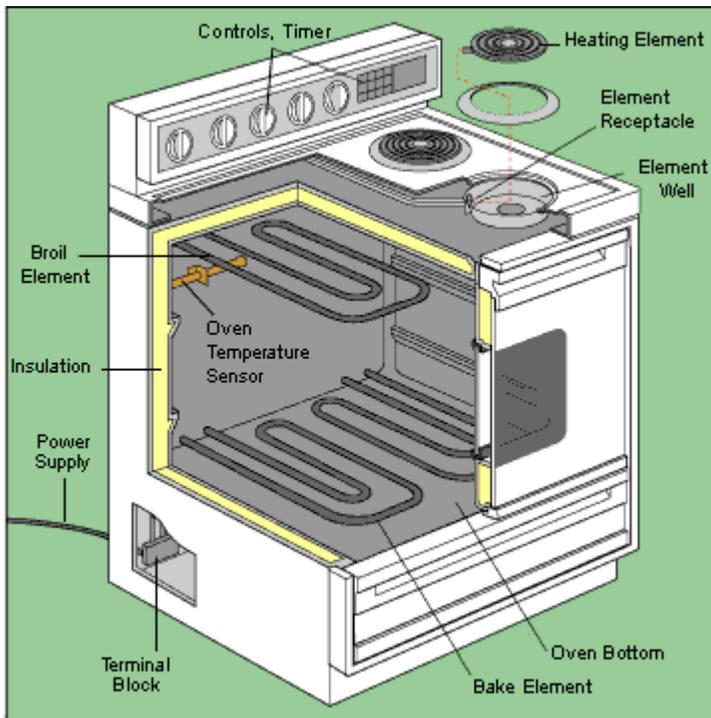
RANGES, OVENS AND BROILERS

Do not let the oven go too long between cleanings.

Many ovens and broilers, both built-in and floor models have a self-cleaning cycle or clean themselves continuously. Others must be cleaned in the conventional manner.

The outside of your stove, oven or broiler can be cleaned with a nonabrasive household cleaner or baking soda sprinkled on a damp cloth or sponge.

If your burner panel or oven front is stainless steel, you may want to use a stainless steel cleaner on it. Never use harsh, abrasive cleaners on the outside of stoves, ovens or broilers.



A lightly soiled oven can be cleaned with a solution of 1/4 cup baking soda to 1 quart of water. Rubbing with a paste made of baking soda and water may be necessary for some spots. A heavily soiled oven may require a household oven cleaner. Choose one that is non-corrosive and nontoxic and follow directions and cautions closely.

Electric - Electric stoves usually have a circuit separate from other kitchen appliances. If your range fails to work, check the proper circuitry.

Gas - If the burners of your stove, oven or broiler fail to light,

check to see that power is connecting to the electric ignition (a clicking sound usually indicates that the unit is functioning).

If your stove has a pilot light, make sure that the pilot light is lit. If your electric ignition or pilot light appears to work but the burners still fail to light, they may be clogged and should be cleaned. If they are removable, the burners can be soaked clean in a solution of washing soda, but do not soak them in an aluminum pan. A wire brush or thin stiff wire may be helpful in removing burned food particles from the holes in the gas burners. When using wire, be careful not to push the material farther into the holes.

If you suspect that gas is leaking, turn off the valve behind the appliance, or the main valve (near the meter) and call the gas company immediately.

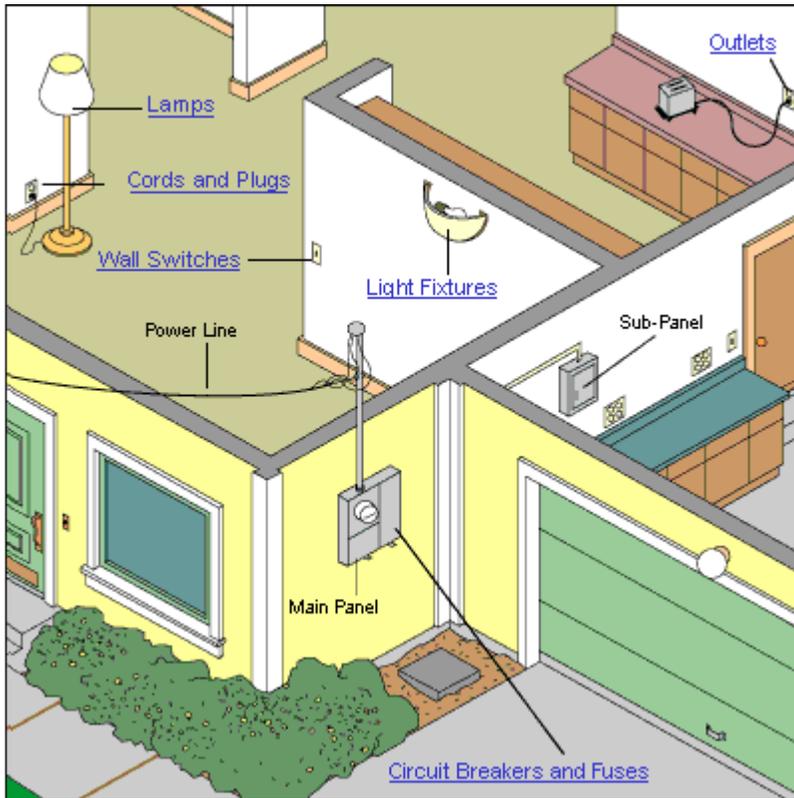
Warning: Do not light matches or smoke cigarettes if you suspect a gas leak.

Range Hoods - The filters in range hoods may need to be cleaned or changed periodically. For location and directions, consult your instruction manual.

CIRCUIT BREAKERS

Circuit breakers protect the electrical wiring and equipment in your home from overloading. They are the safety valves of your home's electrical system.

Every house should have a main circuit breaker. It generally is located by the meter or at the main panel. When the main circuit breaker is tripped, the electricity to the whole house is cut off. Circuit breakers may be reset by first switching the breaker to full off and then back to full on.



Electrical Service Entrances - The electrical service entrance provides power to the service panel. It has been designed for the electrical needs of the house. Do not tamper with these cables.

Power Failures - In case of a complete power failure, first determine if your neighbors have power. If they do not, notify the power company.

If the power failure affects only your house check the main breaker first.

If one circuit breaker continues to trip, check to see if you have overloaded the circuit. If not, call an electrician. Failure to fix a short circuit could result in a fire.

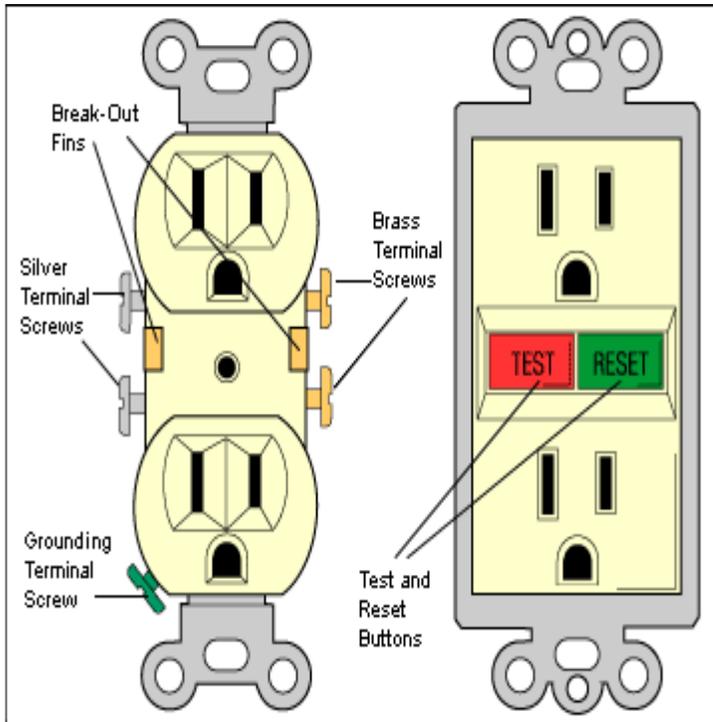
ELECTRICAL RECEPTACLES

If an electric appliance fails to operate be sure it is plugged in before you call a repair service.

The wiring in your home meets the code requirements and safety standards for the normal use of electrical appliances. Ordinarily, small appliances that require personal attendance for their operation may be plugged into any electrical receptacle without fear of overloading a circuit.

The use of a large appliance or many small appliances on the same circuit may cause an overload.

If a circuit breaker trips frequently, contact a licensed electrical contractor to learn whether additional wiring is needed. Sometimes, the breaker is worn out and needs to be replaced.



Ground-Fault Circuit Interrupters - The receptacles in your kitchen and bathrooms should be equipped with ground-fault circuit interrupters (GFCI's). These safety devices are commonly installed where small appliances (such as hair dryers) are used near sources of water, which can ground a person and put him or her at risk of electrocution if the appliance malfunctions or is dropped into water. GFCI's cut the flow of electricity to the appliance instantly if it detects a change in the flow of current to and from the appliance. Test your GFCI receptacles monthly by pressing the "test" button.

SMOKE DETECTORS

Your home should be equipped with smoke detectors, certain basic procedures will ensure that they function properly in an emergency. Smoke detectors are either battery-operated or connected to your home's electrical system. Some battery-operated detectors will continue to sound until a reset button is pushed. Other types will stop automatically when smoke is cleared from the chamber.

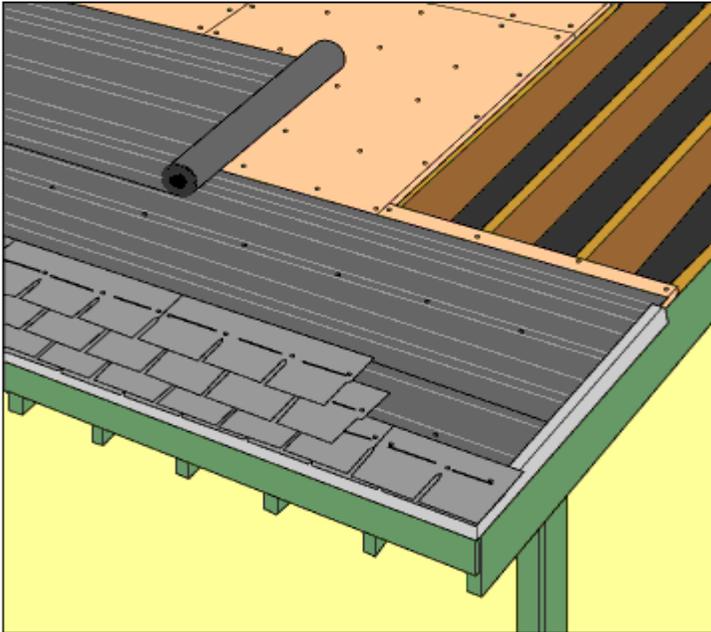


Monthly test the detector to see if it is working properly by pushing the test button. Different types of detectors will require different care. Maintenance may include replacing the batteries, vacuuming the unit, and cleaning it as suggested by the manufacturer.

ROOFS

Your roof will give you many years of good service if it is properly maintained. Flashing seals those places where the roof abuts walls, chimneys, dormers, or valleys where two roof slopes meet. If a leak should occur, call a qualified roofer to make the repair. A qualified roofer should inspect the roof at least every three years. If you have to walk on the roof for any reason, be careful not to damage the surface or the flashing.

Do not install a TV or radio antenna on the roof, a careless job can cause serious leaks and may void the warranty.



Maintenance of Aluminum Roofs - An inspection of the roof should be performed annually. Look for stress cracks and weathering.

Cracks should be caulked with white silicone or patched with an elastomeric patching compound depending on the severity of the crack.

At least every other year the entire roof should be painted with an elastomeric reflective coating. Prior to painting, all cracks and seams should be caulked per manufacturers

recommendations.

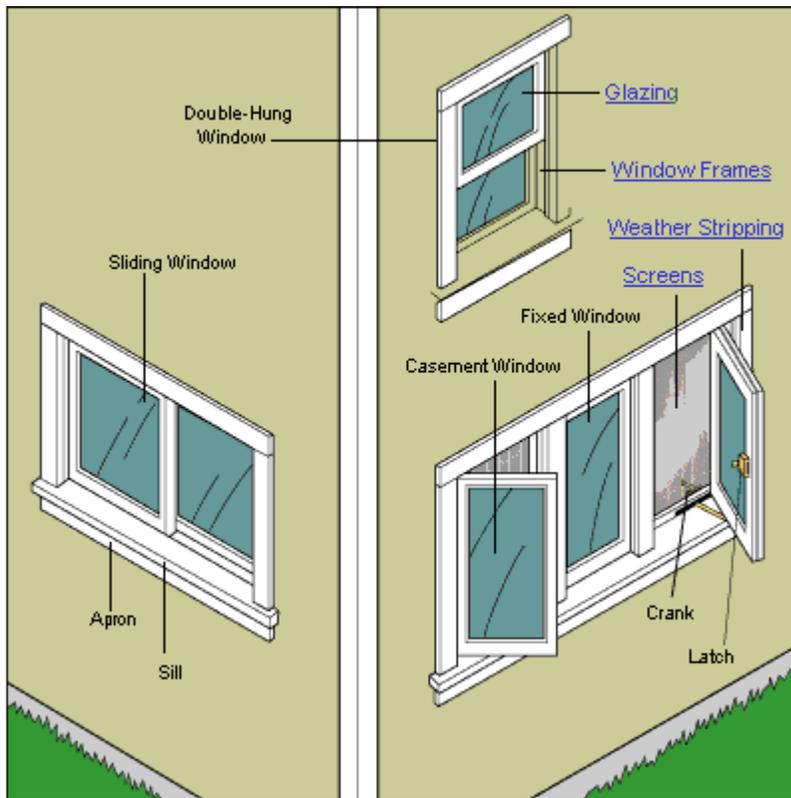
Roof Shingles - Roof shingling generally does not provide a waterproof membrane. Rather, shingles are meant to shed water down their overlapping courses into gutters or off the roof overhang. Erratic weather conditions can cause a buildup of debris in the valleys, rain gutters and down spouts. This can back water up under the shingles and cause leaks. Usually more damage is caused by the build-up of leaves, sand and dust than any other cause. Also, trim trees away from the roof and fix leaks in evaporative coolers immediately.

Although roofs with a shallow pitch are more susceptible to this than are steeply pitched roofs, no home is completely immune to the problem. Remove blockages from valleys, gutters and down spouts immediately.

WINDOWS

For a broken window, consult a supplier or glazier for advice on replacement. If a window does not slide easily, rubbing the channel with a piece of paraffin wax should help. An old candle will also do. The same treatment will work for sliding wooden closet doors. For metal doors and windows, use a silicone lubricant.

Your windows may be framed in a wide variety of materials, including aluminum, steel, wood, solid vinyl, and vinyl-clad wood. Wood frames should be painted whenever the house or trim on the house is painted. Aluminum, vinyl, and vinyl-clad wood do not need painting. Steel frames should be painted with a rust-inhibiting paint.



Aluminum can be left to age to a uniform gray. The oxidation (or graying) will protect it from the elements. If you prefer to maintain the brighter new look, a coat of wax will work well. To restore aluminum that has turned gray, polish it with steel wool. However, prevention is easier than polishing.

If the outside of a window is extremely dirty, use a piece of crumpled newspaper to wash the glass with a solution of equal parts vinegar and water. You may also use a household glass cleaner. Lightly soiled windows will usually

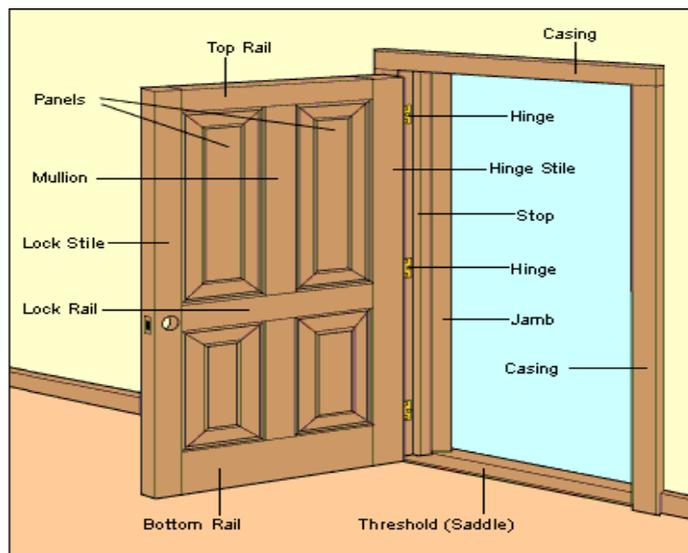
respond to a solution of 1 cup of vinegar to 1 gallon of water. Apply the cleaning solution with a sponge or lintless cloth, and dry the glass with a chamois or a lintless cloth. A rubber squeegee will speed the drying process. The window frames can be cleaned with a mild detergent solution.

Wood windows may need new glazing compound occasionally. Remove cracked, loose, or dried-up glazing compound, and clean out dust and dirt with a clean dry brush. Replace any missing glazier's points (the small pieces of metal that hold the glass in place). Roll some fresh glazing compound between your hands to stretch it out. Fit it against the glass and the wood with your fingers and smooth it with a putty knife.

DOORS

Sticking - Sticking is the most common problem with doors. If the sticking is caused by swelling in damp weather, fold sandpaper around a wooden block and sand the edge that sticks. If the hinge screws are loose, tighten them, and if the door is still out of alignment, sand or plane the edge that sticks.

Always paint or varnish areas



that have been sanded or planed. Paint and varnish protect wood from moisture and help to prevent further door problems.

Weather stripping - To maintain your home's energy efficiency, exterior doors come equipped with weather stripping made from a variety of materials, including metal, plastic, and rubber. This weather stripping must remain in place to prevent the loss of expensively conditioned air or infiltration of outside air.

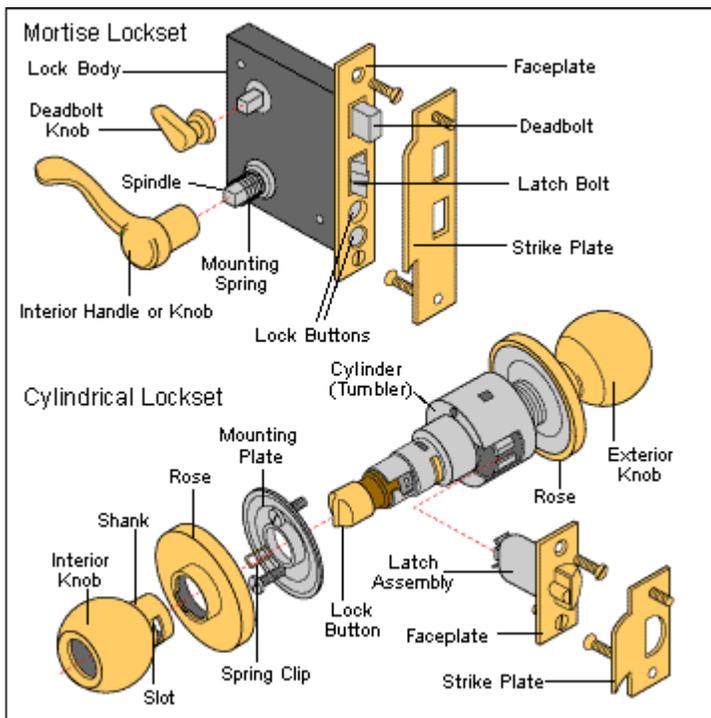
Metal weather stripping may need to be nailed if it becomes loose, bent out away from the edge of the door, or if it does not seal tightly when the door is closed. This simple repair requires only a pair of pliers or a hammer and the right nails.

For rubber or plastic weather stripping, nailing or gluing with a strong, water resistant household glue should be all that is necessary. Do not use super glue.

Painting and Cleaning - Wood exterior doors should be painted when the house or trim is painted. Varnished doors may need to be coated more often. Aluminum, vinyl-clad wood, and solid vinyl doors do not need to be painted. To clean painted doors, use a mild detergent. For doors with a polyurethane varnish use a damp cloth. Doors with other types of varnish should be cleaned like wood furniture. Always paint top and bottom of doors in order to seal.

LOCKS

If added home security is a concern, consider these items before installing additional locks to your doors:



Locks should be located so that they cannot be reached by breaking a small windowpane in the door.

Locks that require a key on the inside are dangerous. Only use thumb turned deadbolts for safety reasons.

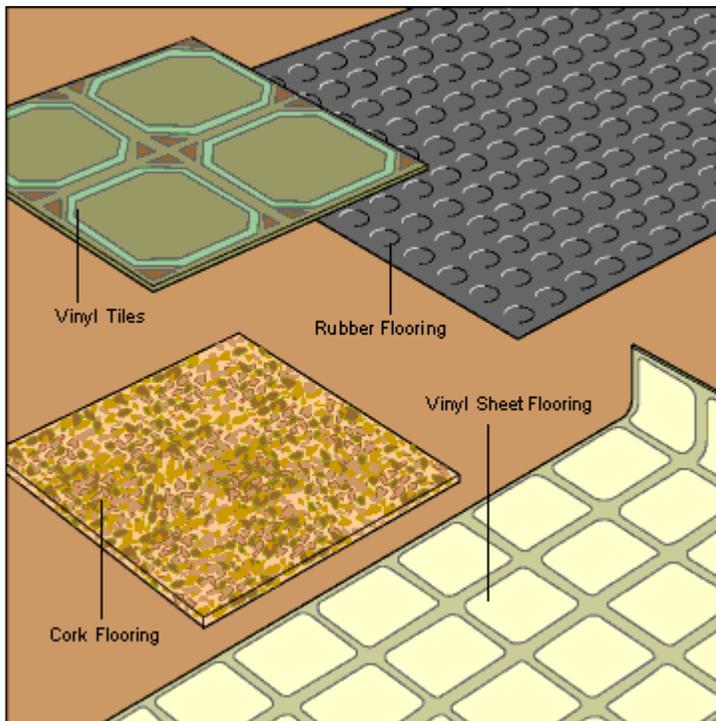
Chains or locks will be most secure if the screws and bolts used for attachment go all the way through the door or frame and cannot be removed from the outside.

A metal insulated door may require the services of an expert to install new locks properly.

FLOORS

Floors are usually made of either concrete or wood, but they may be covered by a wide variety of materials.

All wood floors make sounds. Noises in the floor DO NOT necessary mean that there is a problem.



Resilient Floors - Resilient floors include vinyl, linoleum, asphalt and rubber. For daily care, remove loose dirt with a broom, dust mop, or vacuum cleaner. Wipe up spills immediately, but if a spill or spot dries, remove it with a damp sponge, cloth, or mop. To prolong the period between cleanings, occasionally wipe resilient floors with a damp mop.

When floors are dull or cannot be refurbished by mopping, clean them thoroughly with a household floor cleaner recommended by the floor manufacturer. Use just enough mechanical action with a mop,

cloth, or floor scrubber to loosen dirt. Remove the cleaning solution, rinse the floor, and let it dry. Some resilient floors require waxing, but some of them require a coat of floor polish.

CARPETING

Most carpeting has built-in stain resistance that prevents spills and dirt from setting in the fibers. While most stain resistant treatments are fairly effective; it is not a substitute for prompt cleanup of household mishaps.

Your carpet should require little maintenance beyond regular vacuuming and occasional cleaning for tough stains or buildup of dirt in high traffic areas.

If you plan to use carpet stain removal products from a supermarket or home supply store, read the manufacturer's instructions carefully before using. You may want to apply a small amount of cleaner to carpet that is in an out-of-view area to test for color

fading.

TRIM AND MOLDING

Trim and molding, such as baseboard or quarter-round, may separate from the floor and leave a small space that will catch dust and dirt. This separation is part of the normal process of settling and shrinking in your home.

Loosening the quarter round or other trim and nailing it in its proper position will remedy the problem.

If a small separation occurs at corners or at other seams, it can be patched with wood filler. The filler can be stained or painted to match the molding.

CABINETS

Kitchen and bathroom cabinets (or vanities) should never be cleaned with harsh abrasives. Use a detergent solution for cabinets made of plastic-coated wood or metal. Clean wood cabinets as you would any other wood furniture unless they are plastic coated.

Keep cabinet doors and drawers closed when not in use. Occasionally, check the cabinet hinges and screws to make sure they have not become loose.

COUNTER TOPS

Countertops are generally heat and stain resistant under normal use, but they should be protected from hot pots, pans, or baking dishes taken from an oven or stove top.

Do not cut food directly on the countertop because the knife may dent or nick the surface.

Countertops made of plastic-coated wood or metal may be cleaned with a mild detergent solution.

Any countertop or work surface made from unfinished wood will require special care. To protect it from spills, coat the surface (including the edges) lightly with olive oil, let the oil soak in for a few minutes and then rub it dry with a soft, lintless cloth. Several thin coats will provide better protection than one heavy coat.

To remove onion, garlic or other odors, rub the surface with a slice of citrus fruit (lemon, orange, etc.), sprinkle lightly with salt, and wipe immediately with a soft cloth or paper towel. Clean it with a mild bleach solution once a week and after cutting raw meat on it.

Rinse thoroughly and wipe dry. If you do not have a built-in chopping block, buy a portable cutting board to protect your countertops and drain boards.

WALLS AND CEILINGS

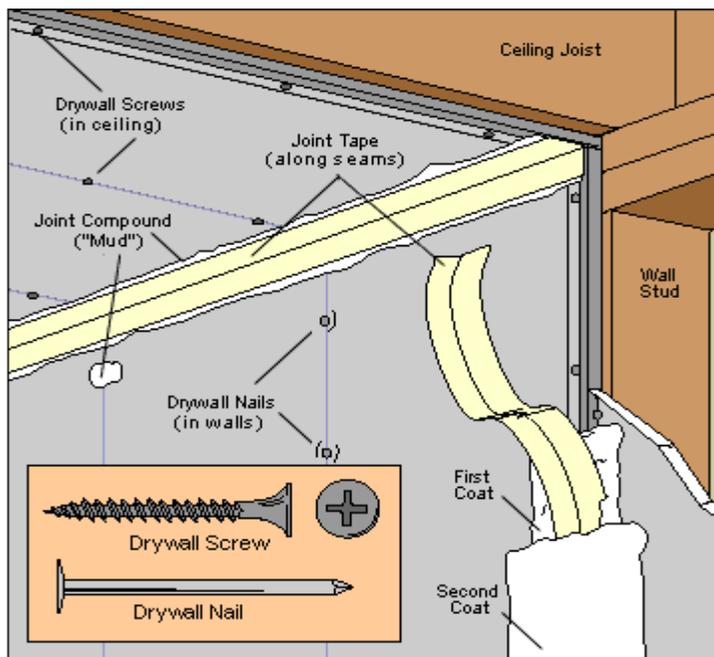
Your house has two types of walls: bearing and nonbearing. Non-bearing walls may usually be altered without fear of structural damage, but alterations of a bearing wall must be done carefully to avoid reducing its bearing capacity. All exterior walls are bearing walls.

All ceilings are essentially the same in structure, but they are made of a variety of materials.

The structural lumber in your house has been selected in sizes and grades to provide a safety factor well beyond what is required to carry the load.

As with other building materials, wood may contract or expand with weather changes, it may shrink under extreme dryness or swell under extreme humidity.

Interior Plaster and Gypsum Wallboard - Plaster or gypsum wallboard should last for the life of your house with maintenance. In some cases, normal shrinking in framing boards causes minor cracks and nail pops to appear in wallboard or plaster walls. Popped nails should not affect the strength of the wall, and no repairs should be attempted until you redecorate the room. Fill the cracks with spackling compound (available from a paint or home supply store) and a spackling knife, smooth it out with fine sandpaper, and then redecorate the entire surface. Under some circumstances, cracks could reappear.



To prevent cracks wider than half an inch from reopening, apply the spackling compound, then cover the crack with a strip of fiberglass mesh made for this purpose, cover the mesh with thin layers of spackling compound, feather the edges well, and sand smooth.

Unusual abrasions may scuff or indent the surface of plaster or gypsum walls. If this occurs, fill the indentation with two or three applications of joint taping compound used for drywall taping.

Interior Paint and Wallpaper - The interior walls and ceilings of

your home should give you long service if properly cared for. Consult your paint and

wallpaper dealer for the correct cleaning compound for painted surfaces and wallpaper. Your dealer can also assist you in choosing from hundreds of possible paint colors and wallpaper patterns when you wish to redecorate, or make color changes.

If paint starts to blister or peel, there may be an underlying problem. Touch up the spot immediately to prevent it from spreading and look for the cause of the problem such as moisture penetration through overhead joints or finishes.

Interior Paneling - Interior walls may be paneled in wood, cork, and a myriad of synthetic materials, some of which look like wood. Most of these are stain resistant and easy to clean.

Wood paneling may require a special wood cleaner, but some wood for interior walls has been treated or coated so that it is as stain resistant and easy to clean as the synthetics.

Care of these varies with the materials, but most of them can be cleaned with a cloth dampened in a mild solution of detergent and water, followed by a clear water rinse.

Check with the supplier of your paneling to learn what is best for your specific wall surface.

Exterior Wood Siding - If your home has wood siding, do not worry about wear. Do not over paint the exterior of your home because excessive repainting builds up an unnecessary and troublesome thickness of paint, which may crack and peel. Where paint is thin, cracked or peeling, the siding should be repainted to prevent moisture penetration and rot. Siding made of coated plywood or plastic-finished wood may be guaranteed for the life of the house.

Aluminum, Steel, Vinyl and Other Exterior Synthetic Siding - Many synthetic sidings are guaranteed against cracking, chipping, peeling and termites for 10 years or more. Most of them resist marring and scarring and are nearly maintenance free. Dirt and fingerprints around doors and windows are easily removed with a mild detergent solution. For other areas, occasional hosing may be sufficient.

DRIVEWAYS, WALKS AND STEPS

Various materials are used for driveways, walks and steps. Concrete and asphalt are most common for driveways. Walks and steps are usually concrete, but they may be made of brick or other material.

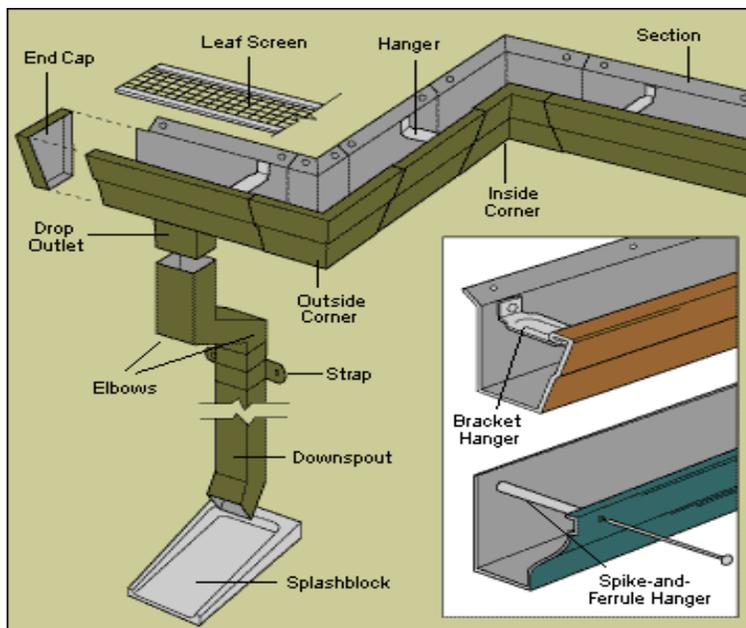
Concrete - Unanticipated cracking sometimes occurs from conditions such as severe frost. Ordinarily, the cracks are of no serious consequence.

Following these steps can make minor repairs of cracks

- Roughen the edges of the crack if they are smooth.
- Clean out loose material and dirt
- Soak the old concrete thoroughly. The crack should be saturated, however water should not be standing in crack.
- Fill the crack with patching cement slightly higher than the crack to allow for shrinkage. Commercially prepared patching mixtures need only the addition of water, but be sure the mixture you buy is appropriate for concrete or purchase a pre-mixed concrete patch sold in a cartridge and apply with caulking gun.
- Cover the patch and keep it damp for several days. The longer the drying time, the stronger the patch will be.
- When the cement has partly set, remove excess cement with a wire brush. At this stage the surface of the cement appears sandy.

Provide an outdoor floor mat to prevent dirt or sand from being tracked into the house. Another mat just inside the door will provide additional protection for carpets and floors.

GUTTERS AND DOWN SPOUTS



Always keep gutters and down spouts clear of leaves, tree limbs or anything that could cause overflowing. Be sure that down spouts direct water away from the foundation.

Vinyl gutters never need to be painted. Paint is optional for aluminum gutters. Gutters made of most other metals will need a coat of rust-retardant paint whenever the rest of the house is painted (every four to six years).

INSULATION

Occasionally, the insulation on the attic floor or under the mobile home floor, may be out of place and leave gaps or block the attic vents. If either of these situations occurs, return the insulation to its proper location.

Wear gloves if you will be handling fiberglass insulation. The attic access cover may have insulation attached to the topside. It should also remain securely in place so that no heat is lost through the access hole.

LANDSCAPING

Proper care of the grounds around your home does not only add to its beauty but can also protect the structure of the house.

Grading – Make sure a 4-5 foot area around the house, is sloped to accommodate water runoff, away from the house and the foundation, and should be kept clear of debris such as leaves, gravel, and trash. Depressions may form as the soil around the house becomes compacted. Fill any depressions with dirt so that water will not form a puddle. When watering the lawn, avoid sprinkling painted parts of the house; doing so can reduce the life expectancy of paint. If you plant flowerbeds near the house, do not disturb the earth next to the foundation. Always dig the beds several feet away.

FIREPLACES

Wood Burning fireplaces - Before using your wood-burning fireplace, equip it with andirons (or a grate) and a well-fitting screen, and check to see if it draws properly. To do this, open the damper, light a newspaper on the andirons or grate, and see if the smoke is carried up the chimney. Open the damper before lighting any fire. Keep the damper closed when the fireplace is not in use so that warm air will not escape in the winter and cool air will not escape in the summer. Build fires on the andirons or grate-not directly on the fireplace floor. Do not burn trash in the fireplace. Never use kerosene, gasoline or other highly flammable liquids to start a fire, and always be sure the fire is out each night before you retire. Store firewood outside and away from the house because it may harbor insects and can attract termites.

Gas Fireplaces - A gas fireplace provides the comfort and style of a wood-burning unit, but requires far less maintenance. Many gas fireplaces are far more efficient than their wood burning counterparts and as a result, produce less pollution. Gas fireplaces may have a chimney or may vent exhaust gases (mainly water vapor and carbon dioxide) directly outside without a chimney. If your gas fireplace is vented, the flue or vent should be kept open at all times even when the fireplace is not in use. Use the same safety precautions with a gas fireplace as you would any other gas appliance. Do not

smoke while cleaning or lighting the fireplace. If you suspect a gas leak, evacuate the home and shut off the main valve. Call the Gas Company immediately from a neighbor's house.

MISCELLANEOUS HOUSEHOLD TIPS

Tool Kit - You will need a few basic tools and supplies for everyday use in keeping your home in top shape. The following is a suggested list: medium-sized adjustable wrench, standard hand pliers, needle nose pliers with wire cutter, screwdrivers (small, medium and large with standard and phillip-heads), electric screwdriver, claw hammer, rubber mallet, hand saw, assorted nails, brads, screws, nuts, bolts and washers, level, plane, small electric drill, caulking gun, putty knife and a tape measure.

Fire Extinguisher - Every homeowner should have at least one fire extinguisher. Each type of fire calls for a different type of fire extinguisher. Most home supply centers sell multi-purpose fire extinguishers, which can be used for most types of small fires.

Be sure you and your family know how to turn off the electricity, gas and water if there is any emergency.

Keep in mind that fires from combustible solids such as wood, cloth, or paper and electrical and chemical fires are very different.

First Aid Kit - Keep a home first aid kit in a convenient location. Keep a booklet on first aid and home safety with it.

Duplicate Keys - Have duplicate keys made and keep them in convenient places. When you take a vacation, leave a key with a trusted neighbor. If you forget to attend to something before you leave or if an emergency arises, your neighbor might be able to take care of it. Also keep passage lock keys handy, in case children lock themselves in the bathroom, you can open the door quickly.

ANNUAL CHECKLIST

Most of the items on the following checklist should apply to your home:

- Inspect the roof for damage; repair if necessary (spring).
- Have your heating system cleaned and repaired if necessary (when not in use). If your unit has an air filter, replace it on a regular basis.
- If you have a separate air conditioning system, clean and/or change filter monthly.
- Check cords and plugs of all electrical appliances for wear. If necessary, have them repaired or replaced.
- Test your smoke detectors for proper operation at least once a month. Be sure to clean the unit with a vacuum, and replace batteries when necessary.
- Inspect all doors and windows for proper operation and a tight fit. Clean all window tracks, clean and adjust the door thresholds, and check the weather-stripping on windows and doors. Preventing unwanted outside air from leaking into your home will reduce your energy bills.
- Check the eaves to be sure the insulation has not blocked the vents. These vents must remain unobstructed to prevent the buildup of condensation and to allow the proper amount of air to circulate in your attic.
- Clean weep holes on all window and door sliders. Dry lubricate all window tracks to aid in ease of operation.
- Make periodic checks of storage areas, backs of closets, basement corners, etc., to be sure no oily rags, unvented gas cans, painting supplies or flammable cleaning materials have been forgotten. These items could be a fire hazard and should be discarded. The Fire Department can help you with a home safety inspection.
- Test all the lights located in infrequently used spaces to be sure they work when they are needed.
- Check all connections to your electrical system to correct any possible hazards. Replace frayed electrical cords and do not overload extension cords.