KITCHEN:

A. TOTAL REMODELING RECOMMENDED:

Old kitchens tend to have extended practical lives but as a general rule tend to be remodeled for cosmetic and aesthetic reasons on a 20-year cycle. Very old cast iron sinks and heavy wood or metal cabinets remain quite serviceable. The prime reason for remodeling kitchens is rarely one of function. More often, older kitchens are deemed to be outmoded, or old fashioned. They tended to be cooking areas, whereas today's trend is for the kitchen to be more of a social center. Cabinet and counter space requirements have increased. Extra kitchen appliances such as disposals and dishwashers have become relatively standard items. The diversity of countertop appliances has exploded. Today's kitchen has an enormous impact on the salability of the house.

WHAT TO: HOW TO:

A general contractor that specializes in such work should accomplish total remodeling of kitchens. Since the kitchen must be used every day, it cannot be totally out of order for any length of time without enormous inconvenience. Since the remodeling process involves a large number of interdependent steps to be performed by approximately 7 different trades, coordination and timing are critical. A top quality company, often at a top quality price, can completely remodel a kitchen in one week. Less expensive companies, often take longer. This is one remodeling job where high premiums are paid for speed and fine quality workmanship.

WARNING: Resilient flooring often contains asbestos in the flooring or it's backing and must be removed with great care.

NOTE: The presence of asbestos is the reason why so many contractors bury old vinyl flooring beneath a layer of plywood before new material is installed.

Here is the normal step-by-step approach to remodeling kitchens, within the existing house structure.

1. Measurements are taken and plans/specifications are drawn up.
2. Contract is signed, and materials are ordered and received. (Do not allow work to proceed if materials are not on hand; delays can be interminable.)
3. Demolition.
4. Carpentry framing.
5. Rough electrical, mechanical and plumbing.
6. Building inspection.
7. Insulation.
8. Drywall application and taping.
9. Cabinet and finish flooring installation.
10. Drywall skimming and blocking.
11. Finish electrical and plumbing.
12. Appliance installation.
13. Tiling, painting, trimming and mill/work.
14. Final painting.
15. Final inspection.
16. Cleanup.

Very frequently new kitchens require extra electrical circuitry, which in turn requires a "heavy up" of the electrical panel box. Moving sinks usually requires a rearrangement of the backventing through the roof, and installing disposals often necessitates dropping the drain connection in the wall. Frequently windows are blocked off to provide wall cabinet space, or are scaled down in size to be located above countertops. Naturally all of this extra work involves more cost.

It takes a top quality general contractor to remodel a kitchen quickly and smartly. Amateurs attempt the work every day, but the finished product usually reflects the level of skill. It is very difficult for one person to attain high skill across many trades and that is why kitchen remodeling, to a high standard, isn't a good job for individuals.

REFERENCE: K7

APPLICABLE PRODUCTS: KP8, KP9

B. FLOORING BUCKLED/SWELLED/SPLIT/SEAMS SCRATCHED/DAMAGED:

Often kitchen floors are overlaid with thin underlay material preparatory to laying sheet goods. The underlay materials should be laid with a dime's width of space between the edges to avoid swelling and buckling caused by moisture absorption. Moisture swelling of underlayment is common with remodeled kitchens. Wood flooring in kitchens often swells when wetted.

WARNING: Plywood subflooring materials in kitchens and bathrooms should always be exterior grade, or exterior glue, to resist the delamination that would occur with the inevitable water spillage.

Naturally finished woods must be heavily coated with polyurethane to avoid swelling from the inevitable spilling that occurs **(Fig. B1, Item A *SEE PAGE K-2*)**.

Resilient flooring will often telegraph the imperfections of the flooring beneath it. If plywood edges are not ground level and "flash patched" prior to applying sheet goods, tearing or splitting of the sheet goods will likely occur.

The more modern "no wax" sheet goods tend to be less hard than their forebearers. This means they are more subject to surface mechanical damage. Refrigerators must be placed with care, lest the flooring be scratched or torn. Hard objects like utensils and bottles, can penetrate these floorings when dropped.

NOTE: Some sheet goods become stained with chemicals that bleed through from the underside. If chemicals are spilled on subflooring, they should be covered with metal foil or plastic, to avoid bleeding stains up through the resilient flooring.

WHAT TO: HOW TO:

If the sheet goods are not glued down throughout, occasionally they can be rolled up to allow repair of the underlayment. Usually a swelled underlayment can be "kerfed" with a saw, renailed, smoothed with a patching compound, and recovered with the sheet goods. NOTE: Some flooring patching compounds may chemically react with sheet goods. A layer of plastic or aluminum foil over the patching compound may prevent this. Spills of chemicals on subflooring can be treated the same way. Glued sheet goods can be removed in cut sections.

WARNING: Check with the resilient flooring institute for removal instructions since many sheet goods, or their backings, contain asbestos. Split sheet goods reflect an underlayment problem that must be corrected prior to reapplication of finish flooring materials.

Major Problems

Scratched or damaged sections of sheet goods can often be cut out and a new piece inserted in the cut out area. Patterned flooring responds well to this. Cutting and re-gluing of seams requires a high degree of skill.

Resilient flooring most likely contains asbestos, which may release particles when removed. This is a health hazard, and must be avoided. Make certain anyone removing such a floor understands the hazard. Do not allow workmen to simply assume the hazard personally. If they simply remove the materials, and "risk it", they will release asbestos materials into your home. The asbestos material will remain airborne for months and can truly harm you. Contact the Resilient Flooring Institute in Washington, DC for a removal guide.

REFERENCE: K3, BB6, BB7

C. DAMAGED CABINETS OR COUNTERTOPS:
Hinges tear out, drawer guides slip out of position, plastic laminates delaminate or get burned when a hot pot is rested on it, etc. Cabinets loosen from the wall or their surfaces become marred, burned, or grease covered.

WHAT TO: HOW TO:
Damage to cabinets may be repaired or individual pieces may be replaced. Matching of new pieces to worn cabinets is difficult, if not impossible. Delaminated countertops can be re-glued while burned pieces can be cut out and tile pieces inset. Frequently when major damage is encountered, the damaged pieces are replaced.

REFERENCE: K7

D. EXTRA CIRCUITRY RECOMMENDED:
The contemporary electrical standard for kitchens is individual circuits for the dishwasher, disposal, instant hot, and microwave. The countertop should have two independent 20-amp circuits to handle the multitude of appliances available today. Many older kitchens simply do not have enough circuitry or receptacles available at the countertop **(Fig. D1, Item A)**. Adding a microwave to such a kitchen often results in blown fuses or tripped circuit breakers.

WHAT TO: HOW TO:
Additional circuitry should be run directly from the main panel to the locations where it will be used. Run a separate circuit for a permanently mounted microwave. Ideally, a single circuit handling both a disposal and a dishwasher should be split so each appliance is individually circuited.

REFERENCE: E1, E2, E4, E5

E. GAS/MICROWAVE LEAKAGE PROBLEM ?:
The most common gas leak in kitchens is from a pilot light that has gone out. Microwave ovens that leak radiation should not be used. Microwave leakage testing is very inconclusive and should not be relied on. Microwave leakage testing is beyond the scope of the standard non-invasive visual home inspection.

WHAT TO: HOW TO:
Call the gas company if you suspect a leak. You can check gas line fittings by applying a soapy film with a paintbrush. Apply the soapy water around fittings and look for bubble formation.
NEVER CHECK FOR LEAKAGE WITH A LIGHTED MATCH.

Hand-held microwave leakage testers are inexpensive and available from electronic supply stores. NOTE: They are not considered reliable.

REFERENCE: K2

APPLICABLE PRODUCTS: KP1

F. STOVE CLEARANCE TOP/SIDE/WINDOW:
Wall cabinets should be at least 18 inches above gas or electric cooktops **(Fig. F1, Item A)**. Plastic tiles will melt if set on a wall running parallel to the side of the stove **(Fig. F1, Item B)**. Curtains on windows can blow over burners or elements and catch on fire **(Fig. F1, Item C)**.

WHAT TO: HOW TO:
Fire resistant sheet material should be placed on any wall paralleling the sides of cooktops. Curtains that are located beside stoves should be removed. Wall cabinets that are too close to cooktops should be replaced with smaller units to provide adequate clearance.

REFERENCE: 9, K7

APPLICABLE PRODUCTS: KP2

G. CHARCOAL COOKING EQUIPMENT:
Burning charcoal yields carbon monoxide a serious safety hazard and is never recommended for cooking within buildings. If charcoal-cooking equipment is noted within a building, it will be considered that it might be used, and therefore, could be a serious safety problem.

WHAT TO: HOW TO:
Do not burn charcoal within a building. Do not cook with charcoal in a house, even in a fireplace.

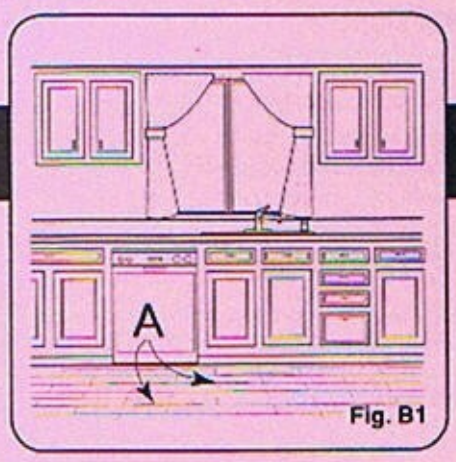

Fig. B1

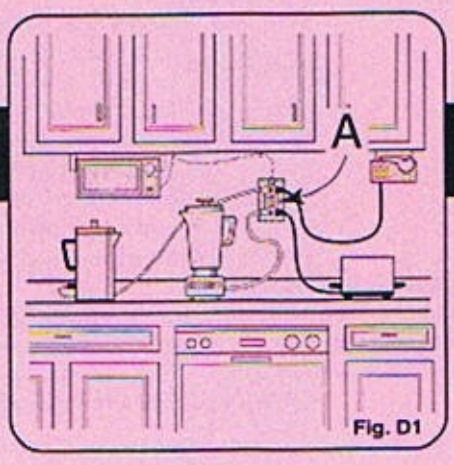

Fig. D1

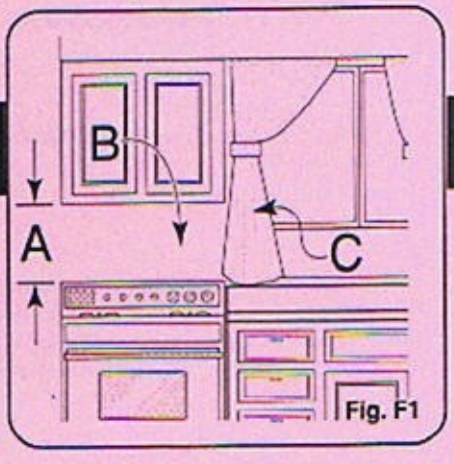

Fig. F1

KITCHEN:

a. Oven bake/broil element out/together door/hinges? warped/glass/latch gasket/closure oven dirty:
Electric bake or broil elements sometimes burn out or do not receive a signal to operate. Sometimes, both elements operate on either the bake or broil function. (Some units are designed to operate both elements on the bake function initially to rapidly heat up the oven. Once hot, the oven operates only the appropriate element.)

Oven hinges often have springs on them, which fall off or break. This allows the door to fall down violently. Dirt and grease around the hinge recess areas, is fertile breeding ground for roaches.

Oven doors sometimes warp, preventing them from sealing properly. Doors with glass sometimes or crack. Latches, on self cleaning oven doors, sometimes fail to operate properly. Often, the gaskets on oven doors become frayed or burned. Sometimes the doors won't stay closed or close completely.

What to: How to:
Homeowners can usually remove and replace a failed oven element. Appliance parts stores usually stock the more recent varieties. Removal is easy, so be sure to take the element to the store to verify that it has failed and that the replacement unit is the same type.

An appliance repair technician is recommended for all of the remaining deficiencies.

Reference: K4, K6

Applicable Products: KP2

b. Cooktop element/burner out/stained:
Gas burners on cooktops usually fail to light due to the pilots being out, the flame tubes being dirty, or the burner ports being blocked. Electrical elements often fail to function due to a poor electrical connection at where the element plugs into the power receptacle.

Sometimes burners and elements become stained from too much heat or dirt.

What to: How to:
Gas cooktop parts can be soaked in simmering baking soda and water solutions to remove built up grease. Mechanically cleaning gas parts (with the exception of the inside of the flame tubes) with a brush or pin can often restore operations. Flame tubes that run from pilots to burners build up grease and may not readily draw the pilot flame to the burner. Generally these are best replaced since cleaning their insides often prevents gas travel through them.

Electric cooktop elements must make good contact in their receptacles to carry current. Often reseating them in the receptacle will restore operations. Usually replacements are readily available (except for some older units) and are easily installed. Receptacles can break. An appliance repair technician can replace any receptacle that is broken.

Generally, stained elements and burners can be readily replaced.

Reference: K4, K6

Applicable products: KP3

c. Microwave out/timer malfunction ?:
Sometimes a microwave will not heat. Sometimes the timer will not operate.

What to: How to:
Refer to the manufacturer's instructions regarding any failure with a microwave. Call for service.

Reference: K2

Applicable Products: KP1, KP2

d. Refrigerator/freezer out/noisy/closure cabinet not level/dirty/damaged gaskets torn/loose/dirty defrost fan shelves/trays/casing damaged/ missing:
Control malfunctions can allow one cabinet to function without the other. Noisy refrigerators often mean something is worn, and can be a warning that a failure may be imminent. Doors with poor closure will build frost inside the appliance and consume extra electricity.

A level refrigerator lubricates itself properly, while one that is out of level may not. Dirty coils, on the back or under a refrigerator will reduce the amount of heat they can discharge, thus contributing to the inefficiency of the unit. Sometimes cabinet damage interferes with the closure of the doors.

A gasket that is torn, loose, or dirty, will prevent proper sealing of the cabinet and contribute to moisture and frost formation.

Defrosting fans often "squeal" due to worn bearings, signaling the approach of failure.

Damage to shelves, trays, and casings will lessen the utility of the appliance.

What to: How to:
Adjust the feet on refrigerators to make them level. Brush or vacuum any dust from in, under or on the rear of refrigerators. Replace torn or loose gaskets and thoroughly clean dirty ones. Apply tape over casing breaks, and replace shelves or trays that are missing.

Call for service when either the refrigerator fails to function, or the operation of the unit becomes noisy.

Reference: K6, K12

Applicable products: KP3

e. Icemaker out/noisy/leaking ?
Icemakers allow a fixed quantity of water to flow into a container with a partitioned bottom. Once a thermal sensor determines that the water has turned to ice, the bottom springs up and pushes the ice out of the device into a container. It then fills with water and starts the process over again. The spring device may not function, the sensor may fail or the gaskets on the device may leak.

What to: How to:
Repairs normally involve the removal of the device and the replacement of defective parts. Naturally, the water supply should always be checked first.

NOTE: Icemakers are somewhat notorious for breaking down.

Reference: K4, K6, K12

f. Dishwasher noisy/out/leaks discharge hose blocked/traps water no vacuum breaker latch ineffective Door springs/rust/gasket:
Noisy dishwashers signal trouble. Electrical controls are the primary reason why dishwashers won't run. Dishwashers often leak around door gaskets, or more terminally, through the bottom of the unit. Water is removed from a dishwasher via a pump, that is usually plumbed to a "vacuum breaker" **(Fig. f1, Item A)** at the sink top. The water is drained from the "vacuum breaker" to the garbage disposal or the sink drain **(Fig. f1, Item B)**. The drain hose from the "vacuum breaker" will often clog with particles of food, or discharge into a clogged garbage disposal. The vacuum breaker is installed to prevent the possibility of siphoning water from the drain lines back into the dishwasher. A clogged discharge from the "vacuum breaker" will force water out of the vacuum breaker when the dishwasher is pumping water. You should direct vacuum breaker vent orifices toward the sink.

It may be a sign of an amateur installation when there is no vacuum breaker installed. Many areas throughout the U.S. and Canada do not require them. Many dishwashers are built with a check valve in the discharge water line, which eliminates the need for a vacuum breaker. The closing latch for dishwasher doors must engage to activate electrical circuitry for most dishwashers. Often these latches fail. Hinges on doors often have springs attached to prevent the door from slamming down when opened. Unused dishwashers often have gaskets dry out, only to leak when they are eventually used.

What to: How to:
Homeowners can generally repair door latches and clear discharge hose blockage. Removing them from the disposal and running a coat hanger through them can clear discharge hoses that are blocked. Another alternative is blowing through a cupped hand held around the vacuum breaker at the sink top. A service technician will be needed to do any other repair.

Reference: K4, K6

Applicable Products: KP8

g. Disposal out/leaks/jammed/noisy smells/rusted/ wire loose:
Disposal motors burn out, but more frequently they trip an overload protective device inside the unit. The "reset" button is on the bottom or side of the motor and is there to reset this device **(Fig. g1, Item A)**.

Sometimes water will leak from around the garbage disposal seals **(Fig. g1, Item B)**. Often, they become jammed with material. They wear and become noisy. Some foul with food left too long within them, and others have a poorly attached the power wire **(Fig. g1, Item C)**. Sometimes, the inside rust to the point where they no longer function.

What to: How to:
There is often a reset button on the bottom or back of the garbage disposal that will restore power if an internal protective device has tripped. If the disposal hums but doesn't turn when it is reset, the rotating head of the disposal is probably jammed. Turn off the power, and try to clear the blockage. Many units have a recessed female fitting in the bottom center that will accept an allen wrench **(Fig. g1, Item D)**. Use this to turn the head and dislodge anything stuck in the unit. If the disposal does not have a wrench fitting, try sticking a broom handle into the unit from the top to reverse it and dislodge stuck materials.

Few leaking disposals can be repaired. Most have to be replaced.

Keep disposals clean. Don't flush grease down them. Freshen them by brushing them clean with vinegar and then grinding lemon or orange peelings in them. Rinsing or soaking them with baking soda and water may lessen foul odors, but the best cure is usually vinegar.

Install an electrical connector clamp to restrain the electrical wire that services the garbage disposal. Make sure it is solidly mounted to the disposal and tightly clamps the wire. Vibrating disposals can cut through wire insulation and cause a short circuit.

Excessively rusted units should be replaced.

Replacing disposals is easy but requires an electrical connection. If you are inexperienced, avoid risk and have a professional plumber do it for you.

Reference: K4

Applicable products: KP4

h. Instant hot out/leaking/wire:
"Instant hot" convenience devices last about 5 years or so. Often they collect mineral deposits on the heating elements and burn the elements out. Leaks usually occur at fittings, which are easily repaired. Loose wires must be securely connected since it is easy for children to reach under kitchen sinks and come in contact with the wiring.

What to: How to:
Replace burned out elements and tighten fittings and wires.

Reference: K4

I. Exhaust FAN out/dirty/noisy/drafty discharge?
Exhaust fans have enormous variability in life expectancies. They should be kept clean. Their covering devices should open readily. Noisy fans are usually either lighter duty, lower quality units, or they are older, worn, poorly maintained ones. Those that are drafty often have flappers, in the discharge air duct that fail to close. Sometimes the drafts enter around the duct through walls or ceilings.

The external discharge of the kitchen exhaust fan has not been confirmed. Without an external discharge, dirt, moisture, and fire problems may result. Check with a professional contractor to find/create an external discharge.

What to: How to:
Replace old or noisy fans. Fans that are dirty should be disassembled and cleaned. Locked dampers usually are painted or pinched shut. Noisy fans may merely signal blades ticking against the fan enclosure. Bend the blades after verifying this by rotating the blades by hand. Make sure flappers close. Stuff insulation around the duct where it penetrates to the exterior of the house to limit drafts.

Reference: K8

Applicable products: KP5, KP10

j. Compactor out/dirty/noisy/locked?:
Locked trash compactors cannot be checked. They must be kept clean to avoid odors. Some will fail with the door interlock mechanism, others with the keying, and still others with the compacting mechanism itself. The mechanism usually rides up and down on a long screw. Motors can fail as well. These devices are difficult to clean if they are overloaded and if the proper bags are not used. Noisy units tend to signal upcoming failures.

What to: How to:
Keep the unit clean by making certain all trash gets into the bag, and that the bag does not get overloaded. Clean them every two weeks. Service a noisy unit.

Reference: K2, K4

k. Sink damaged/hardware leaks rinse hose out:
Stainless steel sinks will actually stain. Porcelain cast iron sinks will chip and wear through the finish. Sink hardware can loosen, spin free or leak at "O" rings and seals. Rinse hoses sometimes clog, won't shut off, or aren't even connected.

What to: How to:
Sinks tend to be expensive to replace. Keep them clean by scrubbing less intensely but more frequently. Touch up porcelain chips with similar color epoxy paints. Stainless steel sinks can be polished with several metal polishes. Connect rinse hoses and make sure they are not blocked with mineral deposits. Soak or clean them with a 50% vinegar and water solution.

Reference: K9, K12

Applicable products: KP6

l. Cabinets/countertops damaged/loose:
A host of minor damage can occur to cabinets and countertops. They can be cut, burned, scratched or dented. Ideally wall cabinets will be well screwed into backing materials to keep them tight. Nails tend to work loose.

What to: How to:
Minor repairs can usually be made to cabinets and countertops. Hinges can be removed, the old screw holes filled with toothpicks or match sticks, and the screws reset. Putties and stains can touch up cabinet faces. Even a simple wiping with mineral spirits and fine steel wool can rejuvenate the appearance of some cabinets. Glue can be inserted (with a syringe) under lifting plastic laminates tops. Screws should be run in to add support for cabinets that are secured with nails.

Reference: K7, BB6, BB7

m. Doors/drawers strike/guides/hardware:
Cabinets and appliances are sometimes installed where they tend to interfere with each other. This can make a kitchen an inconvenient and uncomfortable place to work. Often oven door handles **(Fig. m1, Item A)** will prevent drawers from opening **(Fig. m1, Item B)**.

The tracks or guides on which drawers slide or roll, often become loose and slip out of position. The hardware on cabinets often is pulled off, damaged or lost.

What to: How
Little can be done with most "striking" situations except to reverse the opening direction of some doors. Tracks or guides can often be readily replaced, though in the flimsy cabinets, they may just as readily pull loose again.

Hardware is readily replaced.

Reference: BB6, BB7

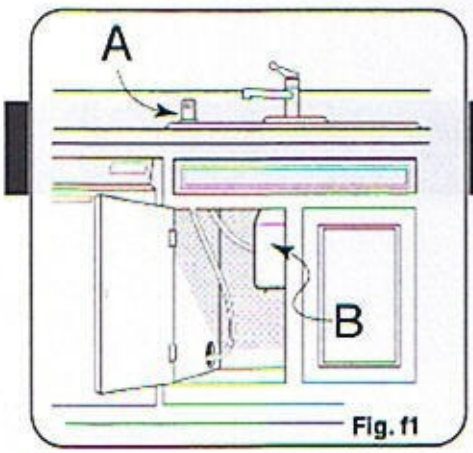

Fig. f1

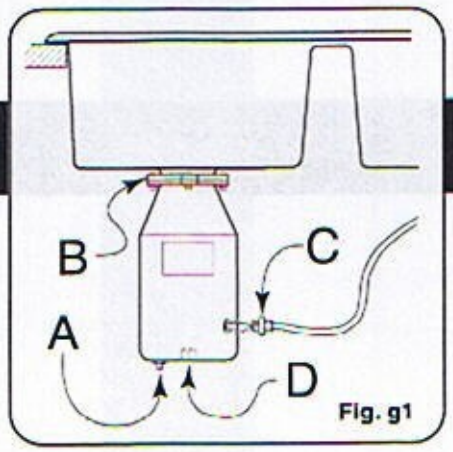

Fig. g1

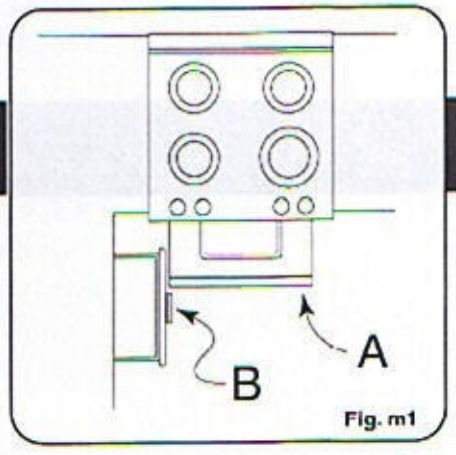

Fig. m1

n. Floor seams/buckled/uneven/loose dirty/delaminated/torn ?:
Resilient floor seams often pull loose and curl a bit. Sometimes the floor underlayment becomes moistened, expands and buckles. This is particularly common with masonite type underlayment, and can happen with interior grade plywood as well.

Kitchens often suffer mild water damage. Always try to look under the dishwasher for signs of water damage. Uneven flooring usually results from unevenness during construction. It is not uncommon for areas to be slightly out of level. It is usually more noticeable on smooth kitchen floors. Delaminated flooring usually feels spongy underfoot and is usually due to water seepage from leakage.

What to: How to:
Occasionally, seams can be re-glued and pressed down into position, but often this exercise is futile. An edge nailed over the seam will keep it down.

Buckled and delaminated flooring is usually due to water spillage. Eliminate the source of the water and lift the floor material. Remember that it may contain asbestos, so take appropriate precautionary measures to effect a repair. Usually, "kerfing" with a saw blade and nailing the various pieces down, will repair minor damage. "Flash patching" the loose edges or depressions will often provide a smooth finish surface.

Reference: BB4, BB6, BB7

Applicable products: KP7

o. Pilots/controls out Range no power:
There is an adjustable valve located under the top cover of most gas stoves that is used to feed gas to the pilot light and control the size of the pilot flame. If no gas comes to the pilot, the valve adjustment is most likely the cause.

Often gas stoves are installed that replace ones that did not have electrical features. Unless a receptacle is handy, the new stove may not have any power available to it.

What to: How to:
Trace the pilot line back to the main gas valve and turn a screw that appears to interrupt the gas line. If gas flows, light the pilot, adjust the size of the flame and replace the cover. Add a circuit if power is needed at a stove location.

Reference: K4, K6

KITCHEN:

Repainting of kitchen appliances is common in many parts of the country. Electrostatic spray painting can be accomplished within the home with minimum mess.

A. A COMPLETE kitchen is one with all cabinets and appliances in place. An **INCOMPLETE** kitchen is one that may have cabinets, countertops, flooring, or appliances missing or not installed.

B. TYPICAL access in a kitchen means that the floor is available for view and the cabinets and appliances can be operated in a normal manner. **RESTRICTED** access in a kitchen means that normal traffic and appliance operation is prohibited by what is stored in the kitchen or by its general condition.

C. A **NEW** kitchen is one with a new house, or a newly remodeled kitchen. An **ORIGINAL** kitchen is one that was built with the house. A **PARTIALLY** updated kitchen is one with some major portion of it updated. The cabinets may be redone, the appliances were upgraded, or some major combination of both. A **COMPLETELY** updated kitchen is one where all the cabinets, all the appliances and usually the flooring have been updated.

D. The **APPROXIMATELY** years ago refers to approximately how long ago the updating was accomplished.

E. External exhausting fans (for our purposes we won't distinguish between a fan and a hood) utilize one metal grease-catching filter and exhaust the moisture-laden air outside. They should be cleaned out monthly. Wash out the metal grille in the dishwasher or soak it in a detergent and water solution in the sink. If there is a flapper on the outside of the house, make sure it works smoothly and seals tightly. The gasket around the edge must be replaced periodically.

Those fans that exhaust into attics, (ideally they shouldn't, but many do) sometimes have flappers that get stuck and allow cold drafts back into the kitchen. Clean the duct and the flappers. DOWN DRAFT type exhaust fans are frequently drafty. Their flappers often do not seal well and cold air is allowed back into the kitchen. Sometimes baffle plates within hoods are set improperly and prevent external discharging.

F. Recirculating exhaust fans merely filter the air and do not remove moisture from the house. They have two grease-catching filters. The first is a metal grease catcher while the backup is a charcoal-filled unit. The backup must be replaced since it cannot be cleaned. Wash the grease catcher in the dishwasher monthly and replace the charcoal one every six months. A paper towel moistened with mineral spirits will serve to clean blades and duct. An ammonia and water solution will do well also.

G. Cooking: The cooking center needs to be kept scrupulously clean. A light cleaning on a more frequent interval is much better than an infrequent one using strong chemicals. Keeping the burners wiped and the flame tubes cleaned will keep a gas cooktop working better and longer. If the burners are removed frequently, the screws that hold them won't crystallize and freeze up. If the flame tubes are dipped in a baking soda and water solution and boiled from time to time, they will stay very clean and will not foul and fail to light burners. The underside of the cooktop should be cleaned to remove food particles and grease that are so inviting to cockroaches.

If a range or stove is beneath or near a window, DO NOT HANG CURTAINS. The heat from the cooktop can easily ignite curtains.

H. Self-Cleaning Ovens: Do not rely on "self-cleaning" catalytic type ovens to do your cleaning for you. The roughness of the surfaces, and the catalysts on the surfaces, are supposed to interact with accumulated grease and break it down. The effectiveness of this technique is clearly limited. If you allow this type of oven to get too dirty, the necessary harsh abrasive cleaning will often remove the catalytic material. Use less abusive chemicals and less mechanical force more frequently. The high-heating pyrolytic ovens will work if operated on a routine basis.

Use oven cleaners correctly. Spray or brush them on and then allow them to work overnight. They must gradually dissolve the grease and this takes time. Make sure the gaskets around the oven doors fit well and that the door closes tightly.

Ammonia and hard work will clean "self-cleaning" ovens.

Never open a self-cleaning oven that is locked "on". They get very hot inside and can seriously burn people in the vicinity if the door is opened at the wrong time. Ceramic cooktops look cool but frequently are not. Make sure everyone knows to check the indicator lights to avoid burns. Ceramic cooktops can stain when metal cookware is used on them. Ideally ceramic cookware will be used. These are best cleaned with relatively soft scrubbing cleaners. The manufacturer will usually recommend a specific product.

I. Refrigerators: Feel around the gaskets of your refrigerator on a hot and humid day. Moisture beads indicate that the gasket isn't fitting very tightly. With patience you can adjust refrigerator doors and gaskets. It will save you money and will avoid mildewing the gasket and rusting the door.

Some freezers drop the moisture from their defrost cycle through a tube to a pan underneath the refrigerator. You may have to pour hot water through this tube from time to time to unblock it. Slide out the bottom collector pan and clean it every three months.

Take a long handled brush and clean the coils behind, in or under the refrigerator. Dust located here will prevent heat dissipation and make the unit work harder. Keep the refrigerator level and be sure there is adequate air clearance around it.

ICEMAKERS frequently fail. These are not generally included with a visual home inspection. They often take 4 or more hours to cycle and hence cannot be readily checked. Often they fail by cracking the ice containment device. Apparently there is an updated version now that avoids this.

Some refrigerators are equipped with switches that control electric heaters. They are located in the edge of the cabinet that contacts the door gasket. The heaters warm the surfaces that would normally be the coolest, to lessen the build up of condensation moisture. Turn the switches to the on position when the weather is humid or when you discover condensation forming on the edges of the door opening.

It is recommended that any "two hole" type electrical receptacles providing power for refrigerators be carefully upgraded to the "three hole" type. Avoid using adapters in older "two hole" receptacles. Under most conditions, visual home inspections will not be able to check refrigerator receptacles, or comment upon what type are in use. Be sure to keep plugs tightly inserted in receptacles. Food will go bad in freezers if plugs fall out.

WARNING: Avoid plugging refrigerators into ground fault protected receptacles. These may trip during storms and allow the stored food to go bad.

WARNING: If the power goes off to a refrigerator or freezer, and remains off for a long enough time, food will spoil and go bad. The odor within the cabinet may be so bad and so difficult to remove that the appliance will have to be discarded.

J. Dishwashers: Clean the gaskets at the bottom of dishwasher doors frequently. Leakage may occur if the gasket is badly worn or overly stiff. Scrape and rinse your dishes prior to putting them in the dishwasher. Food particles will get stuck in the dishwasher pump or block up the intake screening. Some can also pass through the discharge hose and can block the hose where it enters the disposal or drain. Portable dishwashers generally plug into a wall receptacle and fit on a sink faucet. They operate like built in units but are not permanently affixed under a counter top. Some portable dishwashers are designed for permanent installation, should the owner so choose. Portable units, like regular units, should be run from time to time to help lessen the likelihood of gaskets drying. Portable units are not tested during a home inspection unless they are already hooked-up and ready to operate. If the portable unit is included with the home, check it at your pre-settlement inspection prior to accepting ownership.

K. Compactors: Keep these appliances locked and clean them often. They occasionally stick and often are filthy. Food debris spills from bags and becomes excellent breeding grounds for roaches. They operate with worm gears or levers, which force a plate to crush objects. Make sure that children have no access to them. Keep any locking keys well out of reach.

L. Disposals: Take it easy on your disposal. The less use the better. Our sewer systems are not designed to take all of the solids they receive. Scrape your dishes into the trash and pre-rinse prior to using the dishwasher.

To sweeten the aroma from a garbage disposal, brush clean the interior of the disposal with vinegar. Grind a small section of orange or lemon peel in it if you favor the scent. Do not pour any grease in the drain. Pour excess grease into a can or jar while cooking. Notice how it solidifies. This is how it would solidify within your pipes if you poured it down a drain.

Disposals with bi-directional vibrators, and batch feed disposals with a drain cover/switch combination, are safer to operate than the continuous feed type. Some older systems had a flow switch on the water supply pipe, which would prevent the disposal from operating unless the water was flowing. Most of these switches are no longer operational or necessary. Be very careful reaching into batch feed type disposals. Some have been known to activate with the insertion of a hand. Turn the power off first.

The disposal feed guard should be kept in place to avoid the likelihood of debris being ejected from the disposal when it is being used.

Retrofitted disposals sometimes utilize a switch mounted on the front of a base cabinet. This location is more prone to accidental operation of the disposal. Switches would be more safely located above the countertop backsplash.

M. Instant hot: These devices act like miniature electric, in-line water heaters. They usually have an adjustable thermostat which occasionally fails. Naturally they will precipitate minerals from the water and occasionally need to be cleaned or replaced. The thermostats and heating elements are replaceable.

N. Water filters under the sink or attached to the spigot are not generally included with a visual home inspection. These filters require filter material changes from time to time. It is possible that they may operate as breeding grounds for bacteria. Check with the manufacturer.

O. Appliances will **NOT** be **TESTED** during visual home inspections if they are not installed properly or completely. Make certain that you check them on your pre-settlement walk-through survey.

P. PEST TELLTALES may be feces or insect parts. These signs indicate that pests have been present, but do not provide the answer as to when they were present. Check with a professional pest control company.

Q. EXTERMINATION is **RECOMMENDED** when an active pest infestation is discovered. Often insects won't venture out until after dark. Use your own judgement.

R. Always interpret **AMATEUR WORKMANSHIP** as heightened risk.

S. SUBSTANDARD MAINTENANCE means that the proper care of appliances and materials does not appear to have been given. Expect shortened life expectancies and an increased incidence of problems.

T. Unexpected minor expenses
Most home inspection clients choose a limited visual inspection, which focuses on discovery of major problems and does not attempt to make an exhaustive listing of minor problems. The notation here is intended to help inform the client as to what to expect for more minor expenses in this category.

U. Check with a code official, appliance contractor, etc.
It is important that the home inspection client fully realize the limitations of a visual home inspection done by a home inspection generalist. There are specialists who will generally have greater expertise and experience in

a single facet of the building sciences and in many cases such a qualified person will discern and/or discover things that the generalist will not. You can not expect to be informed to a specialist level by a generalist. If you wish additional or more specific information, it is recommended that you contract such specialists as listed here.

GENERAL TIPS:

Repairs: Make repairs expeditiously to avoid secondary repairs. Don't personally make repairs that you have any doubts about. Professionals are almost always faster and worth the money.

Shocks: If you ever get a shock from any appliance in the kitchen immediately discontinue using that appliance. Call an electrician immediately to check the receptacles. If the receptacles are properly grounded and the polarity is correct, the appliance itself has a problem and will have to be repaired. Some name brand refrigerators have been rumored to be shock hazards.

Appliance Plugs: Some stoves and ranges have plug-in receptacles along the backboard area. Most of these are a hazard in that they encourage you to lay an electrical cord close to a hot burner or element. Avoid using such receptacles.

Small appliances: If you find yourself forced to use a multiplex adapter at any kitchen plug, you should have an electrician install a new electrical circuit with several receptacles along the countertop. Kitchen appliances that draw a lot of current will heat up and can readily blow fuses or trip circuit breakers when used in combination. If you are blowing fuses or tripping circuit breakers you are overloading the existing circuitry and need at least one extra circuit.

Keep toasters clean. Never try to clear anything from a plugged in toaster or toaster oven by using a metal utensil. Always unplug your appliances. Never place any appliance where it would have a chance of falling into the sink. Generally, the electrical parts of small appliances are not to be cleaned in the sink even when unplugged or detached from their power cords. Be sure to read the directions. In the absence of directions for the appliance, call the local dealer or supplier.

Cabinets: Clean the cabinets frequently to prevent grease from building and ruining the finish. Wipe the interior of cabinets and reline the shelves with fresh shelving paper every year. Store your cereal type pantry products in metal or glass containers to prevent pantry pests from invading them. Cardboard boxes, bags, and plastic containers just won't do.

Countertops: Place cutting boards or ceramic tile pieces beside the stove to avoid setting hot pieces directly on plastic laminates. Avoid cutting on the countertops as this will surely scratch them and soon they will look (and be) dirty.

Never varnish a cutting board. This can make it toxic. Sand cutting boards and lightly oil them. That is all the treatment they need.

Butcher blocks can be treated with three tablespoons of chlorine bleach to a quart of water to kill bacteria. Resurfacing can be done with a carpenter's wood plane.

Cleaning: Get help and remove the stove and refrigerator at least once a year to clean behind them. Avoid sliding these appliances as they may cut into the flooring materials.

Children: If you store harsh chemicals under the sink, be sure to use child prevention devices over the hardware or inside the doors to prevent accidents.

General: Always plug the appliance cord into the countertop appliance **before** plugging it into the wall receptacle. Never allow the cords to dangle over the edges of countertops or appliances.

Keep pot handles tight. Don't allow them to overhang the edge of the stove or the stove burners. Light dustings with boric acid powder behind cabinets and appliances can sometimes keep roaches in check.

Place two tablespoons of boric acid with one ounce of mint-apple jelly on a small piece of aluminum foil to kill ants. (Keep these aluminum foil traps out of the reach of pets and children.)

There are always unexpected minor repairs around a property. To avoid extra damage or expense, make repairs as soon as the need arises.