HOMEOWNER MAINTENANCE MANUAL



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HOME BUILDERS

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HOME WARRANTY

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StrucSure
HOME WARRANTY

HOW THE NATION'S BEST BUILDERS PROTECT THEIR BUYERS

Congratulations on the purchase of your new home! This Homeowner Maintenance Manual was designed to be an informative resource for you regarding the maintenance of your new home. Regular and ongoing maintenance will help you to maximize and protect your valuable investment.

Note that there may be portions of this manual that don't apply to you based on your geographical location or the design of your new home. Since it is impossible to address every maintenance scenario, please consult with skilled professionals, contractors, and/or experts when necessary or refer to your manufacturer's instructions when appropriate. Please note that this manual is not intended to replace any manufacturer's instructions and/or recommendations and if there is any conflict, the manufacturer's instructions supersede.

We recommend you keep this manual, your express limited warranty booklet, any manufacturers' warranties, and all insurance documents together. Always remember to reference your express limited warranty booklet for homeowner responsibilities, builder responsibilities, covered items, conditions, exclusions, and emergency procedures before hiring a contractor or doing repair work yourself. In the event that this manual provides information inconsistent with or contradictory to information contained within your warranty book, the warranty book is the overriding document. *Following the maintenance recommendations herein is NOT a guarantee of coverage.*

If you have questions, please contact your builder or StrucSure Home Warranty at 1.877.806.8777 or info@strucsure.com.

1) Seasonal Maintenance Calendar

Establishing and following a maintenance schedule is the best way to manage your household maintenance budget, to protect your investment and to prevent problems. This seasonal schedule of maintenance tasks should not replace any manufacturer's recommendations. We suggest that you use licensed contractors for any tasks you feel you don't have the technical knowledge, skills, or ability to perform.

SAFETY FIRST - Homeowners often want to perform maintenance themselves to save money. It is important to bear in mind that there are many areas of home maintenance that are best left to professionals. For example, electrical work, entering an attic, or climbing on roofs and ladders are just a few hazardous activities. It is better to make the safe choice if there is any question as to the ability of the homeowner to perform any maintenance task.



Fall

☐ Check windows and doors on the exterior for possible air or water leaks - make sure the weep holes are clear at the bottom on the outside.

☐ Inspect caulking around windows for cracks or separation from the window or building.

☐ Check the roof for loose shingles, tiles or shakes. Make sure vents are in good condition and are not blocked with debris. If you have large trees or shrubs close to the home, make sure they are trimmed back to avoid branches from damaging the exterior of the home, the shingles or interfering with vents.

☐ Check for leaves and debris in gutters and eaves troughs - check for blockages at the down-pipe connections.

☐ Vacuum and clean out forced air registers (vents) and ductwork in your home.

☐ Remove the hoses and any diverter manifolds or other attachments from the hose bib itself.

☐ Remember to turn outside water outlets off and drain exterior faucets of water before winter! There are several kinds of outside water outlets. If you have only the frost-free type of hose bib it shuts off only from the outside of your home. Make sure all hoses and appliances are disconnected to allow water to drain out. You may have a frost-free type that also has an inside water shut-off valve. Shut off the inside valve, then open the outside hose bib to allow it to drain. You may have a non-frost-free type of hose bib with an inside shut-off. Turn off the water at the inside valve and open the outside valve to ensure the water drains. Some new homes have the hose bibs inside the garage or a utility room — these too should have the hoses disconnected and be drained, or have the water supply shut off and drained before freezing temperatures.

☐ Check CO (Carbon Monoxide) detectors if installed.

☐ Check all the vents outside your home; the combustion vent intake, the dryer vent and the range hood vent. Make sure they are all clear, functional and the screens are clean.



Winter

☐ Check the attic for leaks, check the insulation, look for blocked vents and look to see if any daylight is coming in through the roof or around chimneys (may indicate a leak or hole).

☐ Replace the furnace filters (homeowner), check fan belt and lubricate the motor if required (may require a technician).

☐ Clean and test smoke alarms and replace the batteries if needed.

☐ Test all the Ground Fault Circuit Interrupters (GFCIs) and all the panel breakers.

☐ Remove ice and snow from porches and concrete stairs as soon as possible - don't use salts or other chemicals that will damage the concrete to melt or disperse ice.

☐ In freezing or snow conditions check for ice dams on the overhangs of the roof.

☐ Occasionally open windows to allow the house to air out (weather permitting).

☐ Avoid overloading circuits with heaters, light decorations or appliances during the winter.

☐ Remember to remove and store all your hoses, turn off the water supply to the exterior faucets and drain hose bibs (remove diverters too) BEFORE freezing temperatures arrive. (Reference info. under FALL).

☐ If you have an in-ground sprinkler system, make sure it is properly drained and winterized BEFORE freezing temperatures arrive.

☐ Check that your faucets are not leaking - this will save you money especially on your hot water heating costs.

☐ Check all the CO (Carbon Monoxide) detectors for operation. This is especially important in the winter.

☐ Do not pile snow against the side of your home.



Spring

☐ Clean and test all your smoke alarms (if needed replace batteries).

☐ Test all GFCIs in bathrooms, kitchens, outside receptacles and on the electrical panel.

☐ Change the furnace filters and inspect the fan belt (may require a technician).

☐ Inspect the roof visually from the ground if possible (be safety conscious if you have to go on the roof or hire a contractor).

☐ Clean gutters and down-pipes and make sure downspouts and splash pads drain away from the walls and foundation.

☐ Inspect caulking inside and out and touch-up or replace where needed with approved products.

☐ Clean windows, window tracks and make sure weep holes are not blocked (including sliding door tracks - lubricate openers and track rollers with silicone spray).

☐ Remember to turn on the interior water supply to hose bibs and exterior faucets! (IMPORTANT - check for leaks).

Summer



☐ Remove debris from gutters, eaves troughs and down-pipes. Hose them out and ensure good drainage flow.

☐ Examine window and door seals and repair as necessary. This will cut down on energy costs for cooling.

☐ Examine and repair grout in bathrooms and tile floors to prevent moisture damage – materials' shrinkage may occur during the hot season.

☐ Inspect and lubricate garage door roller shafts (do not attempt to adjust door springs yourself – always call a technician).

☐ Lubricate locks on doors and windows with silicone spray.

☐ Check window screens and screen doors for tears if installed.

☐ Check the condition of concrete slabs and sidewalks and asphalt driveways – repair cracks as necessary.

☐ Make sure sprinklers and hoses are not directed against the outside of the house.

☐ Make sure that plants and bushes do not grow up against the outside of the house (moisture can stay trapped and not dry, causing damage).

☐ Check all landscaping and outdoor features to ensure good drainage away from the house, if the ground has settled or water is running back toward the house.

☐ Make sure all your drainage systems are working properly and that water drains away from your home. If it does not, take corrective actions immediately.

☐ Check to ensure there are no insects or vermin getting into your home.

2) Monthly, Semi-Annual, and Annual Maintenance

This general schedule identifies some of the more common maintenance tasks that may be performed on a monthly, semi-annually or yearly basis. Adjust this schedule to fit your own home and situation by adding or deleting maintenance items as needed.

As a homeowner, you have maintenance responsibilities for your new home and for the warranty. Please reference your Express Limited Warranty Booklet for your specific responsibilities.

This suggested maintenance list and schedule should not replace any manufacturer's recommendations. It is strongly suggested homeowners make use of licensed contractors for any maintenance items they feel unqualified, unskilled, or uncomfortable to perform. When in doubt, it is always best to consult a reputable contractor.

Suggested Monthly Maintenance Schedule

☐ Smoke Detectors - Check operation by pushing test button to cause it to emit sound - if it does not sound check the circuit breaker. Check and replace the battery when necessary. (Most detectors will emit an intermittent beep when the battery is failing).

☐ Check CO (Carbon Monoxide) detectors if installed.

☐ Check the fire extinguishers for proper charge levels indicated on the gauge. Homeowners may contact their local Fire Department for recommendations on the appropriate number of extinguishers and the best locations to place them.

☐ Test all GFCIs to ensure proper operation.

☐ Clean in-sink garbage disposal blades by grinding small ice cubes while running cold water down the drain (this will remove food debris which causes odors).

☐ Clean or replace range hood filters and make sure it exhausts properly.



☐ Check for signs of water leaks around toilets, under sinks and around dishwasher regularly.

☐ Clean and freshen sink drains by flushing with a diluted bleach and water mix, or with warm water and baking soda.

☐ Inspect and clean or replace furnace filters, humidifier plates or drums and electronic air filters. Clean with a calcium and rust remover or replace as required per the manufacturer's recommendation.

☐ Clean aerators on faucets regularly and check screens in washing machine supply hoses.

☐ Check water filters and water softener appliances regularly. The life of the filters is dependent upon water usage and local water conditions.

☐ Clean your dryer lint trap regularly, if your home has a booster fan installed be sure to check and clean the lint trap in that as well. Damaged or torn lint traps should be replaced.

☐ Check the Temperature Pressure Release (TPR) valve on the water heater. The hot water tank should also be drained every six months to prevent sediment build up. Follow the manufacturer's recommendation to turn off gas or power and protect against hot water burns.

Suggested Semi-Annual Maintenance Schedule

It is recommended homeowners photocopy these pages for re-use.

Item to Inspect	Inspect For	Checked Month/Year
Basement and Foundation	Check for cracks and moisture and discuss with a professional if either problem is severe.	
Toilet	Check for leaks in water feed and tank bottom.	
Interior Caulking and Grout	Inspect caulking and grout around tubs, showers, and sinks. If the caulking has pulled away, scrape it out and re-caulk or call someone who can.	
Water Heater	Drain water until clear of sediment; inspect flue assembly (gas heater); check for leaks and corrosion. If this activity is intimidating, plumbers can do this in less than an hour.	
Clothes Washer	Clean water inlet filters; check hoses and replace if leaking.	
Clothes Dryer	Vacuum lint from ducts and surrounding areas.	
Refrigerator	Clean drain hole and pan (more often in warm weather); wash door gasket; vacuum condenser coils.	
Wiring	Check for frayed cords and wires; check exposed wiring in basements, and call an electrician is if looks shoddy or dangerous.	
Exhaust Fans	Clean grill and fan blades.	
Range Hood Fan	Wash fan blades and housing.	
Sink	Check all faucets, hose bibs, and supply valves for leakage.	
Bathroom	Check for evidence of leaks around and under sinks, showers, toilets, and tubs.	
Breaker Box	Trip circuit breakers and ground fault interrupters monthly to insure proper protection.	

Annual Maintenance Schedule

☐ Examine caulking around windows and doors and repair or renew as necessary.

☐ Inspect condition of concrete slabs and patios for cracks and spalling.

☐ Check condition of septic tank and leech field (if applicable). Ensure toilets flush properly and there are no odors in the area of the tank or field.

☐ Check all interior and exterior wood trim and touch-up or repair as necessary.

☐ Have annual heating system/furnace and hot water tank maintenance performed by a licensed contractor (this is to ensure proper calibration and safety - especially in the case of gas furnaces and hot water tanks).

☐ Schedule professional inspection of all major appliances particularly if gas fueled (furnaces, hot water tanks, gas ranges or cooktops etc.).

☐ Inspect paint finishes inside and outside the home — or repair and repaint as required.

☐ Have fireplace chimney or vents inspected and cleaned by a professional cleaner.



3) Homeowner Maintenance Inspections Checklist

The Building Envelope - The Exterior of your Home.

It is recommended homeowners photocopy these pages for re-use. The frequency of inspection stated is a minimum and should be increased should conditions warrant.

Item to Inspect	Inspection Frequency	Inspect For	Checked Month/ Year
Roofing	Monthly Semi-Annually Spring and Fall	A cursory monthly check is intended to spot physical damage or drainage problems. This check is purely a visual inspection for damaged or missing shingles/tiles or flashing. Have a contractor remove debris (leaves, twigs etc.).	
Flashing	Semi-Annually Spring and Fall	Physical damage. Look for flashing which may have been damaged or bent by gardeners, window cleaners or other operations around your home. Rood flashing should be inspected when the roof drainage is being checked. Damaged flashings must be repaired or replaced as necessary.	
Decks and Deck Drains	Monthly	Drain blockage, or physical damage. Individual deck drains should be checked frequently during the rainy season and when debris is most prevalent in the fall. Check the deck membrane for cracks, splits or other damage when cleaning.	
Sealants Caulking	Semi-Annually Spring and Fall	Look for damage or obvious sealant failure when cleaning windows or decks. Sealant which is cracked, split, de-bonded, discolored, is peeling, or is otherwise different in appearance from when it was installed should be replaced. Check sealant condition around masonry, stucco and flashing saddle connections. Check also around windows, doors, sliding patio doors and any wall penetrations. If any abnormalities are noted caulking must be replaced. Use only approved caulking products.	
Paint	Semi-Annually Spring and Fall	Painted areas on your house protect wood and other materials from damage and wear from the effects of water and weather. Observe condition of paint when cleaning windows or decks. Look for peeling, blistering, chalking or fading paint. If any painted components of your home show any signs of being diminished those areas should be cleaned, repaired or repainted as necessary.	
Vents	Semi-Annually Spring and Fall	Regular cleaning of dryer lint screens will reduce the necessity to clean the exterior vent covers. Dirty or blocked exterior covers can lead to moisture accumulation in the vent pipe and cause leakage and deterioration. Check any screens or grilles in front of vents to ensure birds or small animals cannot enter the building. Check vent covers regularly.	

Item to Inspect	Inspection Frequency	Inspect For	Checked Month/ Year
Landscaping	Annually	Plants growing directly adjacent to or in contact with the building exterior can reduce the drying potential of the exterior cladding and increase the likelihood of problems. Keep plants and shrubs away from exterior walls. The finished grade of your lot was sloped to allow water to drain away from your home. You must maintain positive grading of the yard in any way that permits water to be directed away from the foundation of your house or outbuildings. If there is settling around the foundation or below decks you may have to add extra soil. Clear leaves, dirt and debris away from your house. Check the operation of sprinkler systems to ensure they are not directing water against the outside of the house. Monitor conditions during heavy rain to ensure water drains away from the house and foundation. Do not pile snow against the side of the home.	
Doors	Semi-Annually Spring and Fall	Doors should be checked in order to assess the hardware and the perimeter seals. Poorly operating mechanisms or weather-stripping should be repaired or replaced. Ensure the weather strip is intact and seals properly, that the door is not warped, check the finish for paint or stain and check the caulking around the door frame near the sill. Check to ensure the doors are not delaminating or splitting.	
Walls	Monthly	Investigate any staining or moisture on the drywall side of exterior walls. Note the weather conditions when the moisture appears. If there are signs of mold or water stains on the inside walls of your house, it is critical that there be further investigation.	
Windows	Semi-Annually Spring and Fall	Inspect window frames, hardware, flashings and sealed units to ensure that they are in good working condition. Homeowners should replace any weather stripping, seals or hardware that are damaged or inoperable. Weep holes at the bottom of the windows should be checked to ensure they are clean and free of debris. Check for condensation between the panes of sealed glazed units. If there is condensation the seal has failed and the window should be replaced.	

It is recommended homeowners photocopy these pages for re-use.

4) New Home Installations and Maintenance Procedures: Maintenance inside your home

Air Conditioning and Heating

Air Conditioning and Heating Equipment

The air conditioning and heating equipment was installed by the HVAC (Heating, Ventilating and Air Conditioning) contractor.

The air conditioning and heating system(s) provides year-round climate control and consists of a thermostat to control temperature, an air handler unit to heat or cool the air, a filter to remove particles from the air, plus a fan unit to distribute and circulate air throughout the home via ducts and registers. Air conditioners have an outdoor condensing unit or compressor which must be kept sufficiently free of obstructions (such as shrubbery) to allow air to flow freely.

NOTE: In certain areas of the country that experience extreme high temperatures, water cooled air conditioning systems may be used rather than air cooled systems. The difference between the two systems is how the heat is removed from the condenser. Water cooled units flow water over the condenser coils to remove heat and air cooled systems blow air across the condenser to remove heat. In areas where there can be hard freezes, water must be drained from both the condenser unit and water supply line.

NOTE: Window coverings should be installed to maintain consistent room temperature. Direct sunlight entering the house will increase the temperature in the affected area and will also fade furniture and carpets.

Service Contracts

When there is a heavy demand on your HVAC system, you are encouraged to take advantage of the extended annual service contract that is available from your air conditioner supplier. This contract typically provides seasonal check-ups of the heating and cooling components, plus periodic cleaning; the advantage being that scheduled service may reduce system failure by preventing problems before they occur.

Before Calling for Service:

1. Check to see that the thermostat is properly set.
2. Check the circuit breaker in the panel box. If tripped, reset by switching the breaker from the full "Off' position to "On." If the circuit breaker will not reset, contact the HVAC contractor.(See Circuit Breakers in the Electrical System Section.)
3. Check the electrical disconnect switch, located on or near the air handler, and reset.
4. Check the exterior disconnect switch located outside the home near the compressor, and reset.

Air Filter

The air filter, located adjacent to the air handler unit or in the return air grille, helps reduce the flow of dust into the air. As the filter collects dust, it reduces the system's efficiency and must be either cleaned or replaced. Your builder has installed one air filter in each filter location and will, at the walk-through, demonstrate proper filter installation, cleaning and replacement procedures. After that, the regular cleaning, replacement and maintenance of air filters is the homeowner's responsibility.

Monthly filter cleaning or replacement will provide cleaner air, improve air flow, and help reduce utilities costs. To remove, clean or replace filters, turn the air conditioner/furnace and fan off using the thermostat control, then carefully remove the old filter and clean, or insert a new one. Replacement filters are available through hardware and home supply stores. Make sure to buy the correct size for replacement.

NOTE: There are filters available that need to be replaced only every three (3) months and other filters that are washable and do not need to be replaced.

Thermostat

The thermostat controls the entire heating and cooling system. The thermostat provides a fan switch to circulate the air when neither heating nor cooling is needed.

To maximize energy efficiency and minimize utility bills, set the thermostat to a comfortable level normally between 68° F to 71° F for heating, and between 76° F to 78° F for cooling, and leave it there. Then set the fan switch to either the "ON" or "AUTO" position. The less frequently you change the thermostat setting, the more comfortable you will be, the lower your utility bills will be, and less wear and tear on the system's compressor will incur. Changing settings frequently will cause the supplemental heater to run more often, and turning the system on or off expends extra energy to bring the temperature back to a comfortable level. Setting air condi¬tioning controls too low does not cool the home faster and the same principle applies to heating.

Programmable thermostats can save energy and money without sacrificing comfort and convenience by reducing the amount of time heating and cooling systems operate. You can program different temperature settings for different times of the day and days of the week based on when you are in your home. When programmed properly, the heating and cooling systems will operate less frequently, consume less energy and lower utility costs. Programmable thermostats can be purchased at hardware and home supply stores.

Air Distribution System

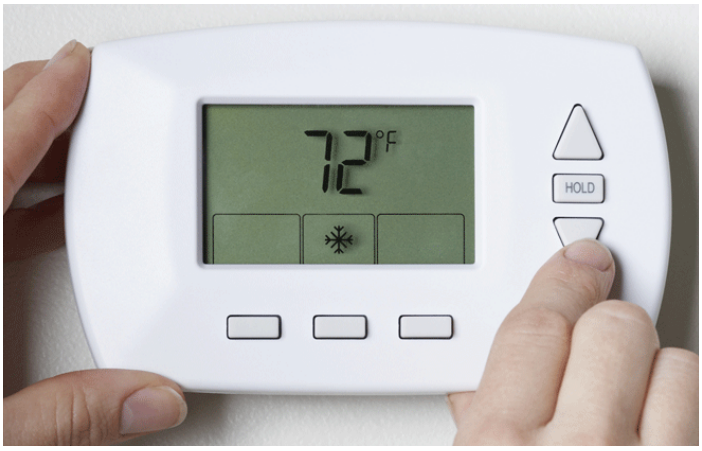
Duct Work: Ducts carry and distribute heated or cooled air to each room.

Registers: Two kinds of registers are used; air supply registers (located on the wall or ceiling) that deliver warm or cooled air into the room; and air return registers (located on walls, ceilings or under the air handler access door) that return air from the room back into the air handler fan to be re-heated or re-cooled.

To regulate temperatures on different floors or rooms during different seasons, adjust the air supply registers by partially opening or closing them, thus restricting or moving additional air into each room.

Vacuum supply and return registers to ensure they remain dust free. Check that registers are not blocked by draperies, furniture or other obstructions that restrict normal air flow.

Interior doors in each room are undercut to allow return air to circulate throughout each room when the doors are closed. Do not close doors to regulate room temperatures.



Caution: Burning candles for prolonged periods of time may, in some instances, create a phenomenon known as "ghosting." Ghosting occurs when soot from a burning candle is released into the air, carried throughout the house through the air conditioner, and expelled through the vents. The soot adheres to all surfaces including ceilings, fabrics and countertops. It is especially visible on the carpet at the base of bedroom doors. Cleaning is very difficult and is a homeowner's responsibility.

To avoid ghosting in your home, follow these few simple steps:

1. Buy candles made with hard wax and with thin braided wicks that curl over when burned.
2. Buy candles with low aromatic properties and with wicks that burn with a low flame.
3. Buy candles with cotton or paper wicks and refrain from buying candles with metal-core wicks.
4. Do not allow candles to smoke and keep them out of drafts.
5. Keep matches and wick debris out of the candle.
6. Extinguish candles after one hour of continuous burning. Allow the candle to cool before relighting.
7. Large numbers of candles should be burned in the fireplace with the damper open to allow the smoke and emission to escape.
8. Stop using candles that leave a visible soot ring on their containers.

Exterior Compressor/Condensing Unit

Keep the condensing unit (compressor) level and keep the area surrounding the unit clear to allow unimpaired air flow. Do not plant bushes too close to the unit and be careful that dirt, leaves and grass clippings are cleared away. For a thorough cleaning, contact an HVAC contractor. Do not build a deck around or over the compressor unless there is an 18 inch clearance on the sides and a 6-foot minimum clearance on top.

Condensate Control

Dehumidification is part of the function of your air conditioning system. The moisture removed from the air is condensed into water and is then referred to as "condensate." The condensate forms and is collected on the evaporator coil which is located in the air handling unit (except on one-piece package units). The condensate drain removes the water. Regular maintenance should be performed by the NC contractor of the drain pan and line to control algae build-up and eliminate water leaks.

Install algae tablets in the condensate drain pan regularly. Flush condensate drain pan and lines regularly. Drains should be flushed from the inside of the house toward the outside. Never open the air handling unit without first disconnecting the power. Algae tablets are available through your air-conditioning contractor or home improvement center.

Helpful Hints

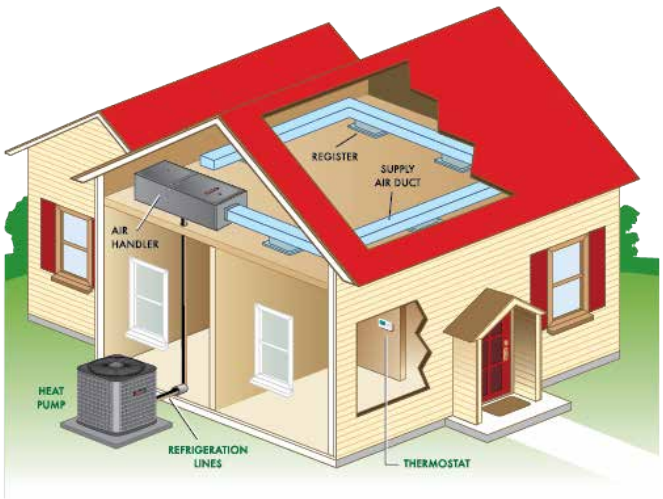
a. Check and replace or clean filters every month. Clogged filters mean higher operating costs.
b. Don't try to maintain different temperatures in different rooms by totally closing duct outlets — you will unbalance the system and reduce its efficiency.
c. Use bath and kitchen exhaust fans sparingly when air conditioning is operating.
d. To reduce the time your air conditioner must be on, do heat-producing chores such as baking and dish washing, during the cooler hours in the morning or evening.
e. Check weather stripping and caulking around doors and windows for leaks.
f. Shade your home with trees wherever possible.
g. Keep all windows and exterior doors shut when air conditioner is on.
h. Do not short-cycle your compressor by moving the thermostat up and down too rapidly. Set your temperature slowly and leave it for at least five minutes before resetting.
i. In case of outside temperatures exceeding 95° F, a differential of 15° F is acceptable.

Heat Pump

Your home may be equipped with an electric, forced-air heating system that includes a heat pump. The heat pump is an electrically powered, single-refrigeration unit that provides both heating and cooling functions. It operates on the principle that outdoor air, even in winter, contains heat or thermal energy. During winter, the heat pump draws in outside air, extracts the heat and then circulates it throughout the home. In the summer the process is reversed, whereby the heat pump removes heat from indoor air, discharges it outdoors and then circulates cool air throughout the home.

A heat pump can be expected to operate continuously if outside temperatures fall below 50°F. Heated air coming from the registers feels cool to the touch. This is normal since the heat pump generates a low level of heat, sometimes below 90°F, while normal body temperature is 98.6°F.

Supplemental Heat: When outdoor temperatures fall to at least 50°F, the heat pump may be unable to draw sufficient heat from the outside air and a supplemental heating unit automatically turns on. You will know it is operating when the blue/green light on the thermostat is lit. The heating elements, located in the furnace unit's air handler, will turn on for a short time. The supplemental heat will also turn on if the thermostat is adjusted more than two degrees above room temperature.



Emergency Heating: Should the heat pump fail, activate the emergency switch on the thermo¬stat. The red light indicates that it is on. This will stop the heat pump from operating and will provide supplemental heat until the HVAC contractor arrives.

Defrosting: During winter, ice can accumulate on the sides of the heat pump's exterior coil. When ice covers 80 percent of the surface, the system automatically activates a defrost cycle that lasts about five minutes, heating the coil to melt the ice. It will also activate the supplemental heat to prevent ducts from blowing cold air into the home during the defrost cycle. This process may occur several times each day, and you will notice that steam rises from the unit when it occurs. This is completely normal and is not cause for concern.

Keep the heat pump unit level and keep the area surrounding the unit clear to allow unimpaired air flow. Do not plant bushes near the unit and be careful that dirt, leaves and grass clippings are cleared away. For a thorough cleaning, contact an HVAC contractor.

Do not build around or over the air conditioner unless there is an 18-inch clearance on the sides and a 6-foot minimum clearance on top.

Appliances

All of your new appliances have been installed and tested for operation in your home. The appliance manufacturer's warrant their products directly to you according to the terms and conditions of the warranties they provide with their appliances.

Attic Access

Attic space is not designed or intended for storage. Access to the attic is for the inspection and maintenance of insulation, vents, chimneys, or other mechanical equipment that may be installed in the attic. If you or any service people perform maintenance or inspections in the attic, use great caution and avoid stepping off wood members onto the drywall under the insulation. Stepping off the trusses or wood members can result in personal injury or damage to the ceiling below.

Cabinets

If you have wood or wood veneer cabinets, it is normal and acceptable that there will be differences in grain and color between the cabinet components due to natural variations in wood and the way it takes stain. Since wood is a product of nature, these variances in wood must only be matched to within a reasonable limit, as perfect matches in grain or color of the wood are impossible.



CLEANING

Products such as lemon oil or polishes that include scratch cover are usually recommended for wood cabinet care by the manufacturer. Follow the cabinet manufacturer's directions, or the cleaning product directions. Avoid washing cabinets with water or ammonia cleaners.

Cabinets with synthetic finishes such as melamine can usually be cleaned with mild soapy water and dried immediately afterward. If in doubt, consult the manufacturer's recommendations for care and cleaning.

HINGES

If cabinet doors become misaligned, most new cabinet hardware can be adjusted by homeowners with ordinary household tools. If hinges catch or drawer glides bind or stick, a small amount of silicone lubricant will help. If lubricant does not help check to ensure nothing is inhibiting movement, or the cabinets or hardware have not been damaged in some way.

MOISTURE

Damage to cabinet finishes and door warping can result from using appliances that generate large amounts of heat or moisture (such as counter-top ovens, crockpots or water kettles) too near the cabinet. When using such appliances, be aware and place them in a location that is not directly under a cabinet or near furniture which can be damaged.

Carpeting

Your home may be finished with a variety of flooring materials, including carpet, vinyl, hardwood and ceramic tiles.

The carpet is durable and requires minimal care. Color variations and shading may be noticeable and depend upon the surface texture and pile fiber of the carpet.

Frequent vacuuming and immediate stain removal are primary carpet care steps. When using carpet cleaners, carefully follow manufacturer's instructions.

While normal vacuuming will only remove loose fibers from carpet yarns, an occasional tuft may be lifted above the surface. Do not pull out the tuft, just snip it off with scissors to the length of the other tufts. Color fading and spots caused by sunlight are normal and can be minimized by using the draperies during the day, or by using sheer drapes to reduce incoming sunlight. Some colors may fade faster than others. Change filters in your heating and air conditioning systems on a regular basis or when dirty. Dust, pollen and smoke will settle on your carpets and increase staining and soiling.
When a spill occurs, immediately blot it firmly with a dry, white paper towel or rag. Do not rub the spot as it will damage your carpet's tufts and may permanently alter your carpet's appearance. If stain remains, spray with cold water and blot again. Repeat if necessary.

Cleaning: You can add years to the life of your carpet with regular care. Carpet wears out be¬cause of foot traffic and dirt particles that get trampled deep into the pile beyond the suction of a vacuum. The dirt particles wear down the fibers like sandpaper and dull the carpet. The most important thing you can do to protect your carpet is vacuum it frequently.

Burns: Take care of any kind of burn immediately. First snip off the darkened fibers. Then use a soapless cleaner and sponge with water. If the burn is extensive, talk with a professional about re¬placing the damaged area.

Crushing: Furniture and traffic may crush a carpet's pile fibers. Frequent vacuuming in high-traffic areas and glides or cups under heavy pieces of furniture can help prevent this. Rotating your furniture to change the traffic pattern in a room promotes more even wear. Some carpets resist matting and crushing because of their level of fiber, but this does not imply or guarantee that no matting or crushing will occur. Heavy traffic areas such as halls and stairways are more susceptible to wear and crushing. This is considered normal wear.



Fading: Science has yet to develop a color that will not fade with time. All carpets will slowly lose some color due to natural and artificial forces in the environment. You can delay this process by frequently removing soil with vacuuming, regularly changing air filters in heating and air conditioning systems, keeping humidity and room temperature from getting too high, and reducing sunlight ex¬posure with window coverings.

Filtration: If interior doors are kept closed while the air conditioning is operating, air circulation from the closed room flows through the small space at the bottom of the door. This forces the air over the carpet fibers, which in turn act as a filter, catching particulate pollution. Over time, a noticeable stain develops at the threshold.

Rippling: With wall-to-wall carpeting, high humidity may cause rippling. Prolonged or extreme cold and heat can also cause rippling. If the carpet remains rippled after the humidity has left, have a professional re-stretch the carpeting using a power stretcher, not a knee kicker.

Seams: Carpet usually comes in 12-foot widths, making seams necessary in most rooms. Visible seams are not a defect unless they have been improperly made or unless the material has a defect, making the seam appear more pronounced than normal. The more dense and uniform the carpet texture, the more visible the seams will be. Carpet styles with low, tight naps result in the most visible seams. Seams are never more visible than when the carpet is first installed. Usually with time, use and vacuuming, the seams become less visible. You can see examples of how carpet seams diminish after they have been vacuumed and have experienced traffic in the model homes.

Shading: Shading is an inherent quality of fine-cut pile carpets. Household traffic causes pile fi¬bers to assume different angles; as a result, the carpet appears darker and lighter in these areas. A good vacuuming, which makes the pile all go in the same direction, provides a temporary remedy.

Shedding: New carpeting, especially pile, sheds bits of fiber for a period of time. Eventually these loose fibers are removed by vacuuming. Shedding will usually occur more with wool carpeting than with nylon or other synthetics.

Caulking

Over time caulking may dry out and shrink so that it no longer provides a good seal between baseboards and walls, or between millwork counter or vanity tops and walls. In wet areas silicone caulking may shrink, de-bond, or show signs of mildew. As part of your routine maintenance check caulking monthly and clean, repair or replace as necessary.

LATEX CAULK

Latex caulking is non-toxic, cleans up easily and is used in areas that require painting. Latex caulk is a homeowner maintenance item and part of normal maintenance, renovations and painting.

SILICONE CAULK

Silicone caulking is used where water is present, for example, where the tub meets tile or at shower stall doors, or where a sink meets a countertop (especially under-mount sinks). Silicone caulking is not paintable and contains acetic acid which gives off an order while curing. Read the instructions on the product container.

Ceramic Tile

CLEANING

Ceramic tile is low maintenance. Vacuum or sweep floor tile for normal cleaning. Tile can also be cleaned with a wet mop and warm water. Depending on the finish of the tile surface it is recommended homeowners avoid adding detergent to the water. The ceramic tile installed on walls, countertops, or backsplashes in your home may be cleaned with any approved nonabrasive soap, detergent, or tile cleaner. Some high gloss or unfinished tile may be damaged by abrasive cleaners.

GROUT DISCOLORATION

Clean grout that becomes yellowed or stained with a fiber brush, cleanser and water. Products for cleaning grout are available at most home hardware stores.

SEALING GROUT

Once grout has been sealed, it will require regular re-application of sealant. Ongoing maintenance of the seal is necessary.

SEPARATIONS

Slight separations between tiles and the grout will occur and is normal. Grouting is intended to finish the tile surface, but does not hold the tile in place or affect the performance of the tile. Gaps or cracks in the grouting can be filled using premixed grout available at building supply stores.

Condensation

When warm, moist air comes into contact with cooler surfaces, the moisture condenses. In your home, condensation is seen as a layer of moisture on the inside of glass windows and doors. This condensation is usually caused by high humidity within the home combined with low outside temperatures and inadequate ventilation. Your lifestyle and the number of people in the home can influence this condition.

NEW CONSTRUCTION

New homes have a higher moisture content than homes that are one or two years old. Many of the materials used in your home contain water - including the wood, paints, water-based adhesives, caulking and more. Over time the moisture will be released as components dry and adjust to the local climate.

TEMPERATURE

Keep your home heated to a normal, comfortable, recommended living range between 68 - 72 degrees Fahrenheit. Excess heat or cold may cause excess shrinkage, or excess moisture in your home.

HUMIDITY GUIDE

Outside Air Temperature	Desirable Maximum Inside Relative Humidity (%) at an Indoor Temperature of 70 F
between -10˚F and 0˚F	shouldn't exceed 25%
between 0˚F and 10˚F,	shouldn't exceed 30%
between 10˚F and 20˚F	shouldn't exceed 35%
over 20˚F	shouldn't exceed 40%
over 50˚F	shouldn't exceed 50%

VENTILATION
Ensure that bathroom fans operate while showering or bathing and are left on until all excess moisture in the bathroom has dissipated.

Countertops

Use a cutting board to protect your counters when you cut or chop. Protect the counter from heat and from extremely hot pans. If you cannot put your hand on it, do not put it on the counter. Do not use countertops as ironing boards and do not set lighted cigarettes on the edge of the counter. Do not use countertops to pound objects on or use them to sit on.

SEPARATION FROM WALL
Countertops will separate from walls, backsplashes and around sinks. This is a normal occurrence due to the normal shrinkage of materials.

CLEANING
Follow the manufacturer's recommendations for cleaning.

LAMINATES
Laminated (millwork) countertops will have seams at any mitered intersections and it is normal that these will be visible. You should avoid letting water stand on any countertop seam.

GRANITE AND NATURAL STONE
All natural stone is porous material. The porosity will vary depending on the type of stone and depending on its density. Marble is typically less porous, granite more so than marble and limestone is again more porous. If natural stone products are left unsealed, liquids and stains can penetrate and are extremely difficult to clean.

Natural stone will require sealing with approved products on a schedule recommended by the product manufacturer and in accordance with the supplier's recommendation.

Doors and Locks

Doors inside new homes are wood products and are subject to shrinkage and warpage if the humidity level of your home is not maintained at an acceptable level, or if the finish (paint or stain, etc.) is damaged and left un-repaired. Normal fluctuations in humidity levels from the use of forced air furnaces, showers, cooking and dishwashers, may result in interior doors occasionally requiring minor adjustments.



BI FOLD DOORS
Bi-fold doors may shrink or warp slightly and may also require some adjustment to re-align them. If they bind in the hardware apply a silicone spray lubricant to the track at the top of the door.

FAILURE TO LATCH
If a door will not latch because of minor settlement of the structure, the latch plate can be adjusted as necessary. Before adjusting the latch plate check that the hinge screws are tight.

HINGES
If hinges on swing doors in your home squeak, apply a silicone spray lubricant to correct this.

LOCKS
Lubricate door locks with silicone spray or another non-staining, waterproof lubricant. Avoid using oil, as it may solidify and become "gummy".

SHRINKAGE
Use putty, filler or latex caulk to fill any minor cracks or separations that typically occur at mitered joints in door trim. Sand and paint with the matching paint included in your new home paint touch-up kit.

STICKING
The most common cause of a sticking door is the natural expansion of the door or framing lumber caused by changes in humidity. If doors stick, check and tighten the hinge screws that hold the door jamb or door frame. If light planing is necessary after trying this, use sandpaper to smooth the door and paint or stain the sanded area to seal it.

WARPING
Doors may warp slightly; this is normal. If the warping is not excessive, keeping the door closed as much as possible may return it to its original shape. Avoid having items leaning against open doors that are tight against the door stop.

WEATHER STRIPPING
Weather stripping and exterior door thresholds occasionally require cleaning and adjustment or replacement.

PANEL SHRINKAGE
Panel inserts of wood doors shrink and expand in response to changes in temperature and humidity. Touching up the paint or stain on unfinished exposed areas is your home maintenance responsibility.

Drywall

Slight cracking, nail pops, or seam joints may appear in walls and ceilings and are caused by the shrinkage of the wood and normal deflection of wall studs, trusses or rafters to which the drywall is attached.

Electrical System

The main electrical breaker panel includes a main shut-off that controls all the electrical power to the home. Each breaker is marked to help you identify which breaker is connected to each major appliances, outlets or other service. If a power failure occurs in any single part of your home, always check the breakers in the main panel box first.

BREAKERS
Circuit breakers have three positions: ON, OFF and TRIPPED. When a circuit breaker trips it must first be turned off before it can be turned back on. Switching the breaker directly from TRIPPED to ON will not restore power service.

BREAKERS TRIPPING
Breakers usually trip because of overloads caused by plugging too many appliances into the circuit, a worn cord or defective appliance, or



operating an appliance with too high a voltage or wattage requirement for the circuit. The sudden starting of an electric motor can also trip a breaker. If a breaker trips repeatedly check for any of the above causes.

BUZZING
Florescent fixtures use an electrical transformer called a "ballast" to operate. The voltage reducing transformer sometimes causes a buzzing noise and is normal unless the noise is excessive. If the noise is excessive or the lights have a delayed starting period, or flicker constantly, the ballast may be defective.

GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)
GFCI receptacles have a built-in element that senses small fluctuations in power. A GFCI is just another type of circuit breaker, only more sensitive. Building codes require installation of these receptacles near water sources such as in bathrooms, the kitchen, outside and the garage (areas where an individual can come into contact with water while holding an electric appliance or tool). There are GFCI receptacles (plugs) which are installed inside and outside your home and there are GFCI breakers which are installed in the electrical panel.

Each GFCI circuit has a TEST and RESET button, each of which is usually colored differently from the GFCI itself and will be clearly marked. Once each month, press the TEST button. This will trip the circuit. To restore service, press the RESET button. If a GFCI breaker trips during normal use, it may indicate a faulty appliance and you will need to investigate the problem. One GFCI breaker can control up to two outlets.

GROUNDED SYSTEM
Your electrical system is a three-wire grounded system. Never discon-

nect or remove the bare wire that connects to the box or device and never remove the ground pin (long round one) from an appliance cord plug.

POWER SURGE
Power surges can result in burned-out bulbs or damage to sensitive electronic equipment such as TVs, alarm systems and computers.

LIGHT BULBS
The homeowner is responsible for replacing burned-out bulbs throughout the house.

LUMINOUS LIGHT PANELS
Translucent panels covering ceiling lights (usually florescent fixtures) are made of polystyrene plastic. To clean these panels remove them from the fixture frame. Wash with mild detergent and warm water.

UNDER OR OVER CABINET LIGHTING
In some new homes special lighting is installed. It is recommended that only the specified type and wattage of bulbs be used according to manufacturer's specifications.

Expansion and Contraction

Changes in temperature and humidity cause all building materials to expand and contract. Different materials expand or contracts at different rates and this movement can result in separation between materials. When this happens the bond of the caulking may break and small gaps or cracks may appear.



Fireplaces

In most cases, builders use a pre-fabricated fireplace that is delivered to the home site and then installed with a screen and glass doors. Do not burn pressure-treated wood, scrap lumber, Christmas trees, trash, cardboard, plastic or any flammable liquid such as gasoline. Burning these materials may cause brick and flue liners to crack.

Fireplace Equipment: A set of fireplace tools, available from a local fireplace equipment shop, will help you handle logs, stoke the flames and shovel out cold ashes.

Fireplace Inspections: A clean, unobstructed fireplace and chimney are important for safe fireplace operation. Have a fireplace chimney company inspect the fireplace and chimney annually for soot build-up and appropriate cleaning. Inspect the hearth and liner for loose or cracked firebrick.

Gas Fireplace

If you have a gas fireplace, supplying the source for the gas is usually the homeowner's responsibility. If you have this type of fireplace, read and follow all of the manufacturer's directions.

A slight delay between turning the switch "on" and the flame ignition is normal. The flames should ignite gently and silently. If you notice any deviation from this and/or any gas smell, immediately shut off the switch and report it to the gas company.

Excessive winds can cause a downdraft which can blow out the pilot, requiring you to relight it before using the fireplace. The exterior vent cover for a direct-vent gas fireplace becomes extremely hot when the fireplace is operating.

Close the damper and cold air vent when not using the fireplace. Leaving this open is equivalent to having an open window in the house. If the fire is still burning, but you are finished enjoying it, use glass doors to prevent heated air from being drawn up the chimney until your damper can be closed.

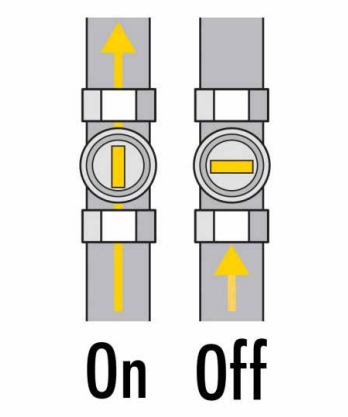
Caution on the use of glass doors: Do not close them over a roaring fire, especially if you are burning hard woods (such as oak or hickory) because this could break the glass. Also, when closing the doors over a burning fire, open the mesh screens first. This prevents excessive heat build-up on the mesh, which might result in warping or discoloration.

Checklist for Safe Fireplace Use:

1. Open the flue damper and outside air vent fully, and visually check that the flue is not obstructed.
2. Clear obstructions and ashes.
3. Use a steel or cast-iron grate to elevate the wood above the fireplace brick. Do not build fires on the fireplace floor.
4. Place crumpled, non-colored newspaper under the grate.
5. Add kindling (small wood chips and twigs) on the grate over the newspaper.
6. Place three small legs in a pyramid arrangement at the back of the firebox, providing air spaces between logs.
7. Preheat the flue by lighting a piece of newspaper onto the logs, making sure that the smoke is being carried up the chimney.
8. Ignite the newspaper under the kindling.
9. Use seasoned hardwood for a long-burning, smoke-free fire. Store firewood outside as it may harbor insects.
10. Do not build large fires.
11. Keep damper open and screen or glass doors closed throughout the life of the fire.
12. Close damper the following day when the fire is completely out. Periodically remove ashes from previous fires and place them outdoors in a metal container.

Gas Shut-Offs

SAFETY FIRST – You will find shut-offs on gas lines near their connection to each item that operates on gas such as your gas furnace, gas hot water tank, fireplace, gas range or cooktop, or outside barbecue connection. In addition there is a main shut-off controlling gas to the entire home at the meter.



GAS LEAK

If you smell or suspect a gas leak leave the home and call the gas company immediately for emergency service.

Hardware

Doorknobs and locks should operate correctly with little maintenance. Occasionally they may need slight adjustments due to normal shrinkage of the framing, door frame or the doors. On occasion homeowners may need to tighten screws or lubricate the handles and hinges with silicone spray lubricant.

Hardwood Floors (Laminates)

In the maintenance of hardwood floors preventative maintenance is the primary goal.

CLEANING

Sweep on a daily basis or as needed. Never wet-mop a hardwood or laminate floor unless the manufacturer approves doing so. Excessive water can enter the gaps between boards at joints and can cause wood to expand and can damage the floor. When polyurethane finishes on laminate become dirty refer to the manufacturer's cleaning recommendations.

DIMPLES

Placing heavy furniture, dropping heavy or sharp objects, or walking with high heeled shoes on hardwood floors can result in dimple or cuts or bruise damage.

FURNITURE LEGS

Install proper floor protectors (felt or glides) on the legs of any furniture placed on hardwood floors. Protectors will allow chairs and larger furniture to move easily over the floor without scuffing or scratching. Regularly clean or replace the protectors to remove any grit that may have accumulated which can cause scratching or wear of the surface of the floor finish.

HUMIDITY

Wood floors may respond noticeably to changes in humidity in your home. During winter months the individual planks or sections can expand and contract as water content changes. Laminate floors are typically "floating floor" assemblies and are not attached to the subfloor so some movement may be noticed. This is normal unless there is buckling or if squeaks develop at transition strips.

MATS AND AREA RUGS
Use protective mats at the exterior doors and entries to help prevent sand and grit from damaging the floor. Mats should be taken up frequently for cleaning of any dirt or grit that might get between the mat and the floor surface and cause damage. Some rubber backing on area rugs or mats can cause yellowing and warping of the floor surface. Placing area rugs or mats on floors in direct sunlight may cause uneven fading or yellowing and warping of the floor surface.

SEPARATION
Expect some shrinkage which will be noticed at the joints of the wood plank or board sections near heat vents or any heat-producing appliances, or during seasonal weather changes.

SHOES
High heel shoes can exert over 8,000 pounds of pressure per square inch on the floor under the heels. Wearing of high heeled shoes on hardwood or laminate floors is not recommended.

SPILLS
Clean up food spills immediately with a dry cloth. Never allow water or any liquid to stand on the wood or laminate floor.

SPLINTERS
When wood or laminate floors are new, small splinters of wood can appear at the joints. Care is taken to remove these prior to the homeowner taking possession of the home, but the nature of natural wood may mean that a few splinters do appear. To remove them, carefully use a sharp object like a razor knife to cut them – do not pull at a splinter in case it tears along the wood grain and damages the board.

SUN EXPOSURE
Exposure to direct sunlight can cause irreparable damage, discoloration or fading to the hardwood floors. To maintain your hardwood or laminate floors install and use window covering in these areas.

TRAFFIC PATHS
Eventually the foot traffic paths will wear the finish – this is normal wear and tear.

WARPING
Warping will occur if the floor repeatedly becomes wet or is thoroughly soaked. Laminate floors may absorb the water and buckle and be destroyed.

Paint and Stain

Avoid abrasive cleaners, scouring pads, or scrub brushes on any paint surface since these will cause damage. If cleaning with soap and water is not successful a commercial cleaner may be required followed by touch-up of the paint.

STAIN
The same stain or closely matching products can be obtained for minor interior woodwork stain touch-ups.

Touch-Up

When doing paint touch-ups use a small brush, applying paint only to the damaged spot. If the paint is a latex eggshell, the best way to apply the paint is to "stipple" the paint on with the tip of the brush. Stippling means to blot or dab the paint on with the brush instead of applying long strokes. If the painted surfaces are dirty or aged, the touch-up may not match the surrounding area even if the same paint from the homeowner touch-up kit is used. If the paint does not match, the entire wall may require painting.

CRACKING
With normal aging, wood trim at window sills and door sills may develop minor cracks or raised grain. Most of this will typically occur during the first year. Raised grain will permit moisture to get under the paint and can result in peeling or warping of the boards when they are near areas of sun exposure, moisture and temperature variations.

Plumbing Fixtures

The plumbing fixtures in most homes include the water heater, bathtubs, showers, toilets and sinks. Note: As equipment technology changes frequently, the manufacturer's service manuals will super¬sede all recommendations and procedures contained in this manual.

WATER HEATER
The electric water heater is equipped with an automatic temperature and pressure relief valve, a safety feature that opens and releases excessive pressure or heat build-up. Should this occur, water will flow from the tank until both temperature and pressure are reduced to safe levels.

Hot Water Temperature: Water temperature is set at 120° F by the manufacturer. While low temperature settings reduce utility costs, bear in mind that dishwashers do not operate properly with settings below 120° F.

NOTE: Do not store combustible items, oily rags, clothing, brooms or dust mops near the water heater as this presents a potential fire hazard. Do not use the top of the water heater as a storage shelf.

Scale: Small amounts of scale deposits will collect and settle on the bottom of the water tank. Remove this residue annually by draining the tank. Shut off the power first, using the appropriate circuit breaker in the electrical power box. Attach a garden hose to the valve and run it outside. Then open the valve at the bottom of the water heater, allowing residue to drain out until the water runs clear. If you live in a hard water region, a water softener will reduce the need for more frequent draining.

Do not completely drain an electric water tank without first shutting off the water heater circuit breaker. Do not turn circuit breaker on until the tank is full of water.

Element Cleaning or Replacing: The heating elements in the water heater will require peri-odic cleaning. The frequency is determined in part by the quality of the water in your area. Again, refer to the manufacturer's literature for step-by-step instructions and drawings, or contact an authorized service company.

No Hot Water: If you discover you have no hot water, check the breaker, the temperature set¬ting and the water supply valve before calling for service. Refer to the manufacturer's literature for locations of these items and other troubleshooting information.

Pressure Relief Valve: At least once each year, manually operate the pressure relief valve. Stay clear of the discharge line to avoid injury. See manufacturer's literature for diagrams and detailed instructions.

NOTE: If the pilot does not light right away, close the shut-off valve and call the gas company.

FIXTURES

Kitchen and bathroom sinks, toilets and bathtubs are made with cultured marble, plastic, fiberglass, stainless steel, or steel finished with porcelain. To clean, use a non-abrasive spray cleanser and sponge. Dropping heavy objects onto porcelain of fiberglass can chip or crack the surface and may produce permanent staining. Do not leave steel wool pads on sink surfaces, as they will rust and stain the surface.

Be aware that continuous-action toilet bowl cleansers, placed in the toilet water tank, will prematurely wear out the rubber tank flapper and may discolor the bowl. Follow the manufacturer's recommendations for cleaning and maintenance.

KITCHEN SINKS/STAINLESS STEEL AND CAST IRON

For routine cleaning, use a non-abrasive household cleanser with warm water and a sponge. Do not scrape the surface with utensils, pots or pans. Do not leave leftovers in sink or strainer, particularly tea bags and coffee grounds, which contain harmful acids. Regular washing soap – not baking soda – should be added to the drain to keep it grease and soap-free. Do not clean stainless steel sinks with steel wool or metal brushes, and do not leave rubber mats in the sink since they trap water and produce surface discoloration. To restore luster to stainless steel, apply a small amount of mineral oil with a soft cloth, then wipe dry.

GARBAGE DISPOSAL

Always use cold water when disposal is working. Corn cobs and husks, bones, celery or any other food that shreds should not be put into the disposal. If the machine becomes jammed, use the wrench to free the mechanism and try again. The disposal will rust if not used regularly. If you are going to be away for an extended period of time, a teaspoon of oil will help prevent the mechanism from freezing.

BATHROOM SINKS

Homeowner's Maintenance Guidelines Sink surfaces can be easily chipped and stained, so treat them accordingly. Prevent hair accumulation clogs by periodically removing the stopper for cleaning or purchase a rubber hair collector. Avoid setting lit cigarettes on the edge of the sink, as they will burn and permanently damage the surface.

TOILETS

A water-saving regulation went into effect in 1993. It prohibits the manufacture of toilets that use more than 1.6 gallons of water per flush. In the search for a balance among comfort, convenience and sensible use of natural resources, the government conducted several studies. The 1.6 gallon toilet turned out to be the size that consistently saves water.

NOTE: Your new toilets are different if you moved from a residence that was built prior to 1993. Toilets prior to 1993 used three gallons to flush and were not as inclined to stop up.

As a result of implementing this standard, flushing twice is occasionally necessary to completely empty the toilet bowl. Even though you flush twice on occasion, rest assured that overall you are saving water and you have complied with the law.

Running Toilets: To stop running water in the toilet, check the shut-off float in the tank. You will most likely find it has lifted too high in the tank, preventing the valve from shutting off completely. In this case, gently bend the float rod down until it stops the water at the correct level. The float should be free and not rub the side of the tank or any other parts. Also check the chain on the flush handle. If it is too tight, it will prevent the rubber stopper at the bottom of the tank from sealing, resulting in running water.

BATHTUBS, SHOWERS AND TUB SHOWER COMBINATIONS

Cleaning: Clean porcelain-on-steel bathtubs, cultured marble tubs and sinks, fiberglass showers, tub/shower combinations and shower stall floors with warm water and a non-abrasive cleanser. Clean glass shower doors with a commercial glass cleaner. Check bathtub stoppers and shower floor drain grates for hair accumulation. Do not use ammonia-based cleaners. Gel-Gloss is recommended for polishing cultured marble.

Do not step into a bathtub or tub/shower with shoes on. Gritty particles adhere to your shoe soles and will scratch the finish.

Re-caulking of Tubs and Showers: Over time, cracks and separations between tub or shower stall and wall surfaces or bathroom floors will appear. Maintaining these areas is critical since excessive moisture can severely damage underlying materials. It will be necessary to re-apply a tub and tile caulk when the previous caulking has dried out or eroded. To re-caulk the area, use a tub and tile caulk available in local hardware stores. Do not use a clear silicone caulk, as it yellows with age. Begin by removing the old caulk and cleaning the area. Once the area is dry, apply fresh caulking to fill the vacant space, then smooth out the finish with a wet finger.

WHIRLPOOL TUB

Caution: Never run the pump motor without at least two inches of water above the jets. Running the pump with improper water levels will damage it. Always turn the pump off during draining. Do not add bath oils, bubble soap or any other liquid to the water.



1. Check for leaks periodically by looking around the base of the tub.
2. Every two to three months, fill the tub with hot water and add a small amount of liquid dishwasher non-foaming detergent. Run the pump for 10 minutes. This will clean the pipes and the pump's internal parts.

INTERIOR FAUCETS

Interior faucets are either single-lever faucets or washer faucets.

Single-Lever Faucets: The single-lever kitchen and bath faucet are low-maintenance, washerless faucets. Should the cartridge ever need to be replaced, turn off the water supply under the sink, remove the handle assembly, and pull the cartridge out. Take the cartridge to a local plumbing supplier and match accordingly, being sure to follow installation instructions.

Polished Brass Fixtures: Polished brass in humid regions is sure to pit and tarnish. Besides the climate, there may be other catalysts that cause this reaction to occur. Cleaning agents, standing water, shampoos, toothpastes and personal hygiene products are among items that may heighten the tarnishing and pitting process. Any cleaning agent that contains harsh chemicals will most certainly wear through the protective coating applied to brass. The manufacturers of polished brass recommend the use of plain water and polishing with a soft cloth.

Chrome Faucets: Chrome Faucets should be cleaned with a soft damp cloth and a commercially accepted cleaner. Dry the faucet with a soft cloth. Never use an abrasive or ammonia-based cleaner.
Washer Faucets: A washer faucet has a shut-off feature that requires light closing pressure to stop the flow of water. Do not apply too much pressure since washers can be damaged.

Faucet Aerators: Screened aerators screw into the spout of a faucet to add air to the flowing water which reduces splashing. Aerators are easy to remove for periodic cleaning. This should be done every three to four months.

Washer Replacement: Dripping faucets can dramatically increase water bills and represent the loss of a valuable natural resource. Over time, all washers will wear out and must be replaced. Ne¬glecting to change washers may cause damage to the valve seat or to the entire faucet. Many homeowners prefer to do this simple replacement procedure themselves:

1. Turn off the water supply intake valve located under the sink.
2. Using a wide-jaw wrench, remove the hexagonal cap from the top of the faucet assembly. This may take just a turn or two.
3. Remove the inside part, turn it upside down and you will see a fiber washer held by a screw through its center. This is the source of the leak. The screw can easily be removed, but the washer itself may take a little prying to remove.
4. Match the new washer to the worn out washer and replace it. Re-use the same screw if it is in good condition. Then, reassemble the faucet.

EXTERIOR HOSE BIBS
Exterior faucets are called hose bibs. To replace washers on standard exterior faucets, follow the same procedure for washer replacement as stated above.

Check for leaks and replace washers as required since a leaking exterior faucet can cause water damage. See washer replacement under Interior Faucets in this section.

Water Back-flow Prevention: Most new homes have a vacuum breaker installed on the ex¬terior hose faucet. This device prevents back-flow, and stops potentially contaminated water from flowing back into the home water supply system via the garden hose. These devices are a plumbing code requirement and may not be removed. With a vacuum breaker installed, it is normal to hear a humming or vibrating noise throughout the home when the exterior faucet is on. This is caused by the washers built into the back-flow preventer, and is not a reason for concern.



SHUT-OFFS
Your main water shut-off is located near your water meter or inside the home where the hot water tank is installed if you do not have a meter. Use this shut-off for major water emergencies such as a water line break. Each toilet has a shut-off valve on the water line under the tank and each sink has both a hot and cold water shut-off under the sink or nearby. Your dishwasher will have a shut-off located under the sink or otherwise located in the supply line. Other appliances installed in your home will have water shut-offs in the supply line (refrigerator ice-makers, under sink water heaters, etc.).

Railings

Stained wood, enameled aluminum or wrought iron railings in your home require little maintenance beyond occasional dusting or polishing. Protect railings from damage. It is suggested that homeowners cover railings with protective mats during move-in.

Resilient Flooring (Vinyl, Linoleum)

Resilient flooring requires minimal maintenance. Follow the manufacturer's specific recommendations for care and cleaning according to the products installed in your home. Avoid moving or dragging heavy items on resilient flooring, or dents, wrinkles, or tearing may result.

LIMIT WATER
Excessive amounts of water on resilient floors can penetrate the sealed seams and get under the edges by the baseboards or trim which may cause the glue to de-bond and the flooring to lift and curl.

RAISED NAIL HEADS
Movements of the floor joist caused by natural shrinkage and deflection can result in raised nail heads. If there is a raised nail, place a block of wood over it and hit the block with a hammer.

Stairs

There is no method known for framing wood stairs that can prevent all vibration or squeaks. Owing to the flexible nature of wood there will be some movement as they are walked on and where the stairs meet the walls there will be a connection that will flex. Often the connection will be covered by carpet installation, but in some homes the staircase is a natural wood finish which is trimmed with baseboard. Some movement is normal. If the connection is caulked with latex caulk some maintenance will be required.

Water Heater: Electric

Always refer to the manufacturer's literature and warranty for your specific model of water heater.

DRAIN TANK
Depending on local water conditions, draining the tank partially or completely is a recommended maintenance item. Refer to your manufacturer's literature and also consult your plumbing contractor for guidelines and recommendations.

ELEMENT CLEANING OR REPLACEMENT – ELECTRIC HOT WATER TANK
The heating elements in the water heater may require periodic cleaning or replacement. Minerals and light silt film can build up on the element reducing its efficiency. The frequency of cleaning or replacement is determined in part by the quality of the water in your area and the amount of use the tank gets. It is recommended that homeowners contact an authorized service company to have elements cleaned or replaced.

TEMPERATURE PRESSURE RELIEF VALVE (TPR)
At least once each year, manually operate the TPR valve on the top of your hot water tank. The relief-valve is a brass valve with a small lever on the top and often there is a pipe connected to it which goes down the side of the tank to the floor or to a drain. Lift the lever slightly to control the flow of water and ensure that the valve closes properly after the lever is released. The water that is released will be very hot – stay clear of the end of the discharge line to avoid injury. Refer to the manufacturer's literature for diagrams and detailed instructions.



SAFETY FIRST – Keep the area around the water heater clear of household items.

Water Heater: Gas

Carefully read and follow the manufacturer's literature for your specific model of water heater.

DRAIN TANK
Depending on local water conditions, draining the tank partially or completely is a recommended maintenance item. Refer to your manufacturer's literature and also consult your plumbing contractor for guidelines and recommendations on the frequency of performing this maintenance according to local conditions.

SAFETY FIRST – Vacuum the area around a gas-fired water heater to prevent dust from interfering with proper flame combustion. Avoid using the top of a heater as a storage shelf and ensure that there are no combustible items placed near the flame box of the heater which is at the bottom.

5) New Home Installations and Maintenance Procedures: Maintenance outside your home



Wood Trim

Shrinkage of wood trim occurs during the first two years or longer, depending on the temperature and humidity both outside and inside your home. Wood is more prone to shrinkage during the heating season. Maintaining a moderate and stable temperature and humidity level in your home helps to minimize the effects of shrinkage.
If shrinkage or warping causes a piece of trim to pull away from the wall, drive a finishing nail of the appropriate size to fasten it. Fill the old nail hole with putty or caulk and touch-up with paint as needed.

If the base shoe (small trim between base molding and the floor) appears to be lifting from the floor, this is probably due to slight shrinkage of the floor joists below. You can correct this condition by re-nailing the shoe with a finishing nail of the appropriate size.

RAISED GRAIN
Because of the effects of weather on natural wood, you should expect raised grain to develop. This is normal and not a defect in the wood or paint.

Asphalt

Asphalt is a petroleum based topping. Although asphalt is not rigid like concrete, over time the effects of weather and normal settlement will cause minor movement and cracking of the asphalt.

HEAVY VEHICLES
Do not allow extremely heavy vehicles such as moving vans or other large vehicles to use your driveways. Your driveways are constructed to accommodate light residential traffic only such as passenger cars, family vans, light trucks, motorcycles and so forth.

SEAL COATING
Over time asphalt will take on a faded appearance which is normal and does not pose a problem and does not indicate a material or structural problem. For purposes of sealing small cracks and for appearance, seal-coat toppings may be applied.

SETTLING
Where asphalt joins to concrete sidewalks, curbs or garage aprons some settlement will occur and is normal.

THERMAL CRACKING
Your driveway may exhibit thermal cracking which usually occurs during the first 12 months. These cracks are normal and assist the driveway to adapt to heating and freezing cycles. Cracks should be inspected and evaluated during the hottest months.

Brick

Brick is durable and low maintenance finish for a home's exterior.

EFFLORESCENCE
The white, powdery substance that sometimes accumulates on brick surfaces is called efflorescence. This is a natural phenomenon when the lime in the mortar and brick products leeches out. It can be removed by scrubbing with a stiff brush and vinegar or there are commercial products sold to remove efflorescence. One cleaning will not permanently stop efflorescence, it will continue until such time as all the lime has leeched out.

WEEP HOLES
At the base of brick walls (the lowest course of bricks) you will see small holes in the mortar or small plastic inserts which have holes. These holes allow any moisture that has accumulated behind the brick to escape. Do not fill these weep holes or permit landscaping materials to cover or plug them. Maintenance on the weep holes is to make sure they are not blocked with dirt or other material.

Caulking

Caulking materials are not "one-time" installations as part of the outside of your home. Over time the materials degrade normally and shrinkage or cracks may appear as building components move with settlement. It is normal maintenance to check and repair or replace caulking on your home as needed. If the homeowner does not feel capable of performing this maintenance, a contractor should be consulted.

EXTERIOR CAULKING
Check any caulking at windows, door jambs, vents and fireplace vent assemblies as necessary. Repair or replace as appearance and condition indicate, with approved products only.

Concrete Flatwork

Concrete flatwork is any non-load bearing concrete in your home. Typical examples are the garage floor slab, your patio and sidewalks. Small "spider" cracks that may develop are a result of normal concrete shrinkage and are considered normal. The shrinkage occurs during the curing process of the concrete and does not affect the structural performance of the concrete.

CRACKS
A concrete slab 3 meters across will shrink approximately 1.5 cm as it cures and that is the cause of the small spider cracks. Some spider cracking of concrete flatwork also results from temperature changes that cause normal expansion and contraction of the concrete.

Concrete slabs in outside areas may get water in larger unsealed cracks and in freezing temperatures may cause frost heaves. To maintain slabs ensure that conditions are dry and then seal the cracks with an approved color-matching sealant.

EXPANSION JOINTS
Expansion joints help control expansion and minimize and control cracking. In wet conditions moisture can penetrate under the concrete and lift the expansion joint. If the expansion joint lifts after curing or in later years, fill the resulting gap with an approved color-matching sealant or consult a concrete repair contractor.

HEAVY VEHICLES
Do not allow heavy vehicles such as moving vans or other large vehicles to use your driveways. Driveways are constructed to accommodate light residential traffic only. The slabs in your new home are residential type concrete intended for passenger cars, light trucks, family vans, etc.

SEALER
Depending on your preferences or environmental conditions home-owners may choose to seal the concrete.

COLOR
Concrete slabs vary in color owing to differences in the make-up of the concrete, the location they are installed (inside or outside) and the type of finish. No correction is possible or necessary for this condition.

CRACKS
Minor cracking (spider cracks) are normal in concrete. If a crack is more than 1/8" it will require sealing with an approved caulking compound.

SEPARATION
Separation of concrete slabs from the foundation of the home should receive attention if the separation exceeds 1/2".

SETTLING OR HEAVING
If slabs settle or heave in excess of 1" or if settlement results in drain-age toward the house, contact a concrete professional to re-align the slab.

SPALLING (SURFACE CHIPS)
Causes of spalling include repeated hosing of concrete for cleaning, animal urine, vehicular radiator overflow, fertilizer, uncleared snow and ice, ice-melting agents and road salts from vehicles. Homeowners may choose to consult a concrete repair specialist.

Crawl Space

The crawl space is not intended as a storage area for items that could be damaged by moisture. Wood or other materials that can decompose stored in a crawl space can attract termites or vermin or create odors in the home.

Damp-Proofing

Foundation walls are coated with a drain mat or an asphalt waterproofing material. Careful observation and maintenance of positive drainage will protect your basement from dampness.

Decks

Wood and/or vinyl decks add to the style and function of your home and are a high maintenance part of your home's exterior.

EFFECTS OF EXPOSURE
Wood decks are subject to shrinkage, cracking, splitting, cupping and twisting. Nails or screws may work loose and will need seating or tightening to set the heads flush with the wood, as well as routine maintenance. Plan to inspect your decks regularly, at least once each year and provide needed attention promptly to maintain an attractive appearance and forestall costly repairs.

FOOT TRAFFIC
As you use your decks, abrasives and grit on shoes can scratch or dent the wood or vinyl surface. Regular sweeping and using mats can prevent scuffing and abrasion, but will not completely prevent it. High heeled shoes should not be worn on vinyl deck surfaces since the high pressure of the heel may puncture the vinyl membrane.

OUTDOOR FURNITURE
The surface of the decking can be damaged by BBQs, deck furniture, or other items such as articles that can rust on outside surfaces. Rust from metal articles can permanently stain some vinyl surfaces. Use caution when moving items to prevent scratches, gouges and punctures.

SEALING OR WATER REPELLENT
To prolong the life and beauty of your deck, treat it periodically with a water repellent or wood preservative. Local home centers or hardware stores offer several products to consider for this purpose. Always follow manufacturer directions carefully.

SNOW AND ICE
Heavy snow or ice that remains on the deck over long periods increases the likelihood of damage or early failure. Prompt removal can reduce adverse effects. Use caution in shoveling to avoid needless scratching of the deck boards or the vinyl surface.

STAIN
Exposed wood decks have been stained to protect and beautify the wood. Each board takes the same stain differently and variations in color will be readily noticeable. Over time, with exposure to weather and use, further variations in color will occur.

COLOR VARIATION
Color variations are a natural result of the way in which wood accepts stain.

VINYL DECK COVERINGS
Vinyl deck coverings act as a membrane to protect sub-structures beneath them from water damage and rot. Vinyl deck coverings require special care to protect against burns, punctures and abrasion.

Doors and Locks

The doors installed in your home are wood products subject to such natural characteristics of wood as shrinkage and warpage. Natural fluctuations caused by humidity and the use of forced air furnaces, showers and dishwashers can affect doors and may require minor adjustments.

EXTERIOR FINISH
To ensure longer life for your exterior wood doors, plan to refinish them at least once a year. Stained exterior doors with the cleat finishes tend to weather faster than painted doors. Treat the finish with a wood preserver every three months to preserve the varnish and prevent the door from drying and cracking. Reseal stained exterior doors whenever the finish begins cracking, crazing or fading.

FAILURE TO LATCH
If a door will not latch because of minor settling, make a new opening in the jamb for the latch plate (re-mortising) and raise or lower the plate accordingly. Also ensure that the hinge screws are tight.

HINGES
You can remedy a squeaky door hinge by removing the hinge pin and applying a silicone lubricant to it. Avoid using oil, as it can gum up or attract dirt.

LOCKS
Lubricate door locks with silicone spray or another waterproof lubricant. Avoid oil, as it will gum up.

SHRINKAGE
Use putty, filler, or latex caulk to fill any minor separations that develop at mitered joints in door trim. Follow with painting or staining as required. Panels of wood doors shrink and expand in response to changes in temperature and humidity.

STICKING
The most common cause of a sticking door is the natural expansion of lumber caused by changes in humidity. When sticking is caused by swelling during an excessively damp season, do not plane the door



unless it continues to stick after the weather changes. Before planing a door because of sticking, first try tightening the screws that hold the door jamb, door frame, or hinges. If planing is necessary even after these measures, use sandpaper to smooth the door and paint the sanded area to seal against moisture.

WEATHER STRIPPING
Weather stripping, exterior door thresholds and door sweeps occasionally require adjustment or replacement.

ADJUSTMENTS
Because of normal settling of the home, doors may require adjustment for proper fit.

Foundation

Your builder installs the foundation of your home according to the recommendations of a professional engineer.

CRACKS
Through the normal curing process of concrete, surface cracks may develop in the wall. Surface cracks do not affect the structural integrity of your home. Shrinkage cracks or backfill cracks are common in foundation walls and are usually noted at the corners of basement windows.

DAMPNESS
Due to the amount of water in concrete, basements may be slightly damp, especially if unfinished. Condensation can form on water lines and drip onto the floor, especially from cold water supply lines.

COSMETIC IMPERFECTIONS
Slight cosmetic imperfections in foundation walls, such as a visible seam where two pours meet or slight honeycombing may occur and require no repair unless they permit water to enter.

Garage Overhead Door

Since the garage door is a large, moving object, periodic maintenance is necessary.

CAUTION: The door opener springs are under extreme tension. A homeowner should never tamper with or attempt to adjust this mechanism. Always call a qualified professional to service overhead door springs and mechanisms.

GAPS OR VISIBLE LIGHT
Garage overhead doors cannot be airtight like exterior household swing doors. Some light will be visible around the edges and across the top of the door. Some wind, dust, or precipitation may enter around the door.

LOCK
If the lock or bolt becomes stiff, apply a silicone spray lubricant.

LUBRICATION
Every 6 months, apply a lubricant such as silicone spray to all moving parts: track, rollers, hinges, pulleys and springs. Avoid over lubricating to prevent drips on vehicles or the concrete floor. At the same time, check to see that all hardware is tight and operating as intended without binding or scraping.

PAINTING
Repaint the garage door when you repaint your home if it is a paintable material, or as required to maintain and protect the material.

SAG
Garage doors made of wood may sag slightly due to the weight and span of the panels. Sagging is typically not a concern with metal garage doors. The garage door should operate smoothly and easily.

Gas Shut-Offs

You will find shut-offs on gas lines near their connection to each item that operates on gas. In addition, there is a main shut-off at the meter outside your home.

GAS LEAK
If you smell or suspect a gas leak leave the home and call the gas company immediately for emergency service.

Grading and Drainage

The finish grades around your home have been inspected and approved for proper drainage of your lot. Use caution when installing landscaping, fencing, or additions to your home to prevent causing water problems to your home or to homes on adjacent lots.

DRAINAGE
Typically, the grade around your home should slope away from the home (positive drainage). Maintain the slopes around your home to permit the water to drain away from the home as rapidly as possible. Failure to do so may void your warranty.

ROOF WATER
Ensure the splash blocks or downspout extensions from under the downspouts are in place. Keep them sloped so the water drains away from your home.

SUBSURFACE DRAINS
Depending on local requirements or site conditions, builders may install subsurface drainage around the base of the foundation to ensure that surface water drains from a yard adequately. Keep this area and especially the drain cover clear of debris so that the drain can function as intended.

NEW SOD
New sod installation is fragile for the first few months and requires extra watering. Extra water can cause temporary drainage problems however, and conditions should be monitored.



SWALES
Your builder cannot alter individual lot or development drainage patterns to suit individual landscape plans. Lots typically receive water from and drain water on to other lots. As such changes in grade may affect adjacent lots, homeowners are advised against making changes to the swales or grading.

Gutters and Downspouts

Check gutters occasionally or as weather conditions dictate and remove leaves or other debris. If materials accumulate in gutters, water drainage from the roof can be slowed, or blockages can cause overflows and clog the downspouts.

EXTENSIONS OR SPLASH-BLOCKS
Extensions should discharge outside of rock or bark beds so that water is not dammed behind the edging materials that might be used. Splash blocks should be maintained with a slope away from the foundation of your home.

LADDERS
Be careful when leaning ladders against gutters or you may cause dents. To prevent damage to gutters use appliances for ladders called roof stand-offs. These are available from building supply stores. Always use caution when using ladders. In particular use caution with metal ladders near electrical power wires or power sources.

LEAKS
If joints between sections of the gutter drip, clean the inside joint of the gutter and caulk it using an approved gutter caulking compound.

PAINT
Gutters and downspouts are painted to match your home. You should repaint them when you repaint your home unless they are a baked enamel finish or colored plastic.

SNOW AND ICE
Remove excess snow from downspouts as soon as possible to allow the gutter to drain and to prevent blockage, ice and damage. Ice or snow build-up can damage gutters.

OVERFLOW
Gutters may overflow during periods of heavy rain. This requires no repair.

Landscaping

Flowers, bushes, shrubs, trees, ground covers, and grasses all like water. Some varieties, like annuals, require a great deal of water to survive. But, planted too close to your foundation, fulfilling their needs can cause overwetting of foundation soils resulting in damage to your home. A low or no water "zone" extending a distance of a minimum of six (6) feet out from the foundation line is one method to control moisture near the foundation. If, however, plantings are desired within this zone, use plants, annuals, and ground covers that are tolerant of the local climate and require minimum watering. Don't plant trees any closer to your home than ½ the diameter of the outer "drip line" (spread) of the tree when fully grown.

Paint and Stain

Painted surfaces should be cleaned and inspected occasionally.

EXTERIOR
Check the painted and stained surfaces of your home's exterior semi-annually or as conditions dictate. Plan on refinishing the exterior surface of your home approximately every two to three years or as often as your paint manufacturer suggests for your area and climate. Some areas such as white painted trim may require annual touch-up.

SEVERE WEATHER
Hail and wind can cause damage in a severe storm - always inspect the house after severe weather. If any damage is caused by severe weather, report it to your insurance company.



Railings

Enameled aluminum or wrought iron railings at outside installations require maintenance. Depending on railing type, painting, touch-up and cleaning will be required. Your builder installs railings in positions and locations to comply with applicable building codes.

Roof

The shingles on your roof do not require any maintenance except to ensure they are kept clear of debris and are intact. The less foot traffic on your roof the less likely it is that problems will occur.

CLEAN GUTTERS
Maintain the gutters and downspouts in clean condition free of debris so they are able to quickly drain water from the roof and the building.

ICE DAM
Depending on weather conditions, heat from inside your home can melt snow on the roof. Water then runs down and when it reaches the cold eaves it may freeze. An accumulation of ice can dam the subsequent run-off and the water may begin to back up and may work its way under shingles and ultimately may find its way into your home through windows or ceilings.

LEAKS
If a roof leak occurs try to detect the exact location while it is leaking. If the source of the leak can be spotted and marked it will make the repair job easier when conditions are dry and the repair can be carried out.

SEVERE WEATHER
After severe storms, do a visual inspection of the roof for damages. Notify your insurance company if you find pieces of shingles, or loose roofing tiles in the yard, or if shingle edges have lifted or roof tiles have become damaged or displaced on the roof.

INCLEMENT WEATHER
Storm damage is excluded from warranty coverage. Contact your homeowner insurance company immediately if storm damage is discovered.

Septic System

A septic system consists of two basic parts. The first part is the septic tank and the second is an underground disposal or drainage field. Consult your local septic maintenance contractor for service if applicable.

Siding (Cladding)

Siding expands and contracts as changes in humidity and temperature occur. Typically, slight waves are visible in siding under moist weather conditions and shrinkage and separations will be more noticeable under hot or dry conditions. These conditions are normal.

WOOD AND WOOD PRODUCTS
Wood or wood-product siding may require routine refinishing depending on the type of finish. Some raw wood products may be stained or painted and those should be maintained accordingly. Some wood products may have baked enamel finishes which do not require annual cleaning and painting, but may require touch-ups if damaged. Some wood siding, such as cedar, is subject to more cracking and will require more maintenance.

VINYL
Vinyl siding requires cleaning. Start at the top and dampen the siding, using only low pressure water and something like a car wash brush. Do not use high- pressure washers or other sources of high water pressure. To avoid streaking use only water and a brush, or use a cleaning product recommended by your siding manufacturer.



CEMENT BASED PRODUCTS
Cement based siding such as hardi-plank or hardi-board will require repainting and caulking.

Stucco

Stucco is a light weight and thinly applied cement product that is subject to expansion and contraction and therefore may crack. Typically only minor hairline cracks will develop in the outer layer (color coat) of stucco. This is normal and does not reduce the function of the stucco in any way. If the cracks develop into larger gaps these may require caulking or repair as required.

DRAINAGE
To ensure proper drainage away from the stucco keep dirt and concrete flatwork a minimum of 6" below the bottom edge of the stucco. Do not pour concrete or install masonry over the bottom edge of the stucco or right up to the foundation since wood members behind the stucco may be damaged by water.

EFFLORESCENCE
The white, powdery substance that sometimes accumulates on cement surfaces is called efflorescence (which means "to flower out" in French). This natural phenomenon is caused by the migration of salts and lime to the surface of a porous material, where it forms a coating. It can be removed by scrubbing with a stiff brush and vinegar or there are commercial products sold to remove efflorescence. One cleaning will not permanently stop efflorescence, it will continue until such time as all the lime has leeched out.

SPRINKLERS
Since stucco is not a watertight barrier avoid spraying water from irrigation or watering systems directly on to stucco surfaces.

Sump Pump

In some conditions the foundation design includes a perimeter drain and sump pump. The perimeter drain runs around the foundation to gather water and channel it to the sump catchments. When the water reaches a preset level the pump activates and pumps the water out of your home's drainage system. Read and follow the manufacturer's directions for use and care of your sump pump.

CONTINUOUS OPERATION
The pump may run more frequently or continuously during a heavy storm or long periods of rain. This is normal under such conditions.

DISCHARGE
Locate the discharge point for your sump pump system and keep the end of the drain clear of debris so that water can flow out and away from your home.

POWER SUPPLY
The sump pump runs on electricity. If the power goes off, the pump cannot operate. Storm water could then enter your basement. Homeowners may choose to install a back-up power system to guard against this possibility.

ROOF WATER
Ensure that roof water drains quickly away from the home to avoid circulating it through your sump pump. Keep downspout extensions or splash blocks in place to channel water away from your home.

ROUTINE CHECK
Check to confirm the pump is plugged in, the circuit breaker is on and that the pump operates on a regular basis. To test the operation of your sump pump, pour several gallons of water into the sump pump catchments. The pump should come on and pump the water out. Follow this procedure at least once a year.

Ventilation

New homes today are more tightly sealed to the outside environment than older homes. While this improves efficiency there are negative effects such as condensation, cooking odors, indoor pollutants, radon and carbon monoxide accumulation. There are both mechanical and passive methods of ventilating homes and minimizing the effects of these factors. It is important that you attend to ventilation maintenance as an important contributor to your health and safety.

ATTIC VENTS
Attics are vented through the soffit (the material installed on the underside of overhangs) or on gable ends. Driving rain or snow can sometimes enter the attic through these vents. Do not cover the vents to prevent minor amounts of water entering. Instead, cover the insulation in front of the vent with a poly plastic covering. By doing this you allow the vent to remain open and the small amount of water that blows in will evaporate safely. If the amount of water is excessive ensure the vent grills are properly installed.

CRAWL SPACE VENTS
Homes with crawl spaces usually include two or more vents through the foundation or between the floor joists. It is important to open crawl space vents for summer months and close them for winter months Failure to close these vents during the winter and replace the insulation may result in plumbing lines freezing in the crawl space.



Windows, Screens and Sliding Glass Doors

Contact a glass company for re-glazing of any windows that break or repair of any component. Clean the glass as needed with vinegar and water, a commercial glass cleaner, or the product recommended by the window manufacturer. Always consult the manufacturer's literature and maintenance recommendations if there are special window glazing treatments.

ACRYLIC OR GLASS BLOCKS
Clean acrylic or glass blocks during moderate temperatures using a mild solution of soap and warm water. Wash using a sponge or soft cloth or brush and dry with a towel. Avoid abrasive cleaners, commercial glass cleaner, razors, stiff brushes or scrubbing devices of any kind.

VINYL WINDOW FRAMES
Clean vinyl window frames during moderate temperatures using a mild solution of soap and warm water. Wash using a sponge or soft cloth and dry with a towel. Avoid abrasive cleaners, commercial glass cleaner, razors, stiff brushes or scrubbing devices of any kind. From the outside the home inspect and ensure that the drain (weep) holes are free of dirt or debris and are draining properly.

ALUMINUM
Clean aluminum metal surfaces with warm, clear water. Do not use abrasive cleaners or steel wool. After each cleaning apply a silicone lubricant with a cloth.

CONDENSATION
Condensation on the interior surfaces of the window and frame is the result of high humidity within the home and low outside temperatures. Lifestyle controls the humidity level within your home and is affected by the number of residents, cooking habits and so on.

SILLS
Window sills in your home are typically made of wood and require minimal maintenance which includes repairing minor cracks, keeping paint in good condition and caulking of the joints.

SLIDING GLASS DOORS
Sliding glass doors are made with tempered glass which is more difficult to break than ordinary glass and protects people from injury if broken. Tempered glass breaks into small pieces (popcorn) rather than large splinters or shards which can cause severe injury.

Keep the sliding door tracks clean for smooth operation and to prevent damage to the door frame. Lubricate the tracks with silicone spray lubricant. Ensure the proper operation of sliding door hardware for maximum security in your home.

STICKING WINDOWS
If sticking occurs or excessive pressure is required to open or close a window, apply a silicone spray lubricant to the tracks. If lubrication does not help investigate further.



WEEP HOLES DRAIN HOLES
During heavy rain, water may collect in the bottom channel of window frames. The weep holes are essential to allow excess water to escape to the outside. Ensure that bottom window channels and weep holes are free of dirt and debris for proper drainage.

CONDENSATION
Condensation that accumulates between the panes of glass in double-glazed sealed windows indicates a broken seal.

TINTING OR FOIL FILMS
If you add tinting or foil films to double-glazed windows, damage can result from condensation or excessive heat build-up between the panes of glass.

Wood Trim

Shrinkage of wood trim occurs normally during the first two years or so depending on ambient temperatures and humidity levels. All wood is more susceptible to drying and shrinkage during the hot summer season. Wood shrinkage can result in separation at joints of trim pieces and cupping or cracking may occur. Homeowners should correct this with caulking and touch-up painting as required.

Shrinkage or cupping may also cause a piece of trim to pull away from the structure. If this happens re-nail the board with an appropriate size finishing nail so as to attach it properly. Fill nail hole or crack if needed with putty and touch-up with paint.

6a) Homeowner Maintenance Recording Log

DATE	MAINTENANCE ITEM AND LOCATION	COST

6b) Contractor Maintenance Recording Log

DATE	NAME OF COMPANY	MAINTENANCE ITEM AND LOCATION	COST

6c) Appliance Service Records and Contacts

Appliance warranties are between the homeowner and the manufacturer. For appliance warranty service contact the manufacturer directly.

Appliance Record:

APPLIANCE	APPLIANCE MANUFACTURER	MODEL #	PHONE #	SERVICED
Range				
Range Hood				
Cooktop				
Oven				
Microwave				
Dishwasher				
Garbage Disposal				
Trash Compactor				
Dryer				
Washer				
Refrigerator				
Freezer				

Emergency Contact Numbers:

	EMERGENCY	NON-EMERGENCY
Police		
Fire		
Ambulance		
Gas Company		
Plumber		
Water		
Security/Alarm		
Telephone/Internet		

6d) Home Maintenance Repair Contractors

SYSTEMS	NAME	PHONE
Air Conditioning		
Electrical System		
Heating System		
Intercom System		
Plumbing System		
Security System		
Septic System		
Water Well Mechanical		
APPLIANCES	**NAME**	**PHONE**
Built-in Microwave		
Clothes Washer and Dryer		
Dishwasher		
Doorbell System		
Fans - Attic, Ceiling and Exhaust		
Fire / Smoke Alarm		
Garage Door Opener		
Garbage Disposal		
Range / Oven / Cooktop		
Refrigerator		
Trash Compactor		
Water Heater		
INSIDE HOME	**NAME**	**PHONE**
Cabinetry		
Doors, Windows and Trim		
Flooring		
Carpet		
Ceramic / Marble Tile		
Wood Floors		
Insulation		
Painting		
Plumbing Fixtures		

6d) Home Maintenance Repair Contractors (cont.)

OUTSIDE HOME	NAME	PHONE
Driveway		
Gutters and Downspouts		
Landscaping		
Painting		
Roof		
Siding		
Woodwork		

Notes:

7) Glossary of Terms

A

ABOVE-GRADE - The portion of a building that is above ground level.

AIR DUCT - Ducts, usually made of sheet metal, that carry air to all rooms.

AIR INFILTRATION - The amount of air leaking in and out of a building through cracks in walls, windows and doors.

AIR FILTERS - Adhesive filters made of metal or various fibers that are coated with adhesive liquid to which the particles of lint and dust adhere. These filters will remove as much as 90% of the dirt if they do not become clogged. The more common filters are of the throw-away or disposable type.

ALLIGATORING - A condition of paint or aged asphalt brought about by the loss of volatile oils and the oxidation caused by solar radiation. "Alligatoring" produces a pattern of cracks resembling an alligator hide and is ultimately the result of the limited tolerance of paint or asphalt to thermal expansion or contraction.

ASPHALT - A dark brown to black, highly viscous, hydrocarbon produced from the residue left after the distillation of petroleum. Asphalt is used on roofs and highways as a waterproofing agent.

B

BATT INSULATION - Strips of insulation - usually fiberglass, that fit between studs or other framing.

BELOW-GRADE - The portion of a building that is below ground level.

BLISTER - An enclosed raised spot evident on the surface of a building. They are mainly caused by the expansion of trapped air, water vapor, moisture or other gases.

C

CAULK - (v) The application of sealant to a joint, crack or crevice. (n) A compound used for sealing that has minimum joint movement capability; sometimes called low performance sealant.

COATING - A layer of any liquid product spread over a surface for protection.

COLLAR - In roofing, a conical metal cap flashing used in conjunction with vent pipes or stacks usually located several inches above the plane of the roof, for the purpose of shedding water away from the base of the vent.

CONDENSATION - The appearance of moisture (water vapor) on the surface of an object caused by warm moist air coming into contact with a colder object.

CONDUCTOR - (1) In roofing, a pip for conveying rain water from the roof gutter to a drain, or from a roof drain to the storm drain; also called a leader, downspout, or downpipe. (2) In electrical contracting, a wire through which a current of electricity flows, better known as an electric wire.

CONDUCTION - The flow of heat from one part of a substance to another part. A piece of iron with one end placed in a fire will soon become warm from end to end, from the transfer of heat by the actual collision of the air molecules.

CORROSION - The deterioration of metal by chemical or electro-chemical reaction resulting from exposure to weathering, moisture, chemicals or other agents or media.

CRAWL SPACE - An open area between the floor of a building and the ground.

CURB - A short wall or masonry built above the level of the roof that provides a means of flashing the deck equipment

D

DAMPER - Valve for controlling airflow. When ordering registers, make sure each supply outlet has a diaper so the air flow cane adjusted and turned off. Dampers may be either manually or automatically operated. Automatic dampers are required for exhaust air ducts.

DAMPPROOFING - A process used on concrete, masonry or stone surfaces to repel water, the main purpose of which is to prevent the coated surface from absorbing rain water while still permitting moisture vapor to escape from the structure.

DECK - An elevated platform. "Deck" is also commonly used to refer to the above-ground floors in multi-level parking garage.

DEW POINT - The critical temperature at which vapor condenses from the atmosphere and forms water.

DORMER - The house-like structure which projects from a sloping roof.

DOUBLE-GLAZING - In general, any use of two sheets of glass, separated by an air space, within an opening, to improve insulation against heat transfer and/or sound transmission. In insulating glass units the air between the glass sheets is thoroughly dried and the space is sealed, eliminating possible condensation and providing superior insulating properties.

DOWNSPOUT - The metal pipe used to drain water from a roof.

DRIP EDGE - A device designed to prevent water from running back or under an overhang.

DRYWALL - Sheetrock (gypsum board or gyprock) that covers the framing and is taped, coated and finished to make the interior walls and ceilings of a building.

DUCT - A cylindrical or rectangular "tube" used to move air either from exhaust or intake. The installation is referred to as "duct work".

E

EAVE - The part of a roof which projects out from the side wall, or the lower edge of the part of a roof that overhangs a wall.

EFFLORESCENCE - The process by which water leeches soluble salts out of concrete or mortar and deposits them on the surface. Also used as the name for these deposits.

ELEVATION - A side of a building.

END DAMS - Internal flashing (dam) that prevents water from moving laterally within a curtain wall or window wall system.

EXPANSION JOINT - A device used to permit a structure to expand or contract without breakage.

F

FACADE - The front of a building. Frequently, in architectural terms an artificial or decorative effort.

FACE BRICK - Brick made especially for exterior use with special consideration of color, texture and size and used as a facing on a building.

FASCIA - Any cover board or framed metal assembly at the edge or eaves of a flat, sloping, or overhanging roof which is placed in a vertical position to protect the edge of the roof assembly.

FASTENERS - A general term covering a wide variety of screws and nails which may be used for mechanically securing various components of a building.

FINISH GRADE - Any surface which has been cut to or built to the elevation indicated for that point. The surface elevation of lawn, driveway or other improved surfaces after completion of grading operations.

FLASHING - Weatherproof material installed between roof sheathing (or wall sheathing) and the finish materials to help keep moisture away from the sheathing.

FLASHING, (STEP) - Individual small pieces of metal flashing material used to flash around chimneys, dormers and such projections along the slope of a roof. The individual pieces are overlapped and stepped up the vertical surface.

FLASHING , (THRU-WALL) - Flashing extended completely through a masonry wall. Designed and applied in combination with counter-flashings, to prevent water which may enter the wall above from proceeding downward in the wall or into the roof deck or roofing system.

FLOOR PLAN - The basic layout of building or addition, which includes placement of walls, windows and doors as well as dimensions.

FOOTINGS - Wide pours of concrete reinforced with re-bar (reinforcing bar) that support foundation walls, pillars, or posts. Footings are part of the foundation and are often poured before the foundation walls.

FURNACE - A heating system that uses the principle of thermal convection. When air is heated, it rises and as the air cools it settles. Ducts are installed to carry the hot air from the top of the furnace to the rooms. Other ducts, called cold air returns, return the cooler air back to the furnace.

G

GABLE - The end of a building as distinguished from the front or rear side. The triangular end of an exterior wall from the level of the eaves to the ridge of a double-sloped roof.

GASKETS - Pre-formed shapes, such as strips, grommets, etc., of rubber or rubber-like composition, used to fill and seal a joint or opening either alone or in conjunction with a supplemental application of a sealant.

GAUGE - The thickness of sheet metal and wire, etc.

GLAZING - (n) A generic term used to describe an infill material such as glass, panels, etc. (v) the process if installing an infill material into a prepared opening in windows, door panels, partitions, etc.

GRAVEL - Loose fragments of rock used for surfacing built-up roofs, in sizes varying from 1/8" to 1 3/4".

GROUT OR GROUTING - A cement mortar mixture commonly used to fill joints and cavities of masonry or in-between tiles.

GUTTER - Metal trough at the eaves of a roof to carry rain water from the roof to the downspout.

GUTTER STRAP - Metal bands used to support the gutter.

H

HATCH - An opening in a deck, floor or roof. The usual purpose is to provide access from inside the building.

HEADER - Framing members over windows, doors, or other openings.

HVAC - Heating Ventilation and Air Conditioning.

I

INSULATION - (1) Generally, any material which slows down or retards the flow of transfer of heat. Building insulation types are classified according to form as loose fill, flexible, rigid, reflective, and foamed-in-place. All types are rated according to Their ability to resist heat flow (R-Value). (2) In electrical contracting, rubber or thermoplastic wire covering. The thickness of insulation varies with wire size and type of material, application or other code limitations.

J

JAMB - The frame in which a door or window sits.

JOINT - The space or opening between two or more adjoining surfaces.

JOIST - The horizontal framing members that support the floors.

L

LAP - To extend one material partially over another; the distance so extended.

LINTEL - or header - A horizontal piece of wood or steel over an opening such as a window or door to support the walls immediately above the opening. Lintels can also be steel or stone.

M

MEMBRANE - A generic term relating to a variety of sheet goods used for certain built-up roofing repairs and applications.

MOLDING - Finish wood such as door and window trim.

O

OVERHANG - That part of the roof structure which extends horizontally beyond the vertical plane of the exterior walls of a building.

P

PAVER STONES - Usually pre-cast concrete slabs used to create a traffic surface.

POLYURETHANE SEALANT - An organic compound formed by reaction of a glycol with an isocyanate.

PONDING - A condition where water stands on a roof for prolonged periods due to poor drainage and/or deflection of the deck.

POROSITY - The density of substance and its capacity to pass liquids.

PRESSURE TREATED LUMBER - Lumber that is treated in such a way that the sealer is forced into the pores of the wood.

R

RAIL - The top and bottom frame members of a door or window (not the jamb).

RETURN - In heating and cooling systems, a vent that returns cold air to be warmed. In a hot air furnace system, it is located near an inside wall.

ROOF SYSTEM - General term referring to the waterproof covering, roof insulation, vapor barrier, if used, and roof deck as an entity.

R-VALUE - The thermal resistance of a glazing system. The R-value is the reciprocal of the value. The higher the R value, the less heat is transmitted throughout the glazing material.

S

SASH - The window frame, including muntin bars if used, to receive the glazing infill.

SCUPPER - An outlet in the wall of a building or a parapet wall for drainage of water from a flat roof.

SEALANT - An elastomeric material with adhesive qualities applied between components of a similar or dissimilar nature to provide an effective barrier against the passage of the elements.

SHEATHING - Plywood, gypsum, or wood fiber encasing walls, ceilings, floors, and roofs of framed buildings. It is the first layer of outer wall covering nailed to the studs or rafters.

SHINGLES - Small units of material which are laid in a series of overlapping rows as a roof covering on pitched roofs.

SILICONE SEALANT - A sealant having as its chemical compound a backbone consisting of alternate silicon-oxygen atoms.

SILL PLATE - The framing member anchored to the foundation wall upon which studs and other framing members will be attached. It is the bottom plate of your exterior walls.

SILL STEP - The first step coming directly off a building at the door openings.

SKYLIGHT - A structure on a roof that is designed to admit light and is somewhat above the plane of the roof surface.

SLAB ON GRADE - A type of construction in which footings are needed, but little or no foundation wall is poured.

SLOPE - Incline or pitch of roof surface.

SOFFIT - The underside of a part or member of a building extending out from the plane of the building walls.

SPALLING - The chipping or placing of concrete bricks, or other masonry where improper drainage or venting and freeze/thaw cycling exists.

SPLITTING - The formation of long cracks completely through a membrane. Splits are frequently associated with lack of allowance for expansion stresses. They can also be a result of duck deflection or change in deck direction.

STACK - The vertical pipe of a system of soil, waste or vent piping.

STUCCO - A type of cementitious exterior finish.

SUB-FLOOR - Material (such as particleboard) installed before finish flooring materials.

SUBSTRATE - A part or substance which lies below and supports another.

T

THERMAL MOVEMENT - The measured amount of dimensional change that a material exhibits as it is warmed or cooled.

TOOLING - The operation of pressing on a sealant in a joint to press the sealant against the sides of a joint to secure good adhesion; the finishing off of the surface of a sealant in a joint so that it is flush with the surface.

TUCK POINTING - The re-grouting of defective mortar joints in a masonry or brick wall.

ULTRAVIOLET - The invisible rays of the spectrum of light which are at its violet end. Sometimes abbreviated U.V.

V

VAPOR - The gaseous form of any substance.

VAPOR RETARDER (BARRIER) - A membrane which is placed between the insulation and the roof deck to retard water vapor in the building from entering the insulation and condensing into liquid water.

VENT PIPE - A vertical pipe of relatively small dimensions which protrudes through a roof to provide for the ventilation of gasses.

VENTING - The process of installing roof vents in a roof assembly to relieve vapor pressure; the process of water in the insulation course of the roof assembly evaporating and exiting via the roof vents.

VENT STACK - A vertical vent pipe installed for the purpose of providing circulation of air to and from any part of a drainage system.

VENT SYSTEM - In plumbing, a system to provide a flow of air to or from a drainage system or to provide circulation of air within such system to protect trap and seals from siphonage and back pressure.

W

WALKWAYS - Designated areas for foot traffic.

WATER VAPOR - Moisture existing as a gas in air.

WEEP HOLE - A hole which allows for drainage of entrapped water from masonry or glazing structures.

WET SEAL - Application of an elastomeric sealant between the glass and sash to form a weather tight seal.

WIND UPLIFT - The upward force exerted by wind traveling across a roof.

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