

INTRODUCTION

Welcome to your new home! Your builder is pleased to provide this manual as a summary of the more important maintenance issues you can expect to encounter with regard to caring for your new home. It is recommended that you take the time to properly review all information provided.

No home is maintenance free. Proper and timely maintenance can extend the life of many of the components and systems incorporated in your new home and help you to protect your investment.

These maintenance recommendations are intended to provide you with a basic understanding of the maintenance requirements of your home, however, should any questions arise, please contact your builder directly or the specific product supplier or manufacturer.

Undertaking maintenance is not for everyone. If you are uncomfortable undertaking any specific maintenance task, hire a professional.

Summarized at the back of this manual for your use is a New Home Maintenance Schedule.

This manual is not intended to deal with all common property maintenance issues related to a strata titled residential project. Common property maintenance is the responsibility of the Strata Corporation and additional training and information is required.

CLASSIFICATIONS OF PROBLEMS

Your new home has been built to meet or exceed the standards of quality in materials and workmanship set out by the Building Code and the Homeowner Protection Act. In addition, Kang and Gill Construction Ltd. Takes great pride in the quality of its homes and the satisfaction of its customers.

Over the course of the first year of any new building, a certain amount of shrinkage of building materials is expected. There may be some cracking of drywall due to build materials shrinkage or components adjusting and responding to their new environment. As well, there may be other items that you notice, but do not constitute a hazard or, in any way interfere with the enjoyment of your home.

For your own piece of mind and convenience it is important to report problems at the appropriate time. Should an item be considered emergency, it should be dealt with immediately. Others may require prompt attention, but can wait until normal working hours. Lastly there are those items to be noted for the six month or year-end review. Below are examples of each type of problem and the appropriate response.

BUILDING OR IN-SUITE EMERGENCIES

An emergency is a problem that will affect the well-being of the resident(s) and requires immediate skilled attention to the defect. Examples might include:

- **Water Leak:**

If the leak occurs between a fixture and shut-off valve, close the shut-off valve immediately. If no shut-off exists locate the main water shut-off (usually located in the laundry closet of your home) and turn it off until the problem can be rectified.

- **Plugged Sewer Line or Fixture:**

A plugged fixture or sewer line generally occurs because the user of the facility is flushing inappropriate materials down the toilet or drain. DO NOT continue to use the facility once a blockage has occurred. Attempt to unclog the line using a plunger. If a larger blockage has occurred the services of a plumber may be required.

- **Electrical:**

Sparking - If a plug or outlet sparks excessively, immediately turn off the breaker and contact Kang and Gill Construction Ltd. A small spark when an appliance is unplugged is not uncommon.

Circuit tripping - Appliances plugged into the same circuit that is tripping should be unplugged one at a time until an overload is alleviated. This will stop the breaker from tripping.

Power outage - If all power is out to your home, check to see if there is power to your neighbour's home. If there is power, check the main breaker on your electrical panel and reset it after checking for an overload. This may require the assistance of the property manager to open the electrical room closet.

- **No Heat:**

If the heating system does not appear to operational ensure the thermostat has not been turned down.



- Building Entrance Systems:

If the front or garage doors malfunction, please contact the property manager.

ITEMS REQUIRING ATTENTION

Items falling into this category are those that could pose a safety hazard or which, if left unattended until the year-end review, can do greater harm to your home or the building. In our experience, these items are rare but might include such things as:

- Malfunctioning plumbing.
- Electrical problems, including inadequate heat or environmental control.
- Water seepage visible as damp areas on surfaces such as exterior components.
- Window seal failure (the space inside the sealed glass becomes foggy.).
- Window cracks not due to accidents.
- Exterior or entry doors and windows that no longer fit or function properly causing a security concern.
- Cracked or broken tile in the shower not due to accidents.

Items for Year End Review

Some examples of items that should be repaired / replaced at the year might include:

- Drywall cracks.
- Nail pops.
- Cracked floor tile.



SERVICE PROCEDURES

Further to a review of your warranty documentation (please refer to the section regarding Warranty Exclusions as well as your Travelers Guarantee Warranty Certificate), if you feel that a defect exists which is covered under the warranty, please provide *written correspondence* to your builder and your warranty provider. Upon receipt, your builder will contact you to set up an appropriate time to review your concerns so that they may be dealt with efficiently.

Throughout the first year, your home will generally experience some settlement/shrinkage of the building components (particularly the wood framing materials) which will result in some minor cracking of drywall, tiles or other cosmetic flaws. Floor squeaks may also occur. It is a good idea to deal with these items towards the end of your first year of occupancy to allow for the majority of the settlement to occur. *Please ensure that you review all of your warranty documentation closely so that you are aware of all deadlines and complaint procedures.*

MAINTENANCE ITEMS

EXTERIOR COMPONENTS

ANY AND ALL CONCERNS REGARDING EXTERIOR COMPONENTS ARE TO BE DIRECTED TO THE PROPERTY MANAGER.

WINDOWS

Window glazing is typically made of glass with the exception of some skylights that may use an acrylic glazing. Current building standards require the use of double glazed sealed units mounted in thermally broken frames. There is a wide assortment of frame types and the material used can vary widely. Windows may open in different fashions: they may slide horizontally or vertically, open outwards like a door or tilt open in the fashion of an awning. Typical windows require minimal maintenance. Window hardware should be cleaned and lubricated annually. Any accumulated grime or debris should be removed from between the window and the frame.

Most window designs incorporate a drainage track at the bottom of the window to collect any condensation that runs off of the glazing. These tracks will have weep holes to the outside to drain this moisture. These holes must be kept clean and can be maintained with a short piece of wire or a cotton swab.

If high relative humidity levels occur inside your new home during periods of very cold weather, condensation and frost on the inside face of the windows will occur. This is a ventilation issue and is not a fault with the window. Condensation can result in the growth of mold on the window frame that can be controlled with a mild solution of bleach and water.

Condensation between the layers of glass within the window frame indicates that the sealed unit has failed. The glazing unit will require replacement as there is no method of repairing sealed units. If failure of the sealed unit occurs after the expiry of the first year of warranty coverage, contact your window supplier as the cost of this repair may be partially borne by the manufacturer.

Acrylic skylight glazing does allow the migration of moisture through it, therefore, condensation between the double-glazing can be expected. This form of skylight usually has a vent that can be opened to allow for additional airflow between the acrylic glazing units. Check with your skylight manufacturer for further information in this regard.

DOORS

Exterior swing doors are generally made of solid wood, metal, wood over a foam core or fiberglass. Sliding patio doors are usually constructed with metal or vinyl frames and are supplied by the window manufacturer. Interior doors are usually a wood veneer over a hollow core. The main door between the garage and the house will be provided with an automatic door closer and seal (weather-stripping) to ensure that the door automatically closes to prevent the entry of exhaust gases from the garage into your new home.

Exterior doors are exposed to detrimental weather conditions and extreme temperature variations from the inside to the outside which can harm the surface of the door. Variations in the relative humidity from the interior to the exterior can also affect the door. Collectively or separately, these conditions can cause doors to warp or change in dimension. Seasonal variations can occur up to 1/4" in any direction. It is prudent to refrain from trimming a binding exterior door as the problem may rectify itself with a change in climatic conditions.

Some exterior doors have restrictions imposed by the manufacturer as to the colour the door may be painted. The heat absorbed by darker colours can cause failure of the sealing compounds in the glazing and/or cause excessive warping of the door. The wrong paint colour may void the manufacturer's warranty; therefore, any such restrictions should be reviewed prior to the door being painted.

Interior doors are generally sized to allow a gap up to 18mm ($\frac{3}{4}$ ") at the bottom of the door between the door and the floor covering. This gap is provided to allow for the circulation of air beneath the door.

WEATHER-STRIPPING

Weather-stripping is installed around doors and windows to reduce air infiltration. Check the weather-stripping annually to ensure that the seal is adequate. Some weather-stripping is adjustable and the door should be slightly difficult to latch or lock. Petroleum jelly can be used to lubricate rubber or vinyl products to maintain their flexibility.

FINISH HARDWARE

The factory finish on exterior locks and door handles will wear with normal use. This is especially evident with brass finishes in marine environments. To restore this finish, remove the factory lacquer finish with a scouring powder, then polish the hardware. Once a uniform appearance is obtained, the surface can be sealed with a coat of clear lacquer.

Interior door hardware can be wiped clean with a damp cloth and polished with a soft dry cloth. It should be noted that natural body oils and many hand lotions are detrimental to brass finishes and will cause tarnishing.

Door hardware and locks can be lubricated with powdered graphite or light oil.

DECKING AND HAND RAILS

Sundecks, balconies and handrails are exposed to rain, snow and sun. Cracking, warping and splitting of wooden deck materials is normal and cannot be prevented. Painted surfaces will chip and peel and should be touched up annually before the onset of poor wet weather. Open seams in wood trim should be sealed with a suitable caulking to prevent the entry of water.

Care must be taken not to damage any deck membranes and any damage must be repaired immediately. Usually, cleaning with mild soap and water is adequate.

INTERIOR FINISHES

The following is advice meant as a guide for the care and maintenance of the various finishes that may have been included in your home.

Generally we do not recommend the use of abrasive cleaners nor solvents for cleaning any item of your home

FLOOR FINISHES

HARDWOOD

Kiln dried material is used for the construction of hardwood floors. However, these materials are susceptible to movement caused by variations in humidity levels in the living space. Low humidity levels will cause the wood to separate slightly at the seams of the flooring. High humidity levels will cause the

wood to expand. If excessive, this expansion may lead to cupping or swelling in the center of the board. These movements vary seasonally and can be somewhat controlled by monitoring the indoor moisture levels. The movement of the flooring may also create noises as it expands and contracts.

The appearance of hardwood flooring is easy to maintain and a damp mop is all that is required for cleaning. The need for wax on hardwood floors is rare and many types of flooring are now factory finished and have specific maintenance requirements. Refer to your builder or flooring supplier for specific instructions.

- Avoid excess wet or damp mopping of the floor.
- Sweep the floor on a daily basis.
- The use of felt pads or a similar product should be placed under table and chair legs.
- Planted pots should be isolated from the floor surface.
- Spills should be wiped up immediately.
- Avoid high heels or stiletto shoes.

CARPET

Carpeting care basically consists of avoiding spills, cleaning high traffic areas regularly to remove surface dirt and vacuuming the entire carpeted area weekly to remove dirt. Consult your flooring supplier for the specific cleaning and maintenance requirements of the flooring products used in your home.

Carpets and rugs should be professionally cleaned every year or two depending on the use and appearance.

Carpets should be vacuumed regularly. They should be cleaned with steam. Avoid the use of soaps. The soaps if not removed properly can leave a residue that changes the P.H. balance of the carpet and can cause the carpet to change colour.

Avoid walking on the carpet in your bare or sock feet, we recommend slippers with soles or soft soled shoes. The oil from your body will cause the carpet fibres in traffic areas to mat or stick together, this is called pooling.

Carpet Drafting - in some cases a black line may be identified running along the wall. In most cases it will be an exterior wall or stairwell. This is called Carpet Drafting. The cause is from air pollutants such as diesel exhaust. The air enters the home, without being filtered, through open windows etc. The natural convection in the home causes hot air to rise and cold air to fall. Cold air will fall on exterior walls. The carpet will act as a filter and remove the pollutants. These pollutants will form a dark line along the wall. This cannot be prevented but regular cleaning may help. It will occur more rapidly in areas where there are heavy trucks or machinery operating on a regular basis. The phenomenon is becoming more apart as our home become more energy efficient and airtight.

CERAMIC TILE

Ceramic tile is very durable. For routine cleaning use a mild detergent; do not use waxes or sealers. As the grout is porous and will absorb water which will lead to staining, annual sealing of the grout joints with a clear liquid silicone sealer should be carried out.

Sealing of the grout is **your** decision and responsibility. It is however recommended. Applying a grout sealer will help prevent water from penetrating through the grout and into the sub surface wall area. It is suggested that the tile surface be wiped down after each shower. An alternative that is gaining in popularity is the use of a squeegee. Some separation in the grout lines may occur. Cracks can be filled using a premixed grout purchased from a tile or hardware shop.

We recommend:

- Using a broom to sweep the tile or a damp mop to wash the surface. Household detergents can leave a film on the surface and a strong degreasers may actually remove the grout.
- Remove any wet spillage immediately with a damp mop.
- No waxing the floor tile. The surface may become very slippery.
- Padding may be used to help avoid chipping the tile when moving heavy objects across the surface.

COUNTERTOPS

ENGINEERED STONE

Engineered stone countertops only require a simple routine to maintain their attractive look. Regular cleaning using a damp cloth and mild soap detergent is already enough because they are highly resistant to stains. You can simply blot the spill and your engineered stone countertop can look good as new again. Avoid using very strong chemicals (such as acid, alkaline material, and acetone etc.) and other solutions with unidentified ingredients to clean your engineered stone countertop. Make sure your cleaning agent is recommended by the manufacturer. Read the label of your cleaning agent before using it to identify its components. Stay away from floor strippers and oven cleaners because they have very strong chemicals that can damage your countertop surface.

Engineered stones are made from nonporous materials; engineered stone countertops do not require regular sealing to prevent staining, unlike other countertops made of natural stone. Compared to granite countertops, engineered stone countertops are almost indestructible. They are not easily stained by fruit juices, wine, cooking oil, coffee, tea, nail polish remover, lotions, and other common household liquids. Engineered stone countertops are also hygienic because they do not affect the taste of food or compromise its safety when it is prepared on their surface.

CABINETS

Wood, PVC, and vinyl surfaced cabinets are very susceptible to heat damage. If the kitchen is equipped with a self-cleaning oven, the cabinet drawers and cabinet doors adjoining the range should be kept open when the range is in self-clean mode to allow excess heat to dissipate. If heat is allowed to build up, the surface may delaminate. This precaution should also be taken when the oven is used for a prolonged period at a high temperature.

Most cabinet surfaces can be cleaned using a damp cloth and a mild detergent. Abrasive cleaners should not be used. Grease splattered on the surfaces should be removed immediately as it becomes more difficult to remove as it solidifies.

Avoid the use of abrasive cleaners.

When using the self-clean cycle of the oven, it is recommended that the doors and drawers adjacent to the oven be opened. The temperatures inside the oven in the self-clean cycle are very high. The heat can affect the laminate finishes.

PAINT

The interior drywall surfaces of your new home are finished with a latex (water-based) paint. Latex paints in a lower sheen level like eggshell, satin and flat have created problems for homeowners cleaning

and washing walls. Lower sheen products have pigment close to the surface and when cleaned improperly may be burnish or become shiny. This is non-repairable other than painting.

You can avoid this problem if you take the time to properly clean latex painted walls:

- Do not attempt to wash wall prior to latex paint curing (30 days after application).
- Always use a mild detergent with no abrasives, (ie.: dish soap).
- Apply liquid detergent onto a soft sponge - not a cloth, as they act like an abrasive.
- Gently massage the detergent into the soiled area, allowing the detergent to attack the soiled area.
- Once the soiled area is clean, rinse the sponge out and wipe the area gently with a clean moist sponge.

ROLLER SHADES

Because of their nature, dust does not collect on vertical blinds as on normal window coverings. Roller shades can be dusted and wiped clean but are not scrubable. This item is not covered by warranty

INTERIOR DOORS

Interior door hardware can be wiped clean with a damp cloth and polished with a soft dry cloth. It should be noted that natural body oils and many hand lotions are detrimental to brass finishes and will cause tarnishing.

PLUMBING

GENERAL

The plumbing in your new home will likely consist of plastic or copper piping for the supply of potable water throughout the home and PVC plastic piping for the waste disposal. Other products are available but are less common.

A main water supply shut off has been provided to shut off the water supply to your new home. This can be used in the event of an emergency and should be located upon occupancy for future reference. Additional shutoffs may also have been provided to the sink supply lines and toilets to allow for routine maintenance.

The waste lines have been provided with clean outs throughout the residence. These may be located within cabinets, inside closets or clearly visible on a wall surface. These clean outs must remain accessible as they are the means of access to the piping should a blockage occur.

P-traps are present at the outflow of all waste piping. These traps are designed to provide a barrier of water which prevents the entry of sewer gases into the home. Sinks or drains which are used infrequently may lose this water barrier due to evaporation. If sewer gases are detected, running water down the waste pipe will re-prime the trap and likely stop the odour.

Any waste materials, including grease, fat and petroleum products, should not be disposed of down the plumbing system. These materials will accumulate in the piping, especially in the P- traps, and can significantly reduce the flow of water through the waste system. These substances are also very detrimental to the municipal sewage treatment systems and private septic systems.

FIXTURES

The surfaces of the plumbing fixtures are susceptible to damage from abrasive cleaners. Use of abrasive products and steel wool pads should be avoided, as these products will cause the finish of the fixture to become dull and porous. Refer to the manufacturer's recommended maintenance procedures for specific information relating to your products.

Plumbing fixtures are intended for normal household use only. Caustic products should not be disposed of in the household fixtures.

FAUCET REPAIR

Noisy or leaking faucets are frequently due to loose or damaged washers. Turning the fixture off with too much force can damage washers. Faucet handles should be turned no further than the point at which they stop the flow of water.

Faucets can generally be easily repaired by either replacing the damaged washer or the faucet cartridge itself. Basic home repair books describe how to repair typical faucets; however, due to variations in the methods of manufacture, specific instructions may be required. Prior to beginning the repair, the water supply must be shut off at the shut off valves provided. If such valves are not present, the entire water supply system will need to be shut off at the main shut off valve.

Contact a plumber if you are uncomfortable attempting this repair.

Green staining of fixtures is usually a water related issue due to the chemical compositions in the water, and is not a builder defect.

Taps should be cleaned with water and dried with a soft cloth. Do not use chemical cleaners or abrasive pads. These products may cause de-plating of the finishes.

Plumbing fixtures are susceptible to damage from abrasive cleaners. Use of abrasive products and steel wool pads should be avoided as these products will cause the finish to become dull and porous.

Green staining of fixtures is usually a water related issue due to the chemical composition in the water, and is not a builder defect. A solution of baking soda and white table vinegar will generally remove these stains. Thoroughly rinse with water after cleaning.

Stainless steel sinks can be cleaned with a mild abrasive such as Vim. Avoid steel wool as they will leave small bits of metal lodged in the sink and will cause rust spots to show. The sink does not rust. Caution: use of anti-bacterial soaps may cause discolouration of the surface if the sink is not rinsed thoroughly after use.

TOILETS

Toilets generally refill as follows: a flush causes water in the tank to rise, which in turn lifts a ball float to a pre-set water level. Once the ball float reaches this level, the water flow valve is shut off. If set too high, the water level will rise in the tank and run down the overflow pipe into the toilet bowl without shutting off the water. To rectify this, simply adjust the height of the ball float so that the water is shut off before it reaches the height of the overflow outlet.

If water continuously runs into the toilet bowl from the tank, there may be a poor seal at the flapper valve at the base of the tank. This seal can be cleaned with a stiff brush or steel wool. A worn flapper valve would require replacement.

Water dripping from the base of the toilet tank is likely due to condensation on the tank versus a leak of any connections. High interior humidity levels will result in condensation on the cold surface of the toilet tank as the tank is refilled with cold water.

Some toilets and some basins are made of glazed and kiln-fired vitreous china, while some basins and bathtubs are made of enameled steel. Both are very durable and attractive. To clean these fixtures, use mild powdered or liquid cleaners. Avoid abrasive cleansers or pads as they will damage the finish.

Newer energy efficient (low-volume or dual flush) toilets use less water to flush than older models. The operation of some new toilets is more sensitive to the effects of the:

- Amount of waste.
- Amount and type of paper.
- Volume of water in the tank.

PLUGGED TOILETS AND DRAINS

Toilets are very susceptible to blockage. New toilet designs use very little water per flush. This results in a lower volume of water carrying away the waste. Repeated flushing may be required in some instances to remove solid waste. Dense tissue paper and some thick toilet papers are unsuitable for these toilets. Never dispose of hair, grease, lint, diapers, sanitary products, “Q- tips” or plastic in the toilet.

Hair, grease, large food particles or other solid forms of waste can plug drains. Should they become plugged, try removing the debris from the trap beneath the fixture. Alternatively, a plunger can be used. Once partially cleared, very hot water may complete the job. A more severe blockage may require a plumber. As commercial drain cleaners are very corrosive they are not recommended.

TUB AND SHOWER ENCLOSURES

A shower curtain will prevent water from running onto the bathroom floor while the shower is in use. To prevent damage to the flooring or walls, any spills or puddles of water should be cleaned up immediately.

Caulking is used to seal seams and prevent water from entering behind the enclosure. If a separation occurs around your bathtub between the tub and the wall tiles or between the wall and the enclosure itself, it should be filled immediately with a tub sealer or caulking compound available at any home supply centre. Leaving the gap unsealed may cause serious water damage to adjacent materials.

You should apply a clear liquid silicone sealer to the grout joints of tub or shower enclosures that are finished with ceramic tile. This should be done every six months. This sealer is used to prevent the porous grout from allowing water to seep through to the substrate material behind the tile. This sealing cannot be done until the grout has cured for approximately six to eight weeks. Please note, this is a liquid product and should not be confused with silicon based caulking. Follow the manufacturer’s recommendations for application.

Some tub enclosures have specific cleaning requirements. Generally, abrasive cleaners are not recommended and harsh chemical cleaners should be avoided entirely. Follow the manufacturer’s recommendations for maintenance. Also, you should never step into a bathtub with shoes on as trapped grit and dirt can damage the tub surface.

ELECTRICAL SYSTEM

GENERAL

The electrical system in your home has been installed in accordance with the requirements of the provincial electrical code. The power supply is fed to the home via underground or overhead cable. With underground service cables, piping, gas lines, etc., care should be taken when digging on your property. For information on these underground services, contact your hydro or gas provider, your telephone provider, your cable supplier or your local building department.

The small glass enclosed meter mounted on the side of your new home is your hydrometer. This is the property of your utility provider and it measures your household electrical consumption. The voltage at the point of entry is generally 120/240 volts and 60 cycles per second. This may vary in multi-family developments.

Circuit protection will be via circuit breakers located in the electrical panel(s). The main power shut-off will be located inside the electrical panel or immediately adjacent to it. This panel and the location of the main breaker should be located upon moving in, before an emergency occurs.

Should the circuit breaker “trip”, it is likely due to overloading of a specific circuit or a short circuit in an appliance cord. The start-up load of electric motors can also temporarily overload a circuit. To correct tripped breakers, isolate the cause of the overload or short and disconnect it. The circuit breaker can then be reset by turning it to the "off" position and then to the "on" position. If the breaker continually trips, contact an electrician.

G.F.C.I. CIRCUITS

A ground fault circuit interrupter (G.F.C.I.) is an additional electrical safety device installed in the electrical system. This device is a breaker that can be located in the main electrical panel or within specialty outlet receptacles and is designed to provide protection from ground faults. The G.F.C.I. is extremely sensitive and will trip if grounding of the electrical current is detected. Ground faults usually occur in older appliances and electrical equipment or inexpensive extension cords. A poorly insulated extension cord lying on wet ground will often cause a ground fault. Because water and electricity are a poor combination, protection is installed to the outlets in the bathroom and outdoors. If this breaker trips, unplug the source of the ground fault and reset the breaker either at the panel or at the outlet itself.

G.F.C.I. outlets should be tested monthly to ensure their proper operation.

Please note: that two outlets can be located on the same G.G.C.I. receptacle as they are connected on the same circuit.

SMOKE AND FIRE DETECTORS

Smoke detectors have been installed in accordance with the requirements of the Building Code. They should be tested monthly to ensure their proper operation, and should be cleaned twice a year with a vacuum.

Please note that these devices are connected directly to the electrical system of the home and do not require batteries. However, they will not operate in a power outage unless the unit has a backup battery.

HEATING AND VENTILATION

HEATING

Regardless of type, the heating system is designed to maintain a minimum temperature of 21 C at the outside design temperature. The indoor temperature is measured in the center of the room. This calculation is a health and safety issue defined by the Building Code/Bylaw and is not directly related to comfort. Temperature variations from room to room can be expected. The heating system may temporarily not be able to meet comfortable temperatures in specific regions where the temperatures falls below the outdoor design temperature.

There are numerous types of thermostatic controls for any given heating system. The accuracy of these controls can vary due to internal heat gains caused by a continued demand for heat. At times, it may be necessary to ignore the numerical temperature settings and set the thermostat for a temperature that is comfortable. Adjusting a thermostat to a setting higher than the temperature desired will not speed the rise in temperature.

The various heating systems available all have specific requirements for maintenance in order to operate at maximum efficiency. The operation of your specific system is best determined by reviewing the instructions provided by your builder or the manufacturer.

Heating systems will not operate unless the thermostat setting is higher than the room temperature. Solar heat gains can warm a room or area to the extent that the thermostat is warm enough not to be calling for more heat. The heating system will then remain turned off and other rooms not positively affected by the heat of the sun can become cool.

VENTILATION, CONDENSATION AND RELATIVE HUMIDITY

The optimum year round humidity level to be maintained within the residence is approximately 50%. Due to seasonal variations of the relative humidity outdoors, this level of humidity can be impossible to maintain without the use of specialized mechanical equipment. Mechanical means of maintaining a constant humidity within the home are available.

Due to Building Code/Bylaw requirements pertaining to energy conservation, current standards for house construction require that the exterior envelope of the building be sealed against incidental air leakage. This sealing of the exterior walls prohibits the leakage of warm air to the outdoors from within the residence.

Warm air has the ability to hold more moisture than cold air; therefore, daily activities within your new home such as showering, boiling water, and even respiration create moisture in the form of water vapour. Surprisingly, this can total 7 - 9 litres (1½ to 2 gallons) of moisture per day with four occupants. The warm air holds this water in suspension and as this moisture-laden air comes in contact with cold surfaces it will condense and water will form. Condensation will fuel the creation of mold and mildew.

The failure of an owner to properly ventilate and maintain proper heating levels can seriously affect a new home and the health of the occupants. Any resultant damage due to an owner's actions would not be covered under the warranty.

The key to controlling humidity levels within the home and avoiding condensation is adequate ventilation. Ventilation allows the warm moist air to be exhausted from the home and replaced with dry cool air from the outdoors. This will marginally increase the cost of heating as this cold air is brought up to room temperature; however, this added cost is necessary to offset the harm the high humidity levels will cause.

As the outdoor temperature drops, the surface temperature of the exterior walls will also drop. The air inside the house will not be able to sustain as high a level of relative humidity. This will cause condensation to occur on cold surfaces.

The chart below provides a rough guideline as to the relative humidity levels that can be sustained within the house as the temperature drops.

Celsius	Outside air temperature Fahrenheit	Desirable maximum inside relative humidity (%)at an indoor temperature of 21 C (70 F)
-29	-20	20%
-24	-10	25%
-18	0	30%
-12	10	35%
- 7	20	40%

Windows or the toilet tank of the toilet used most frequently can be used as a guide to determine whether or not the proper relative humidity is being maintained. As soon as condensation occurs on inside window surfaces or on the tank of the toilet, steps should be taken to reduce the relative humidity by controlling the moisture sources and/or by increasing ventilation.

As previously stated, ventilation is often the only effective means for removing moisture. Dehumidifiers are only practical in limited areas. If vented outdoors, exhaust fans in the kitchen and bathroom will remove moisture created from cooking and bathing before the vapour can circulate through the house. These fans should not exhaust into the attic space as this will only exhaust the moisture into the attic potentially causing problems. These fans need to be run often enough to remove the air borne moisture. The length of time required will depend on the number of occupants, the activities undertaken and outdoor climatic conditions. Many new homes are now provided with intermittent timer controls that regulate the operation of these fans which should never be tampered with or turned off.

Windows are an effective means of ventilation and depending on weather conditions, thoroughly airing out the home for 15 minutes a day may suffice. In addition, opening a window near the source of moisture while the exhaust fan is in operation will allow for cross ventilation and more effective moisture and odour removal.

If high relative humidity levels occur inside your new home during periods of very cold weather, condensation and front on the inside face of the windows will occur. This is a ventilation issue and is not a fault with the window. Condensation can result in the growth of mould on the window frame that can be controlled with a mild solution of bleach and water.

If you are experiencing condensation on your windows, below are a few effective and efficient ways to reduce the condensation in your home:

- Use exhaust fans while cooking.
- When doing laundry, please be sure to open a window door and run the booster fan, if supplied.
- Close the bathroom door and open a window after baths and showers.
- Use bathroom exhaust fans while having a bath and shower.
- Ventilate the home at least once a day by opening a window or door.
- Open blinds and drapes throughout the day to allow for air circulation on windows.
- Move furniture roughly 12-16 inches from windows and heaters.

RANGE HOODS AND EXHAUST FANS

Range hoods and exhaust fans are provided to reduce or eliminate cooking odours and excess moisture. Not all range hoods vent directly outdoors. For efficient operation and to reduce potential fire hazards created by grease accumulation, filters should be washed in mild detergent. They can also be run through a dishwasher.

Range hoods and filters require cleaning. The frequency of cleaning required will depend on how often the range is used and what type of cooking is done. The filter is made of a steel mesh that performs best when clean. It is easily removed and cleaned by soaking in warm water with regular detergent. It is also recommended to clean the fan and housing as well.

Range hoods that do not vent outdoors are usually provided with a charcoal filter that helps remove grease and odours. These filters should be replaced in accordance with the manufacturer's recommendations.

APPLIANCES

GENERAL

The appliances included with the purchase of your new home have been checked to ensure that they are operating properly.

All of the appliances in your new home come with a manual, which detail the operating procedures for the specific appliance. These instructions must be followed in order to maintain the manufacturer's warranty. Any warranty cards provided with the equipment should be completed and sent to the manufacturer to ensure your warranty obligations are met.

DRYER

It is recommended that the lint trap in the dryer should be cleaned after every load of dried laundry. Failure to clean this lint trap as recommended may result in condensation build up in the dryer duct and trap moisture in the ceiling or walls of your home.