Factory Built Home Maintenance Guide

MHAPP

MODULAR HOUSING ASSOCIATION PRAIRIE PROVINCES

Provided by:

The Modular Housing Association Prairie Provinces (MHAPP)

Established in 1976, The Modular Housing Association Prairie Provinces (MHAPP) today represents approximately 150 members from all aspects of the modular housing industry including manufacturers, show home centres, multi-unit project builders, transporters, lease land community owners and developers, and industry suppliers of goods and services.

FACTORY BUILT HOMES

Important Foundation, Structure and Maintenance Information

Welcome

Congratulations on the purchase of your new factory built home! The purpose of the initial portion of this document is to inform the owner of a factory built home about special considerations pertaining to the foundation, structure, unique maintenance items, and to act as a supplement to the generic single family home maintenance documents provided by your home warranty provider, and possibly the manufacturer of your home.

The information and recommendations in the following pages will help you enjoy and protect your investment. As a homeowner you have a responsibility to maintain your home. Please note that failure to maintain the home and mitigate damage could be cause for denial of a warranty claim. Establishing and following a maintenance schedule is the best way to manage your household maintenance budget, protect your investment, and prevent future complications.

Safety First

The homeowner should be aware that there are inherent dangers in performing home maintenance. Appropriate protective gear should always be worn and; if the homeowner does not feel confident, competent, or physically able to perform a maintenance task, a professional should be hired to do so.

Quality Standard

Note: In all cases, the quality standard shall revert to the show home or Performance Guide

Personal cosmetic preferences that differ from the manufacturer's construction standard of your home are not a valid warranty claim.

Determining if a Defect Exists

Industry standards and common sense dictate that the Show Home Centre can only be held to a reasonable standard when it comes to perceived defects detected while inspecting your new home. The Governments of Alberta and British Columbia have developed Material and Labour Performance Guides in consultation with industry stakeholders. These guides will help clarify what is a normal condition of construction or material performance. They should be consulted if you encounter an issue that you believe may be a defect and a claim under a contract of home warranty. Where there is no mandatory new home warranty legislation (currently Manitoba until January 1st, 2017 and Saskatchewan), warranty coverage may be determined by the manufacturer, Show Home Centre or 3rd party warranty provider. Homeowners should carefully read all applicable warranty policies, and note any limitations and restrictions.

Please Note:

- This document is not intended to re-state maintenance items that are common to all types of housing
- Maintenance is the Home Owner's responsibility and is crucial to meeting warranty requirements

- Moisture is your enemy: control it inside the home and ensure it drains away from the outside of your home
- Changing the structure of your home or adding additions of any kind may affect the structure and your warranty (refer to the following Maintenance section)
- Review your warranty manuals

Standard maintenance obligations are found in the maintenance manual provided by your warranty provider as well as the manufacturer's documentation. Both documents should be referenced when planning your monthly, seasonal and annual maintenance activities. It is important to conduct required maintenance in order to fulfill your obligations under the warranty.

Key Maintenance Information

The suggested schedule of maintenance tasks contained within this document should not replace the manufacturer's recommendations. It is recommended you use licensed contractors for any tasks you do not have the technical knowledge or ability to perform.

Maintenance: (From the Ground Up)

Foundation Maintenance

The foundation is the most important part of the home and must be carefully maintained in order to avoid future difficulties with the home itself. Proper drainage, ventilation, and other means which prevent water infiltration are necessary and must be employed by the homeowner in order to mitigate damage to your home.

Due to Canada's extreme climatic conditions, all foundations can and will move seasonally. Whether built using concrete steel or wood, freeze, thaw and shifting soils will cause movement in foundation structures over time. Correct foundation selection and construction will mitigate most issues, but will not completely prevent some movement. In addition, your home is comprised mostly of wood which will expand and contract seasonally. These factors can cause a wide variety of normal occurrences, including doors and windows going out of adjustment, panel/drywall cracking, and ceiling movement (truss uplift), to name a few.

Re-Levelling

Some (though not all) Show Home Centres will block and level your home one (1) time at delivery as part of the purchase price of your home. After this, any additional blocking adjustments and re-levelling are considered maintenance items and will be at your expense, as natural settling and/or annual frost heaving occurs. Determining factors regarding the frequency to re-level a home depend largely on the soil type and weather conditions in the area where your home has been placed. If doors and windows begin to bind or not close properly, it is usually the first indication that the levelling of your home may need to be adjusted. You should inspect your foundation regularly and have your home levelled if required.

Drainage

Moisture can often be the root cause of building durability problems. As well, ongoing moisture ingress can cause the growth of mold and mildew. It is imperative that water be diverted away from your foundation as much as possible. Proper slope/grade and landscaping should direct the natural flow of surface water away from your home. Please note that if subsidence or settling occurs, regrading may be necessary and is considered a maintenance item. Eaves troughs must be well maintained and be kept clean and free of debris. All downspouts should extend well beyond the footprint of your home and keep water well away. Do not pile snow up around the foundation of your home, as this can damage your foundation or skirting and lead to excessive moisture buildup in your basement or crawlspace.

Ventilation and Skirting

In the case of a home which sits above ground and utilizes some type of "skirting" material around the bottom perimeter of the home, proper ventilation is essential in order to facilitate the escape of moisture. It is important that these vents be checked twice a year so that they remain free of debris and in good working order. In particular, there should never be standing ground water underneath your home. This maintenance item assumes you have followed the drainage procedures noted above in *Drainage*. No amount of ventilation will dry up water that is running under your home because of improper site preparation or maintenance.

Important: Never vent dryer exhaust underneath your home! Always vent dryer exhaust out past the

perimeter of your home. See Manufacturer or Show Home Centre for details.

*Note: Proper ventilation of crawlspace can be found in CSA Z240.10.1-08 Section 9.2.2.

Reminder: The Building Code specifies 1 in 500 ventilation area regardless of season since there can be upward migration of water during the late fall season when the ground outside the home is frozen while it is still unfrozen under the home.

Rodents

Please note that your skirting is the first line of defense against rodents getting underneath your home. You should ensure that your home site is level to begin with so that skirting can easily and evenly be installed. Any voids under bottom rails should be filled. You are responsible to maintain the ground around and under the skirting around your home.

Water Line and Sewer Line Maintenance

Freezing temperatures can occur in all parts of Canada. Thus, in the case of homes sitting above ground with skirting surrounding the base perimeter, the water supply line to the home should be installed below the frost line. The entire pipe riser/stand pipe above the frost line must be protected from freezing. An electric heating element, generally referred to as a "heat tape" is the most common method. See your qualified plumber and the specific Manufacturer's instructions for information relevant to your home. Sewer pipes do not have to be insulated because they are sloped (as long as they are not draining a condensate line from a high efficiency furnace) and generally do not allow water to build-up and freeze inside the pipe.

However, in extremely cold winters or in areas where extreme cold occurs regularly, it is good practice to insulate sewer pipes as well to prevent freeze-up. In addition, be aware of the danger of dripping faucets and toilets. These can cause a very slow drain which can freeze as it enters the pipe, eventually blocking it completely if no warm water is used to clear it.

Lastly, it is important that the Condensate Drain Line that runs out the bottom of your home (including through the insulation) from your high-efficiency furnace be insulated and heat traced and be connect to your main sewer drain underneath the home, if not already connected to a sewer line from the factory. Inspect this hose for any kinks etc. as well. If this line freezes or cannot properly drain, it will shut down your furnace. It is strongly recommended installers employ heat tape and insulation on the Condensate Drain Line and the sewer line from where they exit the home all the way to the ground. (Heat tape and insulation is recommended in this case as the Condensate Line is connected to the main sewer drain.) In extremely cold areas, a condensate pump is recommended. This usually can be ordered with your furnace as an option.

All accessible water lines & shut-off valves from the main to those supplying each fixture should be inspected carefully when water is first connected and turned on in a home. Thereafter, regular inspections should take place to prevent any incidence of leakage which can cause extensive damage to your home if undetected. You, and/or your plumber should inspect each connection visually and by touching each valve to ensure that no water is leaking out. You should inspect these connections regularly and especially during freezing weather as part of your regular maintenance schedule.

Belly Bag/Bottom Board Maintenance

Most factory-built homes are insulated on the underside by a membrane often referred to as a "belly bag." This membrane and the insulation it holds up are primarily what keep the water lines in your home from freezing and rodents out of your home. Some service connections under your home will already be sticking out past the belly bag in plain view; however, others may still be covered by this membrane when your home is delivered. Please ensure that service/utility personnel make as few cuts in this membrane as possible. The best way to do this is to be sure your sales representative or Show Home Centre has provided you with a copy of the Service Drop Diagrams for your home. These diagrams provide precise measurements to the locations of water, sewer, and electrical connections. The use of these diagrams ensures service personnel do not have to guess where to cut into the belly bag. Any cuts in the belly bag must be repaired as quickly and thoroughly as possible once installers have completed their work. Special belly bag tape is available from your Show Home Centre. You should inspect the belly bag or sheeted underside of your home regularly for rips, tears, rodent infestation, and any signs of water penetration or failure.

Mold/Mildew Issues

Mold and mildew manifest from the ongoing wetting of materials. Ongoing moisture can be the result of leaks or condensation. It is the responsibility of the home owner to detect leaks and control humidity so that it does not cause excessive condensation within the home. It is important to know how to prevent mold from becoming a problem in your home. Mold cannot grow without the presence of moisture. Thus, following the instructions in the previous three maintenance items (b, c, and e) is imperative to the prevention of mold in your home. Prompt moisture control in the form of leak detection and proper drainage under and around your home is the only effective defense.

Condensation/Relative Humidity and Ventilation (Inside your Home)

With ongoing changes to the Building Codes reflecting the importance of energy efficiency, a number of energy saving features are incorporated into your new home. Factory built homes are extremely well insulated and air-tight. Thus, condensation on

windows and cold surfaces can happen, and is usually a sign of excessive relative humidity inside your home, which may cause problems. Relative humidity is a measure of the amount of moisture in the air relative to the air temperature. High relative humidity during cold outside temperatures will cause condensation where building materials are colder than the air (especially windows). This condensation can severely damage your home by causing wood and other building products to fail of deteriorate.

Managing relative humidity:

Some sources of moisture which may cause excessive humidity and condensation within your home include humidifiers, large numbers of houseplants, large aquariums, and laundry dried inside the house. The main method of reducing moisture from the air inside your home is to use the de-humidistat controls connected to one or more of your bathroom fans or by using your Principal Ventilation System. Most homes that sit above ground will come with a de-humidistat control on one or all of your bathroom ventilation fans. It is extremely important that you follow the Manufacturer's recommendations for setting your de-humidistats with respect to the temperature outdoors. Many of these controls come with a small chart right on the control itself that will suggest what percentage to set the control at for a given outdoor temperature. In particular, when temperatures plunge rapidly, it will be necessary to run your de-humidistats often in order to keep ice from building up on your windows. (This may vary depending on the type of windows you purchased with your home, double pane, triple pane, etc.)

In addition; many homes (depending on the province you reside in), will be equipped with a Principle Ventilation System or a Heat Recovery Ventilation (HRV) system which is often called an air exchanger. See your Show Home Centre and/or your Home Owner's Manual for detailed instructions on how to run these important appliances which will help you control humidity inside your home. In some cases, the purchase and use of a dehumidifier may be required. Under no circumstances should the de-humidistat be turned off, where installed.

Window Maintenance

Proper care of windows can greatly affect their performance, and thus your satisfaction with them as time goes by. As earlier addressed, windows that bind or do not open properly may indicate an issue with the levelling of your home. Also previously discussed, is the importance of keeping relative humidity under

control in order to keep ice from forming on your windows. There is a requirement for windows to be cleaned periodically in order to ensure optimum performance.

In particular, the "weep holes" or drain holes that are commonly used in the bottom window track must be kept clear of dust so that they can effectively drain moisture harmlessly away from the bottom of your windows and thus your casings, walls, etc. This maintenance item should be performed at least twice a year, seasonally in areas where dust or blowing dirt is common. Modern PVC windows can come with springs or "shoes" that may need to be adjusted or lubricated with a silicone spray from time to time. See Manufacturer's Maintenance Guide or ask your Show Home Centre for details.

Drywall Cracks and Nail Pops

Cracks are not unusual in drywall compounds at joints and particularly at corners. Most cracks and nail pops occurring within the first year are the result of normal shrinkage or settlement and are not generally considered to be defects. Painting is the responsibility of the homeowner. Generally, the Show Home Centre will repair drywall cracks, nail pops, and other minor flaws that appear in the home, at time of delivery or within the first year after delivery. After the first year, any additional drywall crack repairs are considered a part of normal homeowner maintenance. These cracks

generally result from the normal settling/shifting of your home and its foundation due to shifting ground, frost upheaval, drainage problems, or seasonal changes.

Ceiling Texture at Marriage Points & Ceiling Crack Repairs

In the case of multi-section homes, it is virtually impossible to get the ceiling texture at the marriage points of the different sections to match perfectly. Although the same products that the manufacturer uses may be employed, differing temperature, equipment settings, and humidity can affect the final result. Your Show Home Centre will apply the product as effectively as possible to try and match the existing finish however; colour, finish or texture may not end up as an exact match.

Furnace Maintenance and Condensate Lines

Furnace filters should be regularly inspected and replaced when necessary. On some types of factory built homes, usually self-contained (single level) units that come with a downdraft furnace already installed, the filter system may be different from other types of homes. The filters in these types of homes may not be readily available at your local hardware store. See your Show Home Centre Representative as he/she will be able to obtain these filters from a wholesale supplier. These filters generally sit just behind the main air intake and often come in bulk rolls that can be cut to length. They are also washable but should still be replaced occasionally. All vents should be kept clear of ice, snow and debris.

Important Information about your Furnace Condensate Line can be found above, under 'Waterline and Sewer Maintenance'.

Exterior Stairs and Decks

If your home is installed on blocking or a wood-pile type foundation, stairs and decks should not be attached directly to the rim-joist of the home. Since the home and the deck can move or shift differently from season to season, the two structures may damage each other significantly if they are permanently attached. In the case of homes which sit above ground on wood blocking or pile type foundations, decks and steps (and additions if you choose to build one or have one built for you) should remain "floating" and support their own weight unattached to the home. The home owner must consult the manufacturer's specifications, contact the show home centre, and seek professional advice as to whether or not the deck can be attached directly to the rim joist.

Draft coming from a window or windows

This is a common concern from new homeowners. The vinyl PVC windows in your home are of high quality and give a very positive seal from the outside air. However, during cold periods, when the warm inside air comes in contact with the cold glass surface of the window pane, convection current is created and the warm air is cooled suddenly and moves rapidly away from the cold glass surface. People can easily mistake this air movement as outside air leaking through the window when in fact it is a normal occurrence.

Appliances incl. Hot Water & Furnace

If a problem arises with one of these appliances, please refer to your Appliance or Home Owner Manual for the warranty process.

Outside Frost Free Tap

While these taps are designed to provide water in all seasons to the outside of your home, they will not tolerate having a hose connected during freezing temperatures. You must be sure to disconnect your hose after use in the late fall, winter and early spring. The design of this tap relies on the section that may be exposed to extreme temperatures to fully drain when the water is shut off. Having a garden hose connected interferes with this draining and can cause freezing, and result in major water leakage and damage to the interior of your home.

Faucet Aerators

If you experience low or erratic water flow at a particular faucet, the cause is likely a partially plugged aerator. The faucet aerators should be cleaned regularly. Your aerators might need cleaning more frequently during the first few weeks after your utility hookups. These can be very quickly and easily cleaned by the home owner by unscrewing the aerator located at the end of your faucet spout.

Important: During the construction phase of a home and the initial connection of your water system it is important to temporarily remove the aerators from your faucets to allow the little bits of construction debris that may have entered your water lines to be purged from the system.

Snow on Roof

During periods of heavy snowfall the edges of the roof should be cleared of snow back at least 18 inches or 12 inches more than the eave width. This will avoid ice damming and prevent possible water leakage into the home.

Any questions regarding the maintenance instructions included here can be directed to your experienced Show Home Centre staff.

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