CONTENTS

INTRODUCTION	iii
SERVICE POLICY	v
SERVICE DIRECTORY	vii
HOMEOWNER MAINTENANCE CHECK LIST	ix
SERVICE AND MAINTENANCE GUIDE	
AIR CONDITIONING AND HEATING	1
APPLIANCES	11
ATTIC	14
BATHROOMS	15
CABINETS	18
CONCRETE	21
COUNTERTOPS AND VANITY TOPS	28
DECK	32
DOORS	34
ELECTRICAL SYSTEM	40
EXTERIOR FINISHES	46
FIREPLACE	54
FLOORING AND FINISHES	58
FRAMING AND CARPENTRY	67
INTERIOR WALLS AND CEILINGS	69
LANDSCAPING AND GRADING	73
PAINTING	78
PLUMBING SYSTEM	81
PLUMBING FIXTURES	86
ROOFING, GUTTERS, AND DOWNSPOUTS	95
WATER INFILTRATION AND CONDENSATION	99
WINDOWS	104
GLOSSARY	109
INDEX	117

INTRODUCTION

THE EXCITEMENT Is BUILDING!
Your brand new Ryland home is, or will soon be, under construction. And as a future Ryland homeowner, you will soon want to know how to properly maintain and care for your home.

Our feeling is that the more you know about your home, the better you will be able to take care of it, and that means you'll enjoy it more.

To acquaint you with the variety of maintenance aspects common to homeownership, Ryland is providing you with this Homeowner's Manual. Here, you'll discover a tremendous variety of useful information that will guide and help you to effectively handle most maintenance and service requirements.

THE HOMEOWNER'S MANUAL CONTAINS THE FOLLOWING SECTIONS:
Ryland 's Service Policy: Provides instructions to request service, the appropriate forms, and explains what to do in case of electrical, plumbing, or heating emergencies.

Service Directory: Provides a convenient list of all major Contractor firms involved with the construction of your home. Includes the address and telephone number of your local Ryland Division Office and the name of your Sales Representative and Service Supervisor.

Homeowner's Maintenance Check List: Provides a condensed listing of important preventative maintenance procedures and establishes a time schedule for when specific maintenance items should be performed.

Service and Maintenance Guide: During the first year, keeping your home in tip-top condition is a shared responsibility between Ryland Homes and you, the new homeowner. This section will acquaint you with the major mechanical systems and components of your home: from the air

conditioning and heating to the plumbing and electrical systems; from the exterior construction of roof, attics, and finishes to the interior construction of kitchens and bathrooms. The Service and Maintenance Guide presents a range of subjects, all listed alphabetically for quick reference.

Further, the Guide defines Ryland's responsibilities to you, and explains your maintenance responsibilities as the homeowner.

Each section is then broken down into four main parts:

1. The Introduction to each section provides general information specific to each topic.
2. The Typical Repair Guidelines spell Out Ryland's coverage and responsibilities, defining covered items, the length of coverage provided, and often outlines the Specific repairs we will make should corrections be necessary.
3. The Homeowner's Maintenance Guidelines provide you with maintenance and operating procedures, tips, and ideas to keep your home and its components operating properly.
4. Solutions to Common Problems is a handy reference chart in each section that can save you time, money, and many unnecessary service calls.

A Glossary that defines building industry terms used throughout the Service Guide and an Index are located at the end of this document.

We urge you to review this material thoroughly and to keep it readily available for future use.

Again, we want to thank you for choosing Ryland Homes to build your new home. We are proud of our homes and dedication to customer service. And we are hopeful that you will tell your friends about us.

We wish you happiness in your new Ryland home.

SERVICE POLICY

Ryland's Service Policy is driven by our total company commitment to deliver outstanding customer service and to satisfy your homebuying expectations.

Your Service Representative will be your primary contact for service once Settlement occurs and after you've moved into the home. Most questions and repairs will normally be resolved through the Customer Service Conferences discussed in your Homebuyer's Guide. Routine maintenance questions are also addressed in the following pages of this Manual, in both the individual subject sections and in the Solutions to Common Problem sections.

TO REQUEST ADDITIONAL SERVICE

Should you require additional service beyond the Customer Service Conferences, please fill out the "Service Request Form" found in this section, and return it to your local Division Office. Ryland will acknowledge your request and set up an appointment time for the repairs covered by Ryland's Typical Repair Guidelines, plus applicable HOW and Manufacturers' Warranties.

Should a problem occur that requires immediate but not emergency service, call us during regular business hours and your Service Representative will contact you within 24 hours. Please provide the Ryland Service Administrator with your name, address and subdivision, date of closing, home and work telephone numbers, and describe the nature of the problem.

In some instances, you will need to contact our Contractors directly, and their numbers are included in the Ryland Service Directory. Many appliances and other products are also protected with Manufacturer's Warranties, and their toll-free 800-Hotline numbers, if available, are in the Manufacturer's Warranty material you received at the Pre-Settlement Orientation.

EMERGENCIES

Most emergencies are either electrical, plumbing, or heating related, and are normally handled by the appropriate Contractor or Utility Company. The names and service telephone numbers of both are listed in Ryland's Service Directory.

Before calling for help with an emergency, please review the appropriate electrical, heating, or plumbing section in this Manual to determine if something very simple can resolve the problem. Unnecessary use of our emergency service may delay a necessary response to a genuinely critical situation.

VALID EMERGENCIES INCLUDE:

Electrical Emergencies: An emergency exists when there is no electrical power anywhere in your home. Please do not call unless you have checked to ensure that all circuit breakers in the main electrical panel are in the "ON" position.

Plumbing Emergencies: An emergency exists if your home is completely without water or if all toilets are stopped up. If there is some water, and at least one working toilet, your service call will be handled during regular business hours.

Heating Emergencies: An emergency exists if there is no heat anywhere in the home. Please note that air conditioning failure is not considered an emergency unless there is a health threat to someone in the home. Otherwise, such problems will be handled during regular business hours.

SERVICE ACCESS TO YOUR HOME

When routine repairs are necessary, Ryland Service personnel and our Contractors will need access to your home during normal working hours. If you or an adult family member cannot be available, we ask that you authorize, in writing, a neighbor or friend to provide the necessary access. As an alternative, please fill out the "Permission to Enter and Key Receipt," provided by your Ryland Service Representative.

SERVICE DIRECTORY

RYLAND HOMES DIVISION OFFICE

ADDRESS _____

TELEPHONE

YOUR RYLAND SALES REPRESENTATIVE: _____

YOUR RYLAND SERVICE REPRESENTATIVE: _____

MAJOR RYLAND CONTRACTORS

	NAME	**TELEPHONE**
Heating & Air Conditioning		
Electrical		
Plumbing		

List the names and telephone numbers of product manufacturers and appropriate contractors for parts and service.

	CONTRACTOR / TELEPHONE	**MANUFACTURER / TELEPHONE**
Appliances		
Brick		
Cabinets		
Carpeting		
Ceramic Tile		
Fireplace		
Garage Door		
Landscaping		
Paint		
Resilient Floors		
Roofing		
Security System		
Siding		

	CONTRACTOR / TELEPHONE	MANUFACTURER / TELEPHONE
Windows & Doors		
Wood Floors		
Other Contractors		

IMPORTANT TELEPHONE NUMBERS

Police Department	
Hospital	
Fire and Rescue	
Telephone Company	
Gas & Electric Co.	
Sewer and Water	
Schools	
Elementary	
Middle School	
High School	
U.S. Post Office	
Others	

MAINTENANCE CHECK LIST

INTRODUCTION

The importance of maintaining your new home on a regular basis is directly comparable to maintaining a brand new car. If you never change the oil or get the car tuned up, little problems will eventually become big problems.

Similarly your new Ryland home is designed and built to last for many years, and yet it has numerous components and equipment that require periodic maintenance by the homeowner. By implementing the following preventative maintenance guidelines, you can help keep the components of your home functioning properly with as few problems as possible.

To help you pinpoint when specific homeowner maintenance items should be performed, this check list is divided into distinct time periods: After Move-In, Every Month, Every Six Months, Annual, plus Spring and Fall. For additional information regarding the subjects presented here, please refer to the appropriate Manufacturer's Operating Instructions and/or the specific subject discussions contained in this Manual.

Please note that this Section is intended to provide you, the homeowner, with maintenance guidelines that you can perform, and does not indicate the services that Ryland will perform. Also be aware that you will be charged directly by the contractor who provides any of these services.

AFTER MOVE-IN CHECK LIST

BATHROOMS

- Apply silicone based grout sealer to ceramic tile grout.

DECK

- Apply preservative sealer to wood surfaces following manufacturer's instructions.

ELECTRIC

- Locate and label the main circuit breaker in the electric panel box and show family members how to turn it off in case of emergency.

FIRE EXTINGUISHER

- Purchase a general purpose fire extinguisher for each floor of the home plus one small kitchen extinguisher for grease fires. Demonstrate proper usage to family members in case of *an* emergency.

FIREPLACE

- Purchase fireplace screen, wood grate or andirons, and tools as necessary.

FIRST AID KIT

- Keep first aid materials and a book on first aid procedures in *an* accessible location.

FLOORING

- Attach **furniture** protectors underneath **furniture** legs to protect hardwood, resilient, and ceramic tile floors.

HOUSEHOLD TOOLS

- Acquire basic tools to help you with normal home maintenance chores, to include: pliers, adjustable wrench, flat-blade and Phillips head screwdrivers, claw hammer, hand saw, tape measure, caulk and caulking gun, putty knife, paint roller and brush, power drill and drill bits, assorted nails, brads, screws, nuts, bolts, sandpaper, utility knife, toilet plunger, and flashlight.

LANDSCAPING

- Follow your Landscaping Contractor's instructions for year-round landscaping care. Review and implement recommendations in the *Landscaping and Grading Section of* this Manual.

PLUMBING

- Locate and label the main water line shut-off valve and show all **family** members how to close it in case of a plumbing emergency.

WATER EROSION

- After first heavy rain, check foundation for erosion and fill eroded areas. Ensure that splashblocks are correctly positioned to divert rain water away from the home. Thereafter, always be on the alert for erosion and take immediate action to fill eroded areas.

EVERY MONTH CHECK LIST

AIR CONDITIONING AND HEATING

- Check air filters and clean or replace as necessary.
- Vacuum air supply and air return registers to remove dust and lint.

FIRE EXTINGUISHERS

- Check fire extinguishers to ensure that they are fully charge

GARBAGE DISPOSAL

- Clean disposal blades by grinding up ice cubes. Freshen it with baking soda and by grinding up citrus fruit rinds.

INTERIOR CAULKING

- Check for cracks or separations in caulking around sinks, bathtubs, toilets, faucets, countertops and backsplashes, ceramic walls, resilient and ceramic floors, window sills, and any other areas originally caulked by Ryland To repair these areas, use an appropriate caulking compound and follow the caulking instructions in the *Plumbing Fixtures Section* of this Manual.

RANGE HOOD FAN

- Clean or replace dirty filter.

SMOKE DETECTOR

- Test smoke detectors.
- Clean and/or vacuum detector openings as necessary.

EVERY SIX MONTHS CHECK LIST

CABINETS

- Clean and apply a light coat of wax.

DOORS

- Check screws on door lockset and hardware and tighten as necessary.
- Lubricate bifold and by-pass doors as necessary.
- Clean sliding door track and apply silicone spray to tracks as necessary.

ELECTRIC

- Test and reset all GFCI (Ground Fault Circuit Interrupter) receptacles.
- Check electrical extension and appliance cords. Replace frayed or split cords.

EXTERIOR FINISHES

- Check for cracks and voids in exterior caulking and re-caulk as necessary.
- Inspect vinyl siding and clean as necessary per manufacturer's instructions.
- Check exterior painted. surfaces for damage and weathering. To repair, follow the maintenance instructions contained in the *Painting Section* of this Manual.

PLUMBING

- Check water supply lines and valves to sinks and toilets. Tighten if loose or leaking.
- Clean out faucet aerators, spray nozzles, and drains.
- Check pipes and drains for water leakage.
- Remove water heater residue following instructions in the *Plumbing Fixtures Section* of this Manual.

WATER INFILTRATION AND CONDENSATION

- Check basement and foundation for moisture. Review *Water Infiltration and Condensation Section* of this Manual.

WINDOWS

- Check sills for caulking cracks or separations and re-caulk as necessary.
- Check weatherstripping around windows and repair or replace as necessary.
- Check windows for smooth opening and closing Operation. Clean tracks and lubricate as necessary.
- Inspect window screens and repair or replace as necessary.

ANNUAL CHECK LIST

ATTIC

- Check attic to ensure that soffit vents are not blocked with insulation and move insulation back to its original location if there are voids on the attic floor.

CABINETS

- Check drawers and hinges for proper alignment. Tighten and adjust as necessary.

DECK

- Check and tighten all deck bolts.
- Replace damaged pickets, rails, and boards. Replace warped boards that create a trip hazard.
- Re-seal wood surfaces with a preservative as necessary following manufacturer's instructions.

DOORS

- Check and repair or replace weatherstripping on exterior doors as necessary.
- Check and tighten door hardware and lubricate as necessary.
- Tighten all bolts on garage door.
- Oil moving parts of garage door.

SUMP PUMP

- Clean sump pump following manufacturer's instructions and the directions in the *Plumbing Fixtures Section* of this Manual.

SPRING CHECK LIST

AIR CONDITIONING SYSTEM

- ❖ Hire an HVAC Contractor to perform seasonal maintenance check-up for summer.
- ❖ Ensure that rugs, draperies, and furniture do not block air supply registers.

EXTERIOR HOSEBIBS

- ❖ Turn exterior faucets on by reversing the winterizing process **described in the** *Plumbing Fixtures Section* of this Manual.

ROOFING

- ❖ Visually inspect roof from the ground for loose, warped, torn, or missing shingles. Hire a Roofing Contractor should repairs be required.
- ❖ Hire a Contractor to check and clean gutters and down spouts, inspect for ice or winter damage, and repair gaps in flashing and soffits.
- ❖ Hire a Contractor to check skylights for loose flashing and gaps in caulking.

FALL CHECK LIST

EXTERIOR HOSEBIBS

- ❖ To prevent exterior pipe freezing, review and implement the winterizing instructions in the *Plumbing Fixtures Section* of this Manual.

FIREPLACE

- ❖ Have chimney professionally cleaned as necessary.
- ❖ Check firebox for loose fire brick or mortar.

HEATING SYSTEM

- ❖ Hire an HVAC Contractor to perform seasonal maintenance check-up for winter.

ROOFING

- ❖ Hire a Contractor to clean and check gutters for leakage.
- ❖ Check alignment of gutters, downspouts, and splashblocks to ensure that water is properly diverted away from the home.

AIR CONDITIONING & HEATING

A. INTRODUCTION

The air conditioning and heating equipment was installed by the HVAC (Heating, Ventilating, and Air Conditioning) Contractor listed in Ryland's Homeowner Service Directory.

All Systems provide year-round climate control and consist of a thermostat to control temperature, a basic furnace unit to heat the air, a filter to cleanse the air, plus a fan unit to distribute and circulate air throughout the home via ducts and registers. Heat pumps and air conditioners have an outdoor unit that transfers heat into and/or away from the home.

It is important to read the Manufacturers' Service Manuals, operating instructions, maintenance guidelines, warranties, and energy-saving recommendations provided to you at the Pre-Settlement Orientation. Where appropriate, fill out and return the Warranty Registration Cards to the manufacturer. Failure to do so may void the manufacturer's warranty.

Note: As equipment technology frequently changes, the Manufacturers' Service Manuals will supercede all recommendations and procedures contained in this guide.

TYPICAL REPAIR GUIDELINES: First Year Coverage

The following guidelines apply to the heating and air conditioning system. Guidelines specific to air filters, thermostats, and the air distribution system are contained in their respective descriptions.

1. A heating or *air* conditioning problem caused by defective workmanship or equipment will be inspected and corrected to meet the manufacturer's installation and product specifications.
2. The heating system shall be capable of producing an inside temperature of 70° F as measured in the center of each room at a height of 5.0 feet above the floor, under local outdoor winter design

conditions as specified in the ASHRAE Handbook. Deficiencies within the system will be inspected and corrected to meet the 70° F specification.

3. The air conditioning system shall be capable of maintaining a temperature of 78° F as measured in the center of each room at a height of 5.0 feet. Should outside temperatures exceed 95°F a differential of 15°F from the exterior temperature will be maintained. Deficiencies will be inspected and corrected to meet the 78°F specification. Rooms on second floors or on finished lower levels will vary in temperature from rooms on the floor where the thermostat is located.
4. A clogged condensation line caused by defective workmanship will be corrected by removing the clog.

TYPICAL REPAIR GUIDELINE: Two Year Coverage

1. A refrigerant line that leaks will be inspected to determine the source of the leak, and will be repaired by sealing the leak, recharging the unit, and restoring the system to proper working order.

Warranty Caution: *Any addition, alteration, or modification to the original heating, venting, or air conditioning system installation may void all applicable warranties.*

Manufacturer Warranties: *The air conditioning, gas heating, and heat pump equipment installed in your home is protected by Manufacturer Warranties that may extend beyond Ryland's First Year Coverage. Should you experience warranty protected problems beyond the first year of occupancy, please contact the HVAC Contractor listed in Ryland's Homeowner Service Directory.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Service Contract: An extended annual service contract may be available from an HVAC Contractor that provides seasonal check-ups of the heating and cooling components, plus periodic cleaning. The advantage is that

scheduled service may reduce system failure by preventing problems before they occur.

BEFORE CALLING FOR SERVICE:

1. Insure that the thermostat is properly set.
2. For an electric furnace or heat pump:
   A. Check the circuit breaker in the panel box. If tripped, reset by switching the breaker to full OFF, then fully back to the ON position. If the circuit breaker will not reset, contact the IWAC Contractor. *See Circuit Breakers in the Electrical System Section.*
   B. Check the electrical disconnect switch, located on or near the furnace, and reset
   C. Check the exterior disconnect switch located outside the home, near the heat pump, and reset.
3. For a gas furnace:
   A. Check the circuit breaker and switch at the furnace to be certain they are set to the On position.
   B. Check the pilot light, then re-light in accordance with the manufacturer's instructions, or contact the Gas Company for assistance.
   C. If the gas furnace is equipped with an automatic pilotless ignition, please call for service and do not attempt self-repair.
   D. Check to ensure that the door on the front of the gas furnace, which has a safety switch, is securely closed.

CALLING FOR SERVICE:

For prompt service, contact the HVAC Contractor listed in your Ryland Homeowner's Service Directory directly. Ryland cannot assume responsibility for service performed by anyone other than the authorized Contractor.

B. AIR FILTER

The air filter, located adjacent to the furnace fan unit, helps reduce the flow of dust into the air. In some installations, the air filters may be

located at the return air grilles. As the filter collects dust, it reduces the system's efficiency and must be either cleaned or replaced.

Ryland has installed one air filter in each filter location and will, at the Pre-Settlement Orientation, demonstrate proper filter installation, cleaning, and replacement procedures. After that, the cleaning, replacement, and maintenance of air filters is the homeowner's responsibility.

HOMEOWNER'S MAINTENANCE GUIDELINES

Monthly filter cleaning or replacement will provide cleaner air, improve air flow, and help reduce utility costs. To remove and clean or replace filters, turn the furnace and fan off using the thermostat control, then pull out the old filter and clean, or insert a new one. Replacement filters are available through hardware stores.

C. THERMOSTAT

The thermostat controls the entire heating and cooling system and is physically located to maximize the efficiency of the HVAC system. Air conditioner and heat pump thermostats provide a selectable fan switch to circulate the air when neither heating or cooling is required. A heat pump thermostat has a blue/green light that indicates when the supplemental heating element is on. *See Supplemental Heat, under Heat Pumps, in the Air Conditioning and Heating Section.*

TYPICAL REPAIR GUIDELINE: First Year Coverage

1. A thermostat that malfunctions will be inspected and then repaired or replaced as follows:
    A. A thermostat problem caused by defective workmanship will be corrected to meet the manufacturer's installation specifications.
    B. A thermostat that is improperly calibrated will be repaired by re-calibrating.
    C. A thermostat that cannot be repaired will be replaced.

Manufacturer Warranty: *The thermostat installed in your home is protected by a Manufacturer Warranty that may extend beyond Ryland's First Year Coverage. Should you experience warranty protected problems beyond the first year of occupancy, please contact the FIVAC Contractor listed in Ryland's Homeowner Service Directory.*

D. AIR DISTRIBUTION SYSTEM

The heating and cooling system can be adjusted and balanced to meet individual temperature preferences. When the right balance is achieved, utility bills and wear and tear on the heating system are reduced.

Duct Work and Dampers: Ducts carry and distribute heated or air conditioned air to each room. Some air ducts are fitted with adjustable dampers that open to increase or close to restrain air flow to major parts of the home. Please consult the HVAC Contractor for correct positioning or adjustment of dampers.

Registers: Two kinds of registers are used: air supply registers, located on the floor, ceiling, or walls, that deliver warm or cooled air into the room; and air return registers, located on walls, 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.

Interior doors in each room are undercut to allow return air to circulate throughout each room when the doors are closed.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Season to season balancing is the responsibility of the homeowner. If the homeowner cannot achieve the desired results, the HVAC Contractor that installed the heating and air conditioning system will, at the homeowner's request, balance the system in the home one time.
2. A ticking or crackling noise coming from the duct work is normal.

TYPICAL REPAIR GUIDELINE: Two Year Coverage

1. Duct work that separates or becomes unattached will be re-secured.

HOMEOWNER'S MAINTENANCE GUIDELINES

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.

E. GAS HEATING EQUIPMENT

In communities where natural gas is available, the home may be equipped with a gas-fired, forced-air heating system. Operation and maintenance instructions are provided by the manufacturer and should be carefully reviewed. The local utility company is a good resource for additional gas energy information and energy-saving tips.

HOMEOWNER'S MAINTENANCE GUIDELINES

Pilot Light: The gas furnace may feature a pilot light that stays lit all the time, or a pilotless ignition. **If** the unit has a pilot light, keep it on during the summer. The minimal amount of heat it generates will keep the furnace dry and prevent corrosion.

Do not store combustible items such as clothing, brooms, dust mops, or oily rags near a gas furnace, as this presents a fire hazard.

Flue: A gas furnace has a flue that vents exhaust fumes to the outside of the home. A ticking sound resulting from flue expansion and contraction is normal.

F. AIR CONDITIONER

Gas heated homes are equipped with an air conditioning compressor located outside the home. The system provides cool air by removing heat and humidity.

HOMEOWNER'S MAINTENANCE GUIDELINES

Keep the air conditioning compressor 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.

Do not build a deck around or over the air conditioner unless there is an 18.0 inch clearance on the sides and a 6.0 foot minimum clearance on top.

G. HEATPUMP

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 located outside the home that provides both heating and cooling functions. It operates on the principle that outdoor air, even in wintertime, contains heat or thermal energy. During wintertime, the heat pump extracts heat from the outside air and then transfers it to the indoor air. In the summer, the process is reversed, whereby the heat pump removes heat from indoor air, discharges it outdoors, and then circulates cooled air throughout the home.

A heat pump can be expected to operate continuously if outside temperatures fall below 40°F the resulting increased air circulation provides a more consistent inside temperature.

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 below 25° to 30° F, the heat pump is 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 indicator light on the thermostat lights. 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 Heat switch on the thermostat. 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% 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.

HOMEOWNER'S MAINTENANCE GUIDELINES

Keep the heat pump unit level and keep the area surrounding the unit clear to allow unimpaired airflow. Do not plant bushes near the unit and be careful that dirt, leaves, and grass clippings are cleared away.

Do not build a deck around or over the heat pump unless there is an 18.0-inch clearance on the sides and a 6.0-foot minimum clearance on top.

SOLUTIONS TO COMMON HEATING & AIR CONDITIONING PROBLEMS		
Problem	***Likely Cause***	***Solution***
Reduced airflow or excessive dust on vents and registers	Dirty air filter.	Clean or replace air filter as necessary.
Indicator light on Thermostat stays on continuously.	Disconnect breaker at heat pump or panel box tripped.	Check disconnect breaker. Reset or replace as necessary.
Gas furnace does not operate.	Furnace cover not closed tightly.	Close and latch cover securely.
Heat pump, fan, or air conditioner not operating.	Circuit breaker tripped.	Reset circuit breaker at panel box or unit.
Air conditioner or heat pump not operating properly.	Outside unit obstructed by snow, bushes, leaves, etc.	Clear obstructions from top and sides of unit.
Inside air handler is leaking water.	Condensate pump, if applicable, not working.	Check circuit breaker. Insure that pump is plugged in.
Inside air handler is leaking water.	Inside coil is frozen.	Call HVAC Contractor.
Inside air handler is leaking water.	Condensate drain clogged.	Gendy tap condensate line or pour a cup of 50/50 bleach/water solution through condensate line.

SOLUTIONS TO COMMON HEATING & AIR CONDITIONING PROBLEMS		
Problem	***Likely Cause***	***Solution***
Inside or outside coil is frozen.	Low refrigerant in heat pump or dirty air filter.	Call 'IVAC Contractor. Clean or replace filter.
Excess water on window panes.	Excess humidity in home.	Lower huinidifier setting. Use exhaust fans.
Burning smell when winter of auxiliary heat first turned on.	Accumulated dust on electrical coils.	Normal. Happens once each year.

APPLIANCES

A. INTRODUCTION

Your Ryland home comes equipped with a variety of appliances, and may include an electric oven and cooktop or a gas oven and cooktop, a microwave oven, countertop broiler, convection oven, range hood, dishwasher, refrigerator, garbage disposal, washing machine, or electric dryer.

At move-in time, test ail appliances for proper operation. Review the Manufacturers' Service Manuals for operafion and maintenance instructions. Then file the manuals in a convenient locafion for future reference. Where appropriate, fill out and return the Warranty Registration Cards to the manufacturer. Failure to do so may void the manufacturer's warranty.

Many manufacturers offer a toll-free 800-Rotline service to answer questions about appliance problems and operation. For future reference, record these nurnbers in Ryland's Homeowner Service Directory.

For appliance repair protecfion that extends beyond the manufacturer's warranty period, you may want to consider a service contract available through an appropriate Contractor.

If you purchase your own appliances, carefully measure existing appliance openings to ensure proper fit. Check that doorway widths leading to the fmal appliance location are wide enough to move the appliance through.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An appliance problem caused by defective workmanship or equipment will be inspected and corrected to meet the manufacturer's installation and product specifications.

Warranty Caution: *Any electrical, HVAC, or plumbing addition, alteration, or modification to the original appliance installations may void all applicable warranties.*

Manufacturer Warranties: *The appliances installed in your home are protected by Manufacturer Warranties that may extend beyond Ryland's First Year Coverage. Should you experience warranty protected problems beyond the first year of occupancy, please contact the appropriate appliance manufacturer.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Before Calling for Service: If an electrical appliance fails to work, implement the following checklist before Calling the appropriate Electrical, HVAC, or Plumbing Contractor. Otherwise, you may be charged for a service call.

1. Check that the appliance is plugged in.
2. If the appliance is plugged into a wall-switched electrical outlet, make sure the switch is On.
3. The circuit breaker in the panel box controlling the appliance should be in the On position. *See Circuit Breakers in the Electrical Systems Section.*
4. Some appliances come with their own separate fuses or circuit breakers. Review the Manufacturer's Service Manual for exact location, then check for proper setting.

SOLUTIONS TO COMMON APPLIANCE PROBLEMS		
Problem	***Likely Cause***	***Solution***
Clothes do not dry.	Clogged dryer vent due to kinked line, lint build-up, or other obstruction.	Remove kink or line obstruction.

ATTIC

INTRODUCTION

The attic space is constructed with either a truss system or rafters.

Warranty Caution: *Roof trusses should not be cut to install attic stairs. This can structurally damage the integrity of the roof and will void HOW's major structural defect warranty.*

HOMEOWNER'S MAINTENANCE GUIDELINES

The attic truss system is not engineered to support additional weight and should not be used for any storage purpose.

Ryland installs a variety of attic vents to remove excessive heat and moisture from the attic space. These include ridge vents, gable louvers, roof louvers, soffit vents, and baffles where the roof meets the wall. Do not cover these vents with insulation or any other material.

Insulation in the attic protects the rooms below it. If the insulation is moved, it will leave gaps between the insulation panels and may obstruct the attic vents. Always replace moved insulation back to its original position.

BATHROOMS

A. CERAMIC TILE WALLS

The ceramic tile in your bathroom is easy to maintain. The grout joints between the tiles are not waterproof and require proper maintenance to prevent water seepage and damage of materials adjacent to and undemeath the tile.

Cracks in the caulking joints between tile and tub, in the shower stall comers, and at the floor, are caused by the high degree of moisture present in every bathroom, as well as from the normal shrinkage of caulking material. Separation between the tub and wail tile is caused by home settlement and by the weight of the tub when filled with water.

TYPICAL REPAIR GUIDELINES First Year Coverage

1. A cracked ceramic wall tile will be replaced if caused by structural movement and will not be replaced if caused by homeowner abuse or negligence.
2. A loose ceramic wail tile will be re-secured by removing and replacing the tile mastic, re-positioning the tile, and then re-grouting.
3. A crack in caulking where the ceramic tile meets tub/shower, comer seams, or base of tub, will be re-caulked one time.
4. A crack or void in the grouting of ceramic tile will be re-grouted one time.

Note: Drywall, flooring materials, insulation, paint, and woodwork can suffer severe damage due to unattended grouting and caulking problems. Inadequate homeowner care or failure to immediately report grout and caulking problems can result in extensive damage and this damage will not be repaired by Ryland.

Pre-Settlement Orientation Check List: *Carefully examine all ceramic wall tile during the Pre-Settlement Orientation. Scratches, chips, and cracks will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

Ceramic Tile Wall Repair Note: *Ryland cannot ensure that ceramic tile wall repairs requiring new material will match the color of the existing tile material or colored grouting. Slight color variations are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Clean wail tiles with a damp cloth, and remove accumulated film with a soapless, non-abrasive detergent or tile cleaner. Keep white tile seams clean by brushing with diluted bleach in a well-ventilated room.

Caulk minor cracks in grout joints and separations between tub or shower stall and wail surfaces with a silicone caulk, taking care to wipe the tile clean once caulking is complete. Do not use clear silicone caulk since it yellows with age and stains easily. *See Re-Caulking of Tubs and Showers in the Plumbing Fixtures Section.*

B. MIRRORS AND MEDICINE CABINETS

HOMEOWNER'S MAINTENANCE GUIDELINES

Clean bathroom mirrors with a spray glass cleaner and a soft cloth, wiping several times to remove all glass cleaner residue. Do not use abrasive cleansers which will permanently scratch and mar mirror surfaces.

C. BATHROOM MAINTENANCE

HOMEOWNER'S MAINTENANCE GUIDELINES

Mildew: Moisture and mildew problems can occur in any room where water vapor is present. To reduce mildew, turn on the exhaust fan or slightly open a window when bathing. Wipe off wet tiles when done, then hang up towels and washcloths to dry. To clean mildewed surfaces and reduce mildew odors, apply a liquid mildew agent in a well-ventilated room, followed by a disinfectant and thorough rinsing with clear water.

Soap Scum: In some geographic areas, "hard water" or water that is high in mineral content, can contribute to soap scum buildup. To clean and remove this residue, wash the affected surfaces with a mild vinegar and water solution.

SOLUTIONS TO COMMON BATHROOM PROBLEMS		
Problem	***Likely Cause***	***Solution***
Grout cracks between tiles.	Settlement.	Re-caulk cracks with silicone-based caulk.

CABINETS

INTRODUCTION

Kitchen and laundry room cabinets, bathroom vanity bases, and medicine cabinets are selected for their attractive appearance, durability, and ease of care. With proper maintenance, the cabinets will remain serviceable and attractive.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Cabinet door warpage that exceeds 1/4 inch, as measured from the face frame to the point of furthermost warpage when the door is closed, will be repaired by adjusting the hinges.
2. A cabinet drawer that does not fit flush against the face frame when closed, will be repaired by adjusting the drawer guides.
3. A gap between the cabinet and ceiling or wall that exceeds 1/4 inch in width, will be repaired by installing a filler board or trim of similar color.
4. A cabinet that becomes loose from the wall or bulkhead will be resecured, unless it is determined that the weight limitation of 20 pounds per square foot has been exceeded.
5. A cabinet handle, drawer handle, hinge, or drawer guide that fails to operate as designed, will be replaced.
6. A lazy susan that fails to operate as designed will be adjusted unless it is determined that the weight limitation of 20 pounds per square foot has been exceeded.

Pre-Settlement Orientation Check List: *Carefully examine all cabinets during the Pre-Settlement Orientation. Scratches, chips, and cracks will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Wood Cabinets: Wood cabinet tone, grain, and color variations are normal, and reflect the natural characteristics of real wood.

Clean wood cabinets with the same gentle care you would give any fine wood furniture. Lemon oil applied once or twice a year will protect the finish and appearance.

Cabinet mounted coffee makers are not recommended since the rising steam will damage solid wood and wood veneer, causing fading or delamination. For the same reason, position regular coffee makers out from underneath the upper cabinets and near the front of the counter.

Laminate Cabinets: Clean laminate cabinets with a soapy cloth or sponge, or use a non-abrasive liquid household cleanser for more stubborn stains. There are one-step cleaning products available for laminates that clean, reduce streaking, and leave surfaces polished. As with all cleaning products, carefully follow the manufacturer's instructions.

Shelves and Lazy Susan Cabinets: Flat and carrousel shelves are not designed to hold weight that exceed 20 pounds per square foot. Keep canned goods, flour, sugar, and heavier products on the bottom shelf of the base cabinets. If desired, apply contact paper to shelves to protect against scratches and water stains.

Drawer and Hinge Care: Check the hinges at least once a year for proper alignment and tightness, using a screwdriver to make necessary adjustrnents. Check drawers for easy movement and apply a silicone spray to the drawer guides should sticking occur. Close the drawers to protect the drawer guides and to keep the contents clean.

Repairing Nicks and Scratches: Hardware stores offer color matching putty, stains, and polymer fillers to cover and repair cabinet nicks and scratches.

SOLUTIONS TO COMMON CABINET PROBLEMS		
Problem	***Likely Cause***	***Solution***
Cabinet drawer sticks.	Drawer glides out of alignment or debris in track.	Realign track. Check for debris. Spray with silicone.

CONCRETE

A. FOUNDATION

Two types of foundations, concrete block or poured-in-place concrete, are used to build the foundation and basement of Ryland homes.

It is important to understand that concrete is a porous, brittle material that will expand, contract, and crack as the result of temperature changes, shrinkage, and stress. Hairline cracks that may appear on foundation walls are usually cosmetic, as opposed to structural. Foundation cracks are common and are caused by shrinkage or stress.

Shrinking results from the normal curing process of concrete that varies with the time of year and the moisture conditions that exist when the concrete is poured. Stress is caused by soil placed up against the wall, plus the full weight of the home that rests upon the walls. The weight from these forces can create a variety of stresses which, in combination with seasonal temperature variations, can cause concrete and masonry foundations to expand and contract.

If your home has a basement, the block foundation may be covered on the outside with a cement parging, while the poured-in-place concrete foundation walls do not require parging. Both have an application of a material that is water resistant but not totally waterproof. Crawl space foundations do not require the application of water resistant materials.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A vertical crack in the foundation that exceeds 1,8 inch in width will typically be repaired as follows:
    - A. A slight contraction and expansion crack may be filled with a flexible silicone concrete caulking.
    - B. In the case of water penetration or structural repair of a poured wall foundation, a crack can be repaired from the interior by

injecting an epoxy resin material into the crack to bond the concrete together.

C. A crack in a poured wall or block foundation may be repaired by excavating the exterior wall, chiseling an inverted V shaped channel, filling the exposed crack with a hydraulic cement, and then re-damp proofing the wall.

2. A horizontal crack in the foundation occurs infrequently. Horizontal cracking will be inspected by a Ryland representative to determine the cause and to monitor future movement.
3. A wall tie or honeycomb on poured-wall foundations that leaks water will be repaired by applying an epoxy or hydraulic cement to the affected area from either side.

HOMEOWNER'S MAINTENANCE GUIDELINES

Drainage: Proper water drainage around the foundation will keep the basement dry, and eliminate unnecessary stress on the foundation wall. In many locations, drain tile and sometimes a sump pump, are used to drain water away from the foundation. Familiarize yourself with the system installed in your home and locate where the drain tile discharges. Check periodically to insure that all drains are clear of debris, that pumps are operating, window wells are clean, and that the soil around the foundation properly slopes away from the home. *See Controlling Foundation Water Penetration in the Water Infiltration & Condensation Section.*

Moisture Control: Slight moisture condensation on basement walls and floor is normal during the first year, since hundreds of gallons of water are used to make the concrete, mortar, drywall mud, and paint. As this water evaporates, it naturally raises the moisture content. Proper ventilation will reduce this condensation. Open basement wi ndows during clear, dry weather and then close them during damp, humid weather. if excessive humidity develops, consider using a dehumidifier to remove unwanted moisture from the air. *See Water Infiltration and Condensation Section.*

Efflorescence: A white powdery substance that may appear on block walls or stucco is called efflorescence It is composed of water soluble

salts, originally present in masonry materials, that are brought to and deposited on the surface when water evaporates. Most efflorescence can be removed with a stiff scrub brush and water.

B. BASEMENT, GARAGE SLABS AND SLABS ON GRADE

Hairline cracks less than **1/8** inch in width are common to large concrete basement slabs, garage slabs, and slabs on grade, and are caused by slight home settlement, or expansion and contraction. These cracks are normal and it is best to leave them alone, since attempts to fill the cracks will not stop the expansion and contraction.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A slight expansion and contraction crack in the basement or garage slab, that exceeds 1/8 inch in width, will be repaired by filling the crack with a flexible silicone concrete caulking.
2. A crack in the basement floor or garage slab, that exceeds 1/8 inch in vertical displacement, will be repaired by grinding, surface patching, or other methods as required.
3. A basement or garage slab that settles, heaves, or separates in excess of 1/4 inch from the house structure, will be inspected by a Ryland representative to determine the cause and to monitor future movement.
4. A crack in concrete slab-on-grade that ruptures the surface of resilient flooring will be repaired by removing the flooring material, and then grinding, chiseling, or surface-patching the concrete.
5. Concrete floors in habitable moms shall not have pits, depressions, or areas of unevenness that exceed 1/4 inch in 32 inches measured horizontally. This does not apply to basement floors or where a floor or portion of a floor has been designed for drainage purposes.

HOMEOWNER'S MAINTENANCE GUIDELINES

Due to certain soil types, some staining of concrete is normal. Clean concrete floors with a solution of five tablespoons of baking soda to a gallon of water. Before using the cleaning solution, wet the floor with clear water and loosen dirt with a steel brush or scraping blade.

A concrete sealer may be applied to the floor, following the manufacturer's directions, approximately six months after you move in. This will make it easier to clean and will reduce concrete dusting.

C. PORCHES, STEPS, STOOPS, AND SIDEWALKS

In most cases, exterior concrete cracks are due to the freeze and thaw cycle, slight home settlement, or shrinkage that occurs during the concrete curing process.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An expansion and contraction crack on porches, steps, stoops, and sidewalks that exceeds 1/8 inch in width, will be repaired by filling the crack with a flexible silicone concrete caulking.
2. A crack on porches, steps, stoops, and sidewalks that exceeds 1/4 inch in vertical displacement, will be repaired by removal and replacement of the affected area.
3. A porch, step, stoop, or sidewalk that settles, heaves, or separates in excess of 1/2 inch from the house structure, will be repaired by surface capping.
4. Water should drain from outdoor stoops and steps. The possibility of small amounts of water standing on covered porches for a short period after a rain can be anticipated. If water remains on concrete stoops or steps, a repair will be made by removing and replacing the affected areas. For standing water on brick steps, the affected step will be replaced.
5. A concrete surface that disintegrates by means other than chemicals or abuse will be repaired by removing and replacing the affected area.
6. Minor chips will be repaired by surface patching if noted on the Pre-Settlement Check List

Caution: *Concrete surfaces, under normal usage and weather conditions, should not disintegrate to the extent that the aggregate is exposed and loosened. Even during the First Year Coverage, Ryland is not responsible*

for concrete deterioration caused by homeowner abuse or negligence, salt, chemicals, heavy vehicles, or other factors beyond our control.

Concrete Repair Note: *Ryland cannot ensure that concrete or masonry repairs requiring new material will match the color of the existing material. Color variations are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Remove snow and ice promptly from porches, steps, and stoops. If a thin layer of ice cannot be removed, cat litter or clean sand offer safe traction.

Do not apply de-icing salts or chemicals to any concrete surface. Repeated thawing and freezing with salt and chemicals can damage brick, concrete, and mortar, as well as kill grass, shrubs and trees.

D. DRIVEWAYS AND PATIOS

Driveways are subjected to heavy use and severe weather conditions. You may experience slight cracking and movement in the driveway slab due to the freeze-thaw cycle, vehicular traffic, and soil settlement. It is not uncommon for exterior poured concrete to rise and fall due to the freezing and thawing of the soil on which they are poured.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An expansion and contraction crack in the driveway slab or patio that exceeds 1,8 inch in width will be repaired by filling the crack with a flexible silicone concrete caulking.
2. A crack in the driveway slab or patio that exceeds 1/4 inch in vertical displacement will be repaired by removal and replacement of the affected area.
3. A driveway or patio that permanently settles, heaves, or separates in excess of 1/2 inch from any adjoinlng slab or apron, will be repaired by surface capping of the affected area.
4. A concrete surface that disintegrates by means other than chemicals or abuse, will be repaired by removing and replacing the affected area.
5. Minor low spots that hold water are normal and should be anticipated.

Caution: *Concrete surfaces, under normal usage and weather conditions, should not disintegrate to the extent that the aggregate is exposed and loosened. Even during the First Year Coverage, Ryland is not responsible for concrete deterioration caused by homeowner abuse or negligence, salt, chemicals, heavy vehicles, and/or other factors beyond our control.*

Concrete Repair Note: *Ryland cannot ensure that concrete repairs requiring new material will match the color of the existing material. Color variations are normal and will become less noticeable over time.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Salt Damage: Salt and other de-icing chemicals will cause severe damage to exterior concrete surfaces. Even when salt is not used, it can be tracked in from the street on feet, tires, or accumulated under the fenders of your vehicle. When left to melt, this highly concentrated salt causes pitting, spalling, and possibly the exposure of aggregate. Although unsightly, this surface deterioration eventually stops and does not continue past the contaminated areas.

Salt Precautions: Apply a concrete sealant to protect the concrete from water penetration.

Weight Precautions: Keep excessive weight, such as moving vans, large construction vehicles, firewood, sand, and lumber off the driveway to prevent cracking.

SOLUTIONS TO COMMON CONCRETE PROBLEMS		
Problem	***Likely Cause***	***Solution***
Minor cracking.	Normal settlement, shrinkage, expansion and contraction.	Fill with flexible silicone concrete caulking.
Minor dusting.	Heavy traffic.	Apply concrete sealer (after 6 months in home).

COUNTERTOPS & VANITY TOPS

A. COUNTERTOPS & VANITY TOPS

Kitchen countertops are covered with laminate material or ceramic tile, while cultured marble is used on bathroom vanity tops.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A laminate countertop that delaminates will be repaired by re-gluing.
2. Loose or missing filler material in the miter joints of laminate tops will be re-applied one time.
3. A cracked ceramic countertop ifie will be replaced if caused by structural movement and will not be replaced if caused by homeowner abuse or negligence.
4. A loose ceramic countertop tile will be re-secured by removing and replacing the tile mastic, re-positioning the tile, and then re-grouting.
5. A crack or void in the grouting of ceramic countertop tile will be re-grouted one time.
6. A crack in caulking, where the laminate or ceramic tile counter meets the wall, will be re-caulked one time.

Caution: *Service requests regarding the Typical Repair Guidelines presented above must be immediately reported to Ryland by the homeowner. Failure to do so is considered negligence and can result in significant water damage which will not be repaired by Ryland.*

Pre-Settlement Orientation Check List: *Carefully examine all countertops and vanity tops during the Pre-Settlement Orientation. Scratches, chips, and stains will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

Ceramic Countertop Tile Repair Note: *Ryland cannot ensure that ceramic countertop tile repairs requiring new material will match the color of the existing tile material or colored grouting. Slight color*

variations are normal. Also be aware that the grout used on ceramic tile counter tops will stain and that such stains will not be repaired by Ryland.

HOMEOWNER'S MAINTENANCE GUIDELINES

Laminate Countertops: Clean laminate countertops with a soapy cloth or sponge, or use a non-abrasive liquid household cleanser for more stubborn stains. There are one-step cleaning products available for laminates that clean, reduce streaking, and leave surfaces polished. As with all cleaning products, carefully follow the manufacturer's instructions. Always clean across the joints in laminate countertops.

Rust Stains: The contact of wet metal on sink surfaces, for example, the bottom of a shaving can, may produce rust stains. To remove them, apply a powdered rust remover following the manufacturer's instructions.

Keep standing water away from the back splash, seams, and the seal around the sink. These areas are prone to water damage, since excessive moisture will eventually break down the seal and cause swelling or delamination. Check seams periodically and re-caulk as necessary. *See Re-Caulking of Tubs and Showers in the Plumbing Fixtures Section.*

Ceramic Tile Countertops: Clean countertop tiles with a damp cloth, and remove accumulated film with a soapless non-abrasive detergent or tile cleanser. Use a mild vinegar and water solution to remove grease and soap scum. Keep white tile seams clean by brushing with diluted bleach in a well-ventilated room.

Apply a grout sealant with a small brush to reduce grout staming, taking care to keep the sealant off the tile surface.

Caulk cracks and separations of seams adjacent to tile with a silicone caulk, taking care to wipe the tile clean once caulking is complete. Do not use clear silicone caulk as it yellows with age and stains easily. *See Re-Caulking of Tubs and Showers in the Plumbing Fixtures Section.*

Tile can be damaged by dropped objects or by forcefully hitting the counter edges.

Cultured Marble Vanity Tops: Clean cultured marble with a damp cloth and a non-abrasive detergent. Caulk cracks and separations of seams adjacent to walls with a silicone caulk, taking care to wipe the cultured marble clean once caulking is complete. Do not use clear silicone caulk as it yellows with age and stains easily. *See Re-Caulking of Tubs and Showers in the Plumbing Fixtures Section.*

COUNTERTOP PRECAUTIONS:

1. Keep countertop dry at all times.
2. Excessive heat can cause charring, burning, lifting, or blistering. Do not place hot pans, coffee pot, baking dishes, hot iron, or burning cigarettes directly on laminate countertop surfaces. Use protective hot pads or trivets under countertop electrical appliances.
3. Always use a cutting board since knives will gouge and mar the surface.
4. Steam from an open dishwasher may cause swelling and delamination. Allow time for the dishwasher to cool before opening the door. To further reduce moisture damage, apply a silicone spray to the underside of countertops, directly over the dishwasher, and two feet left and right of the dishwasher.

SOLUTIONS TO COMMON COUNTERTOP PROBLEMS		
Problem	***Likely Cause***	***Solution***
Countertop separating from wall.	Settlement.	Re-caulk gap between countertop and wall.
Countertop chipped or damaged.	Accidents.	Contact porcelain or countertop repair company.
Dull finish on cultured marble surfaces.	Daily use.	Apply automotive wax and buff to restore finish

DECK

INTRODUCTION

A deck is constructed with pressure-treated wood which resists rot, decay, and termites.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A deck support post that warps or twists in excess of 1 inch over an8 foot length will be replaced A rail post that warps or twists in excess of 1/2 inch will be replaced.
2. A deck board that develops cracks at knots that are across the grain will be replaced.
3. A deck component that becomes loose or cracked and impairs deck safety will be repaired by re-attachment, or it will be replaced.
4. Cupped decking or rails that exceed 3/16 inch across the face of the board will be replaced if the board cannot be re-nailed.

***Deck Repair Note**: Ryland cannot ensure that deck repairs requiring new material will match the color of the existing material. Color variations between new wood and existing wood are normal. If the deck has not been stained or sealed, the new wood will naturally weather to a uniform color. If the deck has been stained, it is the homeowner's responsibility to apply stain or other finishes to the new boards.*

HOMEOWNER'S MAINTENANCE GUIDELINES

To prolong the life and beauty of the deck, treat it periodically with a water repellent or wood preservative. Painting pressure-treated deck lumber is not recommended. A local hardware store can help you select the right product.

Check nuts and bolts of deck and deck supports annually to ensure tightness.

Excessive weight may cause structural damage to decks. Do not put children's swi mming pools or hot tubs on decks.

SOLUTIONS TO DECK PROBLEMS		
Problem	***Likely Cause***	***Solution***
Loose boards.	Wood shrinkage.	Re-nail using galvanized nails.
Raised nail heads on floor decking.	Wood shrinkage.	Re-set nails.
Cracking, drying, or Change of wood color.	Low moisture or excessive sunlight.	Apply penetrating oil finish.
Dark discoloration of wood.	Mildew.	Periodically use deck cleaner or bleach solution.

DOORS

A. INTRODUCTION

Your Ryland home comes with a variety of doors, including interior passage doors, french doors, louver doors, bifold doors, sliding glass doors, exterior doors, and garage doors.

B. INTERIOR DOORS

Interior doors expand and contract in reaction to temperature and moisture changes, and will be wider in humid summer periods and narrower during dryer winter months.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An interior passage, closet, or bifold door that warps in excess of 1/4 inch, as measured diagonally from corner to comer, will be repaired by adjusting the door back to normal operation.
2. An interior door that sticks will be repaired by adjusting the door, hinges, and jambs, or by planning the edges of the door back to normal operation.
3. An interior door with detached veneers will be repaired by gluing and clamping.
4. An interior door with a gap that exceeds 1 1/4 inches, as measured from the bottom of the door to the finished floor surface, will be re-hung.
5. An interior door lock that does not operate properly will be repaired by adjusting the latch/keeper or door lock mechanism.

HOMEOWNER'S MAINTENANCE GUIDELINES

Sticking Doors: Home settlement or swelling caused by humidity may cause the door to be out of alignment. In some cases, this may only be temporary due to seasonal variations, and the sticking will tend to correct itself without any adjustment.

If adjustment is required:

1. Check hinge screws for tightness.
2. Fold sandpaper around a wooden block and sand the edge that sticks, but be careful to not remove too much wood
3. Always paint or varnish sanded or planed areas to protect the wood from future moisture penetration and sticking.

Bifold Doors: Keep the door tracks free of paint and dirt, and apply a small amount of wax or silicone spray to the guide edges of the tracks.

Door Precautions: Interior doors are hollow core and are not designed to support attachments and hanging accessories. Hanging heavy items on door knobs, or at the top of a door, can damage hardware and hinges.

C. SLIDING GLASS DOORS

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A sliding glass door that binds will be inspected and corrected by adjusting it to meet the manufacturer's installation specifications.
2. A sliding glass door lock that does not lock properly will be repaired by adjusting the latch/keeper or door lock mechanism.
3. Double-pane glass doors that lose their seal and become fogged between the panes will be replaced in accordance with the manufacturer's product warranty.

Pre-Settlement Orientation Check List: *Carefully examine all window and sliding door glass during the Pre-Settlement Orientation. Glass that is broken or scratched will not be repaired or replaced after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Clean glass with a spray glass cleanser and wipe frames with sudsy water and a soft cloth. Periodically clean the bottom of the door track, and check to ensure that drain holes are clear of obstructions. To keep the doors moving freely, apply a silicone spray to the tracks.

Keep sprinklers away from sliding glass doors and windows when watering the lawn.

D. EXTERIOR DOORS

An exterior door that is properly aligned, fitted, weatherstripped, and maintained will help control energy costs. Exterior doors are steel-clad to prevent warpage and to maximize insulation.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An exterior door will warp to some degree, due to temperature differences between the inside and outside surfaces.
   A. An exterior door that warps in excess of 1/4 inch, as measured diagonally from corner to comer, will be repaired by adjusting the door back to normal operation.
   B. M exterior door that warps to the extent that it becomes inoperable will be replaced.
   C. An exterior door that allows air infiltration will be repaired by adjusting the weatherstripping or threshold.
2. An exterior door that sticks will be repaired by adjusting the door, hinges, or jamb.
3. An exterior door lock that does not lock properly will be repaired by adjusting the latch/keeper or door lock mechanism.

Pre-Settlement Orientation Check List: *Carefully examine all doors during the Pre-Settlement Orientation. Dents will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Painting: Steel-clad doors are maintenance-free and require little attention except for painting and upkeep from dents and scratches.

Weatherstripping: Weatherstripping on exterior doors helps maintain the home's energy efficiency, preventing the loss of conditioned air, and reducing the infiltration of outside air. Weatherstripping must remain in place to operate effectively.

1. Replace weatherstripping that becomes loose or damaged.
2. Prolong the life of vinyl and rubber weatherstripping by applying a silicone spray.
3. The sweep weatherstripping at the bottom of the door may require replacement. To replace, remove the sweep and match with a replacement available at hardware stores.
4. To raise the threshold, adjust the screws on the wood portion of the threshold.

E. GARAGE DOORS

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. The exterior of a garage door, because of its exposure to weather changes, will shrink, expand, and flex, and this may expose unpainted surfaces. Should this occur, the garage door will be repainted one time.
2. A misaligned garage door with a gap that exceeds 3/8 inch, from the edge of the door to the surrounding trim or slab, will be repaired by adjusting it back to the 3/8 inch specification or less.
3. A garage door that is difficult to open, or that will not stay open, will be repaired by adjusting the door tension.

Caution: *The installation of a garage door opener unless installed as an available Ryland option, may void any applicable Garage Door Warranty. Garage doors are warranted for proper mechanical operation as installed. The installation of a garage door opener alters the operation of the door and Ryland cannot be responsible for altered mechanical operation.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Do not leave garage doors open for long periods of time as this can cause inward warping.

Wood shrinks as it ages, which loosens the screws that fasten the hardware to the garage door. Check and tighten these once a year, and oil the moving parts of garage doors every six months.

Garage doors use high tension springs that make homeowner repair dangerous. Please contact a garage door company for spring repairs.

F. DOOR HARDWARE

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Brass-plated door hardware with finish deterioration will be repaired by replacing the *fixture*. This does not cover brass tarnishing or damage caused by improper cleaning.

HOMEOWNER'S MAINTENANCE GUIDELINES

The brass-plated door knockers, door locks, door handles, kick plates, and hinges used throughout the home are exposed to both outside elements and common everyday use, and this may cause them to discolor. Clean these with a damp cloth and do not use abrasive cleansers or solvents. Periodic polishing, following manufacturer's recommendations, will help maintain their original luster and appearance. Do not use brass polish on lacquered brass parts or fixtures.

SOLUTIONS TO DOOR PROBLEMS		
Problem	***Likely Cause***	***Solution***
Door will not stay open.	Settlement.	Bend hinge pin.
Door will not latch properly.	Settlement.	Adjust keeper.
Hinges on door squeak.	Friction on hinge pin.	Apply wax to hinge pin.
Door key does not operate smoothly.	Normal usage.	Spray white graphite into key hole.
Door knob loose or rattles.	Normal usage.	Tighten screws.

ELECTRICAL SYSTEM

A. INTRODUCTION

The electrical system in your Ryland home is designed for safe, trouble-free service and meets both local and national electric code requirements. Electrical wiring, switches, outlets, and circuit breakers were installed by the licensed Electrical Contractor listed in Ryland's Homeowner Service Directory.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An electrical outlet, wall switch, or light fixture problem caused by defective workmanship or equipment, will be inspected and corrected to meet the manufacturer's installation and product specifications.
2. A ground fault circuit interrupter (GFCI) is installed to prevent electric shock. The units are sensitive to power surges and some tripping is normal. A GFCI that trips frequently will be inspected and corrected to meet the manufacturer's installation and product specifications.

TYPICAL REPAIR GUIDELINES: Two Year Coverage

1. A circuit breaker problem caused by defective workmanship or equipment will be inspected and corrected to meet the manufacturer's installation and product specifications.
2. Electrical wiring that falls to carry its designated load as a result of defective workmanship or equipment, will be inspected and corrected to meet the manufacturer's installation and product specifications, and to meet national electrical code specifications.

CALLING FOR SERVICE:

For prompt service, contact the Electrical Contractor listed in your Ryland Homeowner 's Service Directory directly. Ryland assumes no responsibility for service performed by anyone other than the authorized Contractor.

Warranty Caution: *Any addition, alteration, or modification to the original electrical system installation may void all applicable warranties.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Electrical Safety Cautions: Do-it-yourself electrical wiring is dangerous. Improper electrical repairs can endanger the lives of your family and jeopardize your homeowner's insurance in the event of fire or electrical injury. Always use a licensed Electrician to make electrical repairs, adjustments, and additions.

Power Failure: If the electric power goes out, check first to deterrnine if neighbors are also without power, and if so, contact the utility company. Before attempting to reset circuit breakers, check that power has been restored to the area. If neighbors have power, check the main circuit breaker in the panel box. *See Homeowner's Maintenance Guidelines under Circuit Breakers, this Section.*

Be aware that not every electrical power problem is due to problems within the home's electrical system. Utility companies experience a variety of situations that affect power supplies, including power surges and interruptions, peak overload periods, and even total shutdowns.

B. ELECTRIC METER BOX

The utility company installed an electric meter box to measure your electric usage for billing purposes. Their invoice is based on kilowatt-hours used over a given time period, with a kilowatt-hour being the energy expended by 1000 watts for one hour. Should you have questions about meter box functions, please contact the Customer Service Department at the utility company.

C. CIRCUIT BREAKERS

Electrical wiring and appliances are protected by circuit breakers to stop circuit overloading. The main circuit breaker is located in the electrical panel box, and if tripped for any reason, entirely cuts off all electricity.

The smaller circuit breakers within the same panel box control appliances, wall switches, lighting, and the heating system, and each switch is clearly marked as to what it controls.

Do not tamper with the electrical service entrance cable that provides power to the service panel.

HOMEOWNER'S MAINTENANCE GUIDELINES

Circuit Tripping Causes and Remedies: Thunderstorms, lightning, and power failures can cause circuit breakers to trip. If only your home is affected, try to reset by switching the breaker to full OFF, then fully back to the ON position. If this does not reset the breaker, or if the breaker continues to trip, do not continue resetting the breaker as this can damage the panel box, wiring, or appliance that it controls. Call the Electrical Contractor for service inspection.

Overloaded circuits can also cause tripping. This occurs when too many small or large appliances are used on one circuit. To reduce the load, remove plugs of appliances that may cause the overloading, then reset the breaker as described above.

If you install a microwave or other appliances that require large electrical loads, you may need a licensed Electrical Contractor to add additional wiring to accommodate the load.

D. OUTLETS AND WALL SWITCHES

If an electrical outlet does not work, check first to make sure the outlet is not controlled by a wall switch. If the outlet still does not operate, contact the Electrical Contractor.

An electrical outlet or light switch on an exterior wall may produce a slight dralt, allowing cold ail to be drawn into the room. Ryland makes a special effort to reduce these drafts; however, some cold air is normal. Draft protection pads that help reduce cool air drats can be installed by a qualified electrician or are available at hardware stores.

E. GROUND FAULT CIRCUIT INTERRUPTERS (GFCI)

GFCI electric outlets prevent electrical shock, and are installed in kitchens, bathrooms, garages, basements, and exterior areas where water may be present. GFCI receptacles are sensitive to power surges and interrupt power under certain conditions to prevent injury.

HOMEOWNER'S MAINTENANCE GUIDELINES

GFCI outlets are often wired in a series. For example, the bathroom GFCI outlet controls the bathroom, and may possibly control other outlets throughout the home. Taking this example further, if the electrical outlet in the garage is not functioning, check the GFCI in the bathroom. Also be aware that some Ryland homes have multiple GFCI 's, so be certain to inspect and reset the affected outlet.

When a GFCI controls more than one outlet, an overloaded bathroom outlet will also shut down all connected outlets. For this reason, do not plug refrigerators, freezers, or electric garage door power cords into GFCI outlets.

If a GFCI receptacle is not functioning, press the Reset button on the wall plate to restore proper operation. If that does not work, check and reset the circuit breaker in the panel box first, then press the GFCI Reset button. If the outlet still fails, it may indicate a short in the appliance. If other appliances will not operate, an electrician should be contacted and the GFCI replaced.

To test GFCI 's, press the Test button on the receptacle. The outlet should not perform. To reset, press the Reset button.

F. PRE-WIRED TELEPHONES, TV ANTENNA & CABLE TV

Ryland homes are pre-wired for telephone, and in some communities are pre-wired for TV antenna or Cable TV If you experience problems with phone connections or cable TV reception, contact the phone company or local cable company.

If the telephone or cable TV company state that there is trouble in the house wiring, please call the Electrical Contractor who installed the wiring as listed in Ryland's Homeowner Service Directory. Neither Ryland nor the Electrical Contractor will pay for wiring repairs done by the telephone or cable TV company.

G. LIGHT FIXTURES AND POST LAMP

HOMEOWNER'S MAINTENANCE GUIDELINES

Interior and exterior lighting fixtures require periodic homeowner maintenance to preserve the finish Carefully review and follow the instructions provided for these fixtures.

Do not use indoor bulbs in exterior lighting fixtures. Do not use light bulbs with a higher wattage than the maximum wattage stated on the light *fixture.*

H. SMOKE DETECTORS

The smoke detectors in your home are pre-wired, per electrical code requirements, into the main electrical system.

HOMEOWNER'S MAINTENANCE GUIDELINES

Test the detectors weekly, and clean and vacuum the openings of the smoke detector once a month. Visually inspect the clear button of the test switch to see that the indicator light is glowing. To test the alarm, press the Test button for about ten seconds, or until the horn sounds loudly. Never use an open flame to test the detector. The built-in test switch accurately tests all detector functions as required by Underwriter's Laboratories. This is the only way to test the detector.

SOLUTIONS TO COMMON ELECTRICAL PROBLEMS		
Problem	***Likely Cause***	***Solution***
Complete power failure.	Main breaker tripped. Electrical outage.	Reset main breaker. Call power company if power is still out.
Electrical outlets not working.	Outlet switch is off or circuit breaker is tripped.	Turn on switch. Check and reset breaker.
GFCI switches not operating.	GFCI receptacle or circuit breaker is tripped.	Reset GFCI Check and reset circuit breaker.
Light fixture not working.	Switch is off or bulb is burned out.	Turn on switch. Turn off power to replace bulbs.
Appliance does not work.	Circuit breaker tripped or appliance broken.	Reset circuit breaker. If problem persists, see appliance manual.

EXTERIOR FINISHES

A. INTRODUCTION

Exterior finishes are applied once the exterior framing is complete and the drywall is placed within the home. The exterior is finished with wood, vinyl or aluminum siding, a brick or stone veneer, or a combination of these materials.

B. VINYL SIDING

Vinyl siding reduces the need for future painting. You should be aware that vinyl siding is installed loosely to allow for expansion and contraction that occurs with changing temperatures. A small amount of deflection should be anticipated.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A vinyl siding problem caused by defective workmanship will be inspected and corrected to meet the manufacturer's installation specifications.
2. A vinyl siding problem caused by defective material, including panels with inconsistent fadi ng or finishes that discolor, crack, or peel, will be inspected and corrected by replacing the material in accordance with the manufacturer's product warranty and specifications.
3. Interior water leakage, caused by defective workmanship or defective vinyl siding material, will be corrected by repaliing the affected panels, and by repairing the interior areas damaged by water.
4. A vinyl panel that comes loose or unattached will be re-secured. The vinyl siding manufacturer does not provide warranty coverage should the panels come loose or detached by winds in excess of 54 miles per hour. Wind gusts in excess of 54 miles per hour are considered as "Acts of God" and repairs may be covered by homeowner's insurance.
5. "Oil-canning" or excessive buckling of the siding will be repaired.

Warranty Note: *The length of warranties for vinyl siding is different for different manufacturers. For specifics, please review the product literature appropriate to your siding installation.*

Vinyl Siding Repair Note: *Ryland cannot ensure that siding repairs requiring new material will match the color of the existing material. Color variations caused by weathering effects are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Cleaning: For specific cleaning instructions, please refer to the appropriate Manufacturer's Service Manual.

C. SOFFIT AND FASCIA

The vinyl soffit and aluminum fascia do not require painting. The soffit vents are located under the roof overhang and on porch ceilings. The fascia is used behind gutters and to cover gable trim boards. In some areas, wood is used for the soffit and fascia.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A soffit or fascia problem caused by defective workmanship will be inspected and corrected to meet the manufacturer's installation specifications.
2. A soffit or fascia problem caused by defective material, including inconsistent fading or finishes that discolor, crack, or peel, will be corrected by replacing the affected material in accordance with the manufacturer's product warranties and specifications.
3. Interior water leakage caused by defective workmanship or defective soffit and fascia material, will be corrected by repairing the affected materials, and by repairing the interior areas damaged by water.
4. A soffit or fascia that comes loose or unattached will be re-secured by face nailing. The soffit and fascia manufacturer does not provide warranty coverage should the panels come loose or detached by winds in excess of 54 miles per hour. Wind gusts in excess of 54 miles per hour are considered as "Acts of God" and repairs may be covered by homeowner's insurance.
5. A fascia that bows out past the shingle drip line will be repaired.

Warranty Note: *The length of warranties for vinyl soffits and aluminum fascia is different for different manufacturers. For specifics, please review the product literature appropriate to your installation.*

Soffit and Fascia Repair Note: *Ryland cannot ensure that soffit and fascia repairs requiring new material will match the color of the existing material. Color variations caused by weathering effects are normal.*

D. EXTERIOR WOOD TRIM AND WOOD SIDING

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An exterior wood trim or siding problem caused by defective workmanship will be inspected and corrected to meet installation specifications.
2. An exterior wood trim or siding problem caused by defective materials will be inspected and corrected.
   A. A split board will be repaired by filling the crack, sanding, and painting, or it will be replaced if the split exceeds 118 inch in width.
   B. A board that warps or bows in excess of 1/4 inch for any 32-inch measurement will be replaced.
   C. A board with excessive sap leakage will be cleaned, sealed, and repainted.
3. A veneer trim board that delaminates will be replaced.
4. Joints between exterior trim elements, including siding and masonry, shall not result in open joints in excess of 3/8 inch. In all cases the exterior trim, masonry, and siding shall be capable of performing its function to exclude the elements. A butt or miter joint between exterior trim boards that exceeds 1/4 inch in width will be repaired by caulking one time.
5. Caulk or filler that shrinks will be repaired by re-caulking or by filling the affected area one time.
6. Wood trim with loose or missing knots will be filled, sanded, and repainted.

Exterior Wood Trim and Wood Siding Repair Note: *Ryland cannot ensure that wood trim and siding repairs requiring new material will match the color of the existing material. Color variations caused by weathering effects are normal. Where surfaces are repaired that require staining or painting, Ryland will paint or stain the new material only.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Keep garden sprinklers away from the house and do not plant shrubbery too close to the walls.

Periodically inspect the exterior to be sure that wood siding and trim joints and seams are tightly caulked. Loss of seal can result in water damage.

For mildew problems, see *Painting Section.*

E. BRICK VENEER

Upon completion of construction, the brick was cleaned with a diluted acid solution or a non-acidic solution, per the manufacturer's recommendation.

Slight variations in size, color, and placement create the textural interest that contributes to the look of a brick exterior. Surface chips and cracks add a weathered appeal, while small hairline cracks in the mortar are caused by shrinkage. Minor brick chipping, cracking, and mortar shrinkage are normal.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Brick veneer problems caused by defective workmanship will be inspected and corrected.
    - A. A crack in the mortar joint of the masonry veneer that exceeds 1/8 inch in width will be repaired by pointing or patching.
    - B. A mortar joint that varies more than 3/8 inch in width will be corrected by removing and replacing the affected brick.
    - C. A horizontal mortar joint should run in a straight line. Any variation that exceeds 1/4 inch over a 32 inch measurement, will be corrected by removing and replacing the affected brick.

D. A brick with dips or bulges that exceed *112* inch, as measured vertically or horizontally, will be repaired by removing and replacing the affected brick.

E. A window sill that is level or that tilts toward the window will be removed and replaced, so that it tilts away from the window and allows water to drain away from the home.

2. A brick veneer problem caused by defective material will be inspected to determine if the brick meets specific dimensional tolerances. if these tolerances are not met, the affected brick will be removed and replaced.

   A. Brick Size: Bricks may vary m size because of variations in the raw material and manufacturing processes. Size variations, however, will not vary by more than 1/2 inch in length or width.

   B. Brick Distortion: Bowed brick will not exceed 3,8 of an inch over the brick's length.

   C. Brick Chipping: Bricks may be chipped during packaging, shipping, or on the job site. Chips are measured from an edge or a comer, and the total length of these chips will not be greater than 10% of the perimeter of the face of the brick, nor greater than *5116* inch from the edge, nor greater than 1/2 inch on the corners.

Brick Veneer Repair Note: *Ryland cannot ensure that brick or mortar repairs requiring new material will match the color of the existing material. Color variations are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Bricks can be cleaned with a soap and water solution. Gentle scrubbing with a non-abrasive household cleaner will remove most stubborn discolorations.

A white powdery substance that may appear on masonry walls is called efflorescence. It is composed of water soluble salts, originally present in masonry materials, that are brought to the surface when water evaporates. Efflorescence can usually be removed with a stiff scrub brush and water.

F. STONEVENEER

Slight variations in size, color and placement create the textural interest that contributes to the look of a stone exterior. Minor stone chipping, cracking, and cement shrinkage are normal.

TYPICAL REPAIR GUIDELINE: First Year Coverage

1. A crack in the cement joint of stone veneer that exceeds 1/8 inch in width will be repaired by pointing or patching.

Stone Veneer Repair Note: *Ryland cannot ensure that stone or cement repairs requiring new material will match the color of the existing material. Color variations are normal.*

G. SYNTHETIC STUCCO VENEER

Synthetic stucco veneer combines gypsum board with expanded polystyrene covered with fiberglass reinforced mesh and a copolymer acrylic. This is painted with an exterior latex paint.

TYPICAL REPAIR GUIDELINE: First Year Coverage

1. A buckle that exceeds 1/2 inch, as measured horizontally from the flat veneer surface, or a crack that exceeds 1/4 inch, will be repaired by refinishing and repainting or by removing, replacing, and repainting the affected area.

Synthetic Stucco Veneer Repair Note: *Ryland cannot ensure that repairs requiring repainting will exactly match the existing paint. Due to weathering of the original paint, color variations are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Do not subject synthetic stucco veneer to excessive impact from ladder placement, weed trimmers, or lawn mowers, as the finish is susceptible to abusive treatment and could dent or puncture.

SOLUTIONS TO COMMON EXTERIOR FINISH PROBLEMS		
Problem	***Likely Cause***	***Solution***
Dirty siding.	Adverse weather conditions and soiling	Periodic hosing. See manufacturer's recommendations.
Siding blows off.	Strong winds under 54 miles per hour.	Call Ryland for inspection.
Siding blows off.	Strong winds.	Act of God. Review Homeowner's insurance policy.
Cracking/peeling of painted surfaces.	Normal aging and weathering.	Clean and sand surface, then prime and repaint.
Gaps at joints in wood trim.	Normal caulk and filler shrinkage.	Re-caulk or fill.
Sap on exterior trim.	Wood drying out.	Sand, prime, and paint.
Efflorescence on masonry finishes.	Crystallized soluble salts.	Scrub with water and stiff brush.
Mildew on wood siding.	Wet weather and lack of sunlight at affected area.	Pressure wash affected area with diluted bleach.

SOLUTIONS TO COMMON EXTERIOR FINISH PROBLEMS		
Problem	***Likely Cause***	***Solution***
Mildew on vinyl siding.	Wet weather and lack of sunlight at affected area.	Pressure wash with water.

FIREPLACE

A. INTRODUCTION

Ryland uses both masonry and pre-fabricated fireplaces. Masonry fireplaces are constructed in the field with brick and mortar, while pre-fabricated fireplaces are factory built of sheet metal and then delivered to the home site.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A pre-fabricated fireplace problem caused by defective workmanship or equipment will be inspected and corrected to meet the manufacturer's installation and product specifications.
2. Cracks in refractor panels of a pre-fabricated fireplace that are 1/64 inch or less are acceptable. Cracks in excess of 1/64 inch will be repaired in accordance with the manufacturer's recommendations.
3. A masonry fireplace that does not draw smoke up the chimney will be inspected to determine the cause of the problem and corrected.
4. A brick crack in a masonry fireplace that exceeds 3/16 inch in width will be removed and replaced.
5 A crack in the mortar of a masonry fireplace that exceeds 1/8 inch in width will be filled.
6. A damper in a masonry or pre-fabricated fireplace that is defective will be inspected and corrected to meet the manufacturer's product specifications.
7. Excess mortar in a masonry fireplace will be removed if it interferes with the damper or fireplace operation.

Warranty Caution: *Do not burn pressure treated wood, scrap lumber, Christmas trees, trash, cardboard, plastic, or any flammable material such as gasoline. Burning these may cause brick, flue liners, or glass doors to crack, and may void your fireplace warranty.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Fireplace Equipment: A fireplace screen and andirons or grate are necessities. 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 cleaning company inspect the fireplace and chimney annually for soot build-up and appropriate cleaning. Inspect the hearth and firebrick liner for loose or cracked firebrick and loose mortar.

Starting a fire: Follow this checklist for safe fireplace use.

1. Open the flue damper fully and visually check that the flue is not obstructed.
2. Clear obstructions and ashes away from the air inlet channels and fireplace screen.
3. Use a steel or cast iron grate to elevate the wood above the fireplace brick. Do not build fires directly on the fireplace brick.
4. Place crumpled, non-colored newspaper under the grate.
5. Add kindling (small wood chips and twigs) on the gr'ate over the newspaper.
6. Place three logs in a pyramid arrangement at the back of the firebox, providing air spaces between the logs.
7. Preheat flues by lighting a piece of newspaper on top of the logs, making sure that the smoke is 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 extremely large fires.
11. Keep damper open and screen 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.

SOLUTIONS TO COMMON FIREPLACE PROBLEMS		
Problem	***Likely Cause***	***Solution***
Fire will not stay lit.	Wood is wet or unseasoned.	Use dry, seasoned wood.
Fire will not stay lit.	Starting fire with firewood logs that are too large.	Start fife with newspaper, kindling, and small logs.
Smoke backs up into room.	Damper not open. Obstructed chimney flue.	Open damper. Clean chimney
Smoke backs up into room.	Chimney flue not pre-heated.	Light newspaper above wood and grate to create draw.
Smoke smell in home when the fire is not burning	Dirty flue. Left over ashes in firebox. Wet flue.	Clean flue. Clean out ashes. Install chimney cap.
Smoke smell in home when the fife is not burning	Exhaust fan pulling air down flue into home.	Close damper.
Water inside fireplace.	Rain coming down chimney.	Install chimney cap.
Cracks in fire brick and/or in mortar.	Burning fires that are too large and too hot.	Get brick and mortar repaired. Do not build large fires.

SOLUTIONS TO COMMON FIREPLACE PROBLEMS		
Problem	***Likely Cause***	***Solution***
Down drafts pull smoke into home.	Drafting problems.	Call Ryland for inspection.
Excessive black soot on inside of fireplace and flue.	Burning poor quality wood or items other seasoned hardwoods. than wood.	Burn only dry, Get chimney cleaned.

FLOORING AND FINISHES

A. INTRODUCTION

Your home is finished with a variety of flooring materials which may include a combination of carpet, resilient vinyls, hardwood and parquet floors, and manufactured tiles.

B. CARPETING

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.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A carpet problem caused by faulty workmanship, including gapping at seams, carpet buckling, separation of carpet from tack strip, or mismatched dye-lots will be inspected and repaired or replaced.
    A. A carpet seam with visible gaps that exceed 1/8 inch at the seam joint, will be repaired by re-seaming the carpet sections.
    B. A carpet that buckles or stretches will be re-stretched and re-secured.
    C. A carpet that separates from the tack strip will be re-secured to the tack strip.
2. A carpet problem caused by defective material or unjustified (not caused by homeowner negligence) staining, fading, or discoloration, will be repaired by removing and replacing the affected area.

    An independent carpet testing agency will inspect and test the carpet to verify unjustified staining and discoloration. This process could take as long as two months. Their decision and recommendations are considered binding.

Carpet Repair Note: *Ryland cannot ensure that carpet repairs requiring new material will match the color of the existing material. Ryland is not responsible for man 14acturer dye-lot variations.*

Pre-Settlement Orientation Check List: *Carefully examine all carpeting during the Pre-Settlement Orientation. Carpet damage or stains will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Frequent vacuuming and immediate stain removal are primary carpet care steps. For complete instructions, please refer to the manufacturer's cleaning recommendations.

While normal vacuuming will only remove loose fibers from carpet yams, an occasional tuft may be lifted above the surface. Do not pull out the tuft; just snip it off to the length of the other tufts using scissors.

Color fading caused by sunlight can be minimized by closing the draperies during the day, or by using shear draperies to reduce incoming sunlight.

C. RESILIENT FLOOR COVERINGS

Resilient floor coverings come in 6-foot or 12-foot wide rolls or individual tiles, and are installed in foyers, kitchens, bathrooms, laundry areas, and finished basements.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A resilient floor covering problem will be inspected.
    A. A problem caused by defective workmanship will be corrected to meet the manufacturer's installation specifications.
    B. A problem caused by defective material will be repaired by removing and replacing the affected area, in accordance with the manufacturer's product warranties and specifications.
2. Resilient floor covering seam joints will be visible.
    A. A seam that gaps will be repaired.
    B. Individual tiles that pop up or come loose will be re-glued.
3. Resilient flooring that lifts, bubbles, or becomes unglued, will be repaired by re-gluing.

4. A raised nail head or staple in the sub-flooring or underlayment that does not break the surface of the resilient flooring, will be repaired by re-setting the nail or staple.
5. A raised nail head or staple in the sub-flooring or underlayment that breaks through the surface of the flooring, will be repaired by removing and replacing the affected area

Warranty Caution: *Review and follow the manufacturer's cleaning and care recommendations. Using a cleaning solution other than that specifically recommended by the manufacturer will void the man 14acturer's warranty. Do not wax a no-wax floor.*

Warranty Caution: *Do not place foam, plastic, or rubber backed mats on resilient floor coverings as they may cause discoloration.*

Resilient Floor Covering Repair Note: *Ryland cannot ensure that resilient floor covering repairs requiring new material will match the color of the existing material. Ryland is not responsible for manufacturer dye-lot variations.*

Pre-Settlement Orientation Check List*: Carefully examine all resilient floor coverings during the Pre-Settlement Orientation. Scratches, gouges, dents, and other damage will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

For resilient floor cleaning and maintenance guidelines, please refer to the manufacturer's instructions.

Mop up bathroom water spills from showers and baths immediately. Water seeping into the mastic through the seams and under the baseboard trim can cause seam separation and lifting. A silicone caulk, available at hardware stores, is recommended for use at tub and floor joints to minimize this problem.

Attach furniture protectors to the bottom of furiture legs to protect the resilient flooring from scuffing and surface damage. Be aware that high heeled shoes will damage resilient floor coverings and that rubber-backed or latex-backed rugs or carpet may cause permanent discoloration.

D. WOOD FLOORS

Pre-finished wood parquet and plank floors are pre-finished at the factory with a baked-on wax coating or a urethane coating. On-site finished wood floors are also protected with a urethane coating. Wood floor tone, grain, and color variations are normal, and reflect the natural characteristics of real hardwood.

Some squeaking of hardwood floors is normal and is caused by seasonal weather and humidity changes.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A hardwood flooring problem caused by defective workmanship will be inspected and corrected to meet the manufacturer's installation specifications.
2. A problem caused by defective material will be inspected and corrected.
    A. A floor board with a split or crack that exceeds 1/8 inch in width, or a gap between floor boards that exceeds 1/8 inch in width, will be replaced.
    B. A floor board with a split or crack that is less than 1/8 inch in width will be filled with a color coordinated wood filling compound.
3. A hardwood floor that squeaks will be inspected to determine the specific cause, and will be corrected if caused by defective installation.
4. An uneven hardwood floor caused by boards that buckle, swell, or warp, and that exceed a l/4 inch ridge or depression within any 32-inch measurement as measured parallel to the joists, will be inspected to determine the cause.
    A. If the problem is caused by defective workmanship, the affected area will be repaired to meet the manufacturer's installation specifications.

B. If floor warpage, buckling, or swelling is caiised by excessive humidity and moisture in the home, Ryland will provide the homeowner with recommendations to reduce the moisture level. *See Homeowner's Maintenance Guidelines in the Water Infiltration and Condensation Section.*

5. A hardwood floor board with hollow knot holes or loose knots will be removed and replaced.

Pre-Settlement Orientation Check List: *Carefully examine all hardwood floors during the Pre-Settlement Orientation. Scratches, gouges, dents, and other damage will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

Hardwood Flooring Repair Notes: *Ryland cannot ensure that hardwood flooring repairs requiring new material will match the color of the existing material. It is normal to expect surface nailing to occur around the perimeter area of pre finished hardwood floors, and around ally repaired areas, as well.*

HOMEOWNER'S MAINTENANCE GUIDELINES

For pre-finish hardwood floor cleaning and maintenance guidelines, please refer to the manufacturer's instructions.

For site finished wood floor cleaning, use a dust mop that is lightly misted with water.

Caution: *The protective urethane coating on site fin ished wood floors can react with certain commercial floor wax products. These products generally have a warning label that use on a urethane floor will cause discoloration and/or clouding of the floor surface Problems caused by these products will not be repaired by Ryland*

Use entrance rugs or mats to protect wood flooring from dirt and water spots. Do not use foam, plastic or rubber-backed mats as they may cause discoloration. Mop up water spills immediately. Do not set potted plants

directly on a hardwood floor as moisture can leak through and cause permanent staiing and warpage.

Attach fumiture pmtectors to the bottom of furniture legs to protect the hardwood flooring from scuffing and surface damage. Be aware that high heel shoes will damage hardwood floors.

E. CERAMIC TILE FLOORS

Ceramic tile is easy to maintain and impervious to water. The seams and joints are not waterproof and require special attention to prevent water seepage.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. A cracked floor tile will be replaced.
2. A loose floor tile will be re-secured by removing and replacing the tile mastic, re-positioning the tile, and then re-grouting.
3. A crack in caulking will be re-caulked one time.
4. A crack or void in the grouting of ceramic tile will be re-grouted one time.
5 Loose underlayment will be repaired by removing the affected tile, resecuring the underlayment, and then re-installing the tile and grouting.

Ceramic Tile Floor Repair Note: *Ryland cannot ensure that ceramic tile floor repairs requiring new material will match the color of the existing tile material or colored grouting. Color variations are normal.*

Pre-Settlement Orientation Check List: *Carefully examine all tile floors during the Pre-Settlement Orientation. Scratches and chips will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Grout Sealing: Water can penetrate grout seams and joints, and will damage materials adjacent to and underneath the tile. This occurs when

excessive amounts of water are used during floor washing, or in the bathroom from splashes and spills from showers, tubs and sinks. The homeowner can apply a silicone based grout sealer at move in time to reduce staining, mildew, and water penetration. Grout sealers are available at hardware stores and should be used following manufacturer's guidelines.

Seam Caulking: The seam joints, where baseboard and tile meet, will crack and erode from normal settlement of the home. Inspect these areas frequently and apply a silicone caulk to the joints as needed.

Floor Protection: Chipping, scratching, and cracking of floor tiles can be caused by putting heavy furniture directly onto the surface. Minimize this damage and reduce skidding by placing flat furniture protectors underneath furniture wheels and legs.

SOLUTIONS TO COMMON FLOORING AND FINISH PROBLEMS		
Problem	***Likely Cause***	***Solution***
Carpet seams noticeable.	Fibers separate from vacuuming and normal traffic.	Vacuum carpet m same direction as seams.
Carpet fades near windows and doors.	Excessive sunlight.	Close window coverings to reduce excessive sun.
Carpet stains.	Spills, pets.	Follow manufacturer's guidelines.
Carpet looks matted on stairs and high traffic areas.	Dirty carpet or insufficient vacuuming.	Have carpet professionally cleaned. Vacuum more often.
Resilient or vinyl floor finish looks dull.	High traffic areas or furniture rubbing against floor.	Follow manufacturer's guidelines.
Resilient or vinyl floor seams are apparent.	Normal.	No repair.
Nail or staple pops up under vinyl or resilient floor.	Settlement.	Gently re-set nail or staple.
Caulk around vinyl floors cracks.	Caulk shrinkage and settlement.	Re-caulk gaps with silicone caulking.

SOLUTIONS TO COMMON FLOORING AND FINISH PROBLEMS		
Problem	***Likely Cause***	***Solution***
Dents in vinyl or resilient floors.	Objects dropped, heavy furniture, or high heeled shoes.	Follow manufacturer's guidelines.
Fine scratches, white splotches, stains on pre-finished floors.	Normal wear, furniture scratches, and spills.	Follow manufacturer's guidelines.
Grout cracks along baseboards.	Normal expansion and contraction.	Re-grout cracks.
Grout staining.	Liquid spills and grease from food.	Follow manufacturer's guidelines.

FRAMING AND CARPENTRY

A. INTRODUCTION

Framing and carpentry with wood studs, beams, and joists creates the skeletal structure of the home.

Ryland uses a pre-engineered truss system that supports the weight of the roof and can be used in combination with conventional ceiling and roof framing.

Warranty Caution: *Attic access must be installed parallel to and in between the trusses. Roof trusses should not be cut to install attic stairs. This can structurally damage the integrity of the roof and will void HOW's and any other structural defect warranty.*

TYPICAL REPAIR GUIDELINES: First Year Coverage

As the wood in your home dries, normal shrinkage will occur that causes settlement. While every home has certain degrees of settlement, not all settlement is severe enough to require repair. All wood framing and carpentry settlement will be inspected and repaired to meet state and local building specifications, as follows:

1. Floor decking with a ridge or depression that exceeds 1/4 inch within a 32-inch horizontal or vertical measurement, will be corrected to meet specifications.
2. The surface of an interior or exterior wall will have slight variances. However, a wall that bows more than 1/4 inch within a 32-inch horizontal or vertical measurement, will be corrected by cutting and repairing the affected stud.
3. A wall that is out of plumb by more than 1/4 inch within a 32-inch vertical measurement, will be repaired by moving the base or top plates into a plumb position.
4. A wall that is out of square by more than 1/4 inch within a 32 inch horizontal measurement will be corrected to meet specifications.

5. A hole in exterior sheathing will be repaired by taping.
6. A cracked or broken truss will be inspected for structural integrity and repaired to meet engineering specifications.
7. Roof sheathing with uneven areas that exceed 1/2 inch over a 2-foot span as measured horizontally across the trusses, will be repaired by reinforcing the affected area.
8. Floor squeaks resulting from improper installation will be inspected and repaired.

INTERIOR WALLS AND CEILINGS

A. INTRODUCTION

Your Ryland home features two types of walls: load bearing and non- load bearing.

Warranty Caution: *Any alteration of bearing walls may undermine the structure by reducing its load bearing or support capacity, and may void HOW's major structural defect warranty.*

B. INSULATION

Flexible insulation, in the form of fiberglass blankets, is commonly used in walls, floors, ceilings, and around ducts. Blown insulation of loose fiberglass can be used in flat ceiling areas. Plastic foam may be used for spot insulation around windows and doors, pipe openings and other air leakage points.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An insulation problem caused by defective workmanship will be inspected and corrected to meet the manufacturer's installation specifications plus local building code requirements.

C. DRYWALL

Drywall is installed according to the manufacturer's specifications. The seams where sheets of drywall come together are taped, spackled with a joint compound, allowed to dry, and then sanded to prepare them for painting.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Drywall materials, including corner bead and seams, that exceed 1/4 inch out of plumb for any 32 inch vertical measurement, will be corrected by feathering the wall with joint compound to meet installation specifications.

2. A nail pop will be repaired by resetting or replacing the existing protruding nail, covering the area with spackling compound, and sanding the area to a smooth finish
3. A crack that exceeds 1/16 inch in width, will be repaired by spackling and sanding the repaired area.
4. Corner bead that becomes detached will be re-attached by re-nailing. Corner bead that is twisted will be replaced.
5. Ryland will repair and touch up nail pops and settlement cracks one time.

Drywall Repair Notes: *Please do not write on walls or make other marks where dry wall is to be repaired. Drywall repairs will be made in areas painted or wallpapered by the homeowner however re-painting or rewallpapering of the repaired areas is the homeowner's responsibility. Visible, minor drywall imperfections are normal. Any repairs to textured ceilings will have slight color and texture variations, which are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Nail Pops and Drywall Repairs: Minor drywall cracks and nail pops on the interior wall and ceiling surfaces are caused by home settlement and the normal drying of stud framing and drywall materials. Nail pops are nails that come loose from the studs, pushing the drywall joint compound up to produce a bump on the drywall surface. Both nail pops and small drywall cracks are simple to repair:

Drywall Nail Pop and Crack Repair Instructions:

1. Reset the protruding nail slightly into the gypsum board surface or remove it entirely. Place another drywall nail two inches above or below the popped nail, and gently hammer it slightly below the paper surface. Then cover the area with spackling compound, allow to dry, sand smooth, and then re-paint the surface.
2. For drywall joint cracks, press a small "V" shaped indentation using the back of a putty knife along the length of the crack, about 1/8 inch deep and 1/8 inch wide. Spackle, sand, and repaint as with nail pops.
3. To prevent cracks wider than 1/4 inch from reopening, first apply the spackling compound, cover the crack with a strip of drywall tape, add

another top layer of spackle feathering the edges well, sand to a smooth finish, then re-paint

4. Deep scrapes and indentations on drywall surfaces can be filled with two or three applications of spackling compound. Allow it to dry thoroughly, and sand between each application.

Wall Fasteners and Anchors: There are a variety of specially designed wall fasteners for drywall available from a hardware store. They offer strength in supporting an object, like a large framed picture, and yet create little damage should you move the picture later.

D. PLANT LEDGES

Plant ledges are architectural design features and should be used strictly to hold plants and other decorative objects. They are not constructed to support the weight of an adult or child.

E. INTERIOR TRIMS AND MOLDINGS

Ryland homes are built with kiln-dried ceiling moldings, floor moldings, door casings, and other wood trims. Some separation of wood trims and moldings is normal, and is caused by home settlement, plus shrinkage or expansion due to extremes of dryness or humidity.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An interior wood trim or molding problem caused by defective workmanship or materials will be inspected and corrected to meet installation specifications.
2. Gaps between molding joints or between adjacent surfaces and molding that exceed 1/16 inch in width will be repaired by caulking or by filling the gap with a color-coordinated wood filler. This will be done on a one-time basis.
3. A veneer trim board that delaminates will be replaced.
4. A crack or split in the wood trim will be filled, sanded, and painted.
5. Wood molding that becomes loose will be re-nailed, the nail holes filled, and then re-painted.
6. Wood trim with grain surfaces that raise 1/16 inch or more will be replaced.

Interior Trim and Molding Repair Note: *Ryland will only paint or stain the new material when repairing interior wood trim and molding. It is normal that the new material may not exactly match the color of existing material.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Should the baseboard trim come loose, simply re-nail the baseboard quarter-round back into proper position. For moldings, it is better to wait for several months to see if settlement will bring the pieces back together naturally. If not, a separation at comers or seams can be patched with a wood fillier and then stained or painted to match the existing molding.

LANDSCAPING AND GRADING

A. GRADING

The soil around each homesite is graded to channel water away from the home.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Ground settlement around foundation walls, utility trenches, or other filled areas shall not interfere with water drainage away from the home. Settling of ground around these areas shall not interfere with drainage away from the home. Ryland will fill affected areas to restore proper drainage one time, and the repaired area will be reseeded or resodded to the original specifications. The homeowner is responsible for removing planted landscaping that they have installed and that is affected by the placement of the filler material.
2. Areas that washout or erode at downspouts or drainage swales will be repaired, one time, at the homeowner's request. The repair includes filling the eroded areas, reseeding, and then stabilizing the area. The stabilization method will be determined by Ryland.
3. Standing or ponding water that remains for more than 24 hours on the lawn, or for more than 48 hours in a swale, will be inspected and corrected to meet specifications. No grading determination will be made when there is frost on the ground, or if the ground is saturated with water.

HOMEOWNER'S MAINTENANCE GUIDELINES

The best way to keep the basement dry is to maintain the original grading around the home. Proper grading ensures that surface water will flow away from the home, rather than accumulating and soaking into the ground immediately around foundation walls.

Over time, the grade around the house can settle. If this occurs, spread additional soil in the depressions to raise and re-establish the grade.

To prevent erosion and ponding of water:

1. Do not alter the soil grade.
2. Keep water ditches or swales open and free of leaves and debris. Do not install sheds, hot tubs, decks, fences, pools, trees, shrubs, or gardens in the swales. Otherwise, water may not flow properly through the swale.
3. Direct water run-off away from the home to prevent washouts. Reposition splash blocks if they are moved. Do not allow sprinklers to wet the house or form puddles near or against the foundation.
4. Correct any areas in need of seed by loosening the dirt, seeding, and watering until mature.

B. LAWN

Yards will be graded, seeded, fertilized and strawed or, if applicable, sodded before closing (weather permitting). Mter closing, lawn maintenance is the homeowner's responsibility.

TYPICAL REPAIR GUIDELINES: FIRST YEAR COVERAGE

1. Sod will be alive at Settlement.
    A. Sod that is not alive at Settlement will be replaced.
    B. Gaps between sections of sod that exceed 1 inch in width will be repaired by filling the gaps with cut sod or by filling the gap with soil.
2. Your home will be enrolled with a professional lawn care company for a 1 year program. They will contact you within the first 30 days after closing.

HOMEOWNER'S MAINTENANCE GUIDELINES

The future beauty of your yard depends on the care and attention you provide. Ryland cannot be responsible for improper landscape care and maintenance. We offer the following suggestions to make the job easier.

Seeding: Proper watering, cutting, reseeding, and fertilizing is the homeowner's responsibility after the original seed application.

Where grass seed is used, a layer of straw is placed on top of the seed. *Do not rake the straw away as* this will disturb the germination of underlying grasses. Gently redistribute the straw if it is heavily matted. The straw will eventually decompose and provide the soil with additional nutrient.

Watering: Both sod and grass seed require constant moisture for the fiirst full growing season. If allowed to dry out, the grass seed will not germinate, and the sod will shrink and gaps will appear between the sections. If this occurs, the homeowner will need to repair these areas.

Water each section of the lawn for 30 minutes twice each day, once in the morning and once in the late afternoon. When moving the sprinkler, check to see if you are leaving foot prints. If so, the area has been over watered.

Be aware that sod, when initially installed, will occasionally go into "shock" and turn brown. The sod is not dead and you should continue to water it.

Extremely hot weather or above average rainfall will affect these instructions.

Mowing: Mow the new grass when it attains several inches of new growth. Do not rake the newly seeded areas, as the grass is still young and fragile. Do not mow if the ground is soggy or if the grass is wet. Set the mower at the highest height setting and be sure the mower blades are sharp.

Fertilizing, Weeding and Liming: For proper fertilizer, weeding, and liming guidelines, please contact a lawn care specialist.

Fertilizer is applied to the initial seeding to help the lawn through its early growth period.

Do not spray immature grass with chemicals to kill weeds. The best approach is to use pre-emergent weed control beginning the following spring, when grass is stronger and more mature.

Certain communities have highly acidic soil and lime should be applied as necessary following manufacturer's directions.

C. NEW SHRUB AND TREE CARE

All trees and shrubs are nursery grown, and a Landscape Contractor handled the initial planting. The homeowner is responsible for maintaining the new plantings with proper maintenance care and water. The first six to nine months are the most crucial for new plantings. The type of tree or shrub will dictate the specific care needed.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Any new tree, shrub, or ground cover that dies will be replaced one time within 30 days of Settlement unless damage is caused by homeowner transplanting, under or over watering, or by insects.
2. If a tree, shrub, or ground cover is dormant when installed and foliage does not appear the following spring, it is the homeowner's responsibility to notify Ryland of the potentially dead planting.

Caution: *Do not remove or transplant trees and shrubs from their original location as this will void the Landscape Contractor's warranty. Should a tree or shrub die, leave it in the ground and let the Landscape Contractor remove it.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Watering: It is extremely important that new plants and trees be watered twice a week for the first month and once a week for the next three months. Weather conditions may affect watering frequency. This should be done with an open end garden hose, one minute on shrubs, and three to four minutes on trees. For best results, contact a lawn care specialist for proper maintenance guidelines.

Fertilizing: Plants should be fertilized on a regular basis. Contact a lawn care specialist for proper maintenance guidelines.

SOLUTIONS TO COMMON LANDSCAPING AND GRADING PROBLEMS		
Problem	***Likely Cause***	***Solution***
Tips of grass blades frayed or turning tan.	Dull mower blades.	Sharpen blades
Weeds growing in lawn.	Improper weed control.	Use pre-emergent weed control in the spring
Lawn thinning out after several mowings.	Thatch build-up.	Lawn needs aeration or dethatching.
Slow growth or pale sod.	Lack of lawn fertilizer.	Fertilize following manufacturer's directions.
Trees and shrubs turning yellow.	Lack of tree and shrub fertilizer.	Fertilize following manufacturer's directions.
Trees and shrubs wilting.	Too much or too little water.	Check soil around base of plant and water accordingly.
Wetness around foundation.	Settlement of soil around home.	Fill settled areas and re-mulch or re-seed as necessary.

PAINTING

A. INTERIOR & EXTERIOR PAINT

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. Interior and exterior paints that do not adhere to or cover up the surface to which it is applied, will be refinished.
2. Interior and exterior paints that run, wrinkle, peel, or crack will be scraped and sanded, the resulting depressions filled, and the surface primed and repainted.
3. Water stains will be sealed with a primer sealer before repainting so the mark will not bleed back through.

Pre-Settlement Orientation Check List: *Carefully examine all painted surfaces during the Pre-Settlement Orientation. Paint with scuffs and dirt marks will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

Painting Repair Note: *Ryland cannot ensure that painting repairs requiring new material will match the color of the existing material. Paint repairs may' show slight variations in color as a result of weathering, aging, or pigment variations in different pa int manufacturing runs. Color variations are normal.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Cleaning Flat Latex Painted Surfaces: A lead-free latex paint is applied to the interior walls of the home. This is not a scrubbable paint and will smudge if cleaned. Ryland does not recommend washing these surfaces, but instead suggests using the supplied touch-up paint to cover paint scuffs and marks.

Cleaning Semi-Gloss Latex Painted Surfaces: A lead-free semi gloss latex paint is applied to interior wood trim and doors. These surfaces may be cleaned with a sponge and lukewarm water. The less moisture on the sponge, the better. Wipe quickly with a gentle

washing pressure from top to bottom without allowing the solution to run down the door or trim. if the water does not work, try the same procedure using a small amount of mild detergent mixed with water. Once complete, lightly rinse the washed area with plain water and allow to dry.

SOLUTIONS TO COMMON PAINTING PROBLEMS		
Problem	***Likely Cause***	***Solution***
Exterior paint peeling.	Surface not cleaned. Moisture/solvents under paint surface.	Scrape, sand, prime, and repaint.
Blisters in paint.	Poor adhesion caused by water or solvent trapped under paint.	Scrape, fill resulting depression, sand, prime, and repaint.
Wrinkling, runs, and/or drips.	Paint applied too thick.	Sand smooth and repaint.
Interior and/or exterior caulking cracks or shrinks.	Normal drying, settlement, expansion & contraction.	Remove old caulking only if unsightly. Caulk open gaps.
Paint peeling off masonry.	Surface not cleaned. Moisture/solvents under paint surface.	Scrape peeling paint. Repaint with latex paint.
Efflorescence peeling on foundation.	Alkali compounds on foundation.	Scrape, apply alkali neutralizer, repaint.
Bleeding wood knots.	Wood resin seeping out.	Sand, apply stain killer, repaint.
Mildew on painted surfaces.	Fungus from moisture and little sunlight.	Carefully wash with water-diluted chlorine bleach.

PLUMBING SYSTEM

A. INTRODUCTION

A Plumbing Contractor installed all plumbing lines and Systems in your Ryland home, and these have been tested and inspected.

In most cases, minimum homeowner maintenance is all that the plumbing system requires. Attending to small problems as they occur keeps them from becoming larger, more costly ones. Ryland assumes no responsibility for consequential damages to personal property.

TYPICAL REPAIR GUIDELINE: 30-Day Coverage

1. A clogged sewer or drain problem caused by defective five workmanship or material will be repaired by removing the clog, and then corrected to meet the manufacturer's installation and product specifications. The homeowner is responsible for all repair costs should homeowner action or negligence produce the clog.

TYPICAL REPAIR GUIDELINES: First Year Coverage

The following guidelines apply to water lines, the main shut-off valve, intake valves, and drain traps.

1. A defective plumbing valve or fitting will be inspected and repaired by replacing the defective parts.
2. Some noise coming from the water pipe system is normal, and is caused by water flow and pipe expansion and contraction. Noisy plumbing caused by loose pipes or air hammer will be inspected to determine the cause and corrected to reduce or eliminate the noise.
3. Freezing of drain, waste, vent, and water supply lines will be inspected and corrected by either further insulating the area and pipe, or by moving the pipe to a more protected location. This does not apply to any exterior faucet that must be winterized by the homeowner. *See Winterizing Instructions under Exterior Hosebibs in the Plumbing Fixtures Section.*

TYPICAL REPAIR GUIDELINES: TWO Year Coverage

The following guidelines apply to water lines, the main shut-off valve, intake valves, drain traps, and sanitary sewer lines.

1. A water supply problem caused by defective workmanship or equipment will be inspected and corrected to meet the manufacturer's installation and product specifications.
   A. A water supply problem caused by the municipal water main or other conditions beyond our control is not Ryland's responsibility.
2. A soil, waste, vent, or water supply line that leaks will be inspected and repaired by cementing the affected area. Condensation on piping does not constitute leakage, and is not covered.

Caution: *It is important to immediately notify Ryland should a leak occur, since leak damage resulting from homeowner delay is considered negligence and may void any warranty protection.*

Warranty Caution: *Any addition, alteration, or modification to the original plumbing system installation may void all applicable warranties.*

Repair Notes: *Ryland will repair and repaint any drywall or siding damage that occurs due to water leakage resulting from defective materials and/or workmanship. Consequential damages to personal property or homeowner supplied wall finishes (wallpaper or paint) are not covered by' Ryland.*

B. WATER LINES

The pipes that carry water into the home are designed to resist rust and corrosion. Water pressure may be unusually high in your locality. In such a case, a water pressure regulator is installed at the main shut-off valve. Do not attempt to adjust the water pressure regulator yourself. lt is designed to keep water line pressure surges from entering the home, and improper adjustment can burst the water lines and create severe water damage. If you feel the water pressure needs adjustment, please contact the water utility company or the Plumbing Contractor listed in the Homeowner's Service Directory.

HOMEOWNER'S MAINTENANCE GUIDELINES

Noisy Pipes: Pounding or knocking sounds in the water system should be corrected immediately since the resulting vibrations can damage plumbing line fittings and cause them to leak. There is one exception: Exterior hose faucets often produce a high pitched noise caused by an attached vacuum breaker or back-flow preventer. This noise is normal and is not cause for concern.

Noisy pipe problems can be identified and corrected as follows:

1. The water heater temperature may be set too high, producing steam in the pipes. To resolve, gradually reduce the water heater temperature setting until the steam is reduced.
2. Abruptly turning off a faucet in areas with high water pressure can produce a pounding or knocking sound. To resolve, slightly close the main shut-off valve.
3. Air can get into the pipes. To resolve, open all interior and exterior faucets and run for a few minutes, allowing all air to pass through the system. It is not necessary to open exterior faucets if they have been winterized.

Frozen Pipes: Prevention is the best cure.

1. Winterizing Pipes: At the beg inilng of each winter, turn off the outside faucets and then bleed out excess water from the lines. *See Winterizing Instructions under Exterior Hosebibs in the Plumbing Fixture Section.*
2. During extreme cold weather conditions, keep pipes from freezing by allowing the faucets to drip slightly. Also, leave the sink cabinet doors open to allow heat inside to the pipes.
3. Do not leave the home or any room without heat during cold weather.

Safe Defrosting of Pipes: Freezing is most likely to occur near an outer wall that is exposed to winter winds.

1. Begin by restoring heat to the affected area.
2. Open all faucets connected to the pipe line so steam can escape during thawing.

3. Begin thawing slowly at the frozen point nearest the faucet. Thaw slowly to prevent formation of steam which can cause pipes to rupture or burst. A heat lamp set at least six inches from a plasterboard or wall panel will thaw the pipes behind it, For exposed pipes, use a hair dryer or rent a heat cable to wrap around the pipe.
4. As the pipe thaws, move the source of the heat to the next frozen area until all piping has been defrosted.
5. If drain traps have been affected, pour hot water into the drain until thawed. Do not use boiling water since pipes can crack from such a drastic temperature change.

Caution: Do not use open flame torches to thaw frozen pipes.

C. MAIN SHUT-OFF VALVE

This is the center of the plumbing system, the point at which the main water line comes into the home. If a major plumbing problem occurs, turn off the main shut-off valve to prevent flooding. It is a good idea to show every family member where the shut-off valve is, explain how to close it in case of an emergency, and to mark it with an easy-to-locate name tag.

D. WATER INTAKE VALVES

Every plumbing fixture in the home has a water intake valve to individually shut off the water supply to that fixture for minor repairs and emergencies. Show family members how to operate them and where they are located on sinks, bathtubs, showers, toilets, water heater, washing machine, and laundry tub. Toilet valves are behind the toilet, and sink valves are under the sink.

E. DRAIN TRAPS

Every plumbing fixture in the home is equipped with a drain trap, an S-shaped pipe that holds water and acts as a barrier to keep airborne bacteria and sewer gas fumes from coming back into the home. If a sink or bathtub fixture is not used frequently, turn it on periodically to replace evaporating water and to keep the water trap barrier intact.

HOMEOWNER'S MAINTENANCE GUIDELINES

Drain traps can be cleaned by putting 3 tablespoons of ordinary washing soda (not baking soda) into the drain. Add a little hot water, let stand for 15 minutes, then flush with hot water. Use a rubber plunger to unclog a blocked toilet.

Cautions: Do not pour grease into drains or toilets, or use caustic sodas to open plugged drains. Do not use a plunger when using any drain cleaning chemicals. When using a chemical drain cleaner, carefully follow the manufacturer's safety precautions and product directions.

F. SANITARY SEWER LINES

In the final stages of preparing your home for move-in, Ryland tested and flushed the sewer lines to ensure they were clear and working properly.

HOMEOWNER'S MAINTENANCE GUIDELINES

Do not put hair, grease, lint, garbage, heavy tissue, disposable diapers, or sanitary materials into the sewer system.

When operating the garbage disposal, always use a generous amount of cold water to keep the sink drain clear and the disposal motor cool.

PLUMBING FIXTURES

A. INTRODUCTION

The plumbing fixtures in your Ryland home include the water heater, bathtubs, showers, toilets, and sinks, and may include a sump pump where required.

Note: As equipment technology changes frequently, the Manufacturer's Service Manuals will supercede all recommendations and procedures contained in this manual.

TYPICAL REPAIR GUIDELINES: First Year Coverage

The following guidelines apply to water heaters, sump pumps, porcelain fixtures, bathtubs and tub-shower combinations, kitchen and bathroom sinks, and interior and exterior faucets.

1. A defective plumbing fixture, valve, fitting, or faucet will be inspected and repaired by replacing the defective parts.
2. Plumbing fixture components, including drain stoppers, sink stoppers, and floats that do not operate as designed, will be inspected and repaired by replacing the defective parts.
3. A clogged fixture problem caused by defective workmanship or materials will be repaired by removing the clog, and corrected to meet installation specifications. The homeowner is responsible for all repair costs should homeowner action or negligence produce the clog.
4. A defective sump pump will be inspected and corrected by repairing or replacing the sump pump.
5. A defective water heater will be inspected and repaired by replacing the defective parts.

Warranty Caution: *Any addition, alteration, or modification to the water heater, sump pump, or plumbing fixture installation may void all applicable warranties.*

Manufacturer Warranties: *The water heater (and sump pump if applicable) installed in your home are protected by Manufacturer Warranties that may extend beyond Ryland's First Year Coverage. Should you experience warranty protected problems beyond the first year of occupancy, please contact the Plumbing Contractor listed in Ryland's Homeowner Service Directory.*

Pre-Settlement Orientation Check List: *Carefully examine all bathtubs, showers, toilets, and sinks during the Pre-Settlement Orientation. Scratches, chips, and cracks will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

B. WATER HEATER

The electric or gas 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.

HOMEOWNER'S MAINTENANCE GUIDELINES

Hot Water Temperature: Water temperatures ranging from 125°F to l45°F are pre-set at the factory, as specified in the Manufacturer's Service Manual. While lower settings reduce utility operating costs, bear in mind that dishwashers do not operate properly with settings below 125°F Most gas water heaters feature a "vacation setting" switch to reduce costs while you are away, without completely shutting the water heater off.

Do not store combustible items, oily rags, clothing, brooms, or dust mops near the water heater, since this obstructs air flow and presents a potential fife hazard.

Scale: Small amounts of scale deposits will collect and settle to the bottom of the water tank. Remove this residue by periodically draining the tank. For electric water heaters, shut off the power first, using the appropriate circuit breaker in the electrical panel box. Then open the valve at the bottom of the water heater, allowing a quart or two of residue to drain out

until the water runs cleat For gas water heaters, drain out one gallon. 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. Otherwise, the heating element will quickly bum out.

Ryland does not recommend the installation of an insulating jacket on a gas water heater. If you choose to install an insulation jacket, follow the jacket manufacturer's instructions carefully. The draft diverter and combustion air openings must never be blocked.

C. SUMP PUMP

The sump pump, if your Ryland home has one, is part of a drainage system designed to carry moisture away from the underside of the home. The sump pit is located in a trench area just beneath the foundation. As water accumulates in the pit, the pump automatically turns on and pumps the water out and away from the house. To test the pump for proper operation, simply pour water into the pit. Always disconnect the sump pump electrical connection before doing any work or repairs.

D. PORCELAIN FIXTURES

Kitchen and bathroom sinks, toilets, and porcelain-on-steel bathtubs are made with vitreous china or finished with porcelain.

MAINTENANCE GUIDELINES

To clean, use a non-abrasive spray cleanser and sponge. Dropping heavy objects onto porcelain 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 finish

Be aware that continuous action toilet bowl cleansers, placed in the toilet water tank, can prematurely wear out the rubber tank flapper and discolor the bowl.

E. KITCHEN SINK

HOMEOWNER'S MAINTENANCE GUIDELINES

For routine cleaning, use a non-abrasive household cleanser with warrn water and a sponge. Do not scrape the surface with utensils, pots or pans. Do not leave leftovers in sink or drainer, particularly tea bags, which contain harmful acids. Washing soda, 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.

F. BATHROOM SINKS

HOMEOWNER'S MAINTENANCE GUIDELINES

Sink surfaces can be easily chipped and stained, so treat accordingly. Prevent hair accumulation clogs by periodically removing the stopper for cleaning. Avoid setting lit cigarettes on the edge of the sink, as they will burn and permanently damage the surface.

G. BATHTUBS AND TUB-SHOWER COMBINATIONS

HOMEOWNER'S MAINTENANCE GUIDELINES

Cleaning: Clean porcelain-on-steel bathtubs, fiberglass 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 step into a bathtub or tub-shower with shoes on. Gritty particles adhere to shoe soles that will scratch the enamel.

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. Begin by removing the old sealer and cleaning the area. Once the area is dry, apply fresh caulking to fill the vacant space, then smooth out the fmish with a wet finger.

H. INTERIOR FAUCETS

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

HOMEOWNER'S MAINTENANCE GUIDELINES

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

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 and to reduce splashing and water consumption. Aerators are easy to remove for periodic cleaning, and this should be done every three to four months.

Washer Replacement: Dripping faucets can drumatically increase water bills and represent the loss of a valuable natural resource. Over time, all washers will wear out and must be replaced. Neglecting 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 a turn or two.
3. Remove the inside part, turn it upside down, and you'll see a fiber washer held by a screw through its center. This is the source of the leak. The screw will remove easily, but the washer itself may take a little prying to remove.
4. Match the new washer to the worn-out washer and replace it. Reuse the same screw if it is in good condition. Then re-assemble the faucet.

I. EXTERIOR HOSEBIBS

Exterior faucets, called hosebibs, are either standard or frost-free faucets.

HOMEOWNER'S MAINTENANCE GUIDELINES

Standard Hosebibs: Conventional exterior hosebibs require winterizing. This procedure must be performed prior to the first frost to avoid rupture or bursting of the water pipes. Failure to winterize exterior hosebibs will void your warranty.

Winterizing Instructions: To prevent exterior pipe freezing:

1. Turn off the interior water pipe valve, then open the exterior faucet.
2. Loosen the bleeder nut located on the underside of the interior water valve, allowing air into the line.
3. Leave the interior valve turned off and the exterior faucet open throughout the winter season, then reverse this process in the springtime to start water flowing.

To replace washers on standard exterior faucets, follow the same procedure for washer replacement. *See Washer Replacement under Interior Faucets, this Section.*

Disconnect hoses to drain all exterior water prior to the first winter frost. Check for leaks and replace washers as required since a leaking exterior faucet can cause a damp basement. *See Washer Replacement under Interior Faucets, this Section.*

Water Back-Flow Prevention: Some Ryland homes have a vacuum breaker installed on the exterior hose faucet. This device prevents back-flow, and stops contaminated water from flowing back into the home water supply system via the garden hose. Where installed, 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 in use. This is caused by the array of washers built into the back-flow preventer, and is not cause for concern.

SOLUTIONS TO COMMON PLUMBING FIXTURES PROBLEMS		
Problem	***Likely Cause***	***Solution***
No hot water from electric water heater.	Tripped circuit breaker.	Check and reset circuit breaker.
No hot water from gas water heater.	Temperature setting too low. Pilot light is out.	Adjust temperature setting. Re-light pilot light.
Hot water runs out quickly.	Temperature adjustment on water heater set too low.	Call Plumbing Contractor for adjustment.
Hot water recovery is slow.	Burnt out heating element.	Call Plumbing Contractor.
Toilet rims constantly.	Water level in tank is too high.	Adjust float arm stem in toilet water tank downward.
Toilet makes loud noise when flushed.	Ball cock in water tank is not working properly.	Replace ball cock in toilet water tank.
Toilet backing up and/or overflowing.	Obstruction in line.	Turn toilet intake valve off and plunge toilet.
Water flow from faucet is reduced.	Aerator at tip of faucet is clogged.	Unscrew aerator screen and rinse thoroughly.

SOLUTIONS TO COMMON PLUMBING FIXTURES PROBLEMS		
Problem	***Likely Cause***	***Solution***
Water splatters out of faucet.	Air in water supply line.	Open all faucets in home for five minutes.
Water leaking from under sink.	Loose plumbing fitting(s).	Hand tighten coupling(s) on drain pipes.
Water dripping from shut-off valves.	Loose packing nut.	Open valve all the way, then gently tighten nut.
Garbage disposal clogged.	Obstruction in disposal.	Use disposal wrench in bottom of disposal.
Garbage disposal will not operate.	Tripped circuit breaker.	Check reset button on bottom of disposal unit.

ROOFING, GUTTERS AND DOWNSPOUTS

A. INTRODUCTION

The roof of your Ryland home is constructed with roofing felt, shingles, flashing, ridge vents, gutters and downspouts. These materials are installed following manufacturer's guidelines and product specifications. .

TYPICAL REPAIR GUIDELINES: First Year Coverage

The following guidelines apply to roofing felt, shingles, flashing, ridge vents, gutters, and downspouts.

1. Any defect in roof workmanship or material that causes water leakage will be inspected and corrected to eliminate roof leaks. Any interior damage caused by roof leakage will be repaired.
2. Fiberglass shingles that come loose or unattached will be re-secured. Neither the shingle manufacturer nor the Roofing Contractor provide warranty coverage should the shingles come loose or detached by winds in excess of 54 miles per hour. Winds this powerful are considered as "Acts of God" and repairs may be covered by homeowner's insurance.
3. Standing water in the gutter that exceeds 1/2 inch in depth will be repaired by adjusting the pitch of the gutter.
4. Gutters that come loose or unattached will be re-secured with gutter spikes every 2 feet, placed into the tails of the trusses.

Shingle Repair Note: *Ryland cannot ensure that shingle repairs requiring new material will match the color of the existing material. Color variations caused by weathering effects are normal.*

Manufacturer Warranties: *Fiberglass shingles are protected by Manufacturer Warranties that may extend beyond Ryland's First Year Coverage. Should you experience warranty protected problems beyond the first year of occupancy, please contact the Manufacturer directly.*

B. SHINGLES

Roofing felt is attached to the roof sheathing and fiberglass shingles are laid over the felt. The underside of fiberglass shingles has a mastic or glue applied to it that, when warmed by the sun, automatically seals the upper shingle to the one beneath it.

HOMEOWNER' S MAINTENANCE GUIDELINES

Shingle Inspections: Severe winds may cause some fiberglass shingles to lift slightly, however they will settle back into position during warmer weather. Visually check the roof (from the ground) after severe storms to determine if shingles are torn, broken, or missing, and have a Roofing Contractor immediately replace them to prevent water penetration and damage.

C. FLASHING

Roof flashings are sheet metal trims used around roof openings on chimneys, vents, valleys, and skylights. Their purpose is to channel water onto the shingles.

D. RIDGE VENTS

The ridge vent is located at the peak or top ridge of the roof, and serves to reduce the heat that builds up in the attic. As the hot air rises out of the ridge vent, cooler air is drawn into the attic through the soffit vents. Keep obstructions away from the vent openings.

E. SKYLIGHTS

See Skylights in Window Section.

G. GUTTERS AND DOWNSPOUTS

Gutters channel rain water run-off from the roof to downspouts that guide the water to ground level drainage areas. Splash blocks located at the base of the downspouts divert water away from the foundation. *See Water Infiltration and Condensation Section.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Gutters and downspouts should be inspected and cleaned regularly. Check for holes and leakage, make necessary repairs, and clear the gutters of accumulated debris such as leaves, twigs, branches, balls, and other objects.

Gutters need to slope slightly downward to channel water to the downspout. Splash blocks should be properly positioned at the bottom of the downspout to direct water away from the foundation. Finally, the soil grade must slope away from the home. *See Grading in the Landscaping and Grading Section.*

SOLUTIONS T0 COMMON ROOF, GUTTER AND DOWNSPOUT PROBLEMS		
Problem	***Likely Cause***	***Solution***
Roof leakage.	Gutters plugged up.	Clean gutters and downspouts.
Roof leakage.	Loose flashing. Loose pipe collars.	Secure and re-seal flashing and pipe collars.
Roof leakage.	Loose or missing shingles and/or ridge vents.	Secure and/or replace loose or missing shingles/ridge vents.
Roof leakage.	Hole in gutter or downspout.	Inspect, locate, and repair.
Skylight leakage.	Loose flashing. Caulking deteriorated.	Secure flashing. Inspect and re-caulk.

WATER INFILTRATION & CONDENSATION

A. BASEMENT WATER INFILTRATION

To reduce water infiltration at basement walls, Ryland implemented several important precautions during the construction and grading process of your home.

The block foundation may be covered on the outside with a cement parging, while poured-in-place concrete foundation walls do not require parging. Both are sprayed with a material that is water-resistant but not waterproof. A drain around the exterior perimeter of the basement is installed to carry off any water that might penetrate the structure. In some instances, an interior perimeter drain is also installed. Gutters and downspouts are used to control and direct roof water off and away from the home. And finally, the grade around the home's exterior was carefully graded to divert water away from the foundation. *See Foundations in the Concrete Section, and Grading in the Landscaping and Grading Section.*

TYPICAL REPAIR GUIDEELINES: First Year Coverage

1. Water leakage through the basement foundation will be repaired per the Repair Guidelines outlined in the Concrete Foundation Section. Leaks resulting in actual trickling of water shall be repaired. Wall or floor dampness may occur but is not considered a deficiency.
2. Water that enters the home from the top of the foundation and runs down the inside wall, will be repaired by re-caulking the exterior seals and by insuring that the siding and flashing is properly installed and functioning.
3. Downspouts, splash blocks, and sump pump discharges that recirculate through the soil will be repaired by diverting or relocating the discharge area.
4. Areas around the foundation that settle will be raised with additional soil to establish proper flow of water away from the foundation. *See Grading in the Landscaping and Grading Section.*
5. Water that enters through sewer lines, water lines, or electrical

connections and penetrates through foundation walls, will be repaired by applying a hydraulic cement or comparable material to the inside of the affected area. If water penetration persists, the exterior foundation wall will then be excavated to determine appropriate corrective measures.

Caution: *Water leakage caused by homeowner neglect or a homeowner change in the exterior soil grade that causes the infiltration will not be repaired. Ryland will inspect the situation and explain a proper course of action that the homeowner can implement to correct the problem.*

HOMEOWNER'S MAINTENANCE GUIDELINES

Controlling Foundation Water Infiltration: The following guidelines, when implemented, will help control and prevent water infiltration problems.

1. Keep gutters and downspouts free of blockage from leaves or other debris. If gutter seams leak, apply a gutter sealant available at hardware stores.
2. Keep splash blocks directly beneath downspout openings and position them so that runoff water is channeled away from the foundation.
3. Water infiltration problems caused by improper grade should be immediately corrected by the homeowner. Immediately fill soil depressions that form close to the foundation with dry dirt. Do not change the established drainage pattern when landscaping. Ensure that drainage away from the foundation is definite, yet gradual.
4. Do not spray the foundation directly with lawn sprinklers. Make certain that hose fittings are firmly secured and not leaking at the hosebib connection.
5. Do not plant trees and shrubs too close to the foundation. Check with a Landscape Contractor or nursery to determine the root characteristics of plantings so that root growth will not undermine the foundation or driveway surfaces. Be aware that new plantings require substantial amounts of water and that plants too close to the foundation will place additional moisture against the walls.

B. CONDENSATION

Condensation, or the appearance of moisture that occurs when warm moist air comes into contact with a colder surface, is most prevalent in new homes, especially during the first year. This is caused by the large quantities of water used to build the home, from the concrete foundations to the paint on the walls. As this water evaporates, and the drying-out process occurs, the moisture takes the form of condensation on interior windows, basement walls, and plumbing pipes.

Another source of indoor humidity is everyday water usage. For example, a family of four doing the laundry, bathing, cooking, watering plants, and running the dishwasher puts approximately 2 to 5 gallons of moisture into the air everyday.

Window condensation is produced by conditions beyond Ryland's control and is not covered. Ryland will inspect doors and windows to ensure proper fit and function, and will repair defective weatherstripping.

See Bathroom Maintenance in the Bathroom Section, and Moisture Control in the Concrete Section.

HOMEOWNER'S MAINTENANCE GUIDELINES

Ventilation: Proper ventilation is the safe and steady way to reduce indoor humidity and condensation.

1. During warm dry weather, open basement windows, and close them when outside humidity is high.
2. Ensure that the clothes dryer is properly vented to the outside and that the vent is clear of obstructions and lint.
3. Use bath exhaust fans to carry moist air outside. Use the fans for short time periods since they exhaust conditioned air out of the home.
4. If condensation persists, the use of a dehumidifier may be required.

Crawl Space Areas: Proper ventilation in crawl space areas prevents high humidity levels, condensation, and resulting mildew. Do not enclose crawl space areas that open to an existing basement unless you provide exterior venting. Do not block or close existing vents. Do not use crawl space areas for storage of items that may be damaged by high humidity and mildew.

SOLUTIONS TO COMMON WATER INFILTRATION & CONDENSATION PROBLEMS		
Problem	***Likely Cause***	***Solution***
Wet basement floor or walls.	Altered grade. Clogged areaway drain or gutters.	Correct grade. Clear debris from drains and gutters.
Damp basement floor or walls. Excessive moisture inside the house.	Condensation.	Use a dehumidifier.
Water is present around furnace unit.	Condensation line is clogged or misaligned to drain.	Snake out and clear line. Realign pipe to floor dram.

WINDOWS

A. INTRODUCTION

The windows in your Ryland home may be single or double-pane glass with wood or aluminum frames.

TYPICAL REPAIR GUIDELINES: First Year Coverage

1. An insulated double-pane window with condensation forming between the panes has a broken seal, and will be replaced in accordance with the manufacturer's product warranty.
2. Condensation that forms on the inside of a window is caused by interior humidity, and Ryland will instruct the homeowner about measures to reduce indoor humidity.
3. A window problem caused by defective workmanship will be inspected and corrected to meet the manufacturer's installation specifications.
4. A window problem caused by defective material will be inspected and repaired or replaced.
5. A skylight leak caused by defective workmanship or material will be inspected and corrected to eliminate roof leaks. Any interior damage to the home caused by water leakage will be repaired. Consequential damage to personal property is not covered by Ryland.

Pre-Settlement Orientation Check List*: Carefully examine all windows, screens, and glass during the Pre-Settlement Orientation. Glass that is broken, scratched, or chipped will not be repaired after occupancy unless specifically noted on the Pre-Settlement Check List.*

HOMEOWNER'S 's M MN"I'ENANCE GUIDELINES

Wood Windows: For easy operation, keep the sill and side tracks clean. if the window does not slide easily, spray the channel with silicone or rub the channel with a piece of paraffin. Do not paint

vinyl liners or jambs. Abrupt changes in weather rnay cause wood widows to bind or stick. Should this occur, apply silicone spray to the window sash tracks.

Aluminum Windows: Abrupt changes in weather rnay cause alurninurn windows to bind or stick. Should this occur, apply silicone spray to the window sash tracks.

Skylights: Periodic inspection by a roofmg contractor to repair caulking and check flashings will ensure that the skylight remains weather tight.

Window Condensation: The appearance of moisture that occurs when warm moist air comes in contact with a colder surface is called condensation. While moisture may appear on windows, this does not indicate a window problem. The most common cause is humid air inside the home hitting the cold surface of the window glass.

To reduce indoor humidity and condensation, review the *Water Infiltration and Condensation Section,* and implement the *Ventilation Maintenance Guidelines.*

Be aware that high indoor humidity, in combination with extremely cold weather, can turn window condensation into ice. Do not forcefully open windows that are frozen shut as this will bend the frames and tracks.

Window Screens: Window screens are provided with every Ryland home, and their sole purpose is to help prevent insects from coming inside when the windows are open. Window screens may be washed and rinsed using a mild household detergent.

SAFETY CAUTION

Window screens will not prevent children from falling through open widows to the ground below. The screen is not a barrier, and the

fastening system for the screen will not support any weight beyond the screen itself. Ryland strongly advises that homeowners never allow children near an open screened window, or place any weight on, or push against a window screen. Similarly, do not place furniture near windows so that children have easy access to the window.

SOLUTIONS TO COMMON WINDOW PROBLEMS		
Problem	***Likely Cause***	***Solution***
Aluminum window sash comes out when fully opened.	Tension rod clips on side jambs left in open position.	Position clips in closed position before opening.
Window binds or is difficult to open.	Paint or dirt on jambs.	Clean jamb and spray with silicone.
Condensation on inside surface of window.	High humidity inside home. Moisture trapped between window and blinds or curtains.	Use exhaust fans and a dehumidifier. Open blinds or curtains.

GLOSSARY

A

Aerator: *A small, removable extension at the tip of a sink faucet, with air ports and screen, that mix streaming water with air to reduce splashing and conserve water.*

Aggregate: *The gravel or stone that constitutes the bulk of mixed concrete, normally covered by a smooth fin ish.*

Air Gap: *A safety device on kitchen sinks that prevents contaminated sink water from being drained back into the dishwasher*

Air Hammer*: A banging noise in plumbing pipes caused by air infiltration.*

Alkali: *A soluble mineral salt or mixture of salts capable of neutralizing acids.*

Areaway Drain: *A drain system for the basement door that is below grade.*

B

Ball Cock: *A device in flush toilets consisting of a valve connected by a lever with a floating ball. The valve shuts when the ball is raised, and opens when the ball is lowered.*

Baseboard: *A decorative and protective wood molding positioned where the wall meets the floor.*

Bleeder Nut: *A nut located on the underside of the in terior shut-off valve that unscrews to drain water from exterior faucets for winterizing.*

Bulkhead: *In the kitchen, a section of the ceiling that is lowered to meet and support the cabinets.*

C

Circuit Breaker: *A switching device, located in the main electrical panel, that opens and closes electrical circuits and that automatically shuts off electricity to the circuit should it become overloaded. Once the electrical load is reduced, the breaker switch can be turned back on to resume normal service.*

Collar Beams: *A horizontal brace in the roof system that braces opposing rafters.*

Concrete Dusting: *A fine dust that accumulates on finished concrete surfaces.*

Condenser: *An exterior unit that is part of the air conditioning system which expels heat into the outside air.*

Corner Bead: *An angled metal edging used to protect and form an edge where drywall panels meet at outside edges.*

Consequential Damages: *Unavoidable damage to homeowner's personal property caused by covered Ryland repairs.*

D

Damper: *An adjustable valve in the duct work of the heating system that can be opened or closed to control the flow of air conditioned or heated air throughout the home. Also, a device in a fireplace or gas heater that controls the air draft up the chimney.*

Dehumidifier: *An electrical appliance that removes humidity from the air. Particularly useful in basement areas during summer.*

Delamination: *The separation of the top plies or laminate from the base to which they are attached. In vanity and kitchen countertops, the warping or detachment of laminate material from the wood substrate.*

Dethatching: *The loosening and/or removal of matted grass and leaves from existing lawns, which allows the grass to breathe and therefore promotes healthy growth.*

Drywall: *Also known as gypsum board or sheetrock, these large sheets are attached to the wall studs and ceiling framing to construct the walls and ceilings of the home.*

E

Efflorescence: *A white powdery substance that can form on new block, brick, or stucco finishes. It is composed of water soluble salts that are present in mason my materials and that rise to the surface via water evaporation.*

F

Face Frame: *The front of kitchen and bathroom cabinets, to which the hinged doors attach.*

Face Nailing: *Nailing through a finished, exposed surface so that the flat top of the nail head is still visible after nailing.*

Fascia: *The exterior horizontal trim around rafters. Also positioned directly behind gutters and over gable trim boards. Can be either aluminum or wood covered.*

Fillers: *A wood putty used in preparation for rpainting to fill holes or cracks in wood.*

Filler Board: *Cabinet grade wood used to fill gaps that occur between cabinets and wall openings.*

Flashing: *Flat sheet metal inserted under roof shin gles at overhangs and vent pipes, and above windows and doors frames to keep rain water from penetrating the house structure.*

Flue: *A vertical duct, constructed of sheet metal or clay, that channels smoke or gas fumes from a fireplace or gas furnace out of the home.*

G

Gabled Louvers: *A vent with louvers located at the peak of gable ends.*

Graphite Lubricant: *A finely powdered graphite used as a lubricant.*

Ground Fault Circuit Interrupter (GFCI): *A specialized electrical device that will interrupt electrical power where a weak electrical loss of ground occurs. Normally installed in areas where water may be present.*

Grout: *A white or colored plaster-like mortar compound used to fill spaces between ceramic tiles.*

H, J, K

Header: *A heavy timber that spans open spaces in walls, over doors and windows, and provides support to structural members above it.*

Honeycomb: *In concrete, an open cell like surface texture that occurs while pouring the concrete.*

Hose bib: *The exterior faucet connection for lawn and garden hoses.*

Joint Compound: *A plaster-like compound, used with drywall tape, to join sheets of drywall into a smooth, continuous panel.*

Joists: *The horizontal support members used to construct the floor.*

Keeper Plate: *The metal plate that keeps a door lock latch firmly in place.*

L, M, N

Lockset: *A door lock.*

Mastic: *A construction adhesive that is thick and waterproof*

Moldings: *Shaped strips of ornamental wood used around doors, and windows. Also used for base molding, tile molding, as chair rails, and for exterior area molding. Moldings finish the junction of different materials or shapes.*

Nail Pops: *A nail that comes loose from a stud and pushes joint compound up. Caused by normal wood shrinkage and home settlement.*

0, P

Oil-Canning: *A loud, booming noise that occurs in sheet metal duct work that buckles. Can also occur with vinyl siding as a result of temperature changes.*

Parging: *A water-resisting, exterior coating used to protect concrete foundations from water penetration.*

Pointing: *The filling and finishing of brick mortar and stone cement masonry joints.*

Ponding: *The collection of water on driveways, walkways, or lawns. Ponding for excessive periods of time are indicative of grading problems.*

R

Resilient: *Vinyl flooring used in areas such as kitchens, halls, bathrooms, and playrooms.*

Retaining Wall Tie: *Large timbers usually assembled into a wall, often backfilled with soil.*

Ridge Vent: *A open vent system located along roof peaks, which, in conjunction with soffit vents, creates a natural-air ventilation.*

S

Scaling: *In concrete, the breaking away of the top surface of the concrete, caused by a freeze/thaw cycle. in painting, the flaking or peeling away of paint.*

Silicone: *A synthetic lubricating compound with high resistance to temperature change and water. When added to caulking, it extends elasticity properties and increases the life of the caulking.*

Sill Plates: *A support member laid on the top of the foundation wall that serves as a base for the wall framing.*

Soffit: *A vent located under the ceiling of a roof overhang.*

Spackle: *See joint compound.*

Spalling: *Flaking or chipping of stone or other masonry material. Similar to scaling, but the chips and flakes are larger.*

Sparker Unit: *Eliminates pilot light in gas stoves and furnaces.*

Subflooring: *A wood sheet flooring directly over the joists that supports the underlayment or floorcovering.*

Sump Pump: *A motorized pump that expels excessive water accumulation that gathers under the home foundation.*

Surface Capping: *The addition of another layer of similar material over the top of the existing material. Usually 1/4 inch in depth or thicker.*

Swale: *The soil contour on a building lot deliberately shaped to channel rain water away from the home.*

T

Tack Strips: *A wood strip with exposed tack points that is attached to subflooring and holds stretched wall-to-wall carpet in position.*

Thermocouple: *A safety device for gas powered equipment that will not allow the unit to be turned on unless the pilot light is burning.*

Turnaround: *An additional section of driveway where cars can be turned around.*

U, V

Underlayment: *A flooring layer over the base subflooring, over which tile or resilient floorcovering is laid.*

Vacuum Breaker: *Also called a back flow preventer, this device is placed on exterior faucets to allow water to only flow out of the home.*

Valve Seat: *An interior part of the faucet valve assembly where the valve rests.*

Vitreous China: *Highly impervious, glass-like china often used to finish sinks, showers and tubs.*

W

Wall Ties: *The metal pieces that tie masonry veneer to the frame of the home, or; when pouring concrete, the metal pieces that the hold concrete foundation wall forms in place until the concrete cures.*

Washers: *A round, rigid rubber or plastic disc used as a sealing device in water faucet valves.*

Washing Soda: *Used for heavy cleaning of surfaces and to help prevent accumulation of materials in drain traps.*

Washouts: *An area where water has produced soil erosion.*

Weatherstripping: *A weather insulating strip of material placed around doors and windows to reduce water entry into the home. Also reduces air infiltration in to the home or escape of conditioned air out of the home.*

Window Balance: *A counter balance device in window housings that assists with the opening and closing of a window, and then keeps the window in position.*

RYLAND HOMEOWNER'S MANUAL

INDEX

Aerators, 90
Air Conditioning, 1-10
Air Distribution System, 1, 5
Air Drafts, 42
Air Filters, 1,34
Aluminum Siding, 46
Aluminum Windows, 105
Appliances, 11-13,4143
Attic, 14, 67, 96
Bathroom Maintenance, 16, 101
Bathroom Sinks, 86, 88-89
Bathrooms, 15, 17,43, 59
Bathtubs and Tub-Shower Combinations, 86, 89
Before Calling for Service, 3, 12
Bifold Door, 34
Brick, 24-25, 46,49-50, 54-56
Brick Veneer, 49-50
Cabinets, 16, 18-20
Cable TV, 4344
Carpeting, 58-59
Caulking, 15-16, 21, 23-25, 27-30, 48, 63-65,71, 80,90,98, 105
Ceiling and Roof Framing, 67
Ceramic Tile Countertops, 28-29
Ceramic Tile Floors, 63
Ceramic Tile Walls, 15
Circuit Breakers, 3, 12, 4042
Circuit Tripping, 42
Concrete Block, 21
Concrete, 21-27, 99, 101
Concrete Foundation, 21, 99
Condensation, 22, 82, 96, 99-105, 107
Countertop Precautions, 30
Countertops and Vanity Tops, 28-31
Crawl Space Areas, 102
Dampers, 5
Deck, 7-8, 32-33
Dishwasher, 11, 30
Door Hardware, 38
Door Locks, 38
Door Precautions, 35
Doors, 5, 34-39, 78, 101
Downspouts, 73, 95-100
Drain Traps, 81-82, 84-85
Drainage, 22-23, 73, 96, 100
Drawer and Hinge Care, 19
Driveways, 25
Duct Work, 5-6
Efflorescence, 22-23, 50, 52, 80
Electric Dryer, ll
Electric Meter, 41
Electric Oven and Cooktop, 11
Electrical System, 3, 4041,44
Emergency Heating, 8
Exhaust Fans, 10,101,107
Exterior Doors, 34, 36
Exterior Finishes, 46-53
Exterior Hosebibs, 81, 83,91

Fascia, 4748
Faucet Aerators, 90
Faucets, 83, 86, 90-91, 94
Fertilizing, 74-76
Fiberglass Shingles, 95-96
Fireplace Equipment, 55
Fireplace, 54-57
Fireplace Inspections, 55
Flashing, *95-96,* 98-99
Flooring and Finishes, 58-66
Foundations, 21-22, 99, 101
Framing and Carpentry, 67-68
Frozen Pipes, 83-84
Garage Door, 37-38, 43
Garbage Disposal, 11, 85, 94
Gas Heating Equipment, 6
Gas Oven and Cooktop, 1 1
Grading, 73-77, 97, 99
Ground Fault Circuit Interrupters, 43
Gutters, 47, 95-100, 103
Hardwood Floors, 61-63
Heat Pump, 24,7-10
Heating, 1-10,42, 88, 93
Hosebibs, 81, 83, 91
Humidifier, 10
Insulation, 14-15, 36, 69, 88
Intake Valves, 81-82, 84
Interior Doors, 5, 34-35
Interior Faucets, 90-91
Interior Trims and Moldings, 71
Interior Walls and Ceilings, 69-72
Kitchen Sink, 89
Laminate Cabinets, 19
Laminate Countertops, 29
Landscaping and Grading, 73-77, 97, 99
Lawn, 73-77
Light Fixtures, 44
Locks, 38
Main Shut-Off Valve, 81-84
Masonry, 21, 23, 25,48-50, 52, 54, 80
Microwave Oven, 1 1
Mildew, 16, 33, 49, 52-53, 64, 80, 102
Mirrors, 16
Moisture Control, 22, 101
Mowing, 75
Nail Pops, 70
New Shrub and Tree Care, 76
Noisy Pipes, 83
Outlets and Wall Switches, 42
Painting, 32, 36,4649, 69, 78-80
Patios, 25
Pilot Light, 3, 6,93
Plant Ledges, 71
Plumbing Fixtures, 16, 29-30, 81, 86-94
Plumbing System, 81-82, 84
Porcelain Fixtures, 86, 88
Porches, 24-25
Post Lamp, 44
Range Hood, 11 :
Refrigerator, 1 1
Registers, 1, 5-7, 9
Resilient Floors, 66
Ridge Vents, 14, 95-96, 98
Roof Sheathing, 68, 96
Roofing, 9_5-98, 105
Rust Stains, 29

Salt Damage, 26
Sanitary Sewer Lines, 82, 85
Seeding, 74-75
Semi-Gloss Latex Paint, 78
Shelves and Lazy Susan Cabinets, 19
Shingles, 95-96, 98
Shower Doors, 89
Shrubs and Trees, 25
Sidewalks, 24
Siding, 4649, 52-53, 82, 99
Single-Lever Faucets, 90
Skylights, 96, 105
Sliding Glass Doors, 34-36
Smoke Detectors, 44
Soap Scum, 16, 29
Sod, 74-75, 77
Soffit, 14, 4748, 96
Standard Hosebibs, 91
Starting a Fire, 55
Steps, 24-25, 59
Sticking Doors, 34
Stone Veneer, 46, 51
Stoops, 24-25
Stucco, 22, 5 1
Sump Pump, 22, 86-88, 99
Supplemental Heat, 4,7-8
Telephones, 43
Termites, 32
Thermostat, 1-5, 7-9
Trusses, 14, 67-68, 95
TV Antenna, 43
Vacuum Breaker, 83, 92
Vanity Tops, 28-31
Ventilation, 22, 101-102, 105
Vitreous China, 88
Wall Fasteners and Anchors, 71
Washer Replacement, 90-91
Water Back-Flow Prevention, 92
Water Heater, 83-84, 86-88, 93
Water Infiltration, 22, 99-103, 105
Water Intake Valves, 84
Water Lines, 81-82, 99
Water Pipes, 91
Watering, 36, 74-76, 101
Weatherstripping, 36-37, 101
Window Condensation, 101,105
Window Screens, 105
W'mdow Wells, 22
Windows, 22, 101, 104-107
Winterizing Instructions, 81, 83, 91
Wood Cabinets, 19