

Welcome Home

THE OWNER'S MANUAL

for Owners of

GEMCRAFT  HOMES

BUILDING DREAMS ONE HOME AT A TIME

410-893-8458 • www.GemcraftHomes.com

GEMCRAFT HOMES

BUILDING DREAMS ONE HOME AT A TIME

2205 Commerce Road • Forest Hill, MD 21050
410-893-8458 • 410-803-9025 fax • www.GemcraftHomes.com

Congratulations!

You now own a beautifully designed home that was constructed by one of the most respected, award-winning homebuilders in America, Gemcraft Homes. Founded in 1993, Gemcraft Homes was recognized by *Builder Magazine* as the fastest growing builder in Maryland and the 18th fastest growing builder in the entire country. In addition, we at Gemcraft have received other numerous honors including ten “*Excellence in Design*” awards four *Official Proclamations*, two feature stories in *Builder Architect Magazine*, and the prestigious *Harford Award* for commitment to the community. Recently, we were bestowed the “2001 Builder of the Year” award, which is the highest honor received from The Home Builders Association of Maryland.

Our rapid expansion and recent success can be greatly attributed to our committed employees. The education and rigorous training that our employees receive has even been acknowledged by one of the most respected business publications in Maryland, *The Baltimore Business Journal*. In addition, this technical instruction from “Gemcraft University,” as it has been referred to, provides the unique platform to instill in each employee that the single most rigid and direct principle of our company is quality. Quality is more than just a word in a mission statement, which is why it is our business to provide you with a home of which you can be proud.

With value in mind, satisfied customers have always been our biggest asset and we are so confident that new customers will be satisfied with the same caliber of homes that we are prepared to offer our past Gemcraft customers an unbelievably great incentive for referring a friend to one of our sales offices. Just refer a friend, family member, or acquaintance to a Gemcraft Homes Sales Office and, if that referral results in a sale and settlement, you will receive a valuable gift certificate to use at your favorite home improvement center.

Here at Gemcraft Homes, we are well aware that a satisfied homeowner is one of the most effective methods of advertising available to a homebuilder. So remember to tell a friend about Gemcraft Homes and take advantage of our exciting, new Refer-a-Friend program.

GEMCRAFT HOMES

GEMCRAFT HOMES

BUILDING DREAMS ONE HOME AT A TIME

2205 Commerce Road • Forest Hill, MD 21050
410-893-8458 • 410-803-9025 fax • www.GemcraftHomes.com

Thank You for purchasing your new home from Gemcraft Homes. We will do everything to make sure that your experience is pleasant and that your new home will give you many years of comfort. Your “Welcome Home” Manual and “Closing Document Portfolio” are designed to help you and your family adjust to your new environment and to assist you with its care and maintenance.

To avoid misunderstandings during the warranty period, we wish to clearly set forth the separation of responsibilities for maintenance (your responsibility) and warranty (our responsibility). We also want to establish between us an understanding that your new home is a handmade product, which is, therefore, not perfect. We are proud of the homes we build and we are personally involved in building each one of them. However, a new home is more akin to a painting, with brush strokes, than to a photograph with a uniform plastic finish. Gemcraft Homes will honor all legitimate and reasonable warranty service requests, but we will not undertake a maintenance program for you.

It is our hope that by reading the “Welcome Home” Manual you will help us do a better job for you. Your “Welcome Home” Manual contains suggestions to help you maintain your home yourself and keep it in excellent operating condition. These suggestions will also prevent service requests arising from a lack of homeowner understanding.

We wish you many years of enjoyment in your new home.

Gemcraft Homes

IMPORTANT NOTE ABOUT YOUR MANUAL

IN THE EVENT ANY VARIATION OR CONFLICT EXISTS BETWEEN THE INFORMATION AND MATERIALS CONTAINED IN YOUR “WELCOME HOME” MANUAL AND THE WARRANTY PROVISIONS CONTAINED IN THE “PROFESSIONAL WARRANTY SERVICE CORPORATION” (PWC), “BUILDER’S LIMITED WARRANTY” OR THE MANUFACTURER’S PRINTED LITERATURE THE MATERIALS PROVIDED BY “PROFESSIONAL WARRANTY SERVICE CORPORATION” OR THE MANUFACTURER WILL CONTROL.

Printed on Recycled Paper



MOVE-IN CHECK LIST

The following are a few helpful reminders to make the transition into your new Gemcraft Home a little smoother.



- Call your phone company to set up phone service.
- Contact your power company to have the utilities changed into your name, effective the date of settlement.
- Fill out a change of address card and deliver to your post office.
- Obtain a certified check for the amount given to you by the Title Company for your settlement fees.
- It is required that you have a one-year paid fire and hazard insurance policy at the time of settlement for your new home. If your insurance agent has any questions, please have them call your Gemcraft Sales Associate.
- If you plan to build a deck, fence, shed or any other change to your home on the outside, you must seek approval from the homeowner's association (if applicable) and the local County Planning Board. You must also obtain a building permit from the local building department.
- Once you move in, you may need to contact a trash company for your refuse needs. Consult your Gemcraft Sales Associate for details.

IMPORTANT REMINDER

EFFECTIVE ON YOUR SETTLEMENT DATE, GEMCRAFT HOMES' NAME IS TAKEN OFF OF ALL UTILITY BILLS. YOUR NAME MUST BE ON THE UTILITY BILLS IN ORDER TO PREVENT SHUT-OFFS! PLEASE REMEMBER TO CALL THE UTILITY COMPANIES.

IF YOU HAVE ANY QUESTIONS OR CONCERNS, PLEASE CALL GEMCRAFT HOMES AT _____

Customer Name: _____ Phone: _____

Subdivision: _____ Lot #: _____

Address: _____

☐ Single Family ☐ Townhouse House Type: _____

☐ Duplex ☐ Modular

Supervisor: _____ Date: _____

Dear Homeowner:

The purpose of this “**Presettlement Orientation**” is to review all of the features of your new home as well as demonstrate the function and maintenance of the components of your home.

This **Presettlement Orientation & Inspection Report** will document any and all defects, omissions and adjustments, which Gemcraft Homes agrees to correct. **All items requiring attention must be listed below and there are no verbal agreements regarding this inspection. Customer Initial:** _____

Please initial next to every item which is accepted, if not accepted place a circle in the “**initial space**” and note the deficiency next to that item in the “**inspection description**” column. If an item does not specifically apply to your home mark an “**N/A**” in the initial column. *All spaces must be completed with initials if accepted or circled.*

NOTE: Terms such as minor defects, scratches and chips are considered commercially acceptable and only major cosmetic defects should be noted on the list.

NOTE: Your home has been constructed by hand to Gemcraft standards of excellence. We will be reviewing the quality of your home against homebuilding “**Industry Standards**”, and the standards as described in the PWC “**Builders Limited Warranty**”.

NOTE: Any cosmetic defects which are not noted on the original “**Presettlement Orientation & Inspection Report**” will not be addressed.

Date: _____ Start Time: _____ Completion Time: _____

Customer Initial: _____

INSPECTION AREA	INSPECTION DESCRIPTION	HOMEOWNER INITIAL OR CIRCLE
1. KITCHEN/NOOK		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, GFI)		
F. Heat Registers		
G. Floor Covering / Vinyl		
H. Cabinets and Hardware		
I. Countertops		
J. Sinks / Fixtures		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

K. Dishwasher		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
L. Range and Hood / Ovens		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
M. Cooktop / Grill		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
N. Microwave		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
O. Refrigerator		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
P. Garbage Disposal		
1. Check for Proper Operation		
2. Review Unclogging / Maintenance Procedures	DEMONSTRATION & OPERATION	
Q. Pantry Closet / Shelves		
R. Check for Hot Water		
2. FAMILY ROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical		
F. Heat Registers		
G. Floor Covering		
H. Fireplace / Hearth		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
I. Closet and Shelving		
J. Rails		
3. LAUNDRY (CIRCLE LOCATION) 1ST FLOOR / 2ND FLOOR / BASEMENT		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Closet and Shelving		
D. Wood Trim		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

E. Walls and Ceilings		
F. Electrical (fixtures, outlets, ect.)		
G. Heat Registers		
H. Floor Covering		
I. Cabinets		
J. Dryer Vent		
K. Laundry Tub / Fixture		
L. Washer / Dryer Hookups		
4. DINING ROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Fireplace / Hearth		
I. Closet and Shelving		
5. LIVING ROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Fireplace / Hearth		
I. Built-in Cabinets		
J. Closet and Shelving		
K. Review Thermostat Operation	DEMONSTRATION & OPERATION	
6. STUDY		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

H. Fireplace / Hearth		
I. Built-in Cabinets		
J. Closet and Shelving		
7. ENTRANCE FOYER		
A. Windows and Glass		
1. Screens		
B. Front Door/Sidelights/Transom		
C. Wood Trim		
D. Closet and Shelving		
E. Walls and Ceiling		
F. Electrical (fixtures, outlets, etc.)		
G. Heat Registers		
H. Floor Covering		
I. Stairs/Railings		
8. POWDER ROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, GFI, etc.)		
F. Heat Registers / Exhaust Fan		
G. Floor Covering		
H. Plumbing Fixtures		
I. Vanity Cabinet / Marble Top		
J. Pedestal Sink		
K. Mirror/Toilet Paper Hldr/Towel Bar		
9. 1ST FLOOR MASTER SUITE		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Fireplace/Hearth		
I. Closet and Shelving		
10. 1ST FLOOR MASTER BATHROOM		
A. Windows and Glass		
1. Screens		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling (drywall)		
E. Ceramic Tile (surround/deck)		
F. Electrical (fixtures, outlets, GFI, etc.)		
G. Heat Registers / Exhaust Fan		
H. Floor Covering		
I. Plumbing Fixtures		
J. Medicine Cabinet/Marble Top/Vanity		
K. Pedestal Sink		
L. Mirror/Toilet Paper Hldr/Towel Bar		
M. Whirlpool / Tub		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
11. HALL BATHROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling (drywall)		
E. Ceramic Tile (surround/deck)		
F. Electrical (fixtures, outlets, GFI, etc.)		
G. Heat Registers / Exhaust Fan		
H. Floor Covering		
I. Plumbing Fixtures		
J. Tub		
K. Medicine Cabinet/Marble Top/Vanity		
L. Pedestal Sink		
M. Mirror/Toilet Paper Hldr/Towel Bar		
12. 2ND FLOOR HALLWAY		
A. Doors, Knobs, Bumpers, Etc.		
B. Wood Trim		
C. Walls and Ceiling		
D. Electrical (fixtures, outlets, etc.)		
E. Heat Registers		
F. Floor Covering		
G. Rails		
H. Closet and Shelving		
13. BEDROOM 1 (CIRCLE LOCATION) FRONT / REAR • LEFT / MIDDLE / RIGHT		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc .		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Closet and Shelving		
14. BEDROOM 2 (CIRCLE LOCATION) FRONT / REAR • LEFT / MIDDLE / RIGHT		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Closet and Shelving		
15. BEDROOM 3 (CIRCLE LOCATION) FRONT / REAR • LEFT / MIDDLE / RIGHT		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Closet and Shelving		
16. MASTER BEDROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Fireplace / Hearth		
I. Closet and Shelving		
17. MASTER BATHROOM		
A. Windows and Glass		
1. Screens		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling (drywall)		
E. Ceramic Tile (surround/deck)		
F. Electrical (fixtures, outlets, GFI, etc.)		
G. Heat Registers / Exhaust Fan		
H. Floor Covering		
I. Plumbing Fixtures		
J. Medicine Cabinet/Marble Top/Vanity		
K. Ceramic Surrounds		
L. Mirror/Toilet Paper Hldr/Towel Bar		
M. Fireplace / Hearth		
N. Whirlpool / Tub		
1. Turn on and Check		
2. Review Operation	DEMONSTRATION & OPERATION	
18. 3RD BATHROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling (drywall)		
E. Ceramic Tile (surround/deck)		
F. Electrical (fixtures, outlets, GFI, etc.)		
G. Heat Registers / Exhaust Fan		
H. Floor Covering		
I. Plumbing Fixtures		
J. Tub		
K. Medicine Cabinet/Marble Top/Vanity		
L. Ceramic Surrounds		
M. Pedestal Sink		
N. Mirror/Toilet Paper Hldr/Towel Bar		
19. 2ND FLOOR STUDY/SITTING/5TH BEDROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers		
G. Floor Covering		
H. Fireplace / Hearth		
I. Closet and Shelving		

20. BASEMENT/FINISHED BASEMENT		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling or Insulation		
E. Electrical (fixtures, outlets, etc.)		
F. Heat Registers (Duct Registers if unfinished)		
G. Floor Covering or Concrete Floor		
H. Fireplace / Hearth		
I. Closet and Shelving		
J. Furnace		
1. Check Filter and Review Replacement Procedure	DEMONSTRATION & OPERATION	
2. Review Furnace Operation	DEMONSTRATION & OPERATION	
3. Review Thermostat Operation	DEMONSTRATION & OPERATION	
4. Review Winterize / Summerize Procedures	DEMONSTRATION & OPERATION	
5. Review Air Register Balancing (entire house)	DEMONSTRATION & OPERATION	
K. Hot Water Heater		
1. Verify HW Heater is Operating		
2. Pilot Lighting Instructions	DEMONSTRATION & OPERATION	
3. Review Thermostat Adjustment	DEMONSTRATION & OPERATION	
L. Floor Broom Swept		
M. No Holes to Exterior		
N. Review Sump Pump for Proper Operation	DEMONSTRATION & OPERATION	
O. Backwater Valve		
P. 2/3 Piece Rough-in		
Q. Condensate Pump		
R. Electric Service Panel		
1. Check All Breakers are Properly Marked		
2. Review Breaker Operation	DEMONSTRATION & OPERATION	
3. Review GFI Operation	DEMONSTRATION & OPERATION	
S. Exterior Hose Bibs		
1. Review Winterize / Summerize Procedures	DEMONSTRATION & OPERATION	
2. Review Shut Off Valve / Bleeder Valve locations	DEMONSTRATION & OPERATION	
T. Review Smoke Detector Operation	DEMONSTRATION & OPERATION	
U. Review Main Water Shutoff Valve	DEMONSTRATION & OPERATION	
V. Review Main Gas Shutoff Valve	DEMONSTRATION & OPERATION	

21. BASEMENT BATHROOM		
A. Windows and Glass		
1. Screens		
B. Doors, Knobs, Bumpers, Etc.		
C. Wood Trim		
D. Walls and Ceiling (drywall)		
E. Ceramic Tile (surround/deck)		
F. Electrical (fixtures, outlets, GFI, etc.)		
G. Heat Registers / Exhaust Fan		
H. Floor Covering		
I. Plumbing Fixtures		
J. Tub		
K. Medicine Cabinet/Marble Top/Vanity		
L. Ceramic Surrounds		
M. Pedestal Sink		
N. Mirror/Toilet Paper Hldr/Towel Bar		
22. SPECIAL SYSTEMS		
A. Well System		
1. Review Well System Operation	DEMONSTRATION & OPERATION	
2. Review Well Tank Operation	DEMONSTRATION & OPERATION	
3. Review Well Pump Operation	DEMONSTRATION & OPERATION	
4. Review Chlorination/Water Test	DEMONSTRATION & OPERATION	
B. Ejector Pit		
C. "Environmental One" Sewage Pump	DEMONSTRATION & OPERATION	
D. Laundry Tray Ejector Pump	DEMONSTRATION & OPERATION	
E. Septic System		
1. Review Septic System Operation	DEMONSTRATION & OPERATION	
2. Review Septic System Maintenance	DEMONSTRATION & OPERATION	
F. Booster Pump		
1. Review Booster Pump Operation	DEMONSTRATION & OPERATION	
2. Review Booster Pump Maintenance	DEMONSTRATION & OPERATION	
23. SECURITY SYSTEM		
A. Control Panel		
B. Sensor (Location:)		
C. Sensor (Location:)		
D. Sensor (Location:)		
E. Sensor (Location:)		
24. GARAGE		
A. Windows and Glass		
1. Screens		
B. Garage Doors (roll up doors)		

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

1. Locks		
C. Garage Service Door		
1. Glass		
D. Electrical (fixtures, outlets, ect.)		
E. Walls and Ceiling		
F. Concrete		
G. Garage Door Openers		
1. Remote Operator Received		
25. DECK		
A. Decking		
B. Railings		
C. Stairs (if applicable)		
26. EXTERIOR (NON-SEASONAL)		
A. Brick or Stone Front		
B. Siding or Stucco		
C. Fascia / Soffit / Rakes		
D. Gutters and Downspouts		
E. Shutters		
F. Roofing		
G. Chimney/Flashing		
H. Electrical (fixtures, outlets, GFI, doorbell, ect.)		
I. Hose Bibs		
J. A/C Compressor		
K. Splashblocks		
L. Porch Rails and Posts		
M. Fypon		
N. Exterior Trim		
O. Metal Roof		
P. All Penetrations Sealed		
Q. Exterior Concrete		
1. Review Exterior Concrete Warranty	WARRANTY REVIEW & SIGNATURE	
2. Public Walk		
3. Leadwalk		
4. Porch		
5. Driveway		
R. Propane System		
27. EXTERIOR (SEASONAL / WINTER)		
A. Exterior Painting		
B. Fine Grade & Lawn Install		
1. Review Lawn Maintenance Warranty	WARRANTY REVIEW & SIGNATURE	
C. Shrubbery Install		

Customer please initial in each box indicating that you have received the following information:

- WHITE: Permanent Lot File • YELLOW: Buyer's Second Copy • PINK: Superintendent • GOLDENROD: Buyer's First Copy**

By signing below I acknowledge that I/we have performed a thorough Presettlement Orientation & Inspection of my/our new home. All components of the home have been reviewed and initialed by me/us as acceptable, or any items requiring attention have been listed above. We have reviewed our ***“Welcome Home Manual”*** and its contents have been explained to me.

A follow up meeting with your Supervisor will be scheduled for the purpose of reviewing any corrected items and initialing the original ***“Pre-settlement Orientation & Inspection Report”*** as complete. No additional items will be added to the ***“Pre-settlement Orientation & Inspection Report”*** and any additional items which may have been found will not hold up acceptance of the original ***“Pre-settlement Orientation & Inspection Report”*** as complete or delay settlement. Any additional items will be addressed in accordance with the performance standard set forth in the ***“Warranty Service”*** section of the ***“Welcome Home Manual.”***

Customer: _____ Date: _____

_____ Date: _____

Gemcraft Homes

Supervisor Signature: _____ Date: _____

WARNING: THE ALUMINUM SCREEN FRAME AND FASTENING SYSTEM HAS BEEN DESIGNED BY THE WINDOW AND SCREEN MANUFACTURER ONLY TO KEEP INSECTS OUT OF THE HOME. THE MANUFACTURERS HAVE NOT DESIGNED THE SCREEN SYSTEM TO SUPPORT ANY WEIGHT OTHER THAN THAT OF THE SCREEN ITSELF. THEREFORE, THE SCREEN SYSTEM WILL NOT PREVENT SMALL CHILDREN FROM FALLING THROUGH OPEN WINDOWS TO THE GROUND BELOW. PARENTS SHOULD BE CAREFUL TO PREVENT SMALL CHILDREN FROM LEANING AGAINST THE SCREENS.

FOLLOW-UP MEETING

Date: _____ Time: _____

I/we have had our follow-up meeting with our Supervisor and acknowledge that the items listed for correction on the original ***“Pre-settlement Orientation & Inspection Report”*** have been completed to our satisfaction.

Customer: _____ Date: _____

_____ Date: _____

Gemcraft Homes

Supervisor Signature: _____ Date: _____

**Gemcraft Homes • PRE-SETTLEMENT
ORIENTATION AND INSPECTION REPORT**

Lot #: _____ Date: _____

WEATHER CONDITIONS

Homeowner: _____

Dear Homeowner:

Subdivision: _____

Due to weather conditions we have been unable to complete some exterior items on your home prior to the Presettlement Orientation Walkthru. These items are the identified below and will be completed as soon as weather permits.

	TO BE COMPLETED	DATE COMPLETED	CUSTOMER(S) INITIALS
UTILITIES			
Meter (painting)			
Curb Box (adjusted)			
Sewer Cleanout (adjusted)			
DRIVEWAY			
Cut Out Driveway			
Apron			
Base Driveway – Asphalt			
Top Driveway – Asphalt			
MISCELLANEOUS			
Brick Wash			
Rear / Side Deck			
Exterior Paint			
CONCRETE			
Leadwalk			
Public Walk			
Facing			
Stoops			
Repairs			
Driveway			
YARD / LANDSCAPING			
Final Grade			
Shrubs			
Tree			
Seed or Sod			
Special Condition			
Splashblocks			
Final Lot Corner			
Remove Silt Fence			
NOTES:			

Inspected By: _____ Gemcraft Homes Supervisor
Homewoner's Approval: _____ Owner's Signature _____ Date _____

*I acknowledge that the above items
have been corrected by Gemcraft
Homes.*

Gemcraft Homes Supervisor: _____ Date: _____

Owner's Signature: _____

LAWN IRRIGATION SYSTEM EXPECTATIONS

Subdivision: _____ Lot # _____

If you have purchased a lawn irrigation system for your home we would like you to please review the following information.

1. Lawn irrigation systems are designed to water the lawn area only and will not provide enough water for landscaped areas with different water requirements such as trees and shrubs.
2. **Winterization of the lawn irrigation system is necessary and is the responsibility of the homeowner.** The winterization of this system should be done before first freeze. We have provided you with suggested winterization procedures but we do recommend contacting the systems installer or a reputable contractor to have this service done. Systems that are installed late in the growing season or during the winter months will not be pressurized. In this case please contact the installer in early spring to start and review the system with you. **Systems damaged due to frozen pipes or valves are not covered under the terms of the warranty.**
3. From time to time the sprinkler heads of your new lawn irrigation system may need adjustments or maintenance. This can be caused by different factors such as grass over growth around the head, hard water or heads that have been stepped on or hit while mowing the lawn. After installing your new system we will provide a one time start up of the system to insure that the system is operating properly. Maintenance of this system is the sole responsibility of the homeowner. If you require maintenance assistance please contact the installer.
4. You will be provided with the operation instructions for your new irrigation system. Due to weather conditions, operation times will vary and adjustments to the controller may be necessary from time to time. These adjustments are the responsibility of the homeowner and are considered a maintenance issue. Rain sensors are not a standard item with all systems but are available to help minimize this type of adjustment.
5. It is not uncommon to find that during operation water may be directed towards your home or onto walks and driveways during the rotation path of a sprinkler head. Sometimes this is necessary in order to provide water to the entire lawn. During this rotation water should never be directed towards windows or doors that may be left in the open position.
6. **Municipal and well water systems may contain iron and other deposits that can possibly cause staining of walks, driveways and other materials such as siding and glass. The maintenance of this possible staining and the filtration or treatment of the water supply is the sole responsibility of the homeowner and is not covered under the terms of the warranty.**

If you have any questions concerning your new lawn irrigation system or require winterization or maintenance service please feel free to contact the installer listed below.

Irrigation system installer and phone#: _____

I / We acknowledge receipt of the "Irrigation System Expectations" and have received a copy of the operations and winterization procedures.

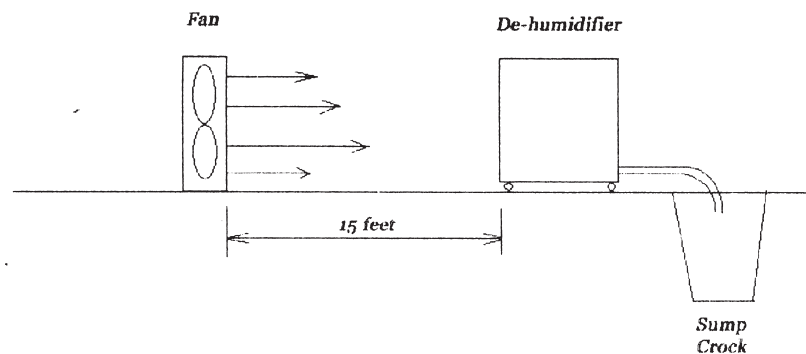
Homeowner Signature: _____ Date: _____

Homeowner Signature: _____ Date: _____

Controlling Moisture in Your Home

Controlling moisture in your new home is an important aspect of your responsibility as a new homeowner. Controlling moisture buildup in certain areas is very critical to avoiding problems related to the moisture such as wood rot and the growth of mold.

The basement or crawl spaces are two areas which moisture control is particularly important. Large amounts of moisture are present in the building materials used in the construction of homes foundation. Poured concrete walls & floor slabs contain many gallons of water, which is released during the curing ("drying") process. This process takes approximately 12 months to complete. During this time period it is necessary to remove the moisture from the air using a dehumidifier & fan. The most effective arrangement is to use a box fan placed 15 feet in front of the dehumidifier to blow moist air towards the dehumidifier. This increases the effectiveness of the dehumidifier tremendously. Leave the Fan/dehumidifier combination in one location for several days then move to another corner of the basement. Continue this process until the dehumidifier no longer extracts more than 1/2 gallon of water per day. It is necessary to perform this operation on an "as-needed" basis throughout the life of the home.



Mold is a type of fungus. It occurs naturally in the environment, indoors and out, and is necessary for the natural decomposition of plant and other organic material. It spreads by means of microscopic spores borne on the wind, and is found everywhere. ***Residential home construction is not, and cannot be, designed to exclude mold spores. If the growing conditions are right, mold can grow in your home.*** Most homeowners are familiar with mold growth in the form of bread mold, and mold that may grow on bathroom tile.

Mold growth requires moisture. Moisture is the only mold growth factor that can be controlled in a residential setting. ***If the home is kept dry mold will not grow.*** By minimizing moisture, a homeowner can reduce or eliminate mold growth.

Moisture in the home can have many causes. Spills, leaks, overflows, condensation, high humidity and as described above moisture in the building materials are common sources of home moisture. Good housekeeping and home maintenance practices are essential in the

effort to prevent or eliminate mold growth. If moisture is allowed to remain on the growth medium, mold can develop within 24 to 48 hours.

The homeowner can take positive steps to reduce or eliminate the occurrence of mold growth in the home, and thereby minimize any possible adverse effects that may be caused by mold. These steps include the following:

1. Keep the humidity in the home low. Vent clothes dryers to the outdoors. Ventilate kitchens and bathrooms by opening the windows, by using exhaust fans, or by running the air conditioning to remove excess moisture in the air, and to facilitate evaporation of water from wet surfaces.
2. Promptly clean up spills, condensation and other sources of moisture. Thorough dry any wet surfaces or material. Do not let water pool or stand in your home.
3. Inspect for leaks on a regular basis. Look for discolorations or wet spots. Repair any leaks promptly.
4. Use a fan & de-humidifier as described above.

Whether or not you, as a homeowner, experience mold growth depends largely on how you manage and maintain your home.

We acknowledge receipt of this letter and understand its contents.

SUBDIVISION: _____

LOT #: _____

HOMEOWNER SIGNATURE: _____ DATE: _____

HOMEOWNER SIGNATURE: _____ DATE: _____

LAWN WARRANTY LETTER

ESTABLISHING AND MAINTAINING YOUR NEW LAWN

Subdivision: _____

Lot #: _____

Dear New Homeowner:

We would like you to get the most out of your new lawn. In order to fully develop a beautiful lawn, please consider the following recommendations:

1. New lawns need plenty of water. To establish a new lawn you must water everyday, as thoroughly as possible, without creating erosion or washout. It is suggested that you water your new lawn very early in the morning so that the water penetrates the soils, rather than during the heat of the day.
2. Seasonal rain will cause some washouts & settlements within your new lawn. We will return **ONCE** during the first year after settlement to repair washouts & settlements within 10' of your house. **Since there are many factors beyond our control, which effect the establishment of the new lawn, you will be responsible for the establishment of the new lawn.** We are responsible only for initially establishing the proper grades and swales. You will be responsible for maintaining such grades and swales once they have been properly established. Be sure to repair any washouts as soon as possible to minimize erosion.
3. **It is inevitable that some bare spots will occur in any new lawn; this is not a warranty item.** Over seeding of your new lawn with an appropriate seed mix is strongly recommended during the first spring and fall planting seasons. Over seeding is even more effective with a fertilization and aeration program. **Over seeding is a homeowner maintenance item.**
4. Once your lawn has become established, it is very important to maintain a regular lawn care program. It is usually best that you concentrate on fertilization, rather than weed control the first year. Healthy, regularly fertilized lawns will choke out most weeds naturally. **You should begin to fertilize your lawn as soon as the grass reaches cutting height. We recommend that you fertilize approximately every 3 weeks. We have found this schedule to be successful in this area to provide healthy vigorous growth.** Allow your lawn to become fully established before using weed control products.
5. Fertilize your lawn, water your lawn, & keep it cut to 3-4 inches.
6. Different lawns will require different lawn care treatments. Ask your lawn care specialist to evaluate your lawn and soils to establish the best-suited treatment program.
7. During summer months, do not cut your grass too short. Moisture will remain in the soil longer if the grass is higher and your lawn will be healthier.

LAWN WARRANTY LETTER *Continued*

8. Until the homes on both sides of your home are completed, we ask that you refrain from planting trees or laying sod within five feet of the property line. Often the establishment of adjoining lawns will require minor work on the property line to properly establish the grading area. This will allow us to better grade and drain adjoining properties, as well as your own.
9. If you plan major plantings or fencing along property lines, a survey is recommended prior to the start of work. Under no circumstances should you plant trees, shrubs or place fences within drainage swale areas or easements.
10. **Once again, watering and fertilization are the most important things you can do for your lawn. Watering and fertilization will be much less expensive than reestablishing a lawn which has not been fully nurtured in the critical first year.**

Please keep these recommendations handy for future reference. Naturally, these are only suggestions and you should contact a lawn care specialist for more specific recommendations. Remember that it takes time and special care to fully establish your new lawn.

It is not uncommon for lawns to take up to three years to become fully established.

Please be patient and follow good lawn care procedures and you will be rewarded with a beautiful lawn.

Subdivision: _____

Lot #: _____

E-mail Address: _____

Homeowner Signature: _____ Date: _____

Homeowner Signature: _____ Date: _____

CARING FOR YOUR CONCRETE

Dear Homeowner:

Your driveway, porch and sidewalks are made from poured-in-place concrete. Concrete is a very strong and durable building material, but it does have its limitations. The major drawback to using concrete in exterior applications is that it does not tolerate the use of salt and other de-icing chemicals commonly used in wintertime. Salt and de-icing chemicals will chemically attack the concrete surface and cause permanent, severe deterioration of the surface including: cracking, spalling, flaking, chipping, etc. **THIS DAMAGE IS NOT COVERED BY YOUR WARRANTY.**

Also, physical damage to the concrete caused by shovels, picks, plow blades, etc., are not covered by your warranty.

We suggest you use care when removing snow and ice from your new driveway and walks so as not to damage them. We also suggest using sand or kitty litter on ice when necessary. These materials will provide traction to prevent slipping while avoiding damaging the concrete.

We recommend that you seal your exterior concrete surfaces once a year to help protect the surface.

We would also like to point out that exterior concrete surfaces can and will have color variations. Many factors can affect the color of poured-in-place concrete including the aggregates used, brands of cement used in the concrete, chemical additives to prevent freezing, weather conditions, plastic used to protect fresh concrete, etc. These factors are beyond our control and do not affect the quality or durability of the concrete surface.

Please call us if you have any questions.

We acknowledge receipt of this letter and understand its contents.

Subdivision: _____

Lot #: _____

Homeowner Signature: _____ Date: _____

Homeowner Signature: _____ Date: _____

GRAVEL-ASPHALT DRIVEWAY WARRANTY LETTER

Dear Homeowner:

☐ **Gravel Driveway** (if per contract)

Your Gravel Driveway has been installed to give you access to your home. You will probably want to pave the driveway at some point in the future. There is no warranty on the gravel driveway. **Maintenance of the gravel driveway is a Homeowner responsibility.**

☐ **Asphalt Driveway** (if per contract)

Your asphalt driveway has been installed to give years of trouble free service. We suggest you use care when removing snow and ice from your new driveway so as not to damage it. **Physical damage to the asphalt caused by shovels, picks, plow blades, etc., are not covered by your warranty.** We also suggest using sand or kitty litter on ice when necessary. These materials will provide traction to prevent slipping while avoiding damaging the asphalt.

It is not uncommon over time to experience loose granular material on the surface of the asphalt. This is not a defect. We recommend that you seal your asphalt driveway surfaces on a regular basis to help protect the surface.

Any warranty related repairs which may be necessary will be made by cutting and patching of the asphalt surface. Color and aggregate variations will be evident.

Please call us if you have any questions.

We acknowledge receipt of this letter and understand its contents.

Subdivision: _____

Lot #: _____

Homeowner Signature: _____ Date: _____

Homeowner Signature: _____ Date: _____

IF YOUR NEW HOME REQUIRES SERVICE...

Dear Homeowner:

After moving into your new home you may notice items which require warranty service. This is normal. You may also find that from time to time service items arise which require the attention of the supervisor who built your home or one of our subcontractors. When this happens please follow this procedure:

1. If the problem is electrical, mechanical or plumbing related and is urgent please call the subcontractors listed on the service outline. This will provide the fastest response for an emergency situation.
2. If the problem is not urgent you may call the listed subcontractors to schedule an appointment directly (usually the most efficient way since it requires establishing a mutually agreeable time) or call Gemcraft's main office at _____
3. For all other issues please call the Service Department at Gemcraft's main office at _____ or submit the "Warranty Service Request Form". The Service Coordinator will write a service ticket for the work and will contact you to schedule an appointment.

Please **DO NOT** notify the supervisor directly to schedule the service work. Only by notifying the main office of your warranty service issues can we take steps to follow up and verify that your service is handled in a timely and professional manner.

Please note that all non-emergency service work will be scheduled during normal business hours Monday thru Friday.

Please call us if you have any questions.

We acknowledge receipt of this letter and understand its contents.

Subdivision: _____

Lot #: _____

Homeowner Signature: _____ Date: _____

Homeowner Signature: _____ Date: _____

NEW PHONE NUMBER

IT IS IMPORTANT TO HELP US KEEP IN TOUCH...

Please provide your new telephone number in the space below. Also, if you change your phone number, please let us know.

Homeowner Name: _____

Subdivision: _____

Lot #: _____

New Telephone #: _____

Email Address: _____

ELECTRIC AND GAS METER

ATTENTION GEMCRAFT SUPERVISOR:

Please note the electric meter and gas meter reading at the time of walkthru below.

Electric Meter: _____

Gas Meter: _____

Subdivision: _____

Lot #: _____

Address: _____

Date: _____

Fire Sprinkler System Information

Your new home is equipped with a fire sprinkler system. In the event of a fire this system is designed to control or extinguish the flames using the same water supply that services the other fixtures in your new home. Please take the time to review the following information concerning this system.

Don't

1. Paint the sprinklers or sprinkler cover plates.
2. Hang objects from the sprinklers or sprinkler pipes.
3. Obstruct the sprinkler in any way.
4. Cover the sprinklers.
5. Remove the sprinklers.
6. Turn off or disconnect the system.
7. Bump sprinklers or exposed pipe.
8. Shut off the system in the event of a fire.
9. Stack items close to fire sprinklers.

Do

1. Have your system checked once a year.
2. Know the location of the system shutoff valve.
3. Make certain the system control valve is open at all times.
4. Be careful when you are moving large or tall items.
5. Teach children not to touch or play with sprinklers.
6. Keep pictures and large furniture away from sprinklers on wall.
7. Contact the fire department when any activation occurs, even if the fire has apparently been extinguished.

If you have any questions concerning your new fire sprinkler system please contact the installer listed below.

Fire sprinkler installer and phone number _____

I/We acknowledge receipt of the "Irrigation System Expectations" and I have also received a copy of the Fire Sprinkler Systems Information.

Homeowner Signature: _____ Date _____

Homeowner Signature: _____ Date _____

WARRANTY SERVICE POLICY

WARRANTY POLICY:

Gemcraft Homes will correct any deficiency found to be a covered warranty item as defined by “**Professional Warranty Service Corporation**” (PWC) in the “**Builder’s limited Warranty**” booklet if the covered item is brought to Gemcraft Homes attention during the covered warranty period as defined by PWC.

A sample copy of the PWC “**Builder’s Limited Warranty**” booklet is attached.

Below is a simplified outline which highlights key PWC warranty standards for easy reference. *Please be aware that the actual PWC “Builder’s Limited Warranty” will be used to determine coverage.*

- I. “**Warranty Coverage**” is the time period during which the specified components of the home are covered as described in the “**Standards of Performance**”
- 1st year** (section A) – All components of the home covered
- 2nd year** (section B) – “**Systems**” of the home are covered. “**Systems**” are piping, fittings, ductwork, electrical wiring, etc. but **NOT fixtures**.
- 3rd year thru 10th year** (section C) – “**Structural Elements**” of the home are covered.
- II. “**Exclusions**” not covered by the “**Builders Limited Warranty**” (this is a partial list)
- Acts of God
 - Floods
 - Wind driven water
 - Wind (gale force winds, hurricanes, tropical storms, tornadoes)
 - Insects, animals, vermin
- III. We assign to you all the manufacturer warranties on the appliances and equipment that we installed in your home.

WARRANTY SERVICE POLICY *Continued*

IV. Typical warranty issues. (refer to the “**Builders Limited Warranty**” for more info)

SPECIFIC ITEM	YEARS COVERED	GEMCRAFT RESPONSIBILITY
Dirt Settlement	1	We will fill areas which have settled more than 6" one time during the first year. This includes under the porch, drive, leadwalk.
Standing Water	1	We will correct low areas only if water is standing 48 hours after rain. Some swale areas may always contain standing water during wet weather conditions.
Concrete Cracks – Foundation Walls	1	We will repair concrete cracks only if the crack is greater than 1/8" wide. (Hairline “shrinkage” cracking is normal in concrete and is not a warranty item.)
Concrete Cracks – Slabs	1	We will repair concrete cracks only if the crack is greater than 1/4" wide or 1/4" in vertical displacement. (Hairline “shrinkage” cracking is normal in concrete and is not a warranty item.) Repair of cracks with concrete caulk is acceptable.
Exterior Concrete – Appearance	0	Exterior concrete color, appearance, texture, etc. are affected by factors beyond our control and are not a warranty item.
Exterior Concrete – Surface Deterioration	0	Exterior concrete can be damaged by many factors beyond our control such as salt, chemicals, mechanical equipment vehicles, etc. surface damage of exterior concrete surfaces is not a warranty item.
Exterior Concrete – Slab Cracking	0	Cracking of exterior concrete can be caused by “shrinkage” and temperature variations beyond our control. This is not a warranty item.
Squeaking Floor	1	A squeak proof floor cannot be guaranteed. We may attempt a correction only if we believe the cause is an underlying defect in construction.
Separation of Countertop from Wall	1	We will repair by caulking 1 time. This is a homeowner maintenance item.
Waterproofing – Leak in Basement	1	Dampness on the walls or floor is not a defect. Trickling or standing water will be repaired.
Ice Buildup on Roof	0	This is an environmental condition beyond our control and is not a defect.
Broken Glass	0	We will repair broken glass reported to us at the walkthru.
Nail Pops &	1	We will correct 1 time during 1st year. <i>Gemcraft Homes will NOT perform any touch up painting after the drywall pointup service.</i>
Gravel Driveway Sinkage	0	Maintenance of the gravel driveway is a Homeowner responsibility.
Asphalt Driveway Sinkage	1	Structural sinkage (sinkage which causes severe cracking and deterioration of the asphalt surface) will be repaired by cutting and patching the asphalt surface. Minor sinkage or “birdbaths” are not a defect. Color variations of repaired areas will be evident.
All Cosmetic Defects	0	Cosmetic imperfections will only be addressed at the time of walkthru.
Painting – Due to Repair Work	1	If painting is required due to other repair work, we will paint to match surrounding areas as closely as possible.

CARE AND OPERATING INSTRUCTIONS

<i>Ground Fault Interrupter (G.F.I.)</i>	2
<i>Furnace</i>	3
<i>Fireplace</i>	11
<i>Lighting Fixtures</i>	33
<i>Flooring</i>	34
<i>Plumbing Fixtures</i>	37
<i>Stainless Steel Sink</i>	39
<i>Tree & Shrub Care</i>	40
<i>Septic System</i>	41

ELECTRIC

ELECTRICAL G.F.I. – GROUND FAULT INTERRUPTER

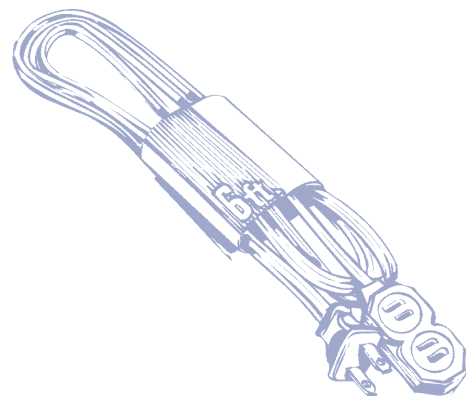
Dear Homeowner:

Congratulations once again on the purchase of your new Gemcraft home. As a new homeowner, there are two important items you should know concerning the electrical system in your home.

Your home has been wired with a G.F.I. (Ground Fault Interrupter) circuit which is connected to any electrical outlet that is exposed to high amounts of moisture; i.e. exterior outlets, bath and kitchen wall outlets. This circuit is very sensitive and may trip itself during any situation such as heavy rain, sudden temperature change, power surge, electrical storm or short circuit in appliances used in these outlets. Therefore, do not plug anything into these outlets that requires constant current to operate, such as a refrigerator or freezer in your garage or basement. Should the circuit trip, simply reset the G.F.I. wall outlet by pushing the RED reset button.

If at any time you have any electrical problem in your home, first check the circuit breaker located in your breaker box, then the G.F.I. outlet prior to calling the electrician. **If the electrician is called and he finds that it is the breaker or the G.F.I. circuit, then the electrician will bill you for a service charge.** Our electrical warranty only covers a malfunction in the system, not a tripped circuit breaker.

Gemcraft Homes, Inc.



FURNACE

USE AND CARE INSTRUCTIONS FOR YOUR AIR COOLED CONDENSING UNIT

Thermostat Operation

We find most air conditioning units are installed with a single stage heating and cooling thermostat which includes a manual heat/cooling system switch and a manual/auto fan switch.

For cooling, position the system switch to "cool" and the fan switch to "auto". If constant fan operation is desired, place the fan switch in the "on" position.

When heating is desired, position the system switch to call for heating and place the fan switch in the "auto" position.

We suggest that you experiment with **constant air circulation** during the heating and cooling cycles. To achieve this style of operation, place the fan switch on the thermostat subbase to the "on" position. You may enjoy the comfort associated with the continuous air movement, constant air filtration, and the near even temperature from floor to ceiling.

Selection of Room Temperature

It is most important to select the comfort temperature you desire for either heating or cooling by use of the thermostat temperature selector.

DO NOT PLAY WITH THE THERMOSTAT. SET IT AND FORGET IT.

If the temperature selection procedure is new to you, ask your installing contractor to familiarize you with the operation of the thermostat.

System Operation Information

1. Keep the filter clean. Your system will operate more efficiently and provide better conditioned air, more economically.
2. Arrange your furniture and drapes so that the supply and return air registers and grilles are unobstructed.
3. Close doors and windows. This will reduce the cooling load on your system for a more economical operation.
4. Avoid excessive use of kitchen exhaust fans.
5. Window shades and awnings will reduce the cooling load.
6. Unless you plan to clean the coil in the outdoor unit, do not disconnect the main power to your unit. This is a safety precaution for the protection of the compressor. Otherwise, use the thermostat switches to shut the system off.
7. For extended periods of inoperation, set the thermostat system switch in the off position and the fan switch in the auto position.
8. If unit is shut off at thermostat, wait 5 minutes before restarting.

9. We suggest that you do not allow the outdoor unit to become a play stand for children. This could be dangerous to the child.
10. A regular period of waxing the finish on an outdoor unit will increase the life of the finish.
11. Remember to keep the air filters clean for efficiency and energy saving operation.

Things You May Do

1. **WARNING: Turn off main electrical power to the outdoor unit or indoor unit before attempting any maintenance operation.**
2. Keep air filters clean. There are several types of materials used in air filters and there are many possible locations for air filters. Consult with your contractor as to the location of the filters and type of material in use.
3. How To Clean:
Glass Fiber—(Throwaway) This is a disposable type of filter. Inspect monthly and replace when necessary. A new home will normally require more frequent attention to the filters.
Aluminum Mesh—Wash with detergent and water. Air dry thoroughly and renew the coating in compliance with the manufacturer's instructions.
Plastic Impregnated Fiber—Wash with detergent and water or vacuum clean, then reinstall.

CAUTION: DO NOT OPERATE YOUR SYSTEM FOR EXTENDED PERIODS WITHOUT FILTERS, AS THE DUST EN-TRAINED IN THE AIR MAY PACK INTO THE FIN AREA OF THE INDOOR COIL CREATING A CONDITION WHICH COULD REQUIRE EXTENSIVE REPAIRS.

4. Oiling of Electrical Motors:
The blower motor sleeve bearings are prelubricated by the motor manufacturer and may not require attention for an indefinite period of time. However, our recommendations are as follows:
A. Motors without oiling ports—
Prelubricated and sealed. No further lubrication should be required, but in case of bearing problems, the blower and the motor end bells of some motors can be disassembled and the bearings relubricated by a qualified service person.
B. Motors with oiling ports—
Add from 10 to 20 drops of Electric Motor Oil or an SE grade of non-detergent SAE-10 or 20 motor oil to each bearing every two years for somewhat continuous duty, or at least every five years for light duty. Take care not to over oil, because excessive lubrication can damage the motor.

92-20802-01-12
SUPERSEDES 92-20802-01-11

FURNACE *Continued*

The compressor motor is in a sealed system so it does not require lubrication.

5. If the indoor blower assembly is belt driven, periodically check the system for belt tension and condition. Turn thermostat system for belt tension and condition. Turn thermostat system switch off and disconnect power to indoor unit. Depress the belt midway between the two pulleys. The belt should deflect approximately $\frac{3}{4}$ of an inch at this position. Also check for cracks in the belt. The belt should be replaced if wear is indicated. If in doubt, call your servicing contractor. When the check is completed, restore main power to indoor unit and reset the thermostat system switch to the on position.
6. If your outdoor unit is equipped with an external manual high pressure switch reset button, have your servicing contractor familiarize you with its location. Many models have compressors equipped with internal pressure relief valves using an automatic reset feature eliminating the need for an external control. This high pressure switch or the relief valve will open under excessive high pressure to protect the compressor. Some models with internal relief valves will require power interruption prior to resetting itself. The high refrigerant pressure may be due to a temporary condition, so if your unit is equipped with a reset button you may reset it as required. However, if the problem persists, refer to item 8, and/or refer the problem to your servicing contractor.
7. If the condenser coil is allowed to become restricted by dirt, lint, paper, grass clippings, leaves, etc., the system efficiency will suffer and abnormally high refrigerant operating pressures will result. To correct this condition, be sure to first cut off power to the unit, and then clean such material from the condenser coil and cabinet. Using a garden hose with a nozzle can be effective in cleaning the condenser coil, but the water should be sprayed from the inside to outside of the coil in the opposite direction from the normal airflow when the condensing unit is operating.
8. If you know or suspect that the compressor in the outdoor section is not working, you should place the thermostat system switch on the thermostat subbase to the off position. This will stop the operation of the outdoor unit.
9. If you suspect that a problem has developed with your system and before you advise your servicing contractor, we suggest you check the following service hints:

Problem — Remedy

No Cooling

1. Set thermostat correctly. Return system switch to the off position, wait 5 minutes before returning system switch to cool position.

2. Reset high pressure switch on outdoor unit.
3. Check fusing or circuit breakers serving outdoor and indoor units.
4. Call servicing contractor.

Insufficient cooling — Unit operates continuously

1. Check air filters.
2. Check for blocked return air system.
3. Check to see if supply registers have been closed.
4. Check for open doors and windows.
5. Call your servicing contractor.

Please do not attempt any servicing operation with which you are not familiar or experienced unless you are advised by your servicing contractor of the proper procedures.

Thank you. Now relax and enjoy the cool air.

Protecting Equipment From The Environment

The metal parts of this unit may be subject to rust or deterioration in adverse environmental conditions. This oxidation could shorten the equipment's useful life. Salt spray, fog or mist in seacoast areas, sulphur or chlorine from lawn watering systems, and various chemical contaminants from industries such as paper mills and petroleum refineries are especially corrosive.

WARNING: DISCONNECT ALL POWER TO UNIT BEFORE STARTING MAINTENANCE!

1. Avoid having lawn sprinkler heads spray directly on the unit cabinet.
2. Frequent washing of the cabinet, fan blade and coil with fresh water will remove most of the salt or other contaminants that build up on the unit.
3. Regular cleaning and waxing of the cabinet with a good automobile polish will provide some protection.
4. A good liquid cleaner may be used several times a year to remove matter that will not wash off with water.

Several different types of protective coatings are offered in some areas. These coatings may provide some benefit, but the effectiveness of such coating materials cannot be verified by the equipment manufacturer.

The best protection is frequent cleaning, maintenance and minimal exposure to contaminants.

CM 1090

FURNACE *Continued*

USER'S INFORMATION MANUAL UPFLOW & DOWNFLOW/HORIZONTAL CONDENSING GAS FURNACES

SAFETY



Recognize this symbol as an Indication of Important Safety Information!

▲ WARNING

PROPOSITION 65: THIS FURNACE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXHAUST GAS FROM THIS FURNACE CONTAINS CHEMICALS, INCLUDING CARBON MONOXIDE, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

▲ WARNING

If the information in this manual is not followed exactly, a fire or explosion may result, causing property damage, personal injury or loss of life.

▲ FOR YOUR SAFETY

- Do not store or use gasoline or other flammable vapors and liquids, or other combustible materials in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS**
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
 - Do not rely on smell alone to detect leaks. Due to various factors, you may not be able to smell fuel gases.
 - U.L. recognized fuel gas and CO detectors are recommended in all applications, and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations, or customs.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

IMPORTANT: READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO OPERATE THIS FURNACE.

This furnace has been designed to give you many years of efficient, dependable home comfort. With regular maintenance, this furnace will operate satisfactorily year after year. Please read this manual to familiarize yourself with operation, routine maintenance schedule, and safety procedures.

▲ WARNING

DEVICES ATTACHED TO THE FLUE OR VENT FOR THE PURPOSE OF REDUCING HEAT LOSS UP THE CHIMNEY, INCLUDING FIELD-

INSTALLED DRAFT INDUCERS, HAVE NOT BEEN TESTED AND HAVE NOT BEEN INCLUDED IN THE DESIGN CERTIFICATION OF THIS FURNACE. WE, THE MANUFACTURER, CANNOT AND WILL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE CAUSED BY THE USE OF SUCH UNTESTED AND/OR UNCERTIFIED DEVICES, ACCESSORIES OR COMPONENTS.

▲ WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

▲ WARNING

OBSTRUCTION OF THE AIR VENT ON AN LP (PROPANE) TANK REGULATOR CAN CAUSE EXPLOSION OR FIRE RESULTING IN PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH. YOUR GAS SUPPLIER SHOULD PERIODICALLY INSPECT AND CLEAN THE AIR VENT SCREEN TO PREVENT ANY OBSTRUCTION. KEEP PROTECTIVE REGULATOR COVER IN PLACE, AS EXPOSURE TO THE ELEMENTS CAN CAUSE ICE BUILDUP AND REGULATOR FAILURE.

CAREFULLY FOLLOW THESE SAFETY RULES:

1. Combustible material must not be placed on or against the furnace jacket. The area around the furnace must be kept clear and free of all

combustible materials including gasoline and other flammable vapors and liquids.

2. A furnace installed in an attic or other insulated space must be kept free and clear of insulating material. Examine the furnace area when installing the furnace or adding more insulation. Some materials may be combustible.
3. To prevent carbon monoxide poisoning, all blower doors and compartment covers must be replaced after the furnace is serviced. Do not operate the unit without all panels and doors securely in place.
4. Should overheating occur, or the gas valve fail to shut off the gas supply, turn off the manual gas valve to the furnace before turning off the electrical supply.
5. Any additions, changes or conversions required in order for the furnace to satisfactorily meet the application needs should be made by a qualified installer, service agency or the gas supplier, using factory specified or approved parts. Read your WARRANTY. Contact the WARRANTOR for conversion information. This furnace was equipped at the factory for use on NATURAL GAS ONLY. Conversion to L.P. GAS requires a special kit supplied by the WARRANTOR.
6. A furnace needs an adequate supply of combustion and ventilation air for proper and safe operation. Do not block or obstruct air openings on the furnace or air openings supplying the area where the furnace is installed. Do not store anything around the furnace that could block the flow of fresh air to the unit. Your installation may receive air from the inside heated space, from the outside, from the attic or crawl space. Whenever

DO NOT DESTROY. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

92-20802-62-02
SUPERSEDES 92-20802-62-01

FURNACE *Continued*

adding insulation, be sure the air supply openings are not covered.

7. Do not use this furnace if any part has been under water. Immediately call a qualified installer, service agency or the gas supplier to inspect the furnace and to replace

any part of the control system and any gas control which has been under water.

IMPORTANT: Do not allow snow, ice or any other debris to accumulate in or around the exhaust and intake terminations of this furnace. These are

extended either through the roof or horizontally through the sidewall of the structure. Blockage of the exhaust or intake can result in inadequate performance or nuisance tripping of the furnace.

SYSTEM OPERATION INFORMATION

1. Keep the air filters clean. Your heating system will operate more efficiently and provide better heating, more economically.
2. Arrange your furniture and drapes so that the supply air registers and the return air grilles are unobstructed.
3. Close doors and windows. This will reduce the heating load on your system.
4. Avoid excessive use of exhaust fans.
5. Do not permit the heat generated by television, lamps, or radios to influence the thermostat operation.
6. If you desire to operate your system with constant air circulation, consult your thermostat manual or please ask advice from a qualified installer, service agency or the gas supplier.

During the heating season the operation of the warm air furnace is automatic. Your qualified installer, service agency or the gas supplier has provided a wall mounted thermostat which is sensitive to the change in temperature of the air moving around the thermostat. Your thermostat will have switches to select some or all of the following functions:

HEAT - Turns heating on when temperature drops below the desired temperature.

COOL - Turns cooling on when temperature rises above the desired temperature.

AUTO - Turns cooling or heating system on as required to maintain the desired temperature.

OFF - Turns heating and cooling modes off. (The blower may still circulate air in the FAN-ON position.)

FAN-ON - Turns the blower on for continuous operation.

FAN-AUTO - The blower cycles on and off with cooling or heating operation.

Figure 1. Burner Compartment - showing location of Gas Controls

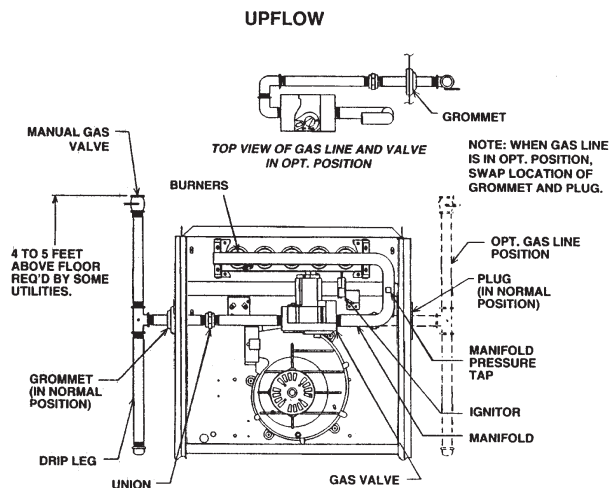
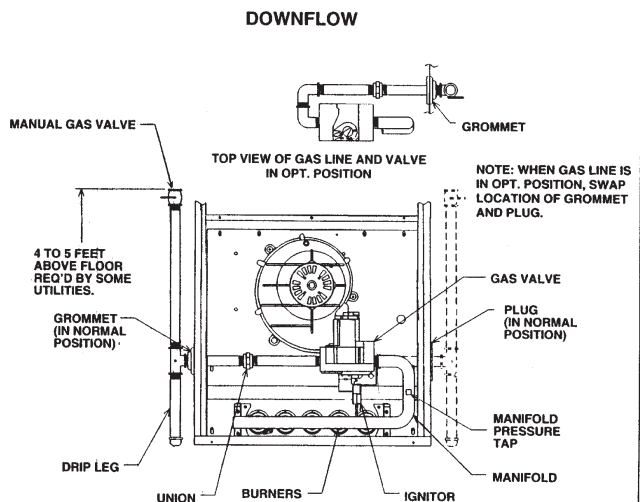


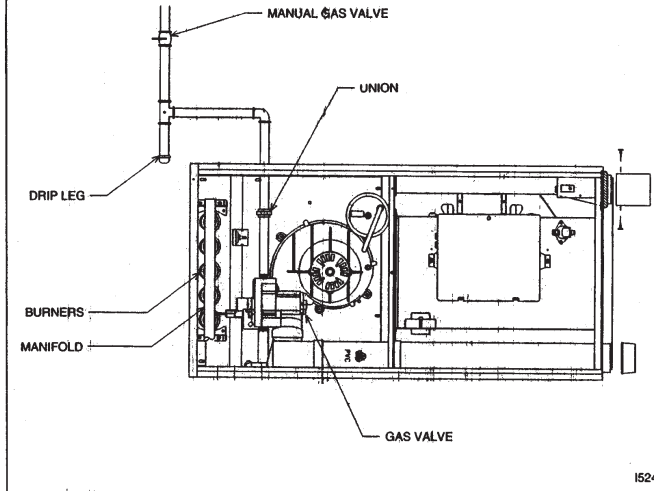
Figure 2. Burner Compartment - showing location of Gas Controls



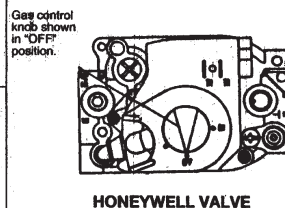
1328

FURNACE *Continued*

Figure 3. Burner Compartment - showing location of Gas Controls - HORIZONTAL



**Figure 4.
Hot Surface Ignition Gas Valve**



FOR YOUR SAFETY READ BEFORE OPERATING

▲ WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

NOTE: Read and follow the Safety Information, Operating Instructions and Instructions To Turn Off Gas To Appliance located on the furnace. This label will have specific information regarding the furnace and its gas controls.

OPERATING INSTRUCTIONS (HOT SURFACE IGNITION SYSTEM)

1. STOP! Read all safety information.
2. Set the thermostat to the lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
5. Remove burner access door.

6. Turn manual gas control knob clockwise to "OFF" position. See Figure 4.
7. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! If you don't smell gas, go to the next step.
8. Turn on gas to main burners by turning the manual gas control knob counterclockwise to "ON" position.
9. Replace the burner access door. Be sure that attachment screws are tight.
10. Turn on all electric power to the appliance.
11. Set the thermostat to desired setting.
12. If the appliance will not operate, follow the instructions "To Turn Off Gas To The Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO THE APPLIANCE

IMPORTANT: Shut off the manual gas valve located in the gas supply piping outside the furnace casing.

1. Set the thermostat to the lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove the burner access door.
4. Turn the gas control knob to the "OFF" position. See Figure 4.
5. Replace burner access door.

FURNACE *Continued*

MAINTENANCE

▲ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING ANY MAINTENANCE. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN SEVERE PERSONAL INJURY OR DEATH.

▲ CAUTION

DO NOT OPERATE YOUR SYSTEM FOR EXTENDED PERIODS WITHOUT FILTERS. A PORTION OF THE DUST ENTRAINED IN THE AIR MAY TEMPORARILY LODGE IN THE AIR DUCT RUNS AND AT THE SUPPLY REGISTERS. ANY RECIRCULATED DUST PARTICLES WILL BE HEATED AND CHARRED BY CONTACT WITH

THE FURNACE HEAT EXCHANGER. THIS RESIDUE WILL SOIL CEILINGS, WALLS, DRAPES, CARPETS, AND OTHER HOUSEHOLD ARTICLES.

IT IS RECOMMENDED THAT AN ANNUAL INSPECTION OF YOUR FURNACE BE DONE BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

Figure 5. Upflow Side Filter Location

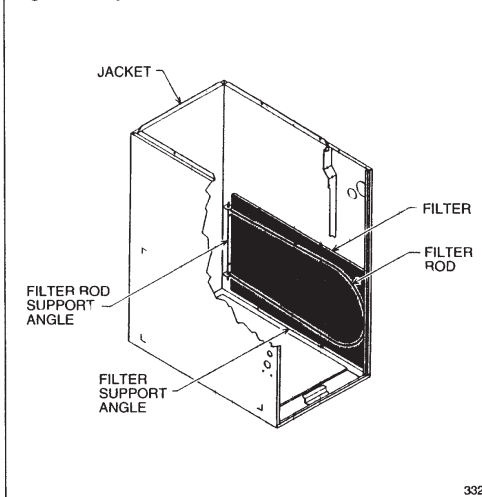
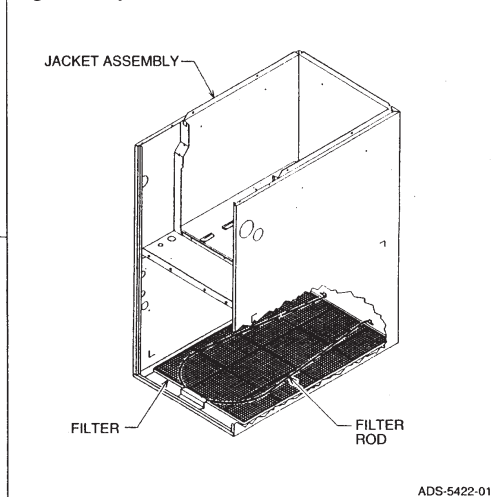


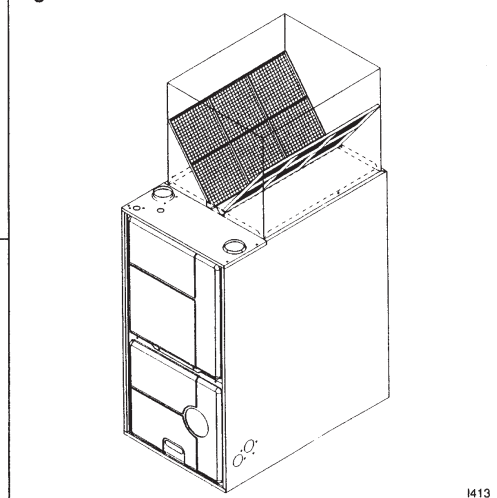
Figure 6. Upflow Bottom Filter Installation



UPFLOW FILTER SIZES				
FURNACE WIDTH	INPUT MBTUH	BOTTOM SIZE	SIDE SIZE	QUANTITY
17½"	45, 60, 75	15½" X 25"	15½" X 25"	1
21"	90 AND 105	19½" X 25"	15½" X 25"	1
24½"	120	22½" X 25"	15½" X 25"	1

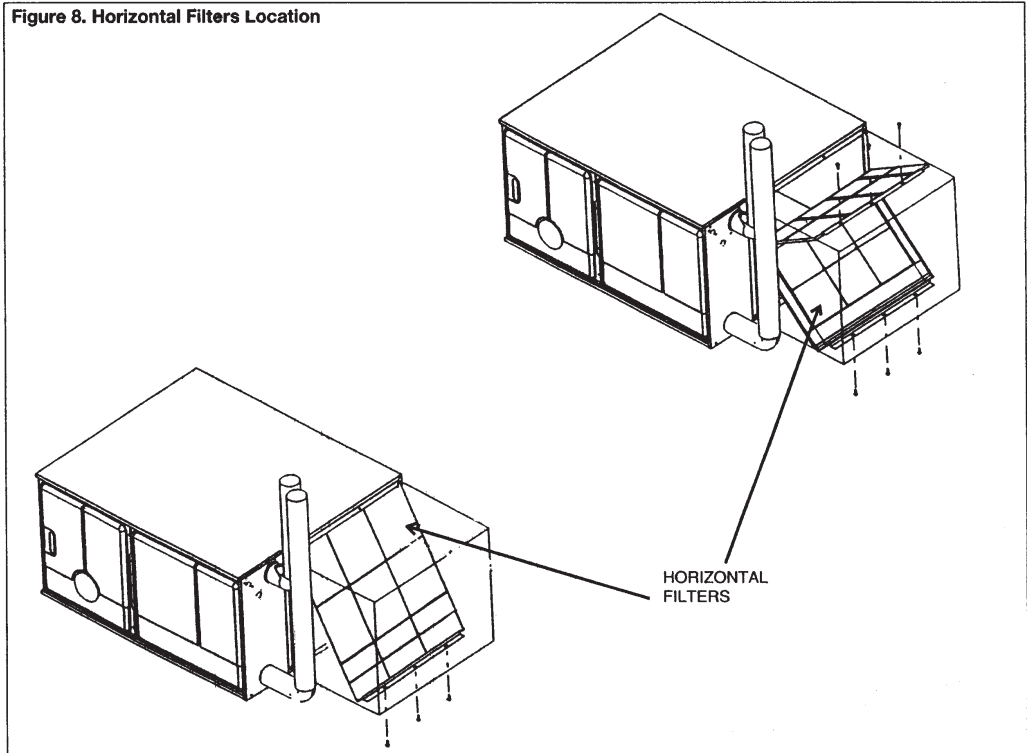
DOWNFLOW/HORIZONTAL FILTER SIZES			
FURNACE WIDTH	INPUT MBTUH	SIZE	QUANTITY
17½"	45, 60, 75	12" X 20"	2
21"	90, 105	12" X 20"	2
24½"	120	14" X 20"	2

Figure 7. Downflow Filters Location



FURNACE *Continued*

Figure 8. Horizontal Filters Location



FILTER MAINTENANCE

Have your qualified installer, service agency or the gas supplier instruct you on how to access your filters for regular maintenance.

▲ WARNING

TURN OFF ELECTRICAL POWER TO FURNACE BEFORE REMOVING FRONT ACCESS DOOR. FAILURE TO DO SO CAN RESULT IN ELECTRICAL SHOCK, SEVERE PERSONAL INJURY OR DEATH.

Keep air filters clean at all times. Vacuum dirt from filter, wash with detergent and water, air dry thoroughly and reinstall.

After filters are cleaned and returned to the furnace, be sure doors are properly reinstalled. If you are not totally sure of this procedure, consult a qualified installer, service agency or the gas supplier.

REMOVING FILTERS

UPFLOW FURNACE - FILTER IN BOTTOM OR SIDE LOCATION

1. Remove the blower compartment access door.
2. Disengage the filter retaining rod and pull filter out.
3. Clean filter and reinstall.
4. Replace the blower compartment access door.

DOWNFLOW FURNACE - FILTERS IN TOP DUCT LOCATION

1. Remove the blower compartment access door.
2. Push up and in on the filters to disengage from retaining bracket and pull filters out.
3. Clean filter(s) and reinstall.
4. Replace the blower compartment access door.

ROUTINE MAINTENANCE

Routine maintenance to be provided by a qualified installer, service agency or the gas supplier ONLY.

LUBRICATION

The blower motor and induced draft motor are prelubricated by the manufacturer and do not require further attention.

IMPORTANT: DO NOT attempt to lubricate the bearings on the blower motor or the induced draft blower motor. Addition of lubricants can reduce the motor life and void the warranty.

▲ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING ANY MAINTENANCE. FAILURE TO DO SO CAN RESULT IN ELECTRICAL SHOCK, SEVERE PERSONAL INJURY OR DEATH.

The blower compartment and motor should be inspected and cleaned periodically by your qualified installer, service agency or the gas supplier to prevent the possibility of overheating due to an accumulation of dust and dirt on the windings or on the motor exterior. And, as suggested elsewhere in these instructions, the air filters

FURNACE *Continued*

should be kept clean because dirty filters can restrict airflow and the motor depends upon sufficient air flowing across and through it to keep from overheating

COMBUSTION AREA AND VENT SYSTEM

1. It is recommended that an annual inspection of your furnace be done by a qualified installer, service agency or the gas supplier.
2. Turn OFF the electrical supply to the furnace and remove the access doors.
3. Inspect the gas burners for dirt, rust, or scale and clean as necessary.

▲ WARNING

IF DIRT, RUST, SOOT OR SCALE ACCUMULATIONS ARE PRESENT, DO NOT OPERATE THE FURNACE. INSPECT THE HEAT EXCHANGERS FOR LEAKS. LEAKS CAN CAUSE TOXIC FUMES TO ENTER THE HOME AND CAUSE CARBON MONOXIDE POISONING OR DEATH.

4. Inspect the the flue connection area and vent pipe. Be sure that the vent connector is in place and slopes upward and is physically sound, without holes or excessive corrosion.

▲ WARNING

CHECK VENT PIPE SECTIONS FOR DETERIORATION AND CHECK JOINT FITTINGS FOR THEIR INTEGRITY. IF IT HAS BECOME DISCONNECTED OR TOXIC FUMES CAN ESCAPE INTO THE HOME AND CAUSE CARBON MONOXIDE POISONING OR DEATH. DO NOT OPERATE THIS FURNACE. APPROPRIATE SERVICE MUST BE APPLIED.

5. Be sure that the return air duct connections are physically sound, are sealed to the furnace casing and terminate outside the space containing the furnace.
6. Be sure the physical support of the furnace is sound, without sags, cracks, etc., around the base so as to provide a seal between the support and the base.
7. Look for obvious signs of deterioration of the furnace.
8. If the furnace is free of the above conditions, replace the access doors and restore electrical power to the furnace.
9. Start the furnace and observe its operation. Watch the burner flames to see if they are bright blue. If a suspected malfunction is observed, or the burner flames are not bright blue, apply appropriate service.

CONDENSATE

NOTE: This furnace is equipped with a pressure switch which will shut off the main burners if the condensate drain line becomes blocked.

Be sure this condensate drain line does not become blocked or plugged. Visual inspection of condensate flow can easily be made while the furnace is in operation. A flashlight can be used to illuminate the discharge end placed in the sewer openings.

Clean and flush the condensate tube to make sure condensate flows freely while the furnace is in operation.

- **IMPORTANT:** It is recommended that at the beginning of the heating season, the condensate trap be inspected for debris or blockage. A blocked condensate trap can cause water to back up into the primary heat exchanger and lead to nuisance tripping of the overtemperature switches.
- **IMPORTANT:** It is recommended that at the beginning of the heating season, the condensate neutralizer if used be replaced by a qualified installer, service agency or the gas supplier.
- **IMPORTANT:** It is recommended that an annual inspection and cleaning of all furnace markings be made to assure legibility. Attach a replacement marking, which can be obtained through the distributor, if any are found to be illegible or missing.

FIREPLACE USE, CARE & WARRANTY INFORMATION FOR WOOD & GAS BURNING FIREPLACE

FIREPLACE *Continued*

User Guide

Heatilator Accelerator A42C 42" Wood- Burning Fireplace

2 Operating Instructions

⚠ WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- DO NOT touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other flammable materials away.

If you expect that children may come into contact with this fireplace, we recommend a barrier such as a decorative screen. See your dealer for suggestions.

A. Your Fireplace

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

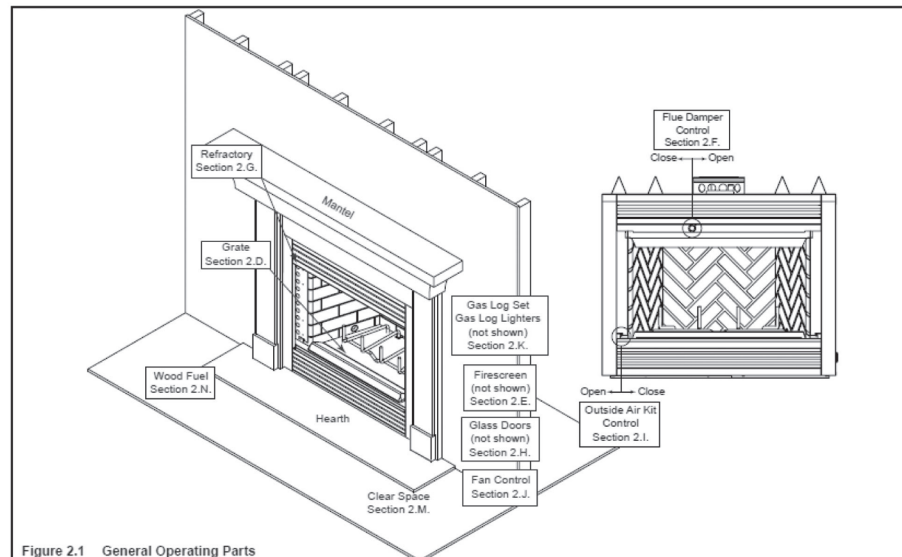


Figure 2.1 General Operating Parts

Heatilator • A36C & A42C • 28396 • Rev AK • 08/09



FIREPLACE *Continued*

B. Seasoned Wood

Properly seasoned wood is important for successful operation of your fireplace. Most woodburning fireplace problems are caused by burning wet, unseasoned wood.

Seasoned firewood is wood that is cut to size, split and air dried to a moisture content of around 20%.

Imagine a wooden bucket that weighs about eight pounds. Fill it with a gallon of water, put it in the fireplace and try to burn it. This sounds ridiculous but that is exactly what you are doing if you burn unseasoned wood.

A tree cut down a year ago and not split is likely to have almost as high a moisture content now as it did when it was cut.

Please refer to Section 2.N. for more detail.

C. Starting a Fire

NOTICE: You must establish a good draft to prevent smoke spillage into the room.

WARNING! Risk of Fire! Keep combustible materials, gasoline and other flammable vapors and liquids clear of the fireplace.

DO NOT:

- store flammable materials close to the fireplace
- use gasoline, lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or "freshen up" a fire in this fireplace.

Keep all flammable liquids well away from the fireplace while it is in use. Combustible materials may ignite.

- The first three or four fires should be of moderate size to allow the oils and binders to be burned from the fireplace and the refractory and paint to cure. You may notice an industrial odor the first few fires. This is considered normal.
- Use well-seasoned wood (see Section 2.N.).
- Open the flue damper to a fully open position.
- Place crumpled or twisted paper under the fireplace grate.
- Loosely arrange kindling or small pieces of wood to form a 'tent' on the fireplace grate.
- Pre-warm the flue to establish a draft to help reduce smoke spillage during start-up. Hold a rolled up piece of burning newspaper under the flue damper for a few moments.
- Light the crumpled paper to ignite the kindling.
- Add small pieces of wood until a hot bed of embers has been established.
- Add a minimum of three average size pieces of split firewood, placed to allow combustion air and flames between them.

CAUTION! Odors and vapors released during initial operation may be irritating to sensitive individuals. Open windows for air circulation.

D. Grate

This fireplace is designed to be used with the grate supplied with this unit or one approved by HHT. The grate will break down over time and will need occasional replacement.

WARNING! Risk of Fire! Use only the factory-supplied integral grate.

- Keeps logs in place.
- Allows proper air circulation around the fire.

E. Firescreen

The firescreen is provided to control sparks. Keep it closed when the fireplace is in use.

WARNING! Risk of Fire or Burns!

- Screen will not prevent burning materials from falling out.
- Screen pulls or handles may be hot.

F. Flue Damper

- Refer to Figure 2.1 for location of control.
- Must be in fully open position (handle up toward the top of the fireplace) during operation of the fireplace.
- Before lighting the fireplace, verify fully open position by looking up from the inside of the fireplace.

WARNING! Risk of Fire and Asphyxiation! Open damper prior to operating fireplace. A closed damper overfires the fireplace and spills smoke and flames into the room.

G. Refractory

- The refractory is supplied to contain heat and provide an attractive interior.
- It will break down over time and will need occasional replacement. Small hairline cracks and discoloration are normal and do not affect its safety.
- (See refractory maintenance Section 3.C.)

WARNING! Risk of Fire! DO NOT burn fireplace without refractory. Use only refractory supplied by Hearth & Home Technologies, Inc.

FIREPLACE *Continued*

H. Glass Doors

- Glass doors are optional.
- Refer to Figure 2.2 for how to properly use them.

WARNING! Risk of Fire! Install **ONLY** doors approved by Hearth & Home Technologies, Inc.

WARNING! Risk of Fire and Smoke! Fireplaces equipped with doors should be operated only with doors fully open or doors fully closed. If doors are left partly open, gas and flame may be drawn out of the fireplace opening.

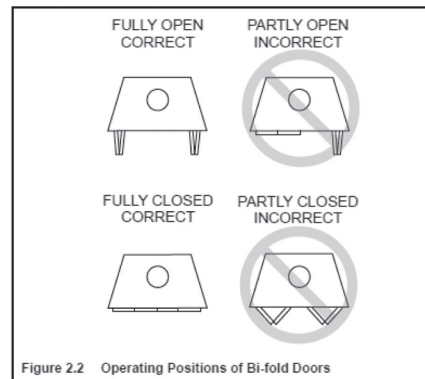


Figure 2.2 Operating Positions of Bi-fold Doors

I. Outside Air (optional)

The outside air kit supplies some fresh combustion air for your fireplace. It may help reduce the effects of negative air pressure. (See Section 5.D.)

- Refer to Figure 2.1 for location of control
- Close the inlet to prevent cold drafts when the fireplace is not being used.

CAUTION! Risk of Burns! The outside air control handle is **HOT** when fireplace is in operation. Adjust **BEFORE** lighting fire.

J. Fan Kit (optional)

- Refer to instructions included with fan kit.

K. Vented Gas Log Sets & Gas Log Lighters

- Optional.
- Vented gas logs or gas log lighters can be installed in this fireplace. Follow the instructions provided with the accessory for operation.

WARNING! Risk of Fire or Asphyxiation!

- **DO NOT** install unvented gas logs.
- Damper must be locked open.
- Gas flame may generate fumes.

L. Optional Components

- Other options may be available
- Consult your dealer/distributor

WARNING! Risk of Fire! **DO NOT** install and or use any component not approved by Hearth & Home Technologies Inc.

M. Clear Space

- Do not place combustible objects within 48 in. (1219 mm) of the front of fireplace. See Figure 2.3.

WARNING! DO NOT place combustible objects in front of the fireplace. High temperatures may ignite clothing, furniture or draperies.

- Mantel - avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

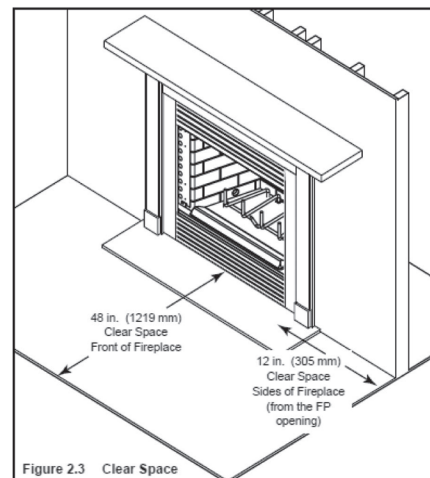


Figure 2.3 Clear Space

Heatilator • A36C & A42C • 28396 • Rev AK • 08/09



FIREPLACE *Continued*

N. Wood Fuel

Hardwood vs Softwood

Your fireplace performance depends on the quality of the firewood you use.

- Seasoned wood contains about 8,000 BTUs per pound.
- Hard woods are more dense than soft woods.
- Hard woods contain 60% more BTUs than soft woods.
- Hard woods require more time to season, burn slower and are harder to ignite.
- Soft woods require less time to dry, burn faster and are easier to ignite.
- Start the fire with soft wood to bring the fireplace up to operating temperature and to establish draft.
- Add hard wood for slow, even heat and longer burn time.

Soft woods	Hard woods
• Douglas Fir	• Oak
• Pine	• Maple
• Spruce	• Apple
• Cedar	• Birch
• Poplar	
• Aspen	
• Alder	

Moisture

WARNING! Risk of Fire!

- **DO NOT** burn wet or green wood.
- Wet, unseasoned wood can cause accumulation of creosote.

The majority of the problems fireplace owners experience are caused by trying to burn wet, unseasoned wood.

- Wet, unseasoned wood requires energy to evaporate the water instead of heating your home, and
- Evaporating moisture cools your chimney, accelerating formation of creosote.

Seasoned Wood

- Cut logs to size
- Split to 6 in. (152 mm) or less
- Air dry to a moisture content of around 20%
 - Soft wood - about nine months
 - Hard wood - about eighteen months

NOTICE: Seasoning time may vary depending on drying conditions.

Storing Wood

Steps to ensure properly seasoned wood:

- Stack wood to allow air to circulate freely around and through woodpile.
- Elevate wood pile off ground to allow air circulation underneath.
- Smaller pieces of wood dry faster. Any piece over 6 in. (152 mm) in diameter should be split.
- Wood (whole or split) should be stacked so both ends of each piece are exposed to air. More drying occurs through the cut ends than the sides.
- Store wood under cover to prevent water absorption from rain or snow. Avoid covering the sides and ends completely.

WARNING! Fire Risk! DO NOT store wood:

- In front of the fireplace.
- In space required for loading or ash removal.

Processed Solid Fuel Firelogs

Manufactured firelogs may be used with this fireplace. Hearth & Home Technologies Inc. recommends the use of U.L. Classified processed fuel firelogs. Follow the manufacturer's lighting and safety instructions.

Using firelogs may require more frequent chimney inspection and cleaning.

Do not poke or stir the logs while they are burning. Use only firelogs that have been evaluated for the application in manufactured fireplaces and refer to firelog warnings and caution markings on packaging prior to use.

FIREPLACE *Continued*

3 Maintenance and Service

A. Disposal of Ashes

Frequency: When they reach bottom of grate

By: Homeowner

WARNING! Risk of Fire! Ashes could contain hot embers.

- Place ashes in a metal container with a tight-fitting lid.
- The closed container should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal.
- If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled

B. Chimney Inspection/Cleaning

Frequency: At least twice a year during heating season or as recommended by a certified chimney sweep

By: Certified chimney sweep

WARNING! Risk of Fire! Ignited creosote is extremely HOT. Prevent creosote buildup.

Refer to Figure 3.1 to remove/reinstall termination caps.

Creosote - Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.

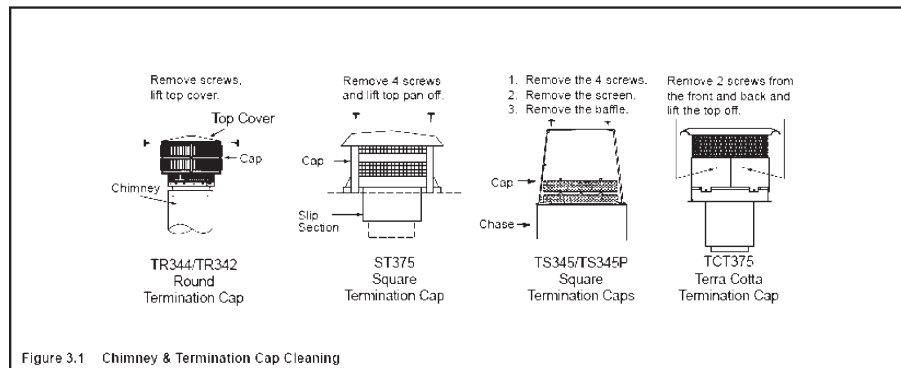
WARNING! Risk of Fire! A chimney fire can permanently damage your chimney system and nearby structures.

In the event of a chimney fire, Hearth & Home Technologies Inc. recommends

- replacement of the chimney, and
- inspection of the adjacent structure to the provisions of NFPA Level III inspection criteria.

The chimney shall be inspected at least twice a year during the heating season to determine when a creosote buildup has occurred.

When creosote has accumulated it shall be removed to reduce the risk of a chimney fire.



Heatilator • A36C & A42C • 28396 • Rev AK • 08/09

FIRESIDE
HEARTH & HOME

FIREPLACE *Continued*

C. Check Firebox Refractory

Frequency: After each ash removal

By: Homeowner

WARNING! Risk of Fire! *Inspect fireplace refractory. Crumbling, deteriorated refractory can allow overheating of surrounding materials.*

Expansion and contraction will cause minor cracking of the refractory. This is normal. The refractory will require periodic replacement depending on use.

The panels should be replaced if

- Cracks exceed ¼ inch (6 mm) in width,
- Metal is exposed behind the refractory,
- Large pieces of refractory fall out.

D. Inspect Grate

Frequency: After each ash removal

By: Homeowner

Inspect grate for:

- Warping or sagging 1-1/2 in. (38 mm) or more
- Broken welds
- Burn-through of grate bars

For safe operation, replace only with an approved grate from Hearth & Homes Technologies Inc.

E. Glass Cleaning

Frequency: As desired

By: Homeowner

CAUTION! *Handle glass assembly with care. Glass is breakable.*

- *Avoid striking, scratching or slamming glass*
- *Avoid abrasive cleaners*
- **DO NOT** clean glass while it is hot

Clean glass with a non-abrasive commercially available cleaner or ashes:

- Light deposits
 - Use household glass cleaner
- Heavy deposits
 - Use wood ash on damp cloth or,
 - Use commercial fireplace glass cleaner (consult with your dealer)

Heatilator • A36C & A42C • 28396 • Rev AK • 08/09

FIRESIDE
HEARTH & HOME

FIREPLACE *Continued*

4 Troubleshooting Guide

Start Fire Problems	Possible Cause	Solution
Can't get fire started Excessive smoke or spillage Burns too slowly Smolders, sizzles	Not enough kindling/paper or no kindling/paper	Use dry kindling, more paper. Arrange kindling & wood for air movement.
	Damper closed/not fully open	Open damper.
	Not enough air for fire to ignite	Check for restricted cap/shroud.
		Open air kit (if installed).
		Check for flue blockage.
		Pre-warm flue before starting fire (refer to starting fire section).
		Check for adequate vent height (refer to chimney assembly section).
		Open window below the fireplace towards the wind.
	Wood condition is too wet, too large	Use dry, seasoned wood (refer to wood fuel section).
	Bed of coals not established before adding wood	Start with paper & kindling to establish bed of coals (refer to starting fire section).
	Flue blockage such as birds' nests or leaves in termination cap	Have chimney inspected for creosote and cleaned by a certified chimney sweep.
Fire burns too fast	Down draft or negative pressure Competition with exhaust devices	Do not use exhaust fans during start-up (refer to negative pressure section).
		Open window below the fireplace towards the wind.
	Extremely dry or soft wood	Mix in hardwood.
		Mix in less seasoned wood after fire is established (refer to wood fuel section).
	No glass doors	Add glass doors to slow down air flow.
	Overdrafting	Check for correct vent height; too much vertical height creates overdrafting.
		Check location of vent termination (refer to chimney assembly section).

Heatilator • A36C & A42C • 28396 • Rev AK • 08/09

FIRESIDE
HEARTH & HOME

FIREPLACE *Continued*

Heatilator Novus 42" "B" Vent Gas-Burning Fireplace

User Guide

2 Operating Instructions

A. Gas Fireplace Safety

⚠ WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- DO NOT touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away

- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other flammable materials away.

This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. DO NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

If you expect that small children or vulnerable adults may come into contact with this fireplace, the following precautions are recommended:

- Install a physical barrier such as:
 - A decorative firescreen.
 - Adjustable safety gate.
- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.

- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to NEVER touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: www.hpba.org/staysafe.

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacation, trips, etc):

- Remove batteries from remote controls.
- Turn off wall controls.
- Unplug 3 volt adapter plug and remove batteries on IPI models.

B. Your Fireplace

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

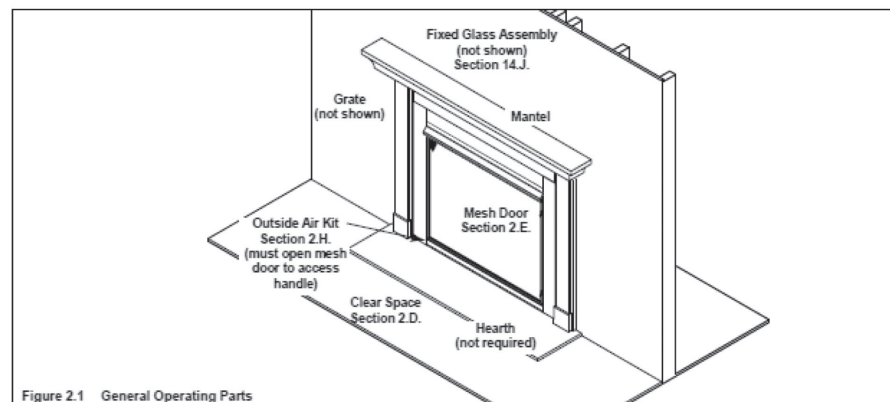


Figure 2.1 General Operating Parts

Heatilator • Novus B-Vent Series • 4055-188 • Rev I • 08/09



FIREPLACE *Continued*

C. Fan Kit (optional)

- Refer to Figure 2.1 for location of control.

D. Clear Space

WARNING! DO NOT place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.2.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

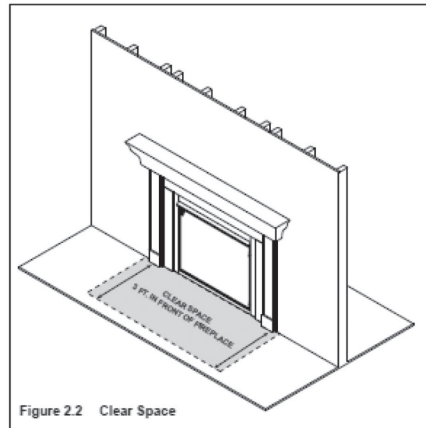


Figure 2.2 Clear Space

E. Decorative Doors and Fronts

WARNING! Risk of Fire! Install **ONLY** doors or fronts approved by Hearth & Home Technologies. Unapproved doors or fronts may cause fireplace to overheat.

This fireplace has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. DO NOT operate the fireplace with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

For more information refer to the instructions supplied with your decorative door or front.

F. Fixed Glass Assembly

See Section 14.J.

G. Remote Controls, Wall Controls and Wall Switches

Follow the instructions supplied with the control installed to operate your fireplace:

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
 - Keep remote controls out of reach of children.
- See your dealer if you have questions.

H. Outside Air (optional)

The outside air kit supplies some fresh combustion air for your fireplace. It may help reduce the effects of negative air pressure. (See Section 4.E...)

- Refer to Figure 2.1 for location of control.
 - Lift up on lever and pull forward to open outside air.
- Close the inlet to prevent cold drafts when the fireplace is not being used.

CAUTION! Risk of Burns! The outside air control handle is **HOT** when fireplace is in operation. Adjust **BEFORE** lighting fire.

I. Before Lighting Fireplace

Before operating this fireplace for the first time, have a qualified service technician:

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, ember material and/or other decorative materials.
- Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position and that the integral barrier is in place.

WARNING! RISK OF Fire/Asphyxiation! DO NOT operate fireplace with fixed glass assembly removed.

FIREPLACE *Continued*

J. Lighting Instructions (IPI)

- For normal use, activate/deactivate your fireplace with the wall switch or remote control.
- The IPI system may be operated with two D-cell batteries. When using batteries, unplug the transformer. To prolong battery life, remove them when using the transformer.
- If your fireplace must be deactivated for serviced or an extended period of time, follow the instructions below.

<h3>○ FOR YOUR SAFETY READ BEFORE LIGHTING</h3>		<p>This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.</p>
<p>WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.</p>		<p>This appliance must be installed in accordance with local codes, if any; if not, follow ANSI Z223.1 or, in Canada, current CAN/CGA-B149.</p>
<p>A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.</p> <p>B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.</p> <p>WHAT TO DO IF YOU SMELL GAS</p> <ul style="list-style-type: none"> • Do not try to light any appliance. • Do not touch any electric switch; do not use any phone in your building. • Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. 	<p>C. If you cannot reach your gas supplier, call the fire department.</p> <p>D. Use only your hand to push in and move the gas control valve or turn the gas control knob. Never use tools. If the lever or knob will not move by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.</p> <p>E. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.</p>	<p>This appliance must be properly connected to a venting system in accordance with the manufacturer's installation instructions.</p>
<h3>LIGHTING INSTRUCTIONS</h3>		<p>WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with the appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.</p>
<ol style="list-style-type: none"> 1. STOP! Read the safety information above on this label. 2. Turn wall switch to the "OFF" position or thermostat to the lowest setting. 3. Turn off all electric power to the appliance. 4. This appliance is equipped with an ignition device which automatically lights the pilot. Do NOT try to light the pilot by hand. 5. Wait five minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step. 6. To turn on the burner, turn on all electric power to this appliance and turn on the wall switch or set the thermostat to the desired setting. 7. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier. 		<p>CAUTION: Hot while in operation. Do not touch. Keep children, clothing, furniture, gasoline and other liquids having flammable vapors away.</p>
<h3>TO TURN OFF GAS TO APPLIANCE</h3>		<p>WARNING RISK OF FIRE</p> <p>This appliance is intended to burn a specified gas fuel only. Do not attempt to use with solid wood fuel or another type of fuel. Do not attempt to modify or use any other type of gas burner system.</p>
<ol style="list-style-type: none"> 1. Turn off wall switch or set thermostat to lowest setting. 2. Turn off all electric power to the appliance if service is to be performed. 3. Push the gas control lever in and move to the "OFF" position or push the gas control lever to the "OFF" position. Do not force. 4. Replace the control access panel. 		<p>WARNING: Disconnect the electric power before servicing. If for any reason the original wire supplied with the appliance must be replaced, it must be replaced with 105° C or its equivalent.</p> <p>For use with natural gas or propane. A conversion kit as supplied by the manufacturer shall be used to convert this appliance to the alternative fuel.</p>
<p>Due to high surface temperatures, keep children, clothing and furniture away. Keep burner and control compartment clean. See installation and operating instructions accompanying the appliance.</p> <p>336310</p>		<p>* Also certified for installation in a bedroom or a bed-sitting room. * For U.S. only!</p>
		<p>NATURAL GAS</p>

FIREPLACE *Continued*

K. After Fireplace is Lit

Initial Break-in Procedure

- The fireplace should be run three to four hours continuously on high.
- Turn the fireplace off and allow it to completely cool.
- Remove fixed glass assembly. See Section 14.J.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fireplace.

NOTICE! Open windows for air circulation during fireplace break-in.

- Some people may be sensitive to smoke and odors.
- Smoke detectors may activate.

L. Flame Adjustment Control

Some appliances come equipped with a high/low flame adjustment control.

- Open control access panel
- Compare your valve to Figures 2.4 & 2.5.
- Adjust the flame by turning knob as indicated in the photo matching your valve.

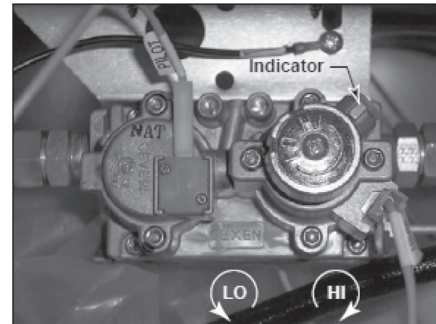


Figure 2.4 DEXEN Valve - IntelliFire Ignition System

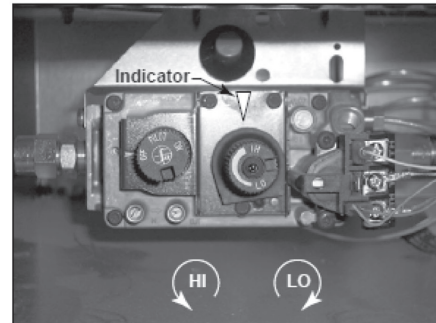


Figure 2.5 SIT Valve - Standing Pilot Ignition System

M. Frequently Asked Questions

ISSUE	SOLUTIONS
Condensation on the glass	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes.
Odor from appliance	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of materials from manufacturing. Odor may also be released from finishing materials and adhesives used near the appliance. These circumstances may require additional curing related to the installation environment.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning. A non-abrasive cleaner such as gas appliance glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.
Is it normal to see the pilot flame burn continually?	In an IntelliFire ignition system (IPI), the pilot flame should turn off when appliance is turned off. Some optional control systems available with IPI models may allow pilot flame to remain lit. In a standing pilot system the pilot will always stay on.

Heatilator • Novus B-Vent Series • 4055-188 • Rev I • 08/09



FIREPLACE *Continued*

3 Maintenance and Service

Any safety screen or guard removed for servicing must be replaced prior to operating the fireplace.

When properly maintained, your fireplace will give you many years of trouble-free service. We recommend annual service by a qualified service technician.

A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified service technician only. The fireplace should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the fireplace must be kept clean.

CAUTION! Risk of Burns! The fireplace should be turned off and cooled before servicing.

Glass Cleaning

Frequency: Seasonally

By: Homeowner

Tools Needed: Protective gloves, glass cleaner, drop cloth and a stable work surface.

CAUTION! Handle fixed glass assembly with care. Glass is breakable.

- Avoid striking, scratching or slamming glass
- Avoid abrasive cleaners
- DO NOT clean glass while it is hot
- Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.

Note: Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.

- Remove door or decorative front from fireplace and set aside on work surface.
- See Section 14.J for instructions to remove fixed glass assembly.
- Clean glass with a non-abrasive commercially available cleaner.
 - Light deposits: Use a soft cloth with soap and water
 - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
- Carefully set fixed glass assembly in place on fireplace. Hold glass in place with one hand and secure glass latches with the other hand.
- Reinstall door or decorative front.

Heatilator • Novus B-Vent Series • 4055-188 • Rev I • 08/09

Doors, Surrounds, Fronts

Frequency: Annually

By: Homeowner

Tools needed: Protective gloves, stable work surface

- Assess condition of screen and replace as necessary.
- Inspect for scratches, dents or other damage and repair as necessary.
- Check that louvers are not blocked.
- Vacuum and dust surfaces.

Remote Control

Frequency: Seasonally

By: Homeowner

Tools needed: Replacement batteries and remote control instructions.

- Locate remote control transmitter and receiver.
- Verify operation of remote. Refer to remote control operation instructions for proper calibration and setup procedure.
- Place batteries as needed in remote transmitters and battery-powered receivers.
- Place remote control out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

- Remove batteries from remote controls.
- Unplug 3 volt adapter plug on IPI models.

FIREPLACE *Continued*

Venting

Frequency: Seasonally

By: Homeowner

Tools needed: Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such as plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.
- Inspect draft shield to verify it is not damaged or missing.

B. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

Gasket Seal and Glass Assembly Inspection

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

Logs

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

Firebox

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, sandpaper, steel wool, cloths, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation. Sand and repaint as necessary.
- Replace fireplace if firebox has been perforated.

Control Compartment and Firebox Top

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, dust cloths

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.

Burner Ignition and Operation

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace ember materials with new dime-size pieces. DO NOT block ports or obstruct lighting paths. Refer to Section 14.G. for proper rockwool placement.
- Verify batteries have been removed from battery back-up IPI systems to prevent premature battery failure or leaking.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 14.L. for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect pilot flame pattern and strength. See Figure 3.1 and 3.2 for proper pilot flame pattern. Clean or replace orifice spud as necessary.
- Inspect IPI flame sensing rod for soot, corrosion and deterioration. Clean with emery cloth or replace as required.
- Verify that there is not a short in flame sense circuit by checking continuity between pilot hood and flame sense rod. Replace pilot as necessary. (IPI only)

FIREPLACE *Continued*

User Guide

Heatilator Caliber 42" Direct Vent Gas-Burning Fireplace

2 Operating Instructions

A. Gas Fireplace Safety

⚠ WARNING



HOT SURFACES!

Glass and other surfaces are hot during operation and cool down. Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as appliance.

- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other combustibles away.

This appliance has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. Do NOT operate the appliance with the barrier removed.

Contact your dealer or Hearth & Home Technologies if the barrier is not present or help is needed to properly install one.

If you expect that small children or vulnerable adults may come into contact with this fireplace, the following precautions are recommended:

- Install a physical barrier such as:
 - A decorative firescreen.
 - Adjustable safety gate.
- Install a switch lock or a wall/remote control with child protection lockout feature.
- Keep remote controls out of reach of children.
- Never leave children alone near a hot fireplace, whether operating or cooling down.
- Teach children to NEVER touch the fireplace.
- Consider not using the fireplace when children will be present.

Contact your dealer for more information, or visit: www.hpba.org/staysafe.

To prevent unintended operation when not using your fireplace for an extended period of time (summer months, vacations, trips, etc):

- Remove batteries from remote controls.
- Turn off wall controls.
- Unplug 3 volt adapter plug and remove batteries on IPI models.
- Turn off gas controls valve on standing pilot models.

When lighting the pilot light on fireplaces with a standing pilot, remove the fixed glass assembly so you can detect presence of residual gas build-up. See Standing Pilot Lighting instructions and Maintenance Tasks.

B. Your Fireplace

WARNING! DO NOT operate fireplace before reading and understanding operating instructions. Failure to operate fireplace according to operating instructions could cause fire or injury.

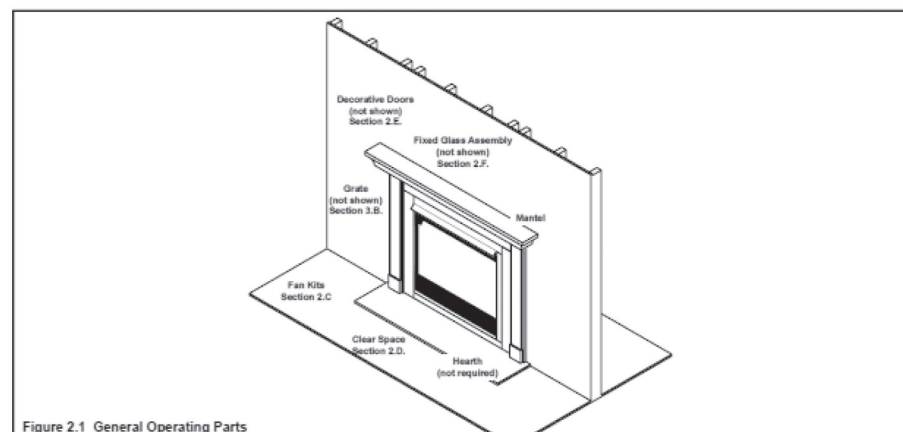


Figure 2.1 General Operating Parts

Heatilator • Caliber CD Series • 4040-263 Rev P • 05/09



FIREPLACE *Continued*

C. Fan Kit (optional)

If desired, a fan kit may be added. Contact your dealer to order the correct fan kit.

D. Clear Space

WARNING! DO NOT place combustible objects in front of the fireplace or block louvers. High temperatures may start a fire. See Figure 2.2.

Avoid placing candles and other heat-sensitive objects on mantel or hearth. Heat may damage these objects.

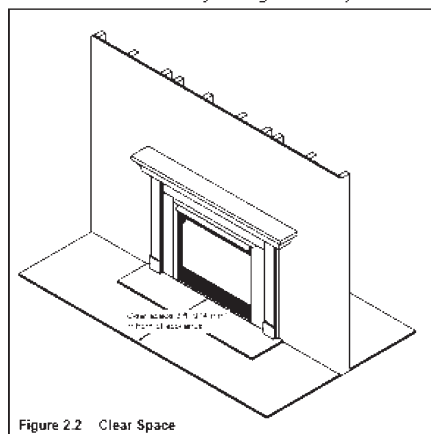


Figure 2.2 Clear Space

E. Decorative Doors and Fronts

WARNING! Risk of Fire! Install **ONLY** doors or fronts approved by **Hearth & Home Technologies**. Unapproved doors or fronts may cause fireplace to overheat.

This fireplace has been supplied with an integral barrier to prevent direct contact with the fixed glass panel. **DO NOT** operate the fireplace with the barrier removed.

Contact your dealer or **Hearth & Home Technologies** if the barrier is not present or help is needed to properly install one.

For more information refer to the instructions supplied with your decorative door or front.

F. Fixed Glass Assembly

See Section 15.J.

G. Remote Controls, Wall Controls and Wall Switches

Follow the instructions supplied with the control installed to operate your fireplace:

For safety:

- Install a switch lock or a wall/remote control with child protection lockout feature.
 - Keep remote controls out of reach of children.
- See your dealer if you have questions.

H. Before Lighting Fireplace

Before operating this fireplace for the first time, have a qualified service technician:

- Verify all shipping materials have been removed from inside and/or underneath the firebox.
- Review proper placement of logs, rockwool and/or other decorative materials.
- Check the wiring.
- Check the air shutter adjustment.
- Ensure that there are no gas leaks.
- Ensure that the glass is sealed and in the proper position and that the integral barrier is in place.

WARNING! Risk of Fire or Asphyxiation! DO NOT operate fireplace with fixed glass assembly removed.

Determine if this fireplace has a standing pilot or an Intellifire Ignition system. Ask your dealer or open control access panel, look at gas valve assembly.

- A standing pilot ignition will have a red or black ignitor button (refer to Figure 2.3).
- An Intellifire ignition system will not have a button.

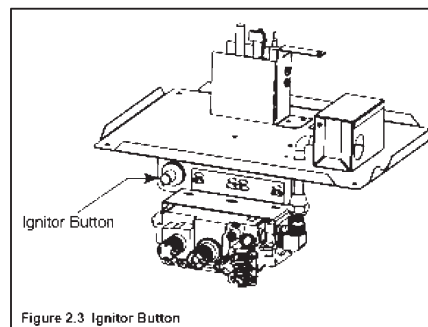


Figure 2.3 Ignitor Button

FIREPLACE *Continued*

I. Lighting Instructions (IPI)

- For normal use, activate/deactivate your fireplace with the wall switch or remote control.
- The IPI system may be operated with two D-cell batteries. When using batteries, unplug the transformer. To prolong battery life, remove them when using the transformer.
- If your fireplace must be deactivated for service or an extended period of time, follow the instructions below.

<p>FOR YOUR SAFETY READ BEFORE LIGHTING</p> <p>WARNING: To reduce the risk of fire and carbon monoxide poisoning, always use the fireplace in accordance with the instructions on the label and in the manual.</p>	<p>1. Read and follow the instructions on the label and in the manual.</p> <p>2. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>3. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>4. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>NATURAL GAS</p>
<p>FOR YOUR SAFETY READ BEFORE LIGHTING</p> <p>WARNING: To reduce the risk of fire and carbon monoxide poisoning, always use the fireplace in accordance with the instructions on the label and in the manual.</p>	<p>1. Read and follow the instructions on the label and in the manual.</p> <p>2. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>3. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>4. Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p> <p>WARNING: Do not use the fireplace if you have recently had a gas leak. Call a qualified technician to inspect the fireplace and your home before relighting it.</p>	<p>NATURAL GAS</p>

Heat ator • Caliber • CD Series • 4040-263 Rev P • 02/09

FIRESIDE
HEARTH & HOME

FIREPLACE *Continued*

K. After Fireplace is Lit

Initial Break-in Procedure

- The fireplace should be run three to four hours continuously on high.
- Turn the fireplace off and allow it to completely cool.
- Remove fixed glass assembly. See Section 15.J.
- Clean fixed glass assembly. See Section 3.
- Replace the fixed glass assembly and run continuously on high an additional 12 hours.

This cures the materials used to manufacture the fireplace.

NOTICE! Open windows for air circulation during fireplace break-in.

- Some people may be sensitive to smoke and odors.
- Smoke detectors may activate.

L. Flame Adjustment Control

Some appliances come equipped with a high/low flame adjustment control.

- Open control access panel
- Compare your valve to Figures 2.4 & 2.5.
- Adjust the flame by turning knob as indicated in the photo matching your valve.

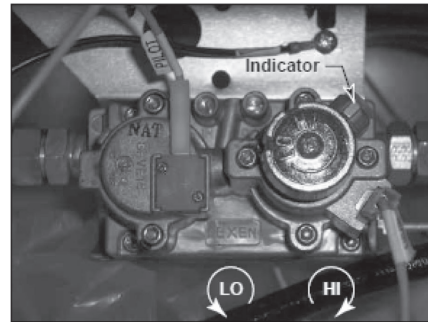


Figure 2.4 DEXEN Valve - IntelliFire Ignition System

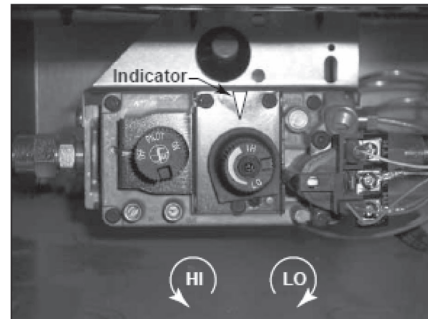


Figure 2.5 SIT Valve - Standing Pilot Ignition System

M. Frequently Asked Questions

ISSUE	SOLUTIONS
Condensation on the glass	This is a result of gas combustion and temperature variations. As the appliance warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the appliance is allowed to burn for 20 to 40 minutes.
Odor from appliance	When first operated, this appliance may release an odor for the first several hours. This is caused by the curing of materials from manufacturing. Odor may also be released from finishing materials and adhesives used near the appliance. These circumstances may require additional curing related to the installation environment.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning. A non-abrasive cleaner such as gas appliance glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.
Is it normal to see the pilot flame burn continually?	In an IntelliFire ignition system (IPI), the pilot flame should turn off when appliance is turned off. Some optional control systems available with IPI models may allow pilot flame to remain lit. In a standing pilot system the pilot will always stay on.

Heatlator • Caliber CD Series • 4040-263 Rev P • 05/09



FIREPLACE *Continued*

3 Maintenance and Service

Any safety screen or guard removed for servicing must be replaced prior to operating the fireplace.

When properly maintained, your fireplace will give you many years of trouble-free service. We recommend annual service by a qualified service technician.

A. Maintenance Tasks-Homeowner

Installation and repair should be done by a qualified service technician only. The fireplace should be inspected before use and at least annually by a professional service person.

The following tasks may be performed annually by the homeowner. If you are uncomfortable performing any of the listed tasks, please call your dealer for a service appointment.

More frequent cleaning may be required due to lint from carpeting or other factors. Control compartment, burner and circulating air passageway of the fireplace must be kept clean.

CAUTION! Risk of Burns! The fireplace should be turned off and cooled before servicing.

Glass Cleaning

Frequency: Seasonally

By: Homeowner

Tools Needed: Protective gloves, glass cleaner, drop cloth and a stable work surface.

CAUTION! Handle fixed glass assembly with care. Glass is breakable.

- Avoid striking, scratching or slamming glass
- Avoid abrasive cleaners
- DO NOT clean glass while it is hot
- Prepare a work area large enough to accommodate fixed glass assembly and door frame by placing a drop cloth on a flat, stable surface.

Note: Fixed glass assembly and gasketing may have residue that can stain carpeting or floor surfaces.

- Remove door or decorative front from fireplace and set aside on work surface.
- See Section 15.J for instructions to remove fixed glass assembly.
- Clean glass with a non-abrasive commercially available cleaner.
 - Light deposits: Use a soft cloth with soap and water
 - Heavy deposits: Use commercial fireplace glass cleaner (consult with your dealer)
- Carefully set fixed glass assembly in place on fireplace. Hold glass in place with one hand and secure glass latches with the other hand.
- Reinstall door or decorative front.

Doors, Surrounds, Fronts

Frequency: Annually

By: Homeowner

Tools needed: Protective gloves, stable work surface

- Assess condition of screen and replace as necessary.
- Inspect for scratches, dents or other damage and repair as necessary.
- Check that louvers are not blocked.
- Vacuum and dust surfaces.

Remote Control

Frequency: Seasonally

By: Homeowner

Tools needed: Replacement batteries and remote control instructions.

- Locate remote control transmitter and receiver.
- Verify operation of remote. Refer to remote control operation instructions for proper calibration and setup procedure.
- Place batteries as needed in remote transmitters and battery-powered receivers.
- Place remote control out of reach of children.

If not using your fireplace for an extended period of time (summer months, vacations/trips, etc), to prevent unintended operation:

- Remove batteries from remote controls.
- Unplug 3 volt adapter plug on IPI models.

Venting

Frequency: Seasonally

By: Homeowner

Tools needed: Protective gloves and safety glasses.

- Inspect venting and termination cap for blockage or obstruction such plants, bird nests, leaves, snow, debris, etc.
- Verify termination cap clearance to subsequent construction (building additions, decks, fences, or sheds). See Section 6.
- Inspect for corrosion or separation.
- Verify weather stripping, sealing and flashing remains intact.
- Inspect draft shield to verify it is not damaged or missing.

Heatblator • Caliber CD Series • 4040-263 Rev P • 06/09

FIRESIDE
HEARTH & HOME

FIREPLACE *Continued*

B. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

Gasket Seal and Glass Assembly Inspection

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

Logs

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary. Refer to Section 15 for log placement instructions.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

Firebox

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, sandpaper, steel wool, cloths, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation. Sand and repaint as necessary.
- Replace fireplace if firebox has been perforated.

Control Compartment and Firebox Top

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, dust cloths

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.

Burner Ignition and Operation

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace rockwool with new dime-size pieces. DO NOT block ports or obstruct lighting paths. Refer to Section 15 for proper rockwool placement.
- Verify batteries have been removed from battery back-up IPI systems to prevent premature battery failure or leaking.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See Section 15 for required air shutter setting. Verify air shutter is clear of dust and debris.
- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect pilot flame pattern and strength. See Figure 3.1 and 3.2 for proper pilot flame pattern. Clean or replace orifice spud as necessary.
- Inspect thermocouple/thermopile or IPI flame sensing rod for soot, corrosion and deterioration. Clean with emery cloth or replace as required.
- Verify thermocouple/thermopile or IPI millivolt output. Replace as necessary.



Figure 3.1 IPI Pilot Flame Patterns

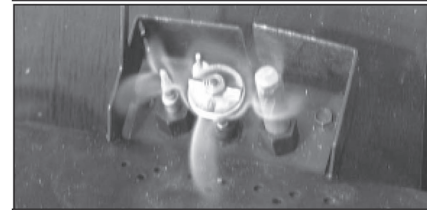


Figure 3.2 Standing Pilot Flame Patterns (SIT controls)

Heatlitor • Caliber CD Series • 4040-263 Rev P • 05/09



FIREPLACE *Continued*

Warranty Info

→ B. Warranty

Hearth & Home Technologies Inc. LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands ("HHT"), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term "Limited Lifetime" in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

See conditions, exclusions, and limitations on next page.

FIREPLACE *Continued*

B. Warranty (continued)

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets; firebricks; grates; flame guides; and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

4021-6458 04-02-09

Heatlator • Caliber CD Series • 4040-263 Rev P • 05/09



LIGHTING

sea gull lighting.

MANUFACTURERS OF DISTINCTIVE LIGHTING SINCE 1919

Dear Homeowner,

We at Sea Gull Lighting Products know that you have taken great care in choosing your new home and hope you and your family are now comfortably settled and familiar with the amenities included by your builder.

Sea Gull Lighting is one of the world's leading manufacturers of decorative lighting fixtures; therefore, it is quite probable that one or more of our fine products was selected to enhance the value and appearance of your property.

So that you may continue to enjoy the appearance of your lighting fixtures, please accept from us some helpful hints on how you may extend that "new" finish for years to come:

- Always make sure that the **POWER SUPPLY** to the fixture is **OFF** before cleaning any electrical fixture.
- All metal surfaces should be dusted regularly with a clean, dry, soft cloth. As required, clean metal parts with a mild, **NON-ABRASIVE SOAP** and dry with a clean, dry, soft cloth.
- **Appearance of Solid Brass Fixtures:** Brass finishes will eventually begin to discolor or oxidize just as does sterling silver. When solid brass oxidizes, it darkens in color. This "**TARNISHING**" is postponed when manufacturers apply a clear acrylic coating to the brass surface. **SEA GULL LIGHTING** solid brass fixtures are protected against this natural process by a clear protective coating. Dirt accumulation and other contaminants in the air accelerate the breakdown of this protective coating.
- The fixture appearance may be extended by regularly washing the product with a mild solution of automobile wash containing wax in suspension. To protect and extend the original appearance of the fixture, apply a **NON-ABRASIVE** brass cleaner or polish periodically after installation.
- When "powerwashing" your home, please be sure to remove your brass exterior fixtures, or cover your fixtures in order to keep cleaning solutions off the delicate brass finish.
- **GLASS** components that can be removed from a fixture should be **REMOVED BEFORE CLEANING**. Many **GLASS CLEANERS** contain chemicals that attack the barrier coatings described above, therefore, **GLASS CLEANERS SHOULD NEVER BE SPRAYED DIRECTLY ON THE METAL PARTS OF YOUR FIXTURE**. If the glass cannot be removed, **SPRAY THE CLOTH, NOT THE FIXTURE**, and clean the glass carefully as not to contaminate the metal surface.

Congratulations from all of us at Sea Gull Lighting on attaining the American Dream; we wish you continuing happiness in your new home!

FLOORING

FLOORING CARE GUIDE



*Our company is dedicated to providing
quality floor covering and service to
homebuilders and homeowners.*

DIVISION OFFICE ADDRESSES

CORPORATE OFFICE

8500 PHOENIX DRIVE
MANASSAS, VA 20110
PHONE: (703) 881-7100
(800) 952-6355
FAX #: (703) 368-5266

SALES OFFICE

8500 PHOENIX DRIVE
MANASSAS, VA 20110
PHONE: (703) 881-7110
(800) 521-5047
FAX #: (703) 368-5268
DIRECTOR SALES & MKTG: JEFF SPROLES

BLT OPS CENTER & BLINDS OFFICE

509 MCCORMICK DRIVE, SUITE F
GLEN BURNIE, MD 21061
PHONE: (410) 553-0250
(877) 278-5249
FAX#: (410) 553-0592
BLINDS MANAGER: DONNA SCALLION

CERAMIC

509 MCCORMICK DRIVE, SUITE F
GLEN BURNIE, MD 21061
PHONE: (410) 553-0250
(800) 969-8453
FAX#: (410) 553-0592
DIRECTOR CERAMIC: DON RECINE

NVA OPS CENTER & CVA OFFICE

7463 MASON KING COURT
MANASSAS, VA 20109
PHONE: (703) 331-1230
FAX #: (703) 331-3784
DIVISION MANAGER:

DELAWARE OFFICE

900 INTERCHANGE BLVD, SUITE 901
NEWARK, DE 19711
PHONE (302) 292-3712
(877) 260-6260
FAX #: (302) 292-1440
DIVISION MANAGER: SCOTT OUTTEN

FREDERICK, MD OFFICE

5123 PEGASUS CT, SUITES M
FREDERICK, MD 21704
PHONE: (301) 696-9340
(800) 618-2540
FAX #: (301) 696-0843
PRODUCTION MANAGER: TIM KELLEY

NASHVILLE, TN OFFICE

800 AIRPARK COMMERCE DR, SUITE 802
NASHVILLE, TN 37217
PHONE: 615-872-8322
FAX #: 615-872-8324
DIVISION MANAGER: AJ NIHSER

OWINGS MILLS, MD OFFICE

11515 CRONRIDGE DRIVE, SUITES D-G
OWINGS MILLS, MD 21117
PHONE: (410) 902-4651
FAX #: (410) 902-8756
DIVISION MANAGER: JIM REILLY

POINTER RIDGE, MD OFFICE

17201 MELFORD BLVD, SUITES L-Q
BOWIE, MD 20715
PHONE: (301) 249-9171
FAX #: (301) 249-3342
DIVISION MANAGER: JUDY SEDEI

RICHMOND, VA OFFICE

12830 WEST CREEK PKWY, SUITE E
RICHMOND, VA 23238
PHONE: (804) 784-5030
FAX #: (804) 784-5031
PRODUCTION MANAGER: DENNIS KURYLA

SEAFORD OFFICE

101 PARK AVE, BUILDING 1
SEAFORD, DE 19973
PHONE: (410) 677-0420
FAX#: (410) 677-0820
MARKET MANAGER: MIKE MULLIKIN

FLOORING *Continued*

CARPET

FOR A LONGER LASTING FLOOR
WE RECOMMEND THE FOLLOWING

DO:	REASON:
Vacuum frequently, at least once a week on all areas.	Removes damaging dirt and dust that can create "matting".
Remove spills promptly according to manufacturer recommendations.	Improper use of cleaning product or procedure can permanently "set" a stain and/or cause a yarn disfiguration.
Have carpet professionally cleaned. Refer to your manufacturer's warranty.	Enhances beauty and promotes longevity of carpet.

CARPET

DON'T	REASON:
Use vinyl or plastic runners with anchor cleats or carpet scraps without proper backing, i.e. cloth.	Can cause permanent damage to yarns.
Use cleaning solutions not recommended by manufacturer.	Can "set" stain and/or void warranty.
Remove or adjust the carpet installation in your home.	Can void the installation warranty.

RESILIENT

FOR A LONGER LASTING FLOOR
WE RECOMMEND THE FOLLOWING

DO:	REASON:
Sweep or dust mop daily.	Removes dust and dirt that can scratch the surface.
Wash and rinse weekly. Use cleaning products that apply.	Will promote and enhance the beauty of the floor.
Install proper protectors on chair and table leg bottoms.	Weight of object is concentrated on a small area, possibly creating a permanent impression.
Use walk-off mats at all entrances to home. (Use braided, rag or cloth)	Removes dirt and grime from shoes. Reduces chance of foreign objects transferring to flooring.

RESILIENT

DON'T	REASON:
Use rubber or latex backed mats.	Wrong backing on a mat or area rug can discolor vinyl floor.
Roll or slide appliances.	Can create permanent dents, elongated impressions, or tear the vinyl.
Wear high heels on vinyl floor.	Can leave permanent impressions.
Use wax or "non" wax product such as a "Future" no wax floor.	Causes build-up and product will eventually discolor.

FLOORING *Continued*

HARDWOOD

FOR A LONGER LASTING FLOOR
WE RECOMMEND THE FOLLOWING

DO:	REASON:
Vacuum or dust mop 1-2 times per week.	Removes dirt and dust that can prematurely scratch and dull the finish.
"Know your floor" *Wax finish or *Polyurethane finish. Use cleaner recommended by manufacturer.	Use of wrong topical care can permanently damage finish, thus voiding warranty.
Use walk-off mats at all entrances to home.	Wrong backing on a mat or area rug can discolor wood finish.

HARDWOOD

DON'T	REASON:
Use wax or polish on a polyurethane finish.	Can cloud the finish and attract and hold dirt, damaging the finish.
Do not wet mop or use excessive moisture to clean the floor.	Can leave permanent water marking or cause excessive swelling.
Do not drag or slide furniture across floor.	Can permanently scratch floor, leading to costly repairs.

CERAMIC

FOR A LONGER LASTING FLOOR
WE RECOMMEND THE FOLLOWING

DO:	REASON:
Test scouring powders in a small area before using on tile.	May scratch surface and dull the finish on tile.
Use a water based grout sealer on grout joints if continuous staining is a problem.	Eliminates stains ability to penetrate deep into grout. makes it easy to wipe off potential stains.
Read and follow label directions for all "neutral" cleaners.	Will not discolor grout. Neutral cleaners will not effect the cement properties of grout.

CERAMIC

DON'T	REASON:
Combine ammonia and household bleaches.	May distort grout color, cause yellowing, and cause grout breakdown.
Use harsh cleaning agents (such as steel wool) to clean your tile.	Can scratch or damage the surface of your tile.
Use a cleaning agent that contains color on unglazed tile.	The tile has a porous body and may absorb the color of the cleaner.

PLUMBING FIXTURES

CARE OF YOUR MOEN FAUCETS

Dear New Homeowner,

Congratulations on the purchase of your new home. As you know, your home features MOEN faucets in a variety of finishes. It is important that you understand a few facts regarding the finish on these faucets.

MOEN faucets come specially coated to protect the finish during normal usage. In order to maintain the special coating and ensure years of "like new" appearance, MOEN suggests the following:

- 1) Wipe as needed with a soft damp cloth.
- 2) Use only warm water to remove dry water spots.
- 3) Do Not use cleaners which contain abrasives or harsh chemicals. Use of abrasives or chemical cleaners will damage the finish and Void the Warranty.
- 4) Do Not use alcohol or other organic solvents.
- 5) Occasionally apply a high quality wax polish to your faucet's finish to make routine care easier.

By following the above suggestions, the beauty of your MOEN faucets will continue for many years.

MOEN Incorporated



PLUMBING FIXTURES *Continued*

Dear Homeowner:

The plumbing fixtures installed in your home have been carefully selected and installed to give you many years of trouble-free service. However, you may occasionally encounter problems with drain or toilet clogging. We would like to take this opportunity to point out that clearing drain or toilet clogs is a homeowner maintenance item. Of course, if the clogging is due to faulty plumbing materials or installation, it will be corrected by Gemcraft Homes as a warranty item. In preparing your home for occupancy, the sewers will be flushed and will be working properly. However, if clogging occurs due to our negligence, it will become apparent within the first thirty (30) days after occupancy, and will be corrected by us. Care should be observed to avoid disposal of heavy tissue, sanitary napkins and other such materials into plumbing fixtures in order to minimize the possibility of clogging. After thirty (30) days of occupancy, we will not be responsible for sewer clogs unless it is determined faulty materials or workmanship have been employed or the original installation was done incorrectly.

PLUMBING FIXTURES AND DRAINS

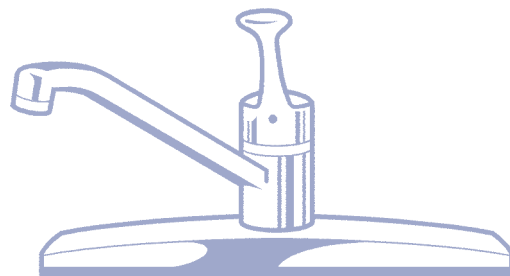
When the drainpipe from the tub, sink or shower clogs, you should first attempt to relieve it by use of a plunger. plungers can be purchased at hardware stores. If the plunger does not work, try using a plumber's snake. (These can be rented or purchased at a hardware or plumbing store.)

Below your sink at the visible curved pipes (P-trap), there are several plastic nuts that may tend to work loose periodically. These should be kept tight to avoid leaks.

Please be aware that "low consumption" 1.6 gallon flush toilets have been installed in your home per current codes. These toilets will conserve water but do not flush as forcefully as the older style toilets. You may need to reduce the amount of toilet tissue used in order to prevent clogging.

Sincerely,

Gemcraft Homes, Inc.



STAINLESS STEEL SINK

STAINLESS STEEL SINK

Your new Stainless Steel Sink is made from high quality solid stainless steel.

Caring for your stainless steel sink is easy and simple. Your sink requires generally less care than do the other appliances, etc., found in your kitchen. To clean your sink, use the mildest cleaning procedure that will do the job effectively. The same detergents used to clean your dishes can also be used to clean your sink. Any stubborn spots can be readily removed with simple scouring. Use any brand of scouring powder with a wet sponge or cloth. Rinse your sink thoroughly after cleaning. Water marks are not harmful to your sink. To avoid them, simply wipe your sink dry after using.

Although your stainless steel sink is easy to keep clean, there are a few cautions of which you should be aware.

Some chemicals, such as chlorides, are corrosive even to stainless steel. As a result, it is important to rinse your sink thoroughly immediately after the surface has been exposed to chlorinated cleansing agents, and/or chlorinated bleaching agents. Similarly, do not allow agents to remain in or on your sink for extended periods of time.

Stainless steel, by its very nature, should not rust. Any rust stains which may appear on your sink are usually the result of iron being deposited on the surface by other items. Such stains may be readily removed with simple scouring or rubbing, as described earlier. **DO NOT, UNDER ANY CIRCUMSTANCES, USE STEEL WOOL PADS TO CLEAN YOUR SINK.** Likewise, do not allow rusty utensils to remain in your sink for extended periods of time.

We do not recommend that you use a rubber sink mat in your stainless steel sink. First of all, the mat is not necessary. Secondly, the mat will trap water and organic particles underneath. Decay of the particles may cause a staining on the sink. These stains can be removed with scouring as described above, but they are quite stubborn.

TREE AND SHRUB

TREE & SHRUB CARE

1. Water every other day for the first week.
2. After the first week, water weekly being sure to soak the entire ball area of the trees and shrubs.
3. Trim any broken or dead branches.
4. After the first month, apply a small amount of 10-6-4 fertilizer around the perimeter of your plant material. Use amount specified according to the instructions that come on the bag.
5. If stakes appear loose, drive further into ground. Readjust as necessary.
6. Pull stakes and cut guides off after one year.



SEPTIC



COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF MARYLAND AT COLLEGE PARK
UNIVERSITY OF MARYLAND, EASTERN SHORE

SEPTIC RECORDS AND MAINTENANCE GUIDELINES

Thomas H. Miller and Paula A. Eubanks

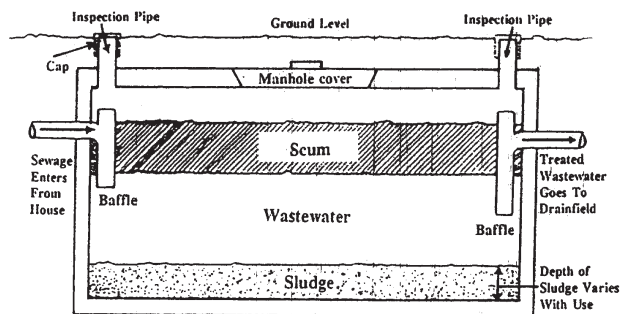
Proper design, installation, and maintenance of your septic system will maximize your system's life. It will prevent failures that can be unsightly, foul-smelling, and threatening to your family's health. Good maintenance reduces the risk of contaminating your well water, and may save you from costly repairs or system replacement.

This folder contains information that will help you maintain your septic system properly. It also provides a convenient place for you to record and file information about your system. Keep it with other important documents about your home, and pass it on to future owners.

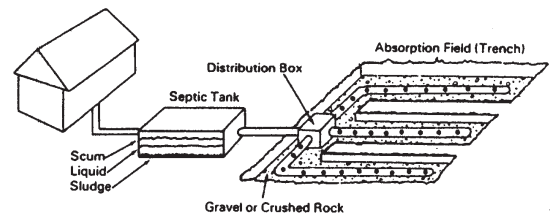
How Your System Works

A septic system has two major components: a septic tank and a soil absorption system.

Septic Tank: Waste water flows from the house to the septic tank. The tank is designed to retain waste water and allow heavy solids to settle to the bottom. These solids are partially decomposed by bacteria to form **sludge**. Grease and light particles float, forming a layer of **scum** on top of the waste water. Baffles installed at the inlet and outlet of the tank force the water to move slowly through it, and prevent scum from exiting the tank.



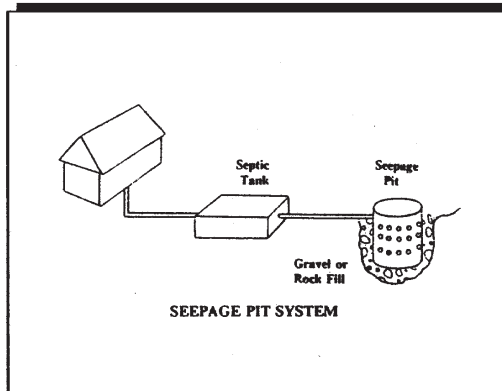
SEPTIC TANK



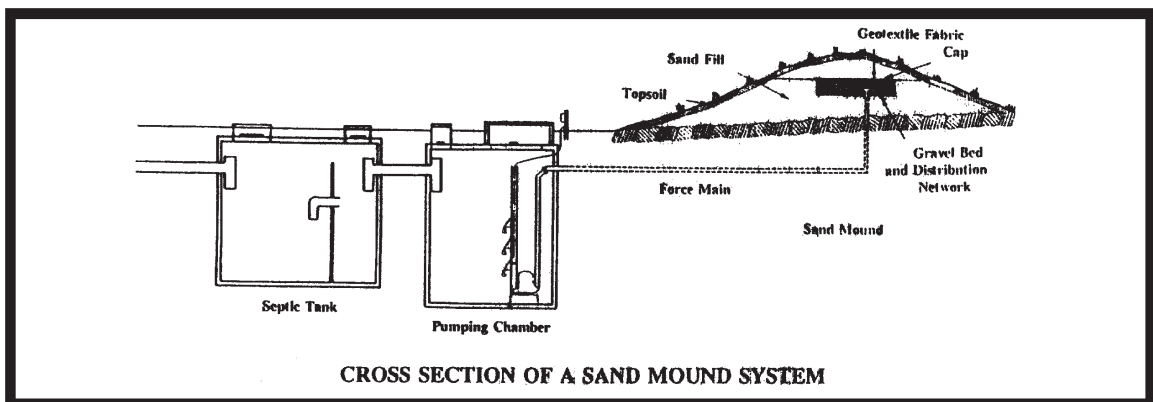
Soil Absorption Field (Trench): A solid pipe leads from the septic tank to a distribution box where the waste water is channeled into one or more perforated pipes set in trenches of gravel. Here the water slowly infiltrates (seeps) into the underlying soil. Dissolved wastes and bacteria in the water are trapped or adsorbed to soil particles or decomposed by microorganisms. This process removes disease-causing organisms, organic matter and most nutrients (except nitrogen and some salts). The purified waste water then either moves to the ground water or evaporates from the soil. Trench systems are the most common type of system used in new home construction.

SEPTIC *Continued*





An alternative to the common drain field is the **Seepage Pit (Dry Well)**. In this type, liquid flows to a pre-cast tank with sidewall holes, surrounded by gravel. (Older versions usually consist of a pit with open-jointed brick or stone walls.) Liquid seeps through the holes or joints to the surrounding soil.



Another alternative is the **Sand Mound System**: These systems are used in areas where the site is not suitable for traditional septic systems. For instance, the soil may have too much clay to allow the water to seep through at the proper rate, or the water table may be too close to the surface. In these systems, the waste water flows from the septic tank to a storage tank. The liquid is then pumped from the tank to perforated plastic pipes buried in a mound of sand built on the original soil surface. This system provides a layer of suitable soil thick enough to ensure adequate time and distance for proper treatment of the waste water. Vegetation growing on the mound helps to evaporate some of the liquid. This is particularly important in areas with shallow water tables.



Possible Signs of Trouble

-  A wet area or standing water occurs above the absorption field. This situation can develop when sludge particles clog the absorption field, when tree roots or broken pipes keep the waste water from dispersing through the entire drain field, or when water use in the house regularly exceeds the design capacity of the system. When these conditions occur, waste water does not move through the soil as it should, and instead rises to the surface creating a serious health risk and odor problems.
-  Toilets run slowly or backup: in the worst cases, the basement is flooded with sewage. This can be the result of plugged sewer lines to the tank, a plugged inlet or outlet pipe, a full septic tank, or a failed absorption field.
-  Septic odors occur in the house, above the tank and absorption field, or escape from the vent pipe. If the system is operating properly, there should be no odors. If there are odors, it can be an early warning sign that the system is failing.
-  The septic tank has not been pumped out in the past five years. Even if the system appears to be working well, sludge may have built up to the point where waste water is released without sufficient time in the tank for treatment and settling of particles. This situation may result in pollution of ground water or cause eventual clogging of the absorption field.

SEPTIC *Continued*

MAINTENANCE TIPS

INSIDE

- Conserve water. Fix leaks and drips. If you replace old fixtures, install new "low flow" types.
- Do not overload the system -- this is the primary cause of system failures. Early morning and bedtime are peak water use times in the bathroom. Run dishwashers and washing machines at other times of the day. Don't do all the family laundry in one day.
- Do not use a garbage disposal or dump coffee grounds in the sink. Increasing the load of solids into the tank decreases the capacity and shortens the interval between pumpings.
- Do not pour fats and oils down the drain. They can build up and clog the septic tank pipes.
- Put paper towels, tissue, cigarette butts, disposable diapers, sanitary napkins, tampons and other material in a trash can, not the toilet.
- Do not add "starter enzymes" or "yeast" to your system. Additives do not improve how well your system works. There are always plenty of natural bacteria available to do the job. In fact, additives can damage your system by breaking up the sludge and scum layers, causing solids to flush out of the tank and clog the infiltration bed.
- Only use normal amounts of detergents, bleaches, drain cleaners, household cleaners and other products. Avoid dumping solvents like dry cleaning fluid, pesticides, photographic chemicals, paint thinner, or auto products down the drain.

OUTSIDE

- Direct down spouts and runoff away from the septic field to avoid saturating the area with excess water.
- Dense grass cover and other shallow rooted plants are beneficial over a septic field. However, do not plant trees because large plant roots can clog or break the pipes.
- Avoid compacting the soil over the infiltration area. Do not drive or park vehicles over the area and don't build a shed or driveway in this area. These activities can also crack pipes or cause the distribution box to settle unevenly, meaning that effluent will only flow into part of the drain field.
- Tanks need to be pumped every two to five years, depending on use. If the tank gets too full, particles of scum or sludge will flush out of the tank. This material will clog the drain tiles and cause the septic system to fail.
- Hire a licensed professional (listed in the phone book under "septic tank cleaners") to pump the waste out of your tank. The tank should be pumped out through the manhole, not the smaller inspection ports. The tank should be cleaned completely, leaving **nothing** in the tank. Make sure the baffles are inspected and that the tank is checked for leaks.

ADDITIONAL REFERENCES

The following fact sheets are available free of charge at your local county University of Maryland Cooperative Extension Service office.

WR 22 *Ground Water Protection: An Introduction*
WR 24 *Septic Tank Soil Absorption Systems*
WR 25 *Water Conservation in the Home*

WR 28 *Maintaining Your Septic Tank*
WR 29 *Using Septic Tank Soil Absorption Systems in MD*
WR 30 *Correcting Septic System Problems*

Published 1992 Revised 1993



The University of Maryland is equal opportunity. The University's policies, programs, and activities are in conformance with pertinent Federal and State laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, gender, and disability. Inquiries regarding compliance with Title VI of the Civil Rights Act 1964, as amended; Title IX of the Educational Amendments; Section 504 of the Rehabilitation Act of 1973; and the Americans with Disability Act of 1990; or related leg requirements should be directed to the Director of Personnel/Human Relations, Office of the Dean, College of Agriculture, Summers Hall, College Park, MD 20742.

SEPTIC *Continued*

Septic System Location

Sketch the location of your septic system in the box to the right. Show the location of the septic tank, distribution box, and tile lines or seepage pit. Indicate the distance of the septic system from your house and your well. In newer homes, note the area designated for your replacement field (should the original field ever fail).

Locating the components of your system can be difficult. Note where your drain pipe leaves the house; this will point you in the direction of the septic tank. A search in this area may reveal the septic tank inspection ports and shallow depressions marking the trenches. Unfortunately, the tank is usually unmarked. If you can not find any signs of your system, the local Health Department might have your building records on file. (In winter months, the tile lines and septic tank are usually the last place frost forms, and the first place snow melts in your yard.) Once you locate an unmarked tank, place a marker in the ground above the inspection ports and the clean-out man-hole cover. Or, measure their exact distances from at least two reference points (such as a tree and the corner of the house) so you can easily find them again.

RECORDS

INSTALLED BY: _____

DATE INSTALLED: _____ SIZE OF TANK: _____

TILED FIELD ☐ DEEP TRENCH ☐ SEEPAGE PIT ☐ SANDMOUND ☐ HOLDING TANK ☐

NUMBER OF TRENCHES OR PITS: _____

MAINTENANCE

<u>DATE</u>	<u>WORK PERFORMED</u>	<u>COMPANY</u>	<u>COST</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

HOMEOWNER MAINTENANCE TIPS & GUIDELINES

Section I. Understanding Your New Home	2
Section II. The Structure and The Site	5
<i>Foundations, Frames and Supports</i>	<i>5</i>
<i>Pests and Enemies</i>	<i>6</i>
Section III. Managing Your Home's Systems	8
<i>Electrical Systems</i>	<i>8</i>
<i>Heating and Cooling Systems</i>	<i>9</i>
<i>Plumbing and Water Systems</i>	<i>12</i>
<i>Security Systems</i>	<i>23</i>
<i>Appliances</i>	<i>23</i>
Section IV. On The Surface	25
<i>Interior Surfaces</i>	<i>25</i>
<i>Granite</i>	<i>29</i>
<i>Windows</i>	<i>34</i>
<i>Exterior Surfaces/Garage Doors</i>	<i>35</i>
<i>Painting and Staining</i>	<i>40</i>
<i>Drives, Walks and Patios</i>	<i>43</i>
<i>Landscaping</i>	<i>44</i>
<i>Sump Pumps</i>	<i>47</i>
<i>Sprinkler Systems</i>	<i>48</i>
Section V. As The Seasons Pass	50
<i>Insulation</i>	<i>50</i>
<i>Winterizing in Cold Weather/Seasonal Tips</i>	<i>50</i>
<i>Balancing Air Flow for Change of Seasons</i>	<i>52</i>
<i>Stormy Weather</i>	<i>52</i>
<i>Air Conditioning</i>	<i>54</i>
<i>Winterizing Lawn Sprinkler System</i>	<i>57</i>
Section VI. Living Well Is The Best!	60

SECTION I UNDERSTANDING YOUR NEW HOME

There is a lot of excitement and much to learn when you move into your new home.

In a brand new home, things often do go bump in the night. When new houses are constructed, the wood used for the frame and trim often contains a good bit of moisture. The heightened moisture content facilitates cutting and nailing and minimizes splitting. Once the house is enclosed and heated, the moisture content of the wood will gradually decrease and stabilize. As the wood goes through this drying process, some shrinkage, warpage, and less often, splitting may occur. When this happens, some new homeowners become alarmed by the sharp cracking noises, nail pops through painted drywall surfaces, cracks in drywall, and gaps where trim pieces join together. Once the moisture content of the wood stabilizes, (generally in about one year) these events will stop appearing and at that time can be corrected.



Builders expect these things. It is important that you also understand and expect these things to occur. Remember that the builder already has plans to make the adjustments, but it is necessary to wait until the wood moisture content stabilizes (generally about one year). The builder will make a one-time repair to correct these problems; that is why it is important that you wait for the drying process to finish. Shrinkage of caulk, which may occur after the onetime repair, is your responsibility to repair. After the one-time service, care of the drywall is your responsibility. Most repairs can be made easily and is best done when you plan to repaint the room. It is important for the homeowner to understand also, the builder is not responsible for drywall flaws that are visible only under particular lighting conditions. We certainly hope you do not let such predictable occurrences interfere with the comfort we want you to have in your new home.

Some of the equipment in your new home comes with a warranty from the manufacturer. A one-year warranty for performance and workmanship is provided by the builder. A list of subcontractor's phone numbers is provided along with the equipment warranties that go with your new home. If you should encounter problems, use the contact list provided.

WOOD SHRINKAGE

During the first six months of occupancy, you may actually find dimples forming on the surfaces of various pieces of drywall. As the wood parts of the house dry and shrink a bit, the nail points stay relatively fixed within the wood. The sheets of drywall, glued to the surface of the wood pieces are drawn around the nail heads so that a dimple appears. These nails will be reset, spackled over and touched up with fresh paint.

When wood dries, it can warp somewhat too. Whenever a crack opens up in drywall surfaces, it is almost always two pieces of wood which have warped away from each other. Such cracks get retaped, spackled and touched up with paint. Another characteristic of drying wood is that it dries from the outside inward and as a result can often crack or "check" as it does this. Sometimes loud cracking noises akin to gunshot noises can be heard

when such cracks open up. This may sound odd, but in fact, is quite normal during the first year of the house's life.

When trim work is carefully fitted in the house, you will notice all the joints being tight together. Expect some separation and widening of cracks between these joints. These will be filled and touched up after the house has dried.

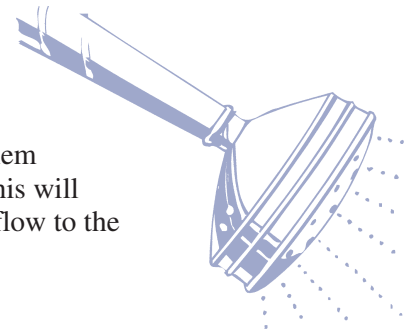
SETTLING IN

Simply living normal lives in our house causes certain things to occur. As we cook, shower, or even exhale, we put moisture into the air within the house. If it is winter and the windows are very cold, this moisture may show up as condensation on the cold surfaces. Bay windows, which are prone to quick cooling from outside wind, are more prone to moisture condensation than other windows. We strive to obtain a moisture balance within our homes and that is why there are exhaust fans in the kitchen and bathrooms and why the clothes dryer is vented to the outside.

It is most desirable to maintain a reasonable level of relative humidity inside the house during the winter. If the moisture in the air falls too low, we may find ourselves with dried up nasal passages, dry skin, and even building up static electricity when we walk across carpeted floors. This is why some homes are equipped with automatic humidifiers on their heating systems. These units add moisture to the air when we need it. When it gets very cold outside, you should lessen the moisture setting on the humidistat for the humidifier.

PRESSURE

When the wind blows very hard it can pull air out of the house. This is said to be a negative pressure. You may notice that a fireplace, which normally functions perfectly, will be a little smoky. In the event this problem should arise, open the window in the room slightly. This will restore the pressure in the room and return normal airflow to the chimney.



WATER HAMMER

Water is heavy. When it moves rapidly through the plumbing supply pipes it builds up momentum. When the dishwasher or washing machine valves stop this rushing water very quickly, the momentum can shock the pipes. The energy can loosen the pipes and they may rattle or “hammer.” Since this is caused by high water pressure, you want to reduce the water pressure using the pressure-reducing valve (usually installed by the main water shutoff).

SOUND TRANSMISSION

Controlling sound transmission in and around a home is directly related to airflow. If the windows or doors of a home fit loosely, outdoor sounds will travel around the gaps and enter the home. Sound from room to room is largely the same. If you want to lessen outside noise entering the house, keep your windows and doors closed and locked. Controlling the

volume of sound between rooms can be more complicated. Since most rooms have doors which have a sizeable gap at the bottom to facilitate re-circulation of conditioned air. Furnishings and floor coverings help to absorb the sound waves. Good manners keep most household sounds down to a happy “hum.” Another form of sound within homes that can be annoying is impact noise. Muffling or damping the original impact best quiets it. Carpets with thick padding are an effective way to reduce sound transmission from one floor to another.

DUST AND DIRT

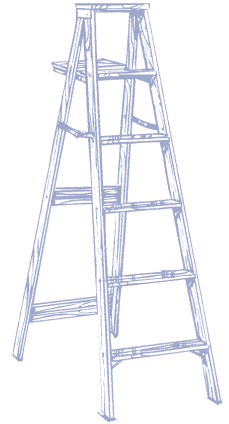
The drier the home or the lower the relative humidity of the air within the home, the greater the likelihood the house will be dusty. In the winter, homes often need to add moisture to their indoor air to maintain comfort and to minimize “breathable” dust. The water used in the humidifier can precipitate minerals, which can then become airborne as dust. Therefore, regular cleaning of your humidifier is wise. Most dirt is tracked into the house from the outsides. Welcome mats and throw rugs go a long way toward capturing this dirt, and lessening the dust buildup.

SECTION II THE STRUCTURE AND THE SITE

FOUNDATIONS, FRAMES AND SUPPORTS

You may think of your foundation and concrete slabs as massive and invulnerable objects; well for the most part, they are. However, damage is possible and prevention is the watchword.

Avoid planting trees close to your foundation. They have a way of growing large over the years and their roots system may drink soil moisture out from under footings or the roots will push against foundation walls. Maintain positive drainage away from the foundation so that roof and yard runoff waters will not be able to press in. Look for voids around or under patios, porches, and walks. Fill them with tightly compacted soil so that water will not be able to consolidate soil or promote settling and heaving. Masonry block foundations may sometimes display a white powder on their inside surfaces. This “efflorescence” is an indicator that moisture is against the outside of the wall. You would do well to heed the warning and improve the exterior drainage on the surface. Check your guttering and downspouts to be sure they are running all the roof runoff water well away from the foundation. If the soil around the foundation has settled somewhat, add fresh soil around foundation. Build soil up near foundation, then taper till level with landscape. You may want to paint the block walls of the basement to make the area appear lighter and brighter. To do this, you can moisten the masonry, which is very porous, with a garden sprayer and then roll on latex paint with a thick napped roller sleeve. The moistened block will allow for the most desirable look. The block will absorb considerably less paint, while not looking too lightly covered. Most often a sump pump is installed in the basement to pick up and discharge this water. **It is important to read the instructions carefully and check the pump frequently.** You should consider supplementing it with a DC battery backup model, especially if you are in an area which experiences frequent power outages.



ATTICS – CRAWL SPACES

New homes benefit from the usage of materials that were not available in the past. Trusses, which sometimes make up roof and floor framing, may allow both wider spans and greater strength. These materials often are assemblages of individual wood pieces and it is important that no individual pieces be removed. Homeowners are sometimes tempted to cut through these individual “chords” of attic trusses to make access to storage areas. This is a very destructive and dangerous practice. The attic was neither designed nor intended for storage. Access to this area is for maintenance. When you perform necessary tasks in the attic, do not step off of wood frame, as you could cause damage or, worse, personal injury. Damage to ceiling below is not covered in your limited warranty. Should you wish to install “pull down” stairs or make other changes, it is possible to do so without any cutting as long as you work parallel to the run of the trusses.

PESTS AND ENEMIES

WATER-INTRUSION AND DRAINAGE SYSTEMS

All building foundations must be prepared to deal with the effects of soil and water in soil. This is one of the functions of the guttering and downspouts. That roof-water collection system must remain capable of shunting its water well away from the foundation. Inevitably, leaves and debris will collect in the gutters and spouts. Keep your gutters clean. Use strainers in the downspout connections to prevent blocking up downspouts and extension piping. The soil surrounding the foundation of the home is soil that was previously excavated to make way for the building of the foundation. This back-filled earth will gradually compact as it settles. Weather conditions play a large part in how much settling will occur. Be prepared to reestablish a positive slope of grading soil away from your foundation after a year or two. The positive slope away from the foundation is a measure of water-intrusion protection. Gemcraft Homes has provided downspout “splash blocks” or “leader pipes” at the bottom of the downspouts. The splash blocks never clog up with leaves or debris, however it is necessary to check that they deliver all of the runoff water sufficiently far from the foundation. Signs of dampness on the inside of your foundation wall or moss growing are indications of standing water near the spouts. In this case you may want to consider attaching flexible solid plastic piping to extend the drainage flow. Standing water along foundation suggests that you may need to build up the landscape grading as well.

Gardens are best placed away from foundations. They require soil aeration and frequent watering, which can cause water penetration. Find a sunny spot away from the house.

INSECTS, PESTS & “CRITTERS”

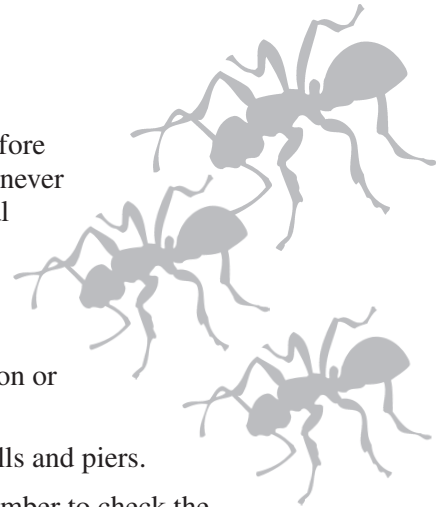
New building sites are treated to destroy termites before construction. However, this does not mean you will never experience a problem. Termites can cause substantial damage, and the termite family lives happily everywhere.

Check annually for signs of termites such as:

- Earthen tunnels at ground level near the foundation or points where pipes enter the house.
- Points where wood meets masonry, including walls and piers.
- Check all wood that is close to the ground. Remember to check the crawl spaces; these areas are good locations for termite infestations.
- Watch for termite swarms or the shed wings. You can check wood for termite damage with a knifepoint or an awl. If the point enters farther than an inch with gentle pressure, there is probably termite damage.

If you suspect termites are present, call a professional pest-control company.

Carpenter bees, carpenter ants, and a small number of beetles actively consume the wood in, and on, homes. In many areas the soil under and around the foundation is treated



with chemicals to create a chemical barrier to protect the home from such pests. This is another reason why it is not wise to allow roof and yard runoff to wash through the soil. Drainage here can wash away the chemical barriers.

PET-RELATED INSECTS

Ticks and fleas can be a burden if they infest your home. The best solution is prevention. Check with your veterinarian for a good flea and tick program for your pet and clean their bedding often.

In wooded areas your home may seem inviting to small animals such as squirrels, raccoons, moles, and mice. Even where there is no wild life, a neighborhood cat may enjoy prowling on your property. It is wise to keep trash in containers with securely closed lids. These visitors may carry fleas and ticks to leave behind, as well as creating a lot of mess when they forage.

HOW TO HELP KEEP INSECTS AND PESTS OUT OF YOUR HOUSE

The National Pest Control Association offers a few good tips to minimize insect problems.

- Clean insect hiding areas of your house, places such as cracks and crevices in floors, baseboards and vents.
- Get rid of inside trash daily. Make sure that trash is stored outside in tightly closed containers.
- Screen all doors and windows and keep the screens in good condition,
- Keep food in tightly closed containers.
- Clean up spills and crumbs completely.
- Keep your pets insect free.

If you use pesticides, safety first, buy EPA-registered pesticides designed for your particular problem and follow all label directions carefully (including disposal). Remember to store carefully.

SECTION III MANAGING YOUR HOME'S SYSTEMS

ELECTRICAL SYSTEMS

CIRCUIT BREAKERS AND GFCIs

Know the location of the breaker panel; it includes a main shut-off that controls all electrical power to the home. Individual breakers control the separate circuits. Each breaker is marked to help you identify which breaker is connected to a specified area in your home, or major appliance. Should a power failure occur in any part of your home, check the breakers in the main panel box. Circuit breakers have three main positions: “on,” “off” and “tripped.” When a breaker is “tripped,” it must first be turned “off,” then “on” or service will not be restored.

Check each circuit breaker every six months. Snap the breaker “off” by pushing the lever all the way to the “off” position and then switch it back to “on.” If you have trouble resetting any breakers, mark them, and next time you call an electrician have him/her bring the right size of replacement.

CAUTION: Do not trip the breakers for air conditioning or heat pump equipment while the equipment is running.

Ground Fault Circuit Interrupt Services (GFCI) are especially sensitive breakers designed to protect electrical outlets in locations where significant shock hazards exist. Typically, the bathroom, garage, and exterior breakers will trip quickly when a slight leakage of current to ground is detected. You may well find that you have no power to any or all of these outlets after an especially heavy rain or steamy shower. If the power is off at such an outlet simply push the “reset” button on the device. You may find the device itself right at the outlet or it may be located within the main distribution panel. Test GFCI devices every month. These devices are more sophisticated than regular breakers and are more prone to failure, so push that test button once a month. The reset button should pop out and the power should be restored when you push the reset button. If the power is not restored, or if the power does not go off when you push the test button, call an electrician to replace the device.

If you lose the electrical power in your home, check the main circuit breaker in the distribution panel. If it has snapped “off,” push it farther into the “off” position, then snap it back to “on.” If the main breaker is in the “on” position, call the power company and ask how long it will be until power is restored. If the power company confirms that the power is out in your area, do not open the panel. Avoid using candles, especially if there are small children in the home. This is a very easy way to start a fire. Use flashlights. Keep the refrigerator closed, and if the power company expects an extensive delay in restoring power, ask them where you can obtain some dry ice to put in your refrigerator. If the weather is extremely cold and you expect to be without power for an extended period of time, it's probably a good idea to use the fireplace for greater comfort. Also, take precautions to prevent freezing pipes too.

SMOKE ALARMS

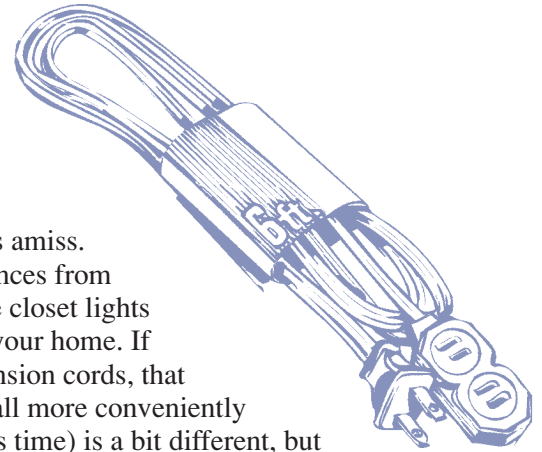
Many of the new homes we build will contain smoke alarms that are wired into the electrical system of the home. There is some wisdom to having a back up to the hard-wired

smoke alarm. Install battery operated smoke alarms so in the event of electrical failure, your family will be protected. If your alarms have test buttons on them, check the devices by pushing the buttons at least once a month.

Some smoke alarms go off when a little smoke comes from kitchen cooking equipment or even after a steamy shower. Usually fanning the device with a towel or piece of paper will cause air to circulate through it and it will stop the alarm. If a device proves to be routinely troublesome in this manner, try replacing it with a new device or relocating the device. Do not disable or disconnect smoke detectors. They have saved lives, many, many times and should always be considered an important part of your family's protection system.

EXTENSION CORDS

The electrical outlets in your new home have been carefully placed so that you should not need extension cords inside your home. About the only place you might want to use extension cords would be outside. If you find yourself regularly using extension cords inside the house, something is amiss. You may be trying to service too many appliances from a single outlet or you may be using things like closet lights etc. which were never intended to be used in your home. If you actually do find yourself using short extension cords, that should be a signal that you really need to install more conveniently placed outlets. Short-term use (as at Christmas time) is a bit different, but even then you must be careful not to "overload."



If you use outside extension cords to deliver power to tools or appliances make sure that the extension cord is at least as thick as the power cord from the tool or appliance. Thinner cords will often overheat. Absolutely never allow extension cords to pass through walls or floors or beneath carpeting.

HEATING AND COOLING SYSTEMS

FORCED AIR SYSTEMS

The duct system that circulates the air in a home is carefully designed to deliver the exact amount of air at the right temperature into the right sized space. There is a match between the heating and cooling loads and the air delivery. Because these loads will change with the seasons, there is a need to adjust the air delivery system seasonally.

During the winter season more air is directed to the lower levels and in the warmer months more air is delivered to the upper levels. This is accomplished by manipulating "duct damper" levers on the trunk lines and adjusting the register grill dampers.

Uniform air delivery along an entire ducted system is maintained by varying size ducts. The central trunk lines decrease in size as run-outs tap them to take air to various registers ensuring that the right amount of air is delivered. Existing ducted systems are difficult to modify or expand because changes will almost always mean additional taps or taps in new

places which will lessen the pressure both at site and downstream from the new run-outs. This is why it is rarely advisable to finish a basement and try to heat and cool it with the existing duct system.

HEATING AND COOLING SYSTEMS

The U.S. Consumer Product Safety Commission (CPSC) and the National Propane Gas Association (NPGA) suggest the following safety tips for proper care of propane tanks in severe snowstorms:

- Use a broom instead of a shovel when clearing snow off the tank or around the exposed piping, regulator, gauges, or tubing.
- When clearing the roof, avoid shoveling snow onto exposed piping around the propane regulator near the building or onto the propane tank and piping, as well as any meters or other piping that may be in use.
- Check regulator vents on the propane system to be sure they are free of snow, ice or water that could freeze. (A two-stage system has a regulator on the tank and at the entrance of the propane piping to the building; a single regulator is on the tank.) If a regulator vent is clogged with ice or snow, contact your propane supplier immediately.
- Check all gas appliance exhaust and combustion air vents, such as dryer or furnace vents, to be sure they are kept clear of snow and ice.

Before a snow storm occurs:

- In areas where heavy snows are expected, cover the regulator, relief valves, and fill valves with a protective cap or "dome." This dome will keep out snow, ice, or rain which might clog the regulator if it freezes. In systems using more than one regulator, or where the cover is not in place, make certain the exposed regulator vent is in the downward position to keep out moisture.
- Prior to heavy snow storms, mark the location of the propane tank and other equipment with snow stakes which should extend well above the maximum anticipated snow depth. Consumers whose tanks and piping are not presently marked should mark them now.

NATURAL AND LP GAS

The most common gas heating equipment in residential use is natural gas. It is piped underground from a central system. Natural gas is very clean burning and needs very little service. An annual check-up of the system is recommended. There are some small but important clues to malfunction that could easily be overlooked. Be wise. If you notice such things as a yellowish flame (out of adjustment), condensation from chimneys (very cold climates), or dripping water from attached air conditioning equipment (during humid weather), call for service.

FUEL OIL

Fuel oil burners work by forcing oil through a tiny opening to atomize it and mix it with fan driven air to form a combustible mixture. The oil/air mixture gets out of adjustment as the

opening wears. Poorly adjusted burners will quickly waste a lot of fuel, and under severe conditions can become dangerous. Adjustments and cleaning are definite necessities and require professional equipment. It is highly recommended that oil-burning equipment be kept under professional maintenance care. Your oil company may offer a maintenance contract. If not, mark your calendar to ensure regular service. It is a good idea to keep fuel oil tanks full during the off season. High relative humidity in summer air can condense inside cold earth temperature tanks and sink to the bottom. This is how burners shut off in the winter (since a line full of water will not sustain burning), and how tanks rust out on the bottom.

If you should find that your oil burner will not respond to the thermostat, first check your circuit panel to be sure there is electrical power flowing through the circuit breaker and that the emergency shutoff switch is set to the on position. If you are sure power is available check the burner on the furnace or boiler itself. Find the red “reset” button and push it. Call for professional service if the burner does not start running.

ELECTRIC HEATING

Thin wires will heat up as electricity flows through them. An example of this is the metal burners on the top of cooking equipment. Forced air systems use a series of resistance elements to heat air within ducting. The furnace wiring and controls should be checked yearly in such systems. These systems are especially vulnerable to dripping condensed water from air conditioning equipment. Electric baseboard units tend to collect dust from air circulating through them and should be cleaned every six months. These units can get very hot, so drapery and furnishings must be kept at least twelve inches away from them. Electric radiant units do not heat the air. They heat objects.

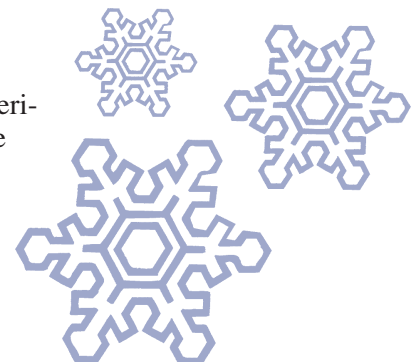
Electricity is not an efficient heat producer when used to energize resistance elements, although it is quite efficient when turning a motor. This is why electricity is used primarily for motorized systems, rather than as the basic heat producer for large areas, and why heat pumps are so efficient!

HEAT PUMP

If your home contains a heat pump system, you should be aware of the performance characteristics unique to these systems. As with any system, read the manufacturer's literature and follow all instructions for efficient operation and maintenance of your system. Clean or replace filters once a month. Provide professional service for your system at least once every two years.

Keep the outside unit clear of any materials that would interfere with air circulation. Snow, ice, landscaping materials, trash, leaves, and other accumulating items can cause inefficiency or damage the unit.

A heat pump system operates differently from a gas forced-air furnace. The same system provides both heat and air conditioning. This is possible because a refrigerant flows back and forth in the coils of the heat pump,



controlled by a reversing valve. In the heating mode, the heat pump removes heat from the outside air and transfers it to the inside air. In the cooling mode, it does just the opposite, removing heat from the inside air and discharging it outside of the home. The thermostat inside your home controls this heating or cooling activity.

Do not expect dramatic temperature differences in the air coming from the vents as is common with other kinds of systems. The coils used in a heat pump system operate at lower temperatures than those common in a gas forced-air system. As a result, for example, in the heat mode, air from the supply vents will typically range from 85 to 90 degrees F. The vents will not feel hot, though the air discharged is warmer than the air in the room by as much as 20 degrees.

At lower outside temperatures, less heat is available for the heat pump to draw from the exterior air. Therefore, from time to time the auxiliary heat system will come on to maintain the temperature you set at the thermostat. The auxiliary system will also come on whenever the temperature at the thermostat is moved 1.5 degrees or more at one time. If the light stays on when the outside temperature is more than 30 degrees F, contact a service person.

When the heat pump is operating in the heat mode, the coils outside may reach below freezing temperatures. Moisture in the air will condense into frost and accumulate on the coils under these circumstances. From time to time, the system will go into defrost mode to clear accumulated frost from the coils. This is a normal part of the operation of the system and will occur automatically. During the defrost cycle, the outside fan will stop temporarily. The temperature of air flow into the home will be a bit lower during the defrost cycle. The defrost cycle can only occur once every 90 minutes and lasts no longer than 10 minutes.

Unless you have a night setback thermostat designed to work with a heat pump system, do not turn the thermostat down in the evenings. Adjust the temperature a fraction of a degree at a time until a comfortable, permanent setting is found.

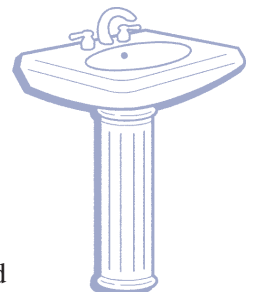
Registers will require adjustment from time to time to maximize your family's comfort. Do not completely close off more than one supply register at a time. This can restrict the air flow too much and reduce the efficiency of the system. A good technique is to completely open all the vents, then gradually move the temperature setting up until the coolest room is comfortable. Once the coolest room is comfortable, gradually close the vents in the warmer rooms until all rooms are comfortable as well. Reverse the process for air conditioning.

As with any heating system, return air vents must be clear so the air flows through the ducts unimpeded. Avoid placing furniture where it blocks the return air vents.

PLUMBING AND WATER SYSTEMS

Private water supply and septic disposal systems for residential homes require more understanding and care than public systems. There is more equipment involved and it belongs to you. Your utility bills are cheaper, but you must maintain your own system. All types of wells operate with pumps, holding tanks and controls. Well water may need some conditioning and maintenance, and regular inspections are called for on the mechanical equipment.

It is also wise to check the water from time to time. There are packaged



water testing systems that are easy to use. Simply follow the directions and the testing company will analyze your water by mail. Testing according to the Environmental Protection Agency's Safe Drinking Water Act of 1974 is generally considered the more comprehensive approach. Almost any water testing laboratory you choose will offer a range of tests for various impurities and elements that might be in the water. It is wise to use the EPA's guidelines.

Depending upon the results, you may want or need treatment of the water itself. There are many companies and processes which can treat water. Treatments should only follow testing. You won't know what to treat for unless you know what is in your water. As a word of caution, some ion exchange treatment methods exchange a sodium ion for a ferrous or other ion in the water. If someone in the home is on a low sodium diet, such treatment might best be supplemented with a "point of use" treatment for the drinking and cooking water for that person. Water quality can change and that is why periodic testing is recommended.

The pumps and motors of well equipment may need periodic maintenance and repair or replacement. Longest life is generally obtained from equipment by keeping it well maintained. This type of work is best left to professionals. The pressure of the water through the system is most often controllable by an automatic switch located near the storage tank. Do not make an adjustment to the system without the advice of your company.

The storage tank, and the piping around it, may sweat with condensation during hot and humid seasons. The water from the well is cold and unless the space around the equipment is air conditioned or dehumidified, you can expect some of that humidity to condense on the cold surfaces. You may want to wrap the piping and tank with insulating materials to lessen the condensation. The storage tanks for well equipment are intended to contain water and also to contain a portion of air so that the pressure in the system is modulated. If the tank were full of water, the moment a tap was opened the pressure would drop and the pump would turn on. The moment a tap was closed, the pressure would rise and the pump would shut off. This short cycling would be hard on the equipment and the pipes. The air cushion in the tank tempers this. Some tanks contain membranes or bags against which air is injected to maintain a cushion, while other tanks simply trap air in the top of the tank.

Membrane tanks usually have valve stems similar to the ones found on the tires of your car. If the pump short cycles, the tank may need air. Occasionally membranes rupture and must be replaced. Air trapped at the top of a standard storage tank will gradually dissolve into the water in the tank. Air is forced back into the tank by turning off the water supply to it and draining the tank so that it can refill with air. The pressure of the pumped water will compress the air when the inlet valve is reopened.

Some wells have the pump on the bottom of the well (submersible) to push water upward. Others have the pump above the well (jet) to force water down into the well through a thin pipe, and then around a "jet" body at the base of the well which draws well water up into the house through a thicker pipe. Submersible pumps must be drawn up out of the well for repairs (they can get stuck) while the jet pumps can be repaired or replaced more readily. Jet pumps rely on a strong pressure down into the well to work. If air gets into the system, it will lose pressure and won't be able to lift water very high or very quickly from a well. These pumps are sensitive to pressure adjustments.

Have your well equipment serviced by a competent company every two years or whenever you suspect a problem. Accompany the technician and ask questions about how the system is supposed to work and what you can do to ensure that it will perform efficiently. Remember, when the electric power goes out, your well cannot operate so avoid using the tap water lest you drain the system. If you run the taps when the pump is not running you may have trouble getting jet pumps to work properly again without service.

PLUMBING

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

As a result of implementing this standard, flushing twice is occasionally necessary to completely empty the toilet bowl. Even though you flush twice on occasion, rest assured that overall you are saving water and we have complied with the law. Similarly, flow restrictors are manufactured into most faucets and all shower heads and cannot be removed. We apologize for any inconvenience this may cause.

AERATORS

Even though your plumbing lines have been flushed to remove dirt and foreign matter, small amounts of minerals may enter the line. Aerators on the faucets strain much of this from your water. Minerals caught in these aerators may cause the faucets to drip because washers wear more rapidly when they come in contact with foreign matter.

BASEMENT CONSTRUCTION

If you perform any construction in your basement, ensure that the plumbing lines in the basement or crawl space are not isolated from the heating source without insulation being added.

CLEANING

Follow manufacturer's directions for cleaning fixtures. Avoid abrasive cleansers. They remove the shiny finish and leave behind a porous surface that is difficult to keep clean. Clean plumbing fixtures with a soft sponge and soapy water (a nonabrasive cleaner or a liquid detergent is usually recommended by manufacturers). Then polish the fixtures with a dry cloth to prevent water spots. Care for brass fixtures with a good-quality brass cleaner, available at most hardware stores.

CLOGS

The main causes of toilet clogs are domestic items such as disposable diapers, excessive amounts of toilet paper, sanitary supplies, Q-tips, dental floss, and children's toys. Improper garbage disposal use also causes many plumbing clogs. Always use plenty of cold water

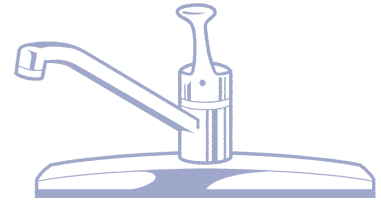
when running the disposal. This recommendation also applies to grease; supplied with a steady flow of cold water, the grease congeals and is cut up by the blades. If you use hot water, the grease remains a liquid, then cools and solidifies in the sewer line. Allow the water to run 10 to 15 seconds after shutting off the disposal.

You can usually clear clogged traps with a plumber's helper (plunger). If you use chemical agents, follow directions carefully to avoid personal injury or damage to the fixtures.

Clean a plunger drain stopper – usually found in bathroom sinks – by loosening the nut under the sink at the back, pulling out the rod attached to the plunger, and lifting the stopper. Clean and return the mechanism to its original position.

DRIPPING FAUCET

You can repair a dripping faucet by shutting off the water at the valve directly under the sink, then removing the faucet stem, changing the washer, and reinstalling the faucet stem. The shower head is repaired the same way. Replace the washer with another of the same type and size. You can minimize the frequency of this repair by remembering not to turn faucets off with excessive force. (Please note that some manufacturers do not use rubber washers.)



EXTENDED ABSENCE

If you plan to be away for an extended period, you should drain your water supply lines. To do this, shut off the main supply line and open the faucets to relieve pressure in the lines. You may also wish to shut off the water heater. Do this by turning off the cold water supply valve on top and the gas control at the bottom. Drain the tank by running a hose from the spigot on the bottom to the basement floor drain. If you leave the tank full, keep the pilot on and set the temperature to its lowest or "vacation" setting. Check manufacturer's directions for additional hints and instructions.

FREEZING PIPES

Provided the home is heated at a normal level, pipes should not freeze at temperatures above 0 degrees F. Set the heat at 65 degrees F if you are away during winter months. Keep garage doors closed to protect plumbing lines running through this area from freezing temperatures.

In unusually frigid weather or if you will be gone more than a day or two, open cabinet doors to allow warm air to circulate around pipes. Use an ordinary hair dryer to thaw pipes that are frozen. Never use an open flame.

GOLD OR BRASS FINISH

Avoid using any abrasive cleaners on gold or antique brass fixtures. Use only mild detergent and water or a cleaning product recommended by the manufacturer.

LAUNDRY TUB

If you have a laundry room tub, the faucet does not have an aerator. This is to allow the tub faucet to accept a hose connection.

LEAKS

If a major plumbing leak occurs, the first step is to turn off the supply of water to the area involved. This may mean shutting off the water to the entire home. Then contact the appropriate contractor.

LOW PRESSURE

Occasional cleaning of the aerators on your faucets (normally every three to four months) will allow proper flow of water. The water department controls the overall water pressure.

MARBLE OR MANUFACTURED MARBLE

Marble and manufactured marble will not chip as readily as porcelain enamel but can be damaged by a sharp blow. Avoid abrasive cleansers or razor blades on manufactured marble; both damage the surface. Always mix hot and cold water at manufactured marble sinks; running only hot water can damage the sink.

OUTSIDE FAUCETS

Outside faucets must be winterized in order to be freeze-proof. You must remove hoses during cold weather, even if the faucet is located in your garage. If a hose is left attached, the water that remains in the hose can freeze and expand back into the pipe, causing a break in the line. Repair of a broken line that feeds an exterior faucet is a maintenance item.

To winterize an outside faucet you must close the inside valve in the supply line feeding the faucet. The outside faucet is then opened and the petcock on the inside valve uncapped to allow the water to drain from the inside valve through the outside faucet. Don't lose the cap!

CARE AND MAINTENANCE OF GRANITE

The natural granite you have purchased is an investment that will give you many years of beautiful service. Granite is a natural product and simple care and maintenance will keep it looking beautiful for decades.

Sealing:

We recommend sealing your granite tops after installation using any natural stone sealer. Most granites should be sealed every 1-4 years, with some granites requiring less frequent sealing. Sealing is an easy process that requires minimal time and effort and will assist in maintaining the beauty of your tops, by creating a repellent barrier.

Cleaning Recommendations:

Simply clean your surfaces with a specially formulated neutral cleaner or a mild

dishwashing detergent and warm water.

Too much cleaner or soap may leave a film and cause streaks.

Do's:

Do use a soft cloth.

Do thoroughly rinse the surface after washing.

Do blot up spills immediately.

Don'ts:

Don't use abrasive dry cleaners (i.e. Comet) or soft cleaners (i.e. SoftScrub).

Avoid use of lemon juice or other chemicals high in acid or alkaline.

Don't leave spills on the tops for a prolonged period of time.

Miscellaneous Info:

Use the flat side of a razor blade for removing residue from tape, dried food, paint, glue, etc. Use #0000 or finer steel wool to remove dried water spots, hazy areas, and residue. Do not use steel wool wet.

Scratching and staining on granite surfaces is rare because of the material's hardness. If you have stained your stone, don't worry. As it is a natural stone and has porosity, the stain may be removed by reversing the staining process. Stain should be treated as soon as possible.

PORCELAIN

You can damage porcelain enamel with a sharp blow from a heavy object or by scratching. Do not stand in the bathtub wearing shoes unless you have placed a protective layer of newspaper over the bottom of the tub. If you splatter paint onto the porcelain enamel surfaces during redecorating, wipe it up immediately. If a spot dries before you notice it, use a recommended solvent.

RUNNING TOILET

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

SHUT-OFFS

Your main water shut-off is located near your meter. You use this shut-off for major water emergencies such as a water line break or when you install a sprinkler system or build an addition to your home. Each toilet has a shut-off on the water line under the tank. Hot and cold shut-offs for each sink are on the water lines under the sink.

SPRINKLERS

You should routinely inspect sprinkler heads and provide seasonal service to maintain proper functioning.

STAINLESS STEEL

Clean stainless steel sinks with soap and water to preserve their luster. Avoid abrasive cleaners; these will damage the finish. An occasional cleaning with a good stainless steel cleaner will enhance the finish. Avoid leaving produce on a stainless steel surface, since prolonged contact with produce can stain the finish.

TANK CARE

Avoid exposing the toilet to blows from sharp or heavy objects, which can cause chipping or cracking. Avoid abnormal pressures against the sides of the tank. It is possible to crack the tank at the points where it is attached to the bowl.

COSMETIC DAMAGE

Gemcraft will correct any fixture damage noted on the orientation list. Repairing chips, scratches, or other surface damage noted subsequent to the orientation list is your responsibility.

EXTERIOR FAUCETS

Gemcraft will repair leaks at exterior faucets noted on the orientation list. Subsequent to orientation, repair of a broken line to an exterior faucet is your responsibility.

FREEZING PIPES

Provided the home is heated at a normal level, pipes should not freeze. Set heat at 65 degrees F if you are away during winter months. Keep garage doors closed to protect plumbing lines that run through this area.

PRIVATE SEPTIC SYSTEMS

When a house has a private septic system, the wastes and bacteria from the household drain, waste, vent (DWV) system within the house must be processed so that only bacteria laden water reaches the land and the bacteria die as the water seeps into the earth. The septic tank promotes this bacterial action and allows only fluid to pass through it; the septic field, pits, or trench system, percolate the fluid through the soil, eliminating oxygen and killing the bacteria. There are many different types of septic systems but they all work essentially this way. The homeowner has little to be concerned about with a private septic system but must be careful to keep grease out of the system (grease can clog the soil and prevent percolation) and have the septic tank pumped out periodically. Mark your calendar to have this done at approximately the same time every three years. Knowing exactly where everything is helps. The access cover to the septic tank will have to be opened both to check the levels of waste (this is what really indicates whether the tank needs to be pumped

or not) and to pump it out. From time to time, the inlet and outlet “T” fittings need to be checked since they are vulnerable to breakage and if they are broken they can allow solids to flow into the percolation area. The percolation area of a private septic system and the piping leading to it are normally quite close to the surface. This is why you should not drive heavy vehicles over the area or plant gardens or trees there. Avoid building decks over septic tanks or in any way interfering with the area. Normal traffic or yard use will not have any negative effect, but do not limit accessibility or create stresses by misuse.

Some septic systems utilize a cistern downstream of the septic tanks to pump liquids uphill to percolation areas located at higher elevations on the property. These tanks usually employ a double set of pumps which operate from a control panel located in the home. These systems should be checked by competent professionals every several years. If you have a garbage disposal system be sure that you use it in ways which will not do damage to your private septic system. Solids and grease are best kept out of the system. Scrape dishes and pour off grease into jars or tins to keep the grease out of the system. While there are any number of products that claim to be beneficial when poured into the drains and wastes of the system and flushed into the septic system, these claims have not been proven to hold much truth. It is not recommended that you add any chemicals or additives to any system without checking with your local building authority.

WATER TREATMENT EQUIPMENT

Water treatment equipment can either be leased or owned. If leased, the leasing company normally changes material within the equipment on a periodic basis. If the equipment is purchased, it is up to the homeowner to maintain the equipment carefully. Simple in line sediment filters usually have cartridges which need to be changed from time to time. Ion exchange equipment normally needs to have rock salt or a similar material added. Treatments for acidity and the like may need balancing agents added periodically. Get instructions from the supplier or installer of the equipment and follow the instructions.

DOMESTIC WATER HEATING

Homes with boilers and hot water heat will sometimes use that boiler to also provide domestic hot water for bathing, clothes washing, and the like. Such a system is called an “integral” system, since the heating of the water takes place within the heating boiler with a separate coil. These are more common in very cold climates where the boiler is operating a high percentage of the year. Most residual domestic water heating is done with tank type heaters. They employ their own heating source. The most common is a gas fired tank, with electric tanks and oil tanks being a little less widely used, Gas fired hot water tanks are usually smaller than electric tanks but slightly larger than oil fired tanks because of their recovery capacity. Burning gas releases a significant amount of energy. This energy is readily transferred to the water in the tank. Electric resistance heating elements release a lesser amount of energy into the water so the amount of water in storage in the tank is larger to more realistically accommodate demand. Burning oil releases a huge amount of energy so the tanks tend to be smaller. Some oil tanks heat water as fast as occupants can draw it through the plumbing pipes.

Water processed through heating tanks can leave scaly deposits on the insides of the tanks. Scale buildups in tanks lessens their efficiency and can shorten their life expectancy, and this is why they should be drained. Since the minerals in the water will vary a great deal, the draining schedule will, also. It is generally recommended that you open the tap on the bottom of the water heater and drain out about five gallons of water every six months or so. If no scale or sediment drains out, discontinue the practice. A lot of scale buildup in an oil or gas fired tank will usually signal its presence by a rumbling noise when the unit turns on. The heat of the flame will cause bubbles to form in the sediment and they will make their way to the top of the tank, causing the noise as they go. Electric immersion element tanks will signal the presence of mineral build up on the elements by a hissing sound when the electricity switches on.

Fossil fueled tanks should be drained to offset this and electric tanks can have their elements pulled and cleaned. It is not uncommon for the electric resistance elements of water heaters to fail after approximately five years. If you run out of hot water more quickly than normal, you may well have an element that no longer works. These are replaceable, but with older tanks, you may want to consider replacing the entire unit.

If you drain the water heater as part of the winterizing process, remember to do so carefully. Never drain an electric water heater without first disconnecting the power. Immersion resistance heating elements will quickly burn out if they are powered but not covered with water. Always turn off the gas control valve on the gas line leading to gas water heaters. Turn off the safety switch for oil units prior to draining them.

The drain valves on water heaters are notorious for dripping after they have been used. You can remedy this with an inexpensive cap from a hardware store. Simply screw the cap over the male tap threaded fitting.

Domestic water heaters are occasionally installed above living space. These units are very heavy when filled with water and can cause a lot of damage if they leak. Such units should be installed with a drip tray under them. The drip tray must be kept clean so that the drain pipe will not clog and cause the tray itself to overflow. Check this tray regularly.

Insufficient hot water from gas or oil tanks usually means that the thermostat did not signal the gas or oil to fire. This is sometimes a minor re-adjustment of the knob that controls the water temperature will get rid of an intermittent problem. Another problem that oil tank units might experience is the burner itself not coming on. The first thing to do is check the safety switch on the tank and any other safety switch (such as at the top of the basement stairs or outside utility rooms) or circuit breaker to see that power is available. Most oil burners have a red "reset" button on them, which can cause a unit to come on if it has turned itself off. Push this button once with the power on and if the unit does not fire, call for service. It is wise to keep oil burning equipment under a maintenance contract.

Tankless water heaters need little maintenance with the exception of the standard gas/electric checks of any water heating equipment.

IMPORTANT VALVES

Every home has a main water shutoff so that if there is ever a break in a pipe, valve, fitting or any other water leaking from the system, the entire water system can be shut off. This valve must be accessible. Make sure everyone in the family knows where it is and what it is

to be used for. This is the valve that you will use to turn off the water and drain the house if you want to winterize it. Do not store things in the area of the main shut off valve so the area remains accessible in case of emergency.

You can normally locate the main water shut off valve by finding the water heater and tracing the cold water pipe backwards. Expect to find it near the front of the house. Occasionally you will find a main shut off valve in a closet or even under the kitchen sink. The important thing is to find it and to make sure it is not too tight to be closed by hand. There is a hang tag on the valve intended to make it easy for you to find it, and to provide you with basic information.

OUTDOOR FAUCETS

The outdoor hose faucets are handy for washing cars, watering the lawn, etc. These faucets are on the exterior of the home so there is the possibility that water may freeze in them in cold weather. Standard outdoor faucets have a valve on the supply pipe feeding it inside the home. This valve must be closed; the outside faucet opened and the petcock on the inside valve uncapped to allow the water to drain from the inside valve through the outside faucet. Don't lose the cap!

DISHWASHER CUTOFF

The dishwasher gets its supply of hot water from under the sink. If there is a leak from the dishwasher that will not stop when the machine is turned off, reach under the sink and close this supply valve.

Individual fixture shutoff valves are located under the sinks, behind the toilets, and behind the tub. These valves allow for more convenient repair of the hardware on the fixtures. If a fixture has a leak at the hardware, close off the valve on the supply pipes to the problem fixture, so that the hardware can be disassembled and repaired.

DRAINS, WASTES, AND VENTS

The DWV system in a house refers to the network of pipes, which take water and waste away from the sinks, tubs, and toilets and deliver it to the sewer or septic system. The DWV system also ensures that sewer gases do not back up and enter the house. These pipes are carefully sized and inclined to handle the discharge of water and to flush solids along the pipes. The DWV system is practically maintenance free. Grease, soap scum, coffee grounds, and hair are the natural enemies of the DWV system. Paint and spackling compound from clean up after a small home improvement job can turn your good intentions into a disaster-never flush them down the drains.

Pull up the stoppers from drains in the tubs and sinks every week or so. You will often find matted hair. Clean the stopper. Attach a wire screen around the discharge hose from washing machines to trap lint. A piece of stocking or panty hose can be used if the discharge hose leads into a laundry tub. Simple maintenance procedures like these will help you to prevent costly repairs to your drains later.

BLOCKAGES

When blockages occur, it is not recommended that you use the extremely caustic liquid drain cleaners. These products can discolor stainless steel kitchen sinks and will work only on a selected few minor clogs. These chemical cleaners may even make the job of cleaning a clog more difficult by creating a hostile liquid solution in the pipe.

Homeowners may attempt to unblock stopped up toilets and sink drains. A plunger works well on most common sink problems. Small hand-operated augers are available for extracting things caught in the trap within the bowl of commodes.

If you choose to try to clear a blockage yourself with a plunger, be sure to block off overflow gaps so that the plunger will not “spit” liquid back up and out of these. There are also aerosol cans available to apply pressure down through a drain to help clear a blockage. If these methods fail, then the trap under the sink can be removed and a “snake” fed down through the drain pipe.

Essentially, a snake is a “thumb,” or metal mass, on the end of a strong but flexible flat metal band. It is rotated and shoved down the pipe to try to push through a clog. It is not intended to scrape the walls of pipe free of debris. Generally speaking, homeowners should stop trying to clear blockages in tub drains if the plunger technique fails. It can be quite difficult to remove a tub trap and even more difficult to get snakes out of the tub drains. Leave this job to professionals. There are professional tools that send a cutting head through a pipe. Those tools can damage some of the plastic piping that may make up your home. Homeowners who treat systems sensibly can generally manage to avoid blockages and pipe buildup. Remember that plastic piping used for drain, waste, vent systems will sometimes give off a ticking sound when it changes temperature. This is not harmful to the house and will stop when the pipe temperature stabilizes.

A common occurrence in new homes is a noticeable lessening of water supply to the bathroom and kitchen fixtures. Most sink and lavatory hardware has an aerator installed in the faucet, which is essentially a screen.

Plumbing hardware often is packed with a powder preservative material, which can make its way into those aerator screens and partially block them. Remove the screw tip from the faucet and flush out the screen. This should restore normal water flow. In hard water areas you may need to do this regularly. Blockages may also occur in individual fixture shutoff valves under the fixture. If ever your washing machine fills slowly on either hot or cold water or both, the inlet screens on the back of the appliance are probably partially blocked. The inlet hoses should be removed and the screens cleaned to restore normal water flow.

PUMPS

Some waste disposal systems utilize pumps to grind up and lift materials to a septic or sewage line at higher elevation. These pumps must remain well sealed and normally operate with a check valve in the discharge liquid. Do not use such waste disposal systems if the power goes out.

SUMP PUMPS

Some houses utilize sump pumps to protect the lower levels from water seepage or flooding. This mechanical equipment is normally operated from house power and, naturally, will

not work when the power goes off. There are battery back up units for such pumps, which ensure their continued operation even in a power outage. If you feel this is necessary you should consider installing the type with battery backup. If your house has a sump pump, inform your insurance company which may offer a special damage endorsement in the event the pump fails. Such endorsements are quite inexpensive.

SPECIAL EQUIPMENT

Whirlpool tubs should not be operated with water below the nozzles as the pump may burn out. Most have a float mechanism, which prevents such operation but sometimes the safeties don't work. Lawn sprinklers usually need their distribution valves cleaned once a year. Heads should be cleaned or replaced as needed.

SECURITY SYSTEMS

The most dependable modern security systems for houses are the "hard wired" type which have sensors mounted at the accessible window and door openings connected by solid wires to a processor. The systems usually have motion sensors or other devices within the home. The most sophisticated systems have computers in them. This allows for multiple zone operations. This will allow one section of the house to remain on security while another can be turned off, a great convenience at times you are entertaining on the patio, or watching TV upstairs. If you plan on installing a security system, you are advised to choose a name brand and to have it installed by professionals. Quality systems that are going to be relied upon must be maintained properly, and you must be scrupulous about following manufacturer's directions. The system cannot work on your behalf if you do not manage it properly.

APPLIANCES

While most of your energy costs are incurred in heating and cooling your home and in producing hot water, appliance operations can also be costly. You can use the energy guide attached to appliances and follow conservation tips put out by your utility company to ensure that your appliances are not wasteful. The following information will give you an overview of some of the most used-and important-appliances in your everyday life.

WASHING MACHINES

Keep the water supply turned off when the machine is not being used for an extended period of time (as when you are away on vacation), so that pressure does not remain in the flexible feed hoses. If there is a breakage in such a hose, you could have extensive water damage. Occasionally the hoses should be disconnected from the back of the washing machine to clean the screens on the inlet water fittings. Clean soap and sediment buildup from beneath agitators. Keep a strainer on the outlet hose to prevent lint from going down the drains.

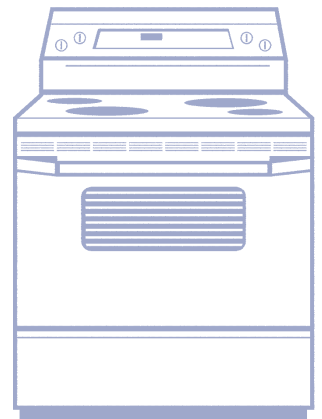
DRYERS

Make sure the vents are hooked up properly and kept clean and that the flapper closes tightly to keep cold air from entering the house in the winter. Clean the lint filter after each use. Allowing lint to build up in the filter makes drying time longer and more costly. This also causes your dryer to work harder.

COOKING EQUIPMENT

Cleaning cooking equipment is best done lightly and often. Continuous-cleaning and self-cleaning ovens are more utility conserving because of their heavy insulation, and their treated surfaces are helpful but spills should be cleaned up right away anyhow. Don't wait for a major oven cleanup. Clean regularly. Please see literature provided with your specific range. Wipe out the underneath area regularly. Soak gas burners and detachable flame tubes in a baking soda and water solution to remove grease. Rinse them thoroughly, then dry and reinstall. Use a simple ammonia and water solution to wipe down self-cleaning ovens.

Use only non-abrasive cleaners on ceramic cooktops. Follow the manufacturers instructions. Do not use metal bottomed cookware on ceramic cooktops unless the manufacturer recommends it.



REFRIGERATORS

The refrigerator will work more efficiently if you occasionally dust off the coil located behind it or under it. The energy the refrigerator removes from the food within it is discharged to the air via this coil, the dust collected makes it work that much harder. Use a long-handled soft brush to keep the coils clean.

Most frost-free refrigerators have tiny heaters in the freezer to turn frost into liquid, which drains down into the heating coils beneath the unit. Wipe the inside of the refrigerator with a vinegar and water solution every few months. Keep a fresh box of open baking soda stored in the refrigerator to absorb odors and change it about every six weeks. Moisture builds up quickly in refrigerators during humid weather, especially around the door gasket. If left there, the moisture can promote a buildup of mold and mildew. Run a cloth around the folds of the gaskets every several days during very humid weather to dry and help ward off mildew. Clean any mildew with a commercial mildew spray or a very mild bleach and water solution, allow it to remain on for five minutes, then wipe it off and rinse the gasket with a clean water-soaked cloth.

Keep refrigerators level via the adjustable feet on the bottom and allow for air circulation around them. Be careful when moving refrigerators to clean behind them. While some have rollers, quite a few do not and scratched flooring is often the result, not to mention sore backs!

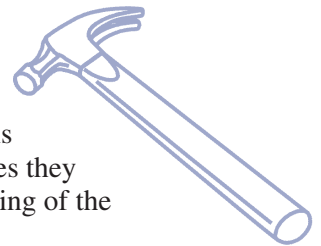
SECTION IV ON THE SURFACE

INTERIOR SURFACES

WALL AND CEILING

Materials Most modern walls and ceilings are made of drywall. Essentially this is a hard gypsum material within a paper sheath. It is usually installed in large boards or sheets measuring 4 feet by 12 feet. Glue is applied to the wood framing members and then the boards are either nailed or screwed to them. As the wood dries and shrinks, the nail points tend to stay fixed in the board as the sheet is drawn inward with the shrinking wood surfaces. This causes the heads of the nails to appear to “pop” outward leaving a convex dimple on the surface of the material or actually breaking through the surface to expose a nail head covered with spackle. The nails only serve to hold the sheets or boards in place long enough for the glue to set. If the drywall has in fact been glued, nails that have popped can be pulled out and the area spackled over.

However, if the drywall is secured only by the nails, then the popped nails should be pulled out, replaced with nails driven in at an angle and then spackled over. Then joints where the sheets of drywall are “taped” by applying a perforated paper tape along the length of the joint and then pressing drywall compound through the tape and over its surface. This joint is allowed to dry and then two more successive coatings of drywall compound are applied to feather it wider and smoother. It is then sanded or sponged smooth and prime painted. After the primer dries, it is touched up by spackling low areas and sanding high areas. After the touch up work, it is ready for paint. Sometimes taped joints will lift, and sometimes they will split, if framing members beneath warp or move with drying of the building. These things are easily repaired.



BATHROOMS

The tile around your bath fixtures is impervious to water but the grouting between the pieces isn't. This is why you should be careful to mop up any water, which gets out on the floor when you use the shower. If it stands there long enough it will work its way through the grout or it will leak through tiny separations near the tub, walls, or water closets.

When houses are new, tile setters will often use grout to close the joint between the tub and the bottom of the tile work. This joint is best closed with tub and tile caulking. After the wood framing in the house dries and shrinks, the gap between the tub and the tile will probably widen. Every homeowner comes to know that tub and tile caulking around the bathroom is a necessity at regular intervals. Caulking is needed between the tub and the bottom of the tile, around the tub base at the floor, around the water closet, behind the escutcheon covers around the hardware penetrations through the tile, and around the tracks for the shower doors and over the screws holding the tracks.

One clever method of ensuring a quality caulking job is to first remove any old grout or tile

and then weight the tub by filling it with water and standing in it. This will widen the gap between the wall tile and the tub to its maximum. When the caulking is pressed in place and the tub is unweighted by draining it, the gap closes a bit and pinches the tub and tile caulking tight. This helps get a more durable job.

Mildew is a fungus that spreads through the air in microscopic spores. They love moist damp places and feed on surfaces or dirt. In showers, they look like dirt. Cleaning and maintaining this is the homeowners responsibility. You can do this with solutions that remove mildew. Use precautions such as protective eyewear or rubber gloves while using these chemicals. You can keep your tile and any glass shower surrounds clean of soap scum and mildew buildup by toweling them off after each shower and by routinely using bathroom exhaust fans.

The toilet itself will sometimes loosen on its flange beneath the floor when wood members dry and shrink. If you can rock it back and forth or lift it slightly away from the floor, tighten it more securely by tightening the nuts on each side of the bowl flange.

KITCHENS

Most kitchen cabinets need only regular surface cleaning to remain fresh looking and maintain their good condition. The cabinets that seem to get the most abuse are the well cabinet above the cooking equipment and the sink base cabinet. A light cleaning after each use will keep the appearance of these cabinets matching the rest of the kitchen. Try to avoid overloading certain cabinets. Some people stock heavy canned goods two and three high to fill a cabinet. Such a group of cans can weigh more than 100 pounds. Spread out heavy loads so that shelving and cabinet fasteners are not subjected to unreasonable stress.

Use child protection devices to keep children from reaching cleansers and other potentially harmful products stored under the kitchen sink. Ordinary kitchen basins can act as storage bins under sinks and can help avoid problems which occur from leaks, spills and wet sink helpers. Children hanging or swinging on drawers or doors will usually break them. Never cut things on Formica or similar laminate countertop material. Small cuts or scratches will appear and dirt will get trapped there creating a "dingy" appearance. Use a cutting board for cutting things. Never set hot pots or cooking utensils down directly on laminate countertops because they can burn. It is a relatively easy matter to install a cutting board or a ceramic piece in a cutout portion of a laminate countertop to accommodate hot pots or cutting knives. Clean per manufacturer's instructions.

Ceramic tile tops will get dirty, especially in the grout lines. Sealers are available to protect against this, but you must make sure the tile and the seal are compatible. Check with the tile supplier.

Rubber drain mats can trap moisture beneath them, causing the laminated plastic to warp and blister. Dry the surface as needed.

Separation of countertops from walls, backsplash and around sinks results from normal shrinkage of materials, but should be caulked immediately to prevent water infiltration.

DISHWASHERS

Your dishwasher is not a garbage disposal. It really is a good idea to scrape food scraps from dishes and rinse prior to loading the dishwasher. Otherwise, the debris will end up in the screening at the bottom of the machine and may create an odor or clog the machine. Some of it may be discharged via the pump mechanism and may contribute to a blockage in the discharge hose as well. Remove the racks and wipe them and the inside casing with a vinegar and water solution every several months. Remove any utensils or food particles from the bottom regularly.

Clean the gasket along the bottom of the door closure frequently. Soap buildups here can prevent a tight seal on the gasket and a leak may result. Dishwashers usually pump water out through a thin hose leading to an “air gap” or “vacuum breaker” on the sink top. The idea is to allow air to follow the rushing water and help it flush out. If water cascades out of this air gap, the thicker hose draining away from this gap may be either partially or totally blocked. Since this hose usually attaches to the disposer, things like coffee grounds dumped into the disposer can and often do block up the inlet area. Try to dislodge a dishwasher discharge hose blockage by cupping your hand around the air gap and blowing down through it. If this does not work, remove the “radiator” type clamp securing the hose to the disposer or drain and pull the hose off. Use a piece of coat hanger wire to dislodge the blockage and reattach the hose.

GARBAGE DISPOSERS

Garbage disposers must be used with care. Always keep the feed guard in place so that utensils are less likely to drop in. Keep glass out of the disposer and avoid pouring grease or coffee grounds into it. The solids that exit the disposer are hard on your plumbing system and hard on public or private waste disposal systems.

Don't leave garbage in disposer overnight it can block dishwasher discharge hoses and cause water to spill from the air gap at the sink top. It can also decay and smell bad.

Some disposers are the batch feed type which switch on and off only when a protective cover is lowered into the throat of the unit and twisted. There are magnetic switches there which make the circuit.

Clean and freshen the garbage disposer by grinding up lemon or orange peelings inside of them. You can rid them of persistent foul odors usually attributable to bacteria by:

- Disconnecting the trap and stopping up the drain from the dishwasher.
- Pouring a 50% bleach and water solution and allowing it to stand in the disposer for several hours.
- Draining off the bleach/water solution.
- Reconnecting the piping.

Never reach down into the garbage disposer without cutting of the power since they may turn on when your hand/wrist activates the magnetic switches.

EXHAUST FANS

Both the external and recirculating exhaust fans in kitchens catch grease in a filter which must be kept clean for effective performance. Either soak the filters in an ammonia and water solution or wash them in the dishwasher. Replace the charcoal type element in recirculating filters every six months. Clean those parts of the fan blades and ducting which you can reach with a detergent dampened cloth.

INSTANT HOT WATER

Sink top hot water dispensers deliver water that is hot enough to make instant coffee, tea, or soups. They are a great convenience. But this water is also hot enough to scald people so instruct everyone to be careful. There is usually a thermostat setting on the device below the sink, if you find that you wish to change the water temperature.

Granite Care Instructions

Granite is the most durable of all stones, second only to diamonds. While durable and low maintenance, however, it is not impervious to damage. Proper care ensures the longevity and beauty expected from this premium product. Granite countertops are hard and can withstand a falling can of soup, but the polished surface is a bit more delicate.

The Granite you have purchased for your home or office is an investment that will provide many years of beautiful service. Here are some recommendations for routine care and cleaning:

Avoiding Scratches

Knives will not scratch granite, although cutting on your countertops is not recommended as your knives will dull very quickly. Damage may also occur on the surface over time in the way of light cut marks and eventually an abrasive surface.

Quartz and diamonds can certainly scratch granite. Certain stoneware dishes contain rough silica sand and also pose a risk of scratching, as do some pizza-stones if they are spun around while cutting the pizza. If you use a marble cutting board make sure the rubber or plastic feet remain secure. If the marble ends up rubbing on the granite this may also pose a scratching risk.

Avoiding Chips

Chips in granite are not a common occurrence. When they do happen, chips are most often caused by banging something into the edge of the countertop. Heavy pots and pans and the bottoms of large bottles do most of the damage. Take care when you handle them around your granite. If a chip does occur and you find the piece that chipped out, save it. Most of the time, it can be professionally re-attached using epoxy. Avoid Adding Weight to Countertop Edges

While granite countertops are very durable, you want to do your best to eliminate any chance of damaging them. One of the ways you can prevent damage is to avoid putting any unnecessary weight on the edges or surface of the countertops. This can include grabbing on to the countertops for balance or using the countertops to climb up and reach a high shelf, wall surface or light fixture. This added pressure and weight can cause damage to the edge of your granite countertops, which can take away from the overall beauty of the granite.

Hot pans

High and low temperatures will not harm granite in any way. You can take a pan off the stove or a dish out of the oven and set it directly on your countertop without damage. If you have a seam in your countertop it is best to avoid setting hot materials on top of it. The epoxy in the seam is heat resistant, but can be melted if exposed to heat for an extended period. Please be careful not to set hot pans near flammable materials or near under mounted composite sinks.

Bath and Other Wet Areas

In the bath or other wet areas, soap scum can be minimized by using a squeegee after each use. To remove soap scum, use a non-acidic soap scum remover.

GRANITE CARE *Continued*

Avoid Harsh Cleaning Products

Just like foods and beverages that contain high levels of acid, some common household cleaners also have high levels of acid and other chemicals. Products of this nature have the potential to damage your new granite countertop. If you must use anything other than water to help clean up a spill, use something mild like dish soap to avoid damaging the granite.

Sealing the Granite

It is suggested that a penetrating sealant be applied once a year. Avoid using a stone sealer that will not penetrate the stone, as it will create a cloudy surface that will have to be removed by stripping the entire countertop using harsh solvents. Remember, the glossy shine isn't caused by a coating on the surface, but by expert polishing using diamond polishing tools.

DO'S

- DO dust surfaces frequently with a soft, clean cloth.
- DO "blot" up spills immediately, before they penetrate the surface.
- DO clean surfaces with a few drops of pH balanced dishwashing liquid and warm water. Rinse after washing with the soap solution and dry completely with a soft, clean cloth to avoid streaks. (Too much soap may also leave a film and cause streaks)
- DO wipe clean any countertops that come into contact with cooking oil. While stains are rare, they are caused most frequently by cooking oil.
- DO remove a stain on granite, with a mixture (paste) of one cup of flour, 1-2 tablespoons of pH balanced dishwashing liquid (or hydrogen peroxide for oil based stains) with water to make a fairly thick paste (just so it doesn't run), like peanut butter. If it's too thick it will take a long time to dry.
 - Clean the stained area with distilled water and pH dishwashing liquid.
Remember to "blot" rather than wipe. Then rinse, but don't dry.
 - Apply the paste to the stained area with a plastic spatula, overlapping the stain by at least 1/4" and avoiding air pockets.
 - Cover the paste with plastic wrap and tape around the edges of the plastic using painters tape (don't use regular masking tape, it's too sticky). Let it sit for 24 hours or until thoroughly dry.
 - Remove the plastic cover and check to see if the paste has dried. If it has not, allow it to sit uncovered until thoroughly dry. Once it is dry, remove the paste by scraping with a wooden /plastic spatula, or debit card, and rinse the area with distilled water and dry with a soft cloth.
 - Examine the stain. If it still remains, but is somewhat lighter, re-process up to five more times.
- DO scrape off a hard substance stuck to the surface, and lime build up, by gently scraping with a hard and thin object like a debit card or **new** single sided razor blade.

DON'TS

- DO NOT leave acidic liquids (vinegar, lemon juice, orange juice, lime juice, soft drinks and wine) on its surface for long, as they can etch the surface and dull the finish. Polished granite counter-tops are rather delicate and must be treated with more care.
- DO NOT use cleaners that contain bleach, ammonia, acid or alkaline such as bathroom cleaners, grout cleaners, abrasive cleaners (liquid or powder), lime removers, or tub and tile cleaners.
- DO NOT use scouring powders or creams; these products contain abrasives that may scratch the surface.
- DO NOT store bottles of cooking oil directly on your granite counter top.

GRANITE CARE *Continued*

- DO NOT store metal pots and pans on your countertops, as rust can and will stain the granite. The sealer is not a waterproofing agent. If your granite darkens when it is wet do not be alarmed. It will return to its original color when the water evaporates.
- DO NOT slide appliances, utensils or pots and pans on the surface of the granite, as they may scratch the polished surface.
- DO NOT apply a stone sealer that will not penetrate granite, as these harsh solvents are hard to remove and may need to be removed professionally.

We hope you enjoy your new granite countertops for years to come.

For more information or to schedule a service appointment, please contact your installer:

Gemcraft Homes does not manufacture products or stone cleaning/maintenance products. Gemcraft Homes provides the information contained herein to its customers as an information source only and under no circumstances shall Gemcraft Homes be liable for any costs, losses, expenses or damages (whether direct or indirect, consequential, special, economic or financial including any losses of profits) whatsoever that may be incurred through the use of this information. Use at your own risk.

SINKS

Porcelain covered cast iron sinks can stain so be careful to keep them clean. Do not leave carbon steel utensils in sinks or wet on countertops where they can rust and stain. Check to make sure of the materials used in all your utensils and use common sense about their “rust factor” and likelihood of damage. Keep the sink lip/countertop gap securely caulked with clear silicone caulking. Make sure the back of the sink next to the backsplash is well caulked as water will often trap there and damage the countertop.

RESILIENT FLOORS

Wipe up spills and vacuum crumbs instead of washing resilient floors frequently with water. Limit mopping or washing with clear water; excessive amounts of water will seep through the seams and dampen edges causing flooring material to lift and curl. Moving furniture across resilient floor cover will cause dents and tears. Use protective coasters on furniture. Extra pieces of flooring materials are left in event that patching is necessary. Call a professional for any kind of repair work to floor. Use products from specific manufacturer for cleaning.

HARDWOOD FLOORS

Hardwood flooring in new houses are pre-finished. The custom installations and finishes utilize flooring that butts tightly together at the edges. The pre-finished flooring has a bevel on the upper edges so slight differences in height will go unnoticed. The custom finished flooring will tend to be installed very tightly together and then the gaps between boards will widen a bit as the material dries. This is to be expected.

Wood flooring is normally cleaned every six months or so. Flooring which has been coated with polyurethane is best. Never wet mop a hard wood floor, this may cause wood to expand and damage floor. Use products from specific manufacturer for cleaning.

Wood floors respond noticeably to changes in humidity in your home, especially during winter months. The individual planks, they expand and contract as water content in them increases and decreases. A humidifier helps but does not eliminate this reaction. Expect some shrinkage around heat vents and any heat-producing appliances. Please maintain humidity level as recommended by manufacturer.

Heavy objects dropped on rigid flooring pieces can crack them. These pieces can be scratched so put pads on the flooring if furniture or equipment will be moved across it. If sealers are used over such materials, they will eventually wear off or be scratched.

Other damages to hardwood floors comes from traffic, which dulls the finish and sun. Exposure to direct sunlight can cause irreparable damage to your hardwood floor. Install window coverings on windows in these areas.

Resilient flooring materials are generally applied in squares or in sheet goods. More require very little maintenance though they are relatively soft on the surface and can scratch or tear, seams are known to open up and adhesives injected beneath the edges with syringe type glue drivers are the usual remedies. After the glue is injected beneath the loose portions, a heavy weight is applied to hold the flooring tight to the substrate. While most resilient flooring materials advertise themselves as “no wax” finishes, it is often prudent to apply a

surface coating of wax. After several waxings, it is best to remove all of the wax with a commercial stripper and start fresh. A waxed “no wax” floor will last longer.

No matter what the carpeting material, it is almost impossible to vacuum too much. Dirt in carpeting acts as an abrasive against the fibers and will wear it out more quickly. If seams of carpeting open up, they can be held together either with a double-faced tape applied to the flooring beneath or with monofilament stitching.

MILLWORK

Wood working shops make up such useful and decorative wood pieces as newel posts, balustrades and mantles. They fit the pieces carefully and assemble them. Sometimes they come with nail or staple holes left. They are meant to be filled on site. These pieces will often come with pegs that fit in holes drilled to accommodate screws. This is common with stair work. If you find the stair work loosening simply remove the pegs and tighten the screws. When splits or separations occur in stained millwork, putty is the usual remedy. Splits and holes in painted millwork are usually filled with putty or glazing compound.

Locks on doors should be lubricated with graphite or other waterproof lubricant. Avoid oil, as it will gum up as it ages, exterior wood will develop minor cracks and raised grain. Much of this will occur during the first year. Raised grain permits moisture to get under the paint and can result in peeling. This is not a defect in the material; paint maintenance of wood trim and gutters is homeowners' responsibility. Paint touch ups are visible under certain lighting conditions; it is best to make repairs when planning to repaint entire surface. On stained surface, color variations will result when stain is applied to good quality wood; this is normal and does not need repair. With today's water-based paint, often wood grain becomes visible through painted trim; this is up to the homeowner to repaint. The builder does not provide corrections for this condition.

EXTERIOR SURFACES

ROOFING

Homeowners must know enough about their roofs to know when repairs are needed, but they must gather their information carefully. It is painfully easy to fall from a roof. Twigs and wet leaves can put you on the ground very quickly. Unless you are very experienced with ladders and roof work, you are advised to keep off your own roof and to rely on professionals to keep you apprised of your roofs condition.

The most common roof shingling material is asphalt shingles. These shingles provide good all-around protection. They overlap for penetration protection. Hail and severe winds can damage them. Observe the roof closely from the ground after major storms and look for missing materials.

Whenever you make a trip into the attic, carry a flashlight and look at the underside of the roof sheathing around chimneys, plumbing back vent piping, and anywhere else something penetrates through the roof surface. Look under the places where roofing adjoins side-walls and where two roof slopes meet in a valley. If you see dark stains, it may indicate leakage. Have professional repairs made upon the discovery of any damages or leaks.

There are a variety of other materials used for roofing, and the general rule of homeowner maintenance is the same. Look for missing pieces and keep debris off the roof. Flat roofs are of particular concern since they often collect water and leakage tends to be severe. The built up tar and gravel type are usually protected from the sunlight by gravel or coatings. The gravel must be repositioned from time to time since the wind can blow it around

GUTTERS AND LEADERS

Almost all houses have gutters, which collect and control the roof runoff waters. Uncontrolled roof runoff is routinely responsible for all manner of damage to homes. When tall trees are around houses their leaves invariably end up in the gutters. It is wise to install guards in the downspout openings in the gutters to prevent clogging. Gutter cleaning is the price of protecting the house from spilling water soaking into the soil next to the house. In some cases, gutter screens are helpful but more often than not they simply add to the complexity of gutter cleaning.

The most common guttering material is aluminum and the seams and joints are kept water tight with caulking material. Supports for the gutters should be at two-foot intervals. Supports will have to be tightened from time to time. Spikes and supports through thin fascia boards will not remain secure; drive supports into rafter tails. Use caution when leaning ladders against gutters; this may cause dents.

The water exiting the downspouts must be controlled, and the farther it is gotten away from the foundation the better. Small amounts of water after a heavy rain will remain in gutter, but will quickly evaporate. This is expected and the builder makes no adjustments for this. While concrete splash blocks are often sufficient, solid piping may be needed. The proper delivery of gutter water away from foundations is critical toward maintaining dry basements and crawl spaces. Sometimes gutters overflow; the secret to controlling gutter overflow is to add downspouts. Clear excess snow away from downspouts as soon as possible to allow the gutter to drain and prevent damages. Severe ice or snow storms can damage gutters; this is not covered by the limited warranty.

AUTOMATIC GARAGE DOORS

If you have a garage door opener installed after the closing on your home, we suggest you have it installed by the company that provided and installed your original garage door. To prevent damage to garage door opener, make sure door is unlocked completely. Automatic garage doors sometimes need adjustment. The adjustment takes place at the opener. The door can be opened manually in the event of a power failure by pulling the rope that hangs down from the track where the door hardware attaches. Check the automatic reversing function by sticking a couple of rolled-up newspapers under the middle and running the door down against the tightly rolled papers. It should compress them some, then reverse and back up. Adjust it if it fails to do this.

Garage doors that utilize springs which run along the horizontal tracks close to the ceiling can be made safer by running a stout nylon cord or stainless steel cable through the center of the track. The cord or cable will contain the movement of the spring should it ever break. Secure one end to the framing by the door and the other end to the mount of the door track.

Every six months apply a 30-weight automobile oil or similar lubricant to all moving parts. Check to see that all hardware is tight and operating properly. Avoid over lubricating so it does not drip onto floor or vehicle. If the lock becomes stiff, apply a silicone or graphite lubricant.

GARAGE DOORS

GARAGE DOOR SYSTEM SAFETY - AN AUTOMATIC DECISION

A garage door is the largest moving object in the home. It is often operated by electric door openers. Proper installation, operation and maintenance and testing of the garage door and automatic opener are necessary to provide safe, trouble-free operation. An improperly adjusted garage door or automatic opener can exert deadly force when the door closes. This could lead to serious injury or death from being hit by a closing garage door or from being trapped under the door.

Safety Is Everyone's Business

A few simple precautions can protect your family and friends from potential harm. Please take a few minutes to read the following safety and maintenance tips. Refer to your garage door and opener owner's manual for details specific to the model you own. Then check the operation of your garage door and automatic opener.

Some of the following precautions and warnings are identified with this "Safety Alert Symbol".

This symbol indicates a potential personal safety hazard that can result in injury or death.



Garage Door Openers Are Not Toys

Do not stand or walk under a moving door! Do not let children or adults play "beat the door." It is dangerous and can result in serious injury or death. Adults should set a good example. Know how to use the emergency release, in case someone is pinned by the door.

Do not let children play with or use the transmitters or remote controls. Always place and store them out of the reach of children.

The push-button wall control should be out of reach of children (at least 5 feet from the floor) and away from all moving parts. Mount and use the button where you can clearly see the moving garage door.

Teach Your Children About Garage Door and Opener Safety

Garage door openers are not toys. Careless operation and allowing children to play with or use garage door opener controls can lead to tragic results. Discuss garage door safety with your children. Explain the danger of being trapped under the door.

When using the push-button or transmitter, keep the door in sight until it completely stops moving. Teach children never to play under or near an open garage door.

Teach children to keep their hands and fingers clear of section joints, hinges, track, springs and other door parts. Contact with a moving door or its hardware could cause serious

GARAGE DOORS *Continued*

injury. These injuries can also happen with garage doors that don't have automatic openers.

Routine Maintenance Can Prevent Tragedies

Take a few minutes to inspect and test your complete garage door system. Make monthly inspection and testing a part of your regular routine. Safety is everyone's business. Make garage door and garage door opener safety automatic in your home. Consult owner's manuals for additional recommended maintenance for your models of door and opener.

Test Additional Safety Devices

Garage Door Visual

Inspection:

Springs, Rollers, Pulleys, Cables and Track Lubrication, Door Balance

Testing And Maintaining The Garage Door Opener

There are routine safety and maintenance steps that you should follow once a month. Review your owner's manual for the door opener. If you don't have the owner's manual, look for the opener model number on the back of the power unit and request a manual from the manufacturer.

Reversal Test

Make sure your opener has a reversing feature. If a reversing feature is not present, it should be replaced. Garage door openers manufactured after January 1, 1993 are required by federal law to have advanced safety features which comply with the latest U.L. 325 standards. Contact your manufacturer or installer for additional information.

Test the reversing feature every month.

First, test the balance of the door (see "Testing and Maintaining The Garage Door"). If the door is properly balanced, then proceed.

With the door fully open, place a 1-1/2" thick piece of wood (a 2"x 4" laid flat) on the floor in the center of the door.

Push the transmitter or wall button to close the door. The door must reverse when it strikes the wood. (Note that the bottom part of "one piece doors" must be rigid so that the door will not close without reversing.)

If the door does not reverse, have it repaired or replaced. Have a qualified individual adjust, repair or replace the opener or door.

GARAGE DOORS *Continued*

Force Setting Test

Test the force setting of your garage door opener by holding the bottom of the door as it closes. If the door does not reverse readily, the force may be excessive and need adjusting. See your owner's manual for details on how to make the adjustment. Test the reversing feature after any adjustment.

Additional Safety Devices

Many garage door openers can be equipped with additional safety devices. Consider adding a photo eye or edge sensor as an extra measure of safety to protect against entrapment. Keep in mind that adding more safety devices will not make an old opener meet the current U.L. standards.

Make sure the additional safety devices, such as photo eyes or edge sensors, are properly installed and adjusted (see owners' manual).

Testing and Maintaining The Garage Door

Perform routine maintenance steps once a month. Review your owner's manual for the garage door. If you don't have a manual, look for the model number on the back of the door, or check the lock handle, hinges, or other hardware for the manufacturer's name and request a manual from the manufacturer.

Visual Inspection

Look at the garage door springs, cables, rollers, pulleys, and other door hardware for signs of wear. If you suspect problems, have a qualified person make repairs.

WARNING - Springs are under high tension. Only qualified persons should adjust them.

Garage door springs, cables, brackets and other hardware attached to the springs, are under very high tension and, if handled improperly, can cause serious injury. Only a qualified professional or a mechanically experienced person carefully following the manufacturer's instructions should adjust them. The torsion springs (the springs above the door) should only be adjusted by a professional. Do not attempt to repair or adjust torsion springs yourself.

A restraining cable or other device should be installed on the extension spring (the spring along the side of the door) to help contain the spring if it breaks.

GARAGE DOORS *Continued*

Door Balance

Periodically test the balance of your door.

Start with the door closed.

If you have a garage door opener, use the release mechanism so you can operate the door by hand when doing this test.

You should be able to lift the door smoothly and with little resistance. It should stay open around three to four feet above the floor. If it does not, it is out of adjustment. Have it adjusted by a qualified service person.

Lubrication

Regularly lubricate the moving parts of the door. However, do not lubricate plastic parts such as plastic rollers and plastic idler bearings. Consult the door owner's manual for the manufacturer's recommendation.



Washing and Maintenance of Interior Conventional Paints

In general, as a paint coating increases in gloss, that is, from a flat to a semi-gloss, the washability of the coating increases. Alkyd paints are typically more washable and durable than their latex counterparts; therefore, an alkyd semi-gloss finish is more washable than a latex semi-gloss finish.

On new drywall, the product of choice for most homebuilders is specially designed interior latex flat wall paint. This unique flat wall paint product provides a uniform seal of the drywall and a matte flat finish with excellent touch up capabilities. This is particularly helpful during the final days of construction and during move-in, when the walls may get accidentally marred.

Under normal circumstances, the flat wall paint used allows for satisfactory touch ups or minor repairs to be easily done. However, care must be taken when cleaning flat wall paint.

In order to be successful with the washing and maintenance of interior conventional paints, the following procedures should be used:

1. Latex paints -

Wait one month after application before attempting to wash the painted surface. Remove dirt by washing with a large sponge, lukewarm water and a mild detergent. Do not use bleach, solvents, hot water, undiluted detergents or abrasive cleaners. To remove grease or stains, blot or dab with a soft cloth dampened with mineral spirits and then wash as above.

NOTE: Flat paints should be gently washed, since too much pressure will actually polish the paint and unsightly glossy spots will result. This phenomenon is referred to as "burnishing" and is especially apparent in darker colored latex flats. Semi-gloss paints can be washed with a greater degree of pressure before burnishing will occur.

2. Alkyd or oil based paints -

Wait one week after application to allow paint to fully cure before attempting to wash the painted surface. Remove dirt by washing with a sponge, lukewarm or hot water and a mild detergent. Rinse with clean water. To remove grease or stains, rub with a soft cloth dampened with mineral spirits and then wash as above.

NOTE: Alkyd or oil based coatings have an even higher degree of burnish resistance when washing compared to latex coatings. However, the use of ammoniated or chlorinated cleaners will cause alkyd products to yellow at an accelerated rate and should be avoided. After washing, if scuffs or marks remain visible, or burnishing has occurred, touch up the surface with identical paint that was originally used. On flat finishes, this should be relatively easy with a short nap synthetic roller cover or small polyester or nylon brush, feathering the edges from the center out to the perimeter of the area being painted. On semi-gloss or enamel finishes, the correct method is to repaint the area from one physical break to another.

If an individual's or family's needs dictate that regular hard washings are required, Sherwin Williams recommends higher sheen or enamel finishes be used in high traffic areas. Please consult with a local Sherwin Williams store or representative in order to assist in choosing the right product to meet the end user's expectations.

SIDINGS

Brick, stucco, stone, wood, aluminum, steel, and vinyl are just some of the materials that form the exterior siding of homes. Stucco will crack and aerosol caulking are needed periodically. Brick and stone must be washed off from time to time, while the other sidings must be re-secured and re-caulked from time to time. Wood sidings can be left natural, stained, or painted. Stains tend to last around five years while two and three coat paint systems last seven or more years. (See section on Painting and Staining.) Aluminum, vinyl, and steel sidings will get dirty and they can be pressure washed by machine easily and economically.

Preserved wood is often used to make decks, porches, fences and other exterior structures subject to rot. The wood is treated with toxic chemicals, which prevent wood borer and fungicidal rot. These chemicals mean that the wood must be handled very carefully. Do not burn the wood. The toxic chemicals will volatilize and can be inhaled, harming people or animals.

PAINTING AND STAINING

INTERIOR

When trying to choose what wall or ceiling colors will work best for you and give you the feel you want, it is well to recall some basic rules of thumb about color.

Light colored ceilings give an impression of height while darker ceilings have the effect of bringing it closer to you. The tones like tan, red, yellow, etc. are considered warm or “advancing” colors. Those surfaces will add warmth to the atmosphere and will actually appear closer to you. The blues, greens, etc., are considered cool colors and add an air of serenity and peace while they are also considered “retreating” colors which make surfaces appear farther away.

People who take color coordination seriously study the “color wheel” which is a systematic method of choosing colors that go with each other. Most quality decorating manuals will introduce you to the fundamentals of the color wheel. Make sure you clearly specify colors to contractors and choose the sheen as well. Generally speaking flat paints provide a soft atmosphere and are used for most wall and ceiling surfaces. Bathrooms and kitchens often benefit from satin or semi gloss finish to facilitate cleaning. Trim will often be painted with semi gloss or gloss finishes.

HERE ARE A FEW TECHNIQUES, WHICH SHOULD HELP MAKE ANY PAINTING JOB GO EASIER AND FINISH BETTER:

- Paint one room at a time. Start by gathering furnishings in the center and covering everything with a drop cloth.
- Use the correct tools to work efficiently. Use drop cloths, the correct roller sleeve nap, and a quality paint.
- Be logical. Do ceilings first, walls second, and trim and millwork last.
- Start by “cutting in” those areas which won’t be accessible to coverage by the roller



sleeve. Take a wall or ceiling at a time and prepare about 100 square feet of surface at a time. Use the angled sash tool and wet the edges of the surface so that you can roll the paint into the brushed area. If you are coloring the ceiling a different color from the walls, run your brush along the ceiling and avoid getting any paint on the walls. If the walls and ceiling will be the same color, you don't have to worry about getting any overlapping paint onto the walls.

- Cut in one side wall and 6 or 8 feet along the perpendicular wall joints and then start with the roller to apply paint in smooth even sections to paint a complete swatch from one wall to the other. Allow the paint on the roller to spread evenly and then as a final measure with each swatch roll the dry roller sleeve over the edge of the swatch to smooth the bead of paint that has built up there. Repeat the process until you cover the area you have cut in. Cut in some more and proceed along.
- Cut in walls by cutting in the ceiling first and then side walls and then around windows, doors, switches and outlets, and the baseboard. Run the flat wall paint right up onto the side of the trim for windows and doors and over the sides completely.
- Roll the walls up and down and feather the edge of each rolled swatch.
- Brush out the trim from the top down, starting with the crown molding if there is some. Brush out windows and doors from the inside out. Start painting windows by applying paint next to the glass from the top on down. Do the same for doors. End up by "facing" the edge trim such that the trim parallel to the wall is enameled while that perpendicular to the wall is flat.

Staining of wood is really the practice of soaking colors into the wood. Warm stain will penetrate better and the more stain that is rubbed onto wood the darker it will get. If you wish to touch up stained wood in your new home, remove any wax or clear coating with varsol or sanding and lightly apply stain with a soft cloth. Feather the stain at the edges by lifting the cloth and applying as little stain there as possible. It takes just a little practice to become proficient. Staining can sometimes raise the grain of wood, in which case a light sanding will cut it down. The light sanding is followed by touch up staining, and once that dries thoroughly, sealing with wax or clear coats can follow.

EXTERIOR

You may choose to paint your new home something other than its original colors. Please check with any existing architectural review committees prior to selecting new colors for the exterior. You will want to choose carefully so that you both beautify and protect your home. Painting or staining the outside of your home is a major undertaking and the information here may be most useful to make you a more informed shopper and consumer as you choose a painting contractor. However, in between major professional paint jobs you may wish to freshen your home's appearance or achieve a "new look" by painting the trim. Simply review the tips in the preceding section. Follow directions on the paint products that you use and have fun while sprucing up your home. The very same tips that saved your surfaces will help you achieve a professional looking job on the outside of your home, too.

The prime difference between stains and paints is that stains tend to penetrate into the

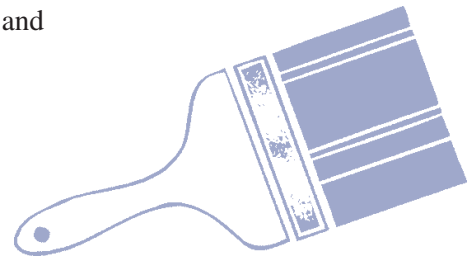
materials they are applied to, while paints form a film over the surfaces. Latex paints are water based and are more permeable to moisture movement through them, while oil paints take longer to dry and are much less forgiving should there be a moisture migration problem.

Expect to caulk and paint the horizontal wood pieces of houses well on exterior more frequently than other areas. The weather has its way there because this is the outside of your home where rain can collect.

The secret to keeping the exterior of a house well preserved is to keep the various joints water tight. Home-owners should choose caulking wisely, apply it well, and paint over it where appropriate. The most common places where this is needed are window sills, the bases of door trim, under thresholds, and around corner boards.

HERE IS A BASIC LIST OF DO'S AND DON'TS WITH REGARD TO PAINTING:

1. Do correct any problems prior to painting.
2. Do choose and use quality materials.
3. Follow the sun when painting. Allow it to dry and warm the surface and then paint in the shade.
4. Never use old or previously frozen paint materials.
5. Never paint when the temperature dips below 40° Fahrenheit.
6. Never paint or stain over damp or dirty surfaces.



Stains and paints fade in the sun. When you touch up an area, expect to paint or stain all the way to an edge if you don't want the fresh work to stand out. Get professional advice before you choose to paint over anything that has already been stained. Rough surfaces tend to do better with stains than paints.

DRIVES, WALKS AND PATIOS

Asphalt contains liquid which needs time to harden and cure. It will be fully cured usually within 6-12 months; until then it will remain pliable and soft. We recommend keeping automobiles off for at least 5 full days, and longer in hot weather.

Even when cured, asphalt can sometimes soften in extreme hot weather and harden as temperatures fall. To temporarily harden hot asphalt, you can water it down with a garden hose. If soap suds should appear, do not be alarmed. This is a reaction between the diesel fuel found in asphalt and the chlorine found in some city water.

Although every effort is made to avoid puddles in your driveway, some shallow ones are inevitable depending on the natural slope and drainage of your ground.

To avoid scarring, do not pull out too fast, pull in too quickly, or drive too fast on your asphalt driveway. During the initial curing time, 6-12 months, don't park in the same spot all the time and don't use a jack stand or car ramps unless you put a piece of plywood underneath to distribute the weight. Do not turn your steering wheel back and forth when the car is not moving.

Large heavy vehicles can depress and cause ruts in your new blacktop. Keep heavy trucks (concrete, oil, landscaping, etc.) off your new driveway. If a camper or other vehicle will be stored for a long period of time, place a piece of plywood under the tongue jack and tires.

Do not walk on your new driveway with pointy high heels, place lawn chairs, bicycle/motor-cycle kick stands, or any other sharp objects on it. They will create holes and depressions.

The edges are the weakest part of your driveway due to the lack of side support. Do not drive on the edges, since they will crack and crumble in time.

Appearance

Your driveway may look smoother in some areas than in others because of the makeup of blacktop. Blacktop is composed of various sizes of stone, sand, liquid asphalt and other ingredients which cause a varied texture of the surface. Also, blacktop areas that have been raked and spread with hand tools may appear different in texture from those spread by machine.

Avoid gasoline, oil, anti-freeze, power steering and transmission fluid spills and leaks. These will dilute the liquid asphalt in your blacktop. Any holes left by these spills should be filled with cold patch. Any hairline cracks that may develop due to the contraction and expansion of the ground should be filled with crack filler.

Seal Coating

To preserve your new driveway, it is advisable to seal coat it after it has been paved. Sealing too soon, however, may cause damage to your new drive. The best time to seal is every 2-3 years. Sealing is done in the Spring, Summer and early Autumn. Because blacktop is naturally porous, water can seep into and through the paving. This not only causes deterioration, but results in ridges and upheaval due to frost and freezing. Asphalt is also softened and broken up by gasoline, lube oil, grease, road salts and antifreeze that will drip from cars. Sealer protects blacktop with a coating that is impervious to these harmful elements.

LANDSCAPING

As a word of caution, it is generally not wise to place plantings very close to foundations of houses with crawl spaces or basements since some settlement of the backfilled earth around the foundation is expected. Choose shrubs and trees according to their size when mature. Time flies, and one of the most common mistakes new homeowners make is placing plantings too close together and too close to the house itself.

Whenever you manipulate the land and plantings you must first consider what effect it will have on drain-



age. Water runs downhill and you must avoid it collecting near the foundation or in puddles. Imagine that the ground is covered with a plastic sheet that you can lift or wrinkle to achieve runoff. The surface of the ground is much like a sheet of plastic in that you can build it up and slope it and build in wrinkles or “swales” to channel water away from areas.

Don't install fencing without really understanding where the property lines are. Make the placement of the fence part of the fencing contractor's responsibility. Most property owners choose to put the fence slightly on their property rather than chance placing it directly on the property line where a mistake could be readily made. The rougher side of the fence usually has to be placed on your side. Many areas have height limitations, and architectural review boards may also have prohibitions. Television antennas must be installed with caution. If you install an aluminum one, be especially careful to keep it away from the power lines. Place it so that the wind can't knock it over onto the lines.

Architectural review committees may restrict antennas to those, which are installed within attic spaces. There may be prohibitions on satellite discs. Decks and pools are best added only after overall planning is done. The materials, workmanship, and time investment may be very much the same whether the project is a grade “A” project or a grade “C” project. The final product can be enormously different, and it all comes down to planning.

ESTABLISHING AND MAINTAINING YOUR NEW LAWN

We would like you to get the most out of your new lawn. In order to fully develop a beautiful lawn, please consider the following recommendations:

1. New lawns need plenty of water. To establish a new lawn you must water everyday, as thoroughly as possible, without creating erosion or washout. It is suggested that you water your new lawn very early in the morning so that the water penetrates the soils, rather than during the heat of the day.
2. Seasonal rain will cause some washouts & settlements within your new lawn. We will return **ONCE** during the first year after settlement to repair washouts & settlements within 10' of your house. **Since there are many factors beyond our control, which effect the establishment of the new lawn, you will be responsible for the establishment of the new lawn.** We are responsible only for initially establishing the proper grades and swales. You will be responsible for maintaining such grades and swales once they have been properly established. Be sure to repair any washouts as soon as possible to minimize erosion.
3. **It is inevitable that some bare spots will occur in any new lawn; this is not a warranty item.** Over seeding of your new lawn with an appropriate seed mix is strongly recommended during the first spring and fall planting seasons. Over seeding is even more effective with a fertilization and aeration program. **Over seeding is a homeowner maintenance item.**
4. Once your lawn has become established, it is very important to maintain a regular lawn care program. It is usually best that you concentrate on fertilization, rather than weed

control the first year. Healthy, regularly fertilized lawns will choke out most weeds naturally. **You should begin to fertilize your lawn as soon as the grass reaches cutting height. We recommend that you fertilize approximately every 3 weeks. We have found this schedule to be successful in this area to provide healthy vigorous growth.** Allow your lawn to become fully established before using weed control products.

5. Fertilize your lawn, water your lawn, & keep it cut to 3-4 inches.
6. Different lawns will require different lawn care treatments. Ask your lawn care specialist to evaluate your lawn and soils to establish the best-suited treatment program.
7. During summer months, do not cut your grass too short. Moisture will remain in the soil longer if the grass is higher and your lawn will be healthier.
8. Until the homes on both sides of your home are completed, we ask that you refrain from planting trees or laying sod within five feet of the property line. Often the establishment of adjoining lawns will require minor work on the property line to properly establish the grading area. This will allow us to better grade and drain adjoining properties, as well as your own.
9. If you plan major plantings or fencing along property lines, a survey is recommended prior to the start of work. Under no circumstances should you plant trees, shrubs or place fences within drainage swale areas or easements.
10. **Once again, watering and fertilization are the most important things you can do for your lawn. Watering and fertilization will be much less expensive than reestablishing a lawn which has not been fully nurtured in the critical first year.**

Please keep these recommendations handy for future reference. Naturally, these are only suggestions and you should contact a lawn care specialist for more specific recommendations. Remember that it takes time and special care to fully establish your new lawn. **It is not uncommon for lawns to take up to three years to become fully established.** Please be patient and follow good lawn care procedures and you will be rewarded with a beautiful lawn.

SUMP PUMPS

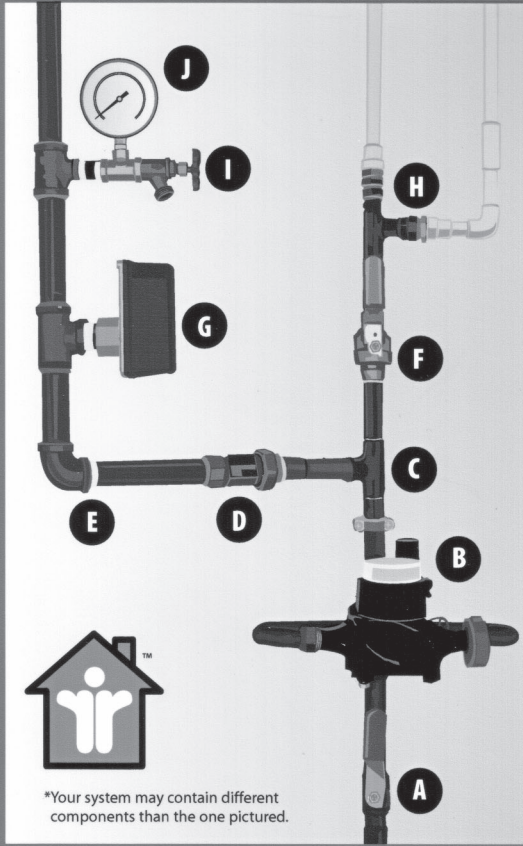
TROUBLESHOOTING CHART

NOTICE: This pump has no serviceable parts inside housing. Opening housing will ruin pump and void warranty. If obstructions or blockages of impeller cannot be cleaned out, replace pump.

⚠ WARNING **Hazardous voltage: can shock, burn or kill.** Unplug pump before attempting to clean or work on pump.

SYMPTOM	PROBABLE CAUSE(S)	CORRECTIVE ACTION
Pump won't start or run.	Blown fuse.	If blown, replace with fuse of proper size. If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company or hydro authority.
	Defective motor.	Replace pump.
	Defective float switch.	Replace Pump.
	Impeller stuck.	Clean impeller.
	Float obstructed.	Remove obstruction.
Pump starts and stops too often.	Backflow of water from piping.	Install or replace check-valve.
	Faulty float switch.	Replace pump.
Pump won't shut off.	Defective float switch.	Replace pump.
	Restricted discharge (obstacle in piping).	Remove pump and clean pump and piping.
	Float obstructed.	Remove obstruction.
Pump operates but delivers little or no water.	Low line voltage.	If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company or hydro authority.
	Something caught in impeller.	Clean out impeller or replace pump.
	Worn or defective parts or plugged impeller.	Clean impeller if plugged; otherwise replace pump.
	Check valve installed without vent hole.	Drill a 1/16" - 1/8" (1.6mm - 3.2mm) diagonal hole between pump discharge & check valve.

HOMEOWNER'S QUICK REFERENCE CARD



*Your system may contain different components than the one pictured.

KNOW YOUR RAPID RESPONSE™ HOME FIRE SPRINKLER SYSTEM*

- A** Main Water Control Valve
- B** Water Meter
- C** "T" Connection to Water Main
- D** Backflow Valve
- E** Water Supply to Sprinkler System
- F** Control Valve For Plumbing System
- G** Flow Switch
- H** Water Supply To Plumbing System
- I** Test and Drain Assembly
- J** Pressure Gauge

Your home has a Rapid Response™ fire sprinkler system. If you have a fire, the sprinklers will control or extinguish it with water. Always remember, in the event of a fire be calm and leave your home immediately. Call the fire department from a neighbor's house. The system protects your family and home from the dangers of fire, 24 hours a day.


In most cases, sprinkler systems are supplied by the **Water Main**, where water comes into a home. The fire sprinkler system connects to the water main. In some systems the water flows through a **Backflow Valve**. A water **Control Valve** is on the pipe that supplies the sprinkler system. This **Control Valve** turns the water flow on and off. Your system may have additional or different features.


Turning off the water to your home will also turn off the water to your sprinkler system.

(Handle under **A**)


QUESTIONS?

Metropolitan Fire Protection, Inc.
7179 Old Alexandria Ferry Rd.
Clinton, MD 20735
Office: 301.868.0005
Toll Free: 888.442.8100
www.metfire.com





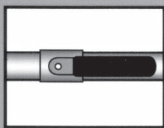
1. Have your system tested once a year.
2. Know the location of the system shutoff valve.
Be sure all other adult occupants are aware of its location as well.
3. Make certain the system control valve is open at all times.
4. Be careful when you are moving large or tall items.
5. Teach children not to touch or play with sprinklers.
6. Keep pictures and large furniture away from sprinklers on walls.
7. Contact the fire department when any activation occurs, even if the fire has apparently been extinguished.



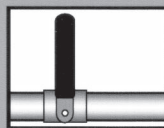
1. Paint the sprinklers or sprinkler cover plates.
2. Hang objects from the sprinklers or sprinkler pipe.
3. Obstruct the sprinklers in any way.
4. Cover the sprinklers.
5. Remove the sprinklers.
6. Turn off or disconnect the system.
7. Bump sprinklers or exposed pipes.
8. Shut off the system in the event of a fire.
9. Stack items close to fire sprinklers.

Control Valves

The Control Valve is **OPEN** when the valve handle is in line with the pipe.

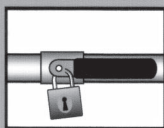


The Control Valve is **CLOSED** (turned off) when it makes a 90 degree angle to the pipe.



Control Valves must be OPEN or turned ON


Use a padlock to keep the valve **LOCKED OPEN**.
(Tape the key to the pipes or a wall nearby.)



Keep the area around your water controls clear.
(Do not store anything within 1 foot of your water controls.)

If sprinkler water Control Valves are ever turned "off", be sure to turn them back on.

Write down the date of each test here:



7. MAINTENANCE TIPS & GUIDELINES - 49

124

SECTION V AS THE SEASONS PASS

INSULATION

Attic insulation should not be flattened by traffic or storage containers. Truss framed attics are not designed to hold heavy weights. Inspect the insulation at the eave edges (where the roof tapers to the attic floor) to be sure it has not blown back with heavy winds. Check wall areas in attics to see that the insulation is still against the backside of finished living space. Avoid temptations to block up attic vents in the winter. Those vents are necessary and blocking them may cause condensation or other problems. If you find barrel-like projections in your attic surrounding lighting fixtures be sure not to put any insulation in there. Those surrounds are there to make sure the lighting fixture does not overheat. Some lighting fixtures projecting through ceilings may be directly covered with insulation but they will state this with a label. Other such fixtures should have 3 inches of air clearance to avoid overheating. Inspect insulation in underhouse crawl-spaces to see that it remains in position and has not fallen down. Do not attach rigid foam insulation to the crawlspace walls or the crawlspace vent in the winter. Rigid foam insulation should be directly covered with a fire protection surface like drywall, and vents in crawlspaces are there to promote air circulation. If a crawl space under a house is very dry and you are certain it will remain that way, then crawl-space vents may be closed in the winter.

WINTERIZING IN COLD WEATHER

It's a good idea to get a few things around the house ready before really cold weather hits.

FALL TIPS

1. Protect outside faucets by removing all garden hoses, turn off inside valve, and then turn on outside valve. This will allow water to drain from the pipes and prevent winter freezing.
2. Keep areaways free of debris to prevent overflows and water damage to basement.
3. Change air filters to protect your Heating and Cooling Unit and to cut down on energy bills.
4. Keep gutters and downspouts clear of leaves and debris to prevent ice damming and water damage. A clogged downspout can cause flooding of basements, water leaks into your home, and termite damage.
5. Change the batteries in your smoke detectors.
6. Check your sump pump for proper operation and be sure that water is draining away from the home at the discharge line.
7. If you have ceiling fans reverse to fan direction to blow up for the heating season.
8. Seal driveways to prevent damages from salts and other ice melting chemicals that may be carried in from the public streets.
9. Check outside caulking for cracks and touch up as necessary to prevent air and water leaks.
10. Maintain positive water flows away from home by filling settled areas.

WINTER TIPS

1. Keep downspouts and gutters clear of leaves to prevent ice build up.
2. Make sure all outside hose bibs are turned off and garden hoses are disconnected to prevent freezing.
3. Keep snow and ice off doorsills and out of sliding glass door tracks.
4. Check sump pump for proper operation.
5. Check areaway drain for debris to prevent icing.
6. Never use salt to remove ice from walks or driveways. Salt will destroy the surface of the concrete. For slippery surfaces use sand or kitty litter.
7. Lube outside locks to prevent freezing.
8. This is the time of year to make sure your refrigerator coils are clean by pulling off the bottom kick panel and vacuuming the coils.
9. Keep snow away from outside heat pumps and fresh air inlets for proper airflow to unit.
10. Always check furnace filters each season for top performance.

SPRING TIPS

1. Check gutter and downspouts for leaves to prevent overflow.
2. Check sump pump for proper operation by making sure that the areaway drain is clear and that water flows away from the sump pump discharge properly.
3. Lawns should be over seeded and fertilized.
4. Turn on outdoor water supplies.
5. Clean window and door sills to allow water to drain properly.
6. Dryer vents should be cleaned to prevent lint build up.
7. Outside air conditioning units should be hosed off to rinse dirt from coils, also inside filters should be changed for top performance.
8. Vacuum under refrigerator to clean built up dust from coils.
9. Driveways and walks should be hosed to remove any salt or chemicals.
10. Outside caulking and painting should be touched up to prevent water damage.
11. Wood decks should have loose nails hammered down, washing and sealing is recommended.

SUMMER TIPS

1. Maintain lawns by daily watering. Fertilizing and over seeding is strongly recommended.
2. Keep gutters, basement areaways and window wells clear of dirt and debris. Keep it

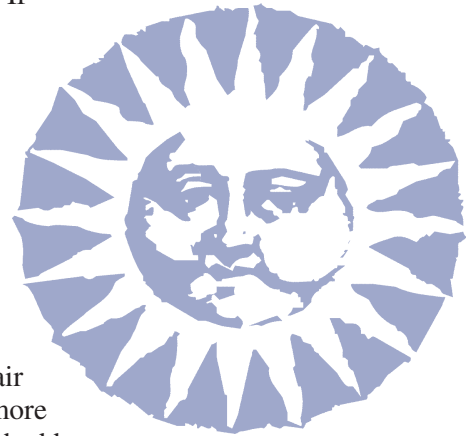
on the schedule after mowing the lawn. This will protect your home from water damage during heavy rains.

3. Maintain positive flows away from home by filling settled areas and washouts.
4. Change the filter in the HVAC unit. This saves money and lengthens the life of the unit.
5. Vacuum under the refrigerator to remove dust that will impair airflow.
6. Clean window and doorsills to remove any dirt or debris. This will prevent weep holes from being clogged and water damage to home due to over flow.
7. Maintain outside caulking to prevent water damage to wood trim and door jams.
8. Caulking and grout on tubs and showers should be inspected. This is very important to prevent damage to tile and vinyl surfaces.
9. Inspect sump pump for operation and positive flow away from home.

BALANCING AIR FLOW FOR CHANGE OF SEASONS

It is most desirable to maintain a reasonable level of relative humidity inside the house during the winter. If the moisture in the air falls too low, we may find ourselves with dried up nasal passages, dry skin, and even building up static electricity when we walk across carpeted floors; this is why some homes are equipped with automatic humidifiers on their heating systems. These units add moisture to the air when we need it. When it gets very cold outside, you should lessen the moisture setting on the humidistat for the humidifier.

Adjust the duct registers to deliver two-thirds of the air to the first floor. During the winter season more air is directed to the lower levels and in warm months more air is delivered to the upper levels. This is accomplished by manipulating “duct damper” levers on trunk lines and adjusting the register grill dampers.



STORMY WEATHER

Be aware that a phenomenon known as “ice damming” may occur when there is a heavy snow on the roof. Look for ice blockages in the guttering and if you find it, be aware that leakage from snow melting above may get into the house. If you find leakage, use cookie sheets or sheets of plastic to catch dripping water in the attic.

Generally speaking, it is not wise to attempt to remove the ice from the guttering since you can easily slip and fall. If you feel you need help, consider calling a roofing company which may be able to send men by to sweep the snow off the roof. If you find that snow or ice has collected around the heat pump unit, turn the thermostat to “emergency” or “supple-

mental heat” until you are able to shovel the snow from around it.

Avoid using salt on driveways, steps, or walkways. The salt can destroy the surface of materials used in these areas and leave you with unsightly damage and springtime repair problems.

To avoid frozen pipes, leave cabinet doors open so heated room air can help warm the pipes, and consider allowing the faucets to drip so that water will not be allowed to stand in the pipes. Fresh (and warmer) water will flow and the standing water which has lost its momentum will get to the fixture and flow down the drain before it has a chance to freeze. Consider obtaining safe space heaters for comfort, to augment the system in exceptionally severe weather or the odd space which never seems to warm up adequately.

Never attempt to heat a frozen pipe so that the steam from melting water will be unable to escape. Never heat frozen pipes with an open flame torch, lest you ignite nearby combustibles. An open flame is difficult to control and potentially very dangerous. If you lose electric power during a cold weather storm keep the windows and doors closed. If you have a fireplace or wood stove, use it. Do not open the refrigerator or freezer any more than is absolutely necessary. If the power is expected to be off for a long time, drain the water from the water piping. Close the main shutoff valve and open the taps at the lowest fixture in the house. Open the taps on the rest of the fixtures to allow the water to drain. Open the petcock on the main shutoff valve. Turn gas water heaters to “pilot” and shut off the circuit breaker to electric water heaters.

If very high wind storms occur, take some blankets and cluster your family in the basement or lowest level until the storm passes.

During periods of prolonged drought, houses that are sited on or near expansive type soils may benefit from soaking the soil near the foundation. Those houses with wood roofing may benefit from intermittent waterings of the roof materials. This is not a waste of water, but a sensible safety precaution.

Hail storms may cause damage without leaving visible evidence. Asphalt roofing shingles may be damaged even though their upper surfaces display no dents or obvious damage. Consult your insurance company if you believe the storm has been severe enough to cause any damage, which may not show up immediately.

Air Conditioner Tips

_ Cleaning _ Operation _ Maintenance _ Other Considerations

As warm weather approaches, it's a good idea to tune up your home's air conditioner or heat pump. Some tips that should help save money and extend the life of the cooling equipment follow.

Provide good air flow to outdoor cooling equipment

The outdoor unit of the air conditioner contains a condensing coil, a type of heat exchanger which depends on large quantities of air flow to dump heat outside your home. Keep this equipment clear of tall grass, leaves and other debris.

Do Not enclose the outdoor unit with solid fencing or dense shrubs, or place the unit under a deck. Provide at least 2 feet of clearance on all sides of the equipment and 5 feet of clearance at the top. Be certain that a clothes dryer is not vented within 10 feet of the outdoor unit. The lint from the dryer will cling to the condensing coil and lower the efficiency of the equipment and its service life.

Keep condensing coil clean

The condensing coil should be cleaned every year or so. This cleaning is usually a part of a regular service contract. The coil is easily accessible and must be chemically cleaned. If the fins in the heat exchanger are bent, they should be straightened with a comb.

Keep the indoor coil clean

The indoor coil, or evaporator coil, is located inside the heat pump or air conditioner cabinet. All the air from the home flows across this coil to be cooled in summer. When air conditioning, the indoor coil is damp, attracts dirt and can harbor mold and other contaminants. A dirty indoor coil wastes energy and cuts the capacity of the cooling equipment. Dirty indoor coils are notorious for reducing the air flow through the equipment. For each 10% reduction in air flow, the efficiency of the equipment drops about 5%. Reduced air flow means less cooling and makes it difficult to maintain a home's comfort in hot weather. The coil should be cleaned every few years, depending on how often the system operates, the efficiency of the filter at trapping dirt, and the airtightness of the ductwork. Leaky ducts often draw in dirt which can accumulate on the indoor coil, so seal the seams in your home's ductwork. Indoor coils are often dirty because they are hard to reach and therefore seldom cleaned. Frequently a service technician will have to cut into the ductwork in order to inspect the indoor coil. The coil should be cleaned with a chemical solution and a soft brush. Typically it takes a couple of hours for a technician to clean the coil and may cost from \$50 to \$200, depending on accessibility. In addition to cleaning the indoor coil, have the technician check the blower. Usually, the blower is readily accessible and can be easily removed and cleaned.

Operate the cooling equipment wisely

To get the most out of your heat pump or air conditioner, for the least cost, operate it efficiently. Start with the thermostat. A higher setting saves money. Try keeping the room air temperature at 80 to 85 degrees and using ceiling and room fans to circulate the air to maintain comfort. Each degree you raise the thermostat can save up to 5% on cooling costs. Any time you will be away from the house for a few hours, be sure to raise the thermostat setting. You will save money and it should only take a few minutes for the cooling equipment to bring the temperature back to a comfortable level after you return.

Shade windows

Over 20% of your air conditioning bill can be due to sunlight streaming through unshaded windows. Keep window curtains drawn during the day to block sunlight. Keeping east and west windows shaded is particularly important as they get the most sunlight in summer. Solar shade screens are another effective way to shade windows. These fiberglass insect screens have a special weave that blocks sunlight. They can be installed in standard screen frames and must be placed on the outside of the window glass. The shade screens are a little darker than conventional insect screening. Some people appreciate the increased privacy they offer.

It's not just the heat... it's the humidity

Reducing moisture levels inside the home can save on cooling costs and improve comfort. Air conditioners and heat pumps dehumidify the air as well as cool it. Much of the excess humidity inside the home comes from humid outdoor air leaking inside. Sealing unwanted air leaks, such as around holes for plumbing and wiring, helps lower interior moisture levels and reduce air conditioning costs.

AIR CONDITIONING *Continued*

Air-Conditioning Tips

Please let the information below, remind you to stay cool and keep your A/C running at peak performance.

The following is information you should know and use to help assure that your Air-conditioning is keeping you as cool as possible and working and cooling as efficiently as possible, saving you money. The following should help you decide if you need a professional to service your Air-conditioning unit.

(1) Air filter(s) MUST be clean. They should be located near the return air duct adjacent to the air handler or in a return air grill(s). Check your air filter every 30 to 90 days to make sure it is clean. Depending of the house, i.e. if you have animals you may need to clean the air filter more often. (Go clean them now!)

(2) Flip the switch on the thermostat for the fan setting to FAN ON, not AUTO. This will run the indoor fan nonstop. The outside A/C unit will still cycle with a call for cooling from the thermostat. The constant air moving will keep you cooler. You can probably keep the thermostat a degree or two higher than normal and still feel comfortable. You will also maintain a more even temperature between upstairs and downstairs. This will SAVE you MONEY because the outdoor condenser will not come on as much!

(3) Make sure that you wash the outside condenser coil once a year. If it's dirty, the A/C will run hot and inefficient. A sign of the coil being dirty is the small exposed copper (pipe) (tubing) line, usually 3/8" O/D connecting the inside unit with the outside unit will be HOT to the touch.

(4) If the small exposed 3/8" copper pipe connecting the inside unit with the outside unit is hot to the touch there can be several reasons why;

- (a) A/C is low on refrigerant
- (b) The outdoor condenser coil is dirty. Those are the two most common reasons for it to

be hot to the touch.

(5) "Warm Rooms" on the lower levels of the house where it is cooler cut back or cut off some vent registers (Diffuser) and make sure that all the ones on the upper floors where it is warmer are open all the way!

(6) "Doors" if you close the door to a room make sure that there is about a 3/4" gap between the bottom of the door and the floor. You may have had carpet put down on the floor and now there is no gap. This is necessary if you have a central return air duct in the hallway. The return air ducts need to pull the warm air from the room.

(7) Never leave the house and turn OFF the A/C. then come back home and turn it on and expect it to cool the house anytime soon. Doing this will not allow the unit to cool down the house for MANY hours. You can set the temperature up five to ten degrees but NOT OFF. This is because of Latent heat buildup in the walls and furniture in the house and will make the A/C work harder to remove the heat, this takes a long time.

(8) Never turn the A/C off then back on in less than five minutes, this will short-cycle the compressor and can trip breakers, blow fuses, or cause permanent damage to the compressor.

(9) Keep blinds closed, curtains drawn, window shades drawn, a working attic fan would be a good idea, plenty of insulation in the ceiling & walls, air tight storm windows, keep outside doors and openings closed, etc.

(10) "Icing of the indoor coil or the large insulated covered copper pipe" "There are two main reasons for this, lack of air flow or low on refrigerant. Lack of air flow can be a dirty air filter, dirty indoor evaporator coil, dirty fan blades, damper in duct restricting air flow.

(11) "Water inside around air-handler" see paragraph 10. The condensate line is a drain pipe coming from the indoor evaporator coil to an indoor drain or to the outside. This can become clogged and cause water to backup and can produce about five gallons of water an hour. This is where all the humidity and moisture from the house goes.

AIR CONDITIONING *Continued*

- (12) You should NEVER need to add refrigerant to a system, if you are adding refrigerant this means that there is a refrigerant leak in the system that SHOULD be fixed!
- (13) Never cover the A/C with plastic or an air tight cover; this will cause it to rust.
- (14) Do NOT let animals (Cats) (Dogs) etc. Urinate on the outside coil. This will cause it to corrode (rust) and then leak refrigerant.
- (15) Keep grass & weeds from blocking air flow on outside A/C.
- (16) Do NOT build a deck close to the top of the outside A/C or anything else that could cause the warm discharge air to re-circulate back to the unit.
- (17) Fuses, Circuit Breakers or wires should never be hot to the touch; if they are hot you may have a sizing problem or a loose or bad electrical connection.

Winterizing Your Lawn Sprinkler System

Every year, before the first freeze, the ritual of irrigation “blow out” becomes the priority for all irrigation systems that are in parts the country where the frost level extends below the depth of the installed piping.

Even if you have drained some water out of the system, the remaining water can freeze, expand and crack the PVC piping (rigid, white pipe), usually from fitting to fitting.

Polyethylene pipe (flexible, black pipe) is used in many freezing climates. Although polyethylene pipe is more flexible and can expand under pressure, water left inside could freeze and rupture the pipe walls. Freezing water in the backflow assembly will damage the internal components and could possibly crack the brass body.

To minimize the risk of freeze damage to your irrigation system, you’ll need to “winterize” your irrigation system

Irrigation systems in areas where “winterization” is mandatory are installed using one of three types of water removal in mind: manual drain, auto drain, or blowout. If you don’t know your system type, it would be best to use the blowout method.

Manual Drain Method

Use when manual valves are located at the end and low points of the irrigation piping. To drain these systems, simply shut off the irrigation water supply (shut off will be located in the basement and will be either a gate/globe valve, ball valve or stop and waste valve - see drawings below) and open all the manual drain valves. Once the water has drained out of the mainline, open the boiler drain valve or the drain cap on the stop and waste valve (whichever is used in your area) and drain all the remaining water that is between the irrigation water shut off valve and the backflow device. Open the test cocks on the backflow device. If your sprinklers have check valves you’ll need to pull up on the sprinklers to allow the water to drain out the bottom of the sprinkler body. Depending on the location of the drain valves, there could be some water left in the backflow, the piping and the sprinklers. When all the water has drained out, close all the manual drain valves.

Automatic Drain Method

Use when automatic drain valves are located at the end and low points of the irrigation piping. These will automatically open and drain water if the pressure in the piping is less than 10 PSI. To activate these, you shut off the irrigation water supply (shut off will be located in the basement and will be either a gate/globe valve, ball valve or stop and waste valve - see drawings below) and activate a station to relieve the system pressure. Once the water has drained out of the mainline, open the boiler drain valve or the drain cap on the stop and waste valve (whichever is used in your area) and drain the remaining water that is between the irrigation water shut off valve and the backflow device. Open the test cocks

on the backflow device. If your sprinklers have check valves you'll need to pull up on the sprinklers to allow the water to drain out the bottom of the sprinkler body. Depending on the location of the drain valves, there could be some water left in the backflow, the piping and in the sprinklers.

In some areas you might have a combination of the manual drain system on the mainline (the pipe between the irrigation water shut off valve and the valves) and auto drain system on the lateral lines (the pipe between the valves and the sprinklers).

"Blow Out" Method

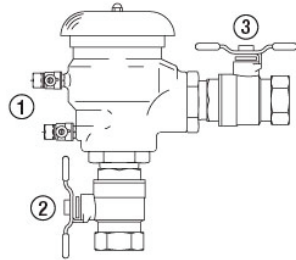
It is recommended that a qualified licensed contractor perform this type of "Winterization" method. The blow out method utilizes an air compressor with a Cubic Foot per Minute (CFM) rating of **125-185 for any mainline of 2" or less and a PSI of 50-80**. These types of compressors can be rented at your local equipment rental yard. The compressor is attached to the mainline via a quick coupler, hose bib or other type connection, which is located before the backflow device. To start the "blow out", open the Test Cocks on the vacuum breaker, shut off the irrigation water supply and open the drain on the supply line. Once the line is drained, close the drain and proceed to connect the air line. With the compressor valve in the closed position, attach the air compressor hose to the fitting. Activate the station on the controller that is the zone or sprinklers highest in elevation and the furthest from the compressor. Do not Close the backflow isolation or Test Cock valves. Slowly open the valve on the compressor; this should gradually introduce air into the irrigation system. The air pressure should be constant at 50 PSI. If the sprinkler heads do not pop up and seal, increase the air until the heads do pop up and seal. **The air pressure should NEVER exceed 80 PSI.**

Each station/zone should be activated starting from the furthest station/zone from the compressor slowly working your way to the closest station/zone to the compressor. Each station/zone should be activated until no water can be seen exiting the heads, this should take approximately two to four minutes per station/zone. It is better to use two or three short cycles per station/zone than to have one long cycle. Once the station/zone is dry, you should not continue to blow air through the pipe. Compressed air moving through dry pipes can cause friction, which will create heat and the heat could cause damage.

Additional Steps

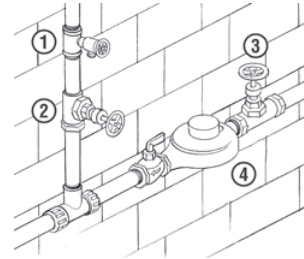
Once the water has been removed from the irrigation system, shut-down the air compressor and release any air pressure that may be present. Disconnect the airline. If your backflow device, the most common backflow installed is called a Pressure Vacuum Breaker, has ball valves, open and close the isolation valves on the backflow device numerous times to ensure that any trapped water has escaped from the upper areas. Leave the isolation valves open at a 45° angle (approximately 1/2 open) and leave the test cocks open.

Pressure Vacuum Breaker



1. PVB Test Cocks
2. Isolation Ball Valve Inlet
3. Isolation Ball Valve Outlet

Interior Point of Connection Freezing Climates



1. Boiler Valve/Drain
2. Irrigation Shut Off Valve
3. Main Water Shut Off Valve
4. Water Meter Types of Valves



Gate Valve



Ball Valve



Stop & Waste Valve



Boiler Valve

Preparing a hydraulic control system? Shut off the water supply to the signal control tube(s) and drain the field tubing.

Outdoor mounted controllers? Leave the power on and the dial / switch in the "Off" position. The heat from the transformer will keep the enclosure warm enough to keep condensation from forming inside the controller enclosure. The dial in the "OFF" will keep the controller from activating the solenoids in the field.

Indoor mounted controllers? You may either leave the power on and the dial/switch in the "Off" position OR you may remove the battery backup and unplug the transformer.

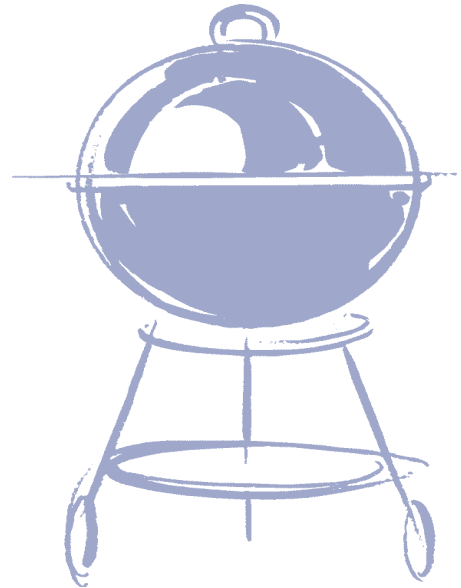
Rain Sensors? There is not much to do to prepare the rain sensor for the winter months. If your sensor is the type with a cup or bowl that catches water, you might want to remove the water and place a plastic bag over the sensor. This will keep any water from accumulating and freezing in the cup or bowl area. If your sensor is the type that uses wafers or discs, you might want to remove the wafers and store them in the garage for the winter months. This will keep damp wafers from freezing.

The Do NOTS of "BLOW-OUT" Winterization

1. Do not allow the air pressure to exceed 80 PSI for systems with PVC piping and 50 PSI for systems with polyethylene piping.
2. Do not stand over component parts while the system is pressurized with air.
3. Do not leave the air compressor unattended.
4. Do not blow the system out through a pump. First blow out the system, then drain the pump.
5. Do not leave the manual drain valves open after the blow out.
6. Do not leave the indoor drain open during the blow out!

SECTION VI LIVING WELL IS THE BEST!

We hope that this homeowner's manual is useful and clear. It is our intention that every one of our new homes be a safe and serene place in which your problems are few and your pleasures many. The entire team from the day of ground breaking to the day you move into your new home makes every effort to ensure a simply excellent house. After you move in, you join the team, checking every detail and letting us know how effectively we have delivered on our promise of excellence. As time goes on, you become the main player, providing maintenance and conscientious care to your home. With our efforts and yours, your new home will be the best investment you've ever made.



*Welcome
Home*

THE OWNER'S MANUAL
for Owners of **GEMCRAFT**  **HOMES**

410-893-8458 • www.GemcraftHomes.com

MANUFACTURER WARRANTIES



Life Calls for a Moen® Faucet.



All Moen faucets come with a Limited Lifetime Warranty against leaks, drips and finish defects.

Limited Lifetime Warranty

Moen products have been manufactured under the highest standards of quality and workmanship. Moen warrants to the original consumer purchaser for as long as the original consumer purchaser owns their home (the "Warranty Period" for homeowners) that this faucet will be leak- and drip-free during normal use, and all parts and finishes of the faucets and Moen Lancelot® sinks will be free from defects in material and manufacturing workmanship. All other purchasers (including purchasers for industrial, commercial and business use) are warranted for a period of five (5) years from the original date of purchase (the "Warranty Period" for non-homeowners).

If this faucet should ever develop a leak or drip during the Warranty Period, Moen will provide FREE OF CHARGE the parts necessary to put the faucet back in good working condition and will replace FREE OF CHARGE any part or finish that proves defective in material and manufacturing workmanship, under normal installation, use and service. Replacement parts may be obtained by calling 1-800-BUY-MOEN (1-800-289-6636) or by writing to the address shown below. Proof of purchase (original sales receipt) from the original consumer purchaser must accompany all warranty claims. Defects or damage caused by the use of other than genuine Moen parts is not covered by this warranty. This warranty is applicable only to faucets purchased after December 1995 and shall be effective from the date of purchase as shown on purchaser's receipt.

This warranty is extensive in that it covers replacement of all defective parts and finishes. However, damage due to installation error, product abuse, product misuse or use of cleaners containing abrasives, alcohol or other organic solvents, whether performed by a contractor, service company or yourself, is excluded from this warranty. Moen will not be responsible for labor charges and/or damage incurred in installation, repair or replacement, nor for any indirect, incidental or consequential damages, losses, injury or costs of any nature relating to this faucet. Except as provided by law, this warranty is in lieu of and excludes all other warranties, conditions and guarantees, whether expressed or implied, statutory or otherwise, including, without restriction, those of merchantability or of fitness for use.

Some states, provinces and nations do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state, province to province, nation to nation. Moen will advise you of the procedure to follow in making warranty claims. Simply write to Moen Incorporated using the address below. Explain the defect and include proof of purchase and your name, address, area code and telephone number.

To guarantee warranty on your Moen products, simply register your products at moen.com/product-registration

To learn about MotionSense™ and ioDIGITAL® warranties, please visit moen.com.

MF3004 10M-08/12 WY



Sink Limited Warranty

Moen warrants to the original consumer purchaser the Moen sink against defects in material and workmanship for a period of ten (10) years on Camelot® and five (5) years on Excalibur® sinks from date of first occupancy of your new home.

Any defective sink or mounting fasteners will be supplied FREE OF CHARGE for your replacement. We will not be responsible for any product damage due to installation error, product abuse or product misuse, whether performed by a contractor, service company or yourself.

This warranty does not include incidentals such as labor cost incurred for the installation of a replacement sink or consequential damages.

Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

In USA

Moen Incorporated
25300 Al Moen Drive | North Olmsted, OH 44070-8022
1-800-289-6636

In Canada

Moen, Inc.
2816 Bristol Circle | Oakville, Ontario L6H 5S7
1-800-465-6130

 **MOEN**
Buy it for looks. Buy it for life.®

© 2012 Moen Incorporated. All Rights Reserved.

Limited Warranty and In-Home Service

WHAT THIS LIMITED WARRANTY COVERS:

Residential Consumer. If this Food Waste Disposer ("Product") or any part of the Product fails at any time during its "Warranty Period" stated below due to defects in material or workmanship, Moen Incorporated ("Moen") warrants to the original "Residential Consumer" that Moen will repair or replace the Product or part in the Residential Consumer's home located in the United States ("USA") or Canada, free of charge, or if Moen determines in its sole discretion that this remedy is not feasible, Moen will refund the Residential Consumer's original purchase price of the Product or provide a credit towards another Moen garbage disposer. This warranty is not transferrable to subsequent owners of the residence.

The original "Residential Consumer" means a person who owns and occupies their USA or Canadian home at the time the Product is initially installed, or who is the first purchaser and occupant of that home from a builder/contractor/developer, or who resides in a living unit in a USA or Canadian "Multi-Family Application" (such as a duplex, apartment, or cooperative) when the Product is first installed and is responsible for the cost of the Product purchase and maintenance.

Product SKU Number (located at bottom of Product)	Horsepower (HP) (located at bottom of Product)	Warranty Period Duration for Residential and Multi-Family Applications (duration in Years) (measured from Product purchase date)
GXL1000c	1	10
GX100c	1	7
GXB75c	0.75	8
GX75c	0.75	6
GXS75c	0.75	5
GX50c	0.5	4
GXP50c	0.5	3
GXP33c	0.33	2

Commercial Application - 1 Year Duration. If the Product is installed under conditions in which no one qualifies as a "Residential Consumer" or "Multi-Family Application" as defined above, then the warranty holder is the owner of the dwelling or building in which the Product has been installed at the time of installation ("Commercial Holder"). For example, this includes owners of commercial or investment buildings, hospitals, nursing/assisted or staged-care living units). Except for the warranty duration, which is 1 year from the date of purchase, Products used in such commercial applications

are warranted on the same terms and conditions, including but not limited to In-Home Service, as stated in this Limited Warranty.

EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY: THIS LIMITED WARRANTY STATES YOUR SOLE AND EXCLUSIVE REMEDY AND MOEN'S SOLE OBLIGATION IN THE EVENT OF ANY DEFECTIVE OR NON-CONFORMING PRODUCT. THESE PROVISIONS CANNOT BE CHANGED BY ANY PARTY ON BEHALF OF MOEN. REPAIRED OR REPLACED COMPONENTS ARE WARRANTED ONLY ON THE SAME TERMS AND FOR THE REMAINDER OF THE WARRANTY PERIOD OF THE ORIGINAL PRODUCT. MOEN RESERVES THE RIGHT TO DISCONTINUE OR CHANGE ANY PRODUCT. IF A PRODUCT OR COMPONENT IS NOT AVAILABLE, MOEN MAY SELECT AND PROVIDE A REPLACEMENT PRODUCT OR COMPONENT OF EQUIVALENT QUALITY AND PRICE.

WHAT THIS LIMITED WARRANTY DOES NOT COVER: This Limited Warranty does not cover or include Product defects, non-conformities, damages or losses attributable to or arising from:

- Accidents; abuse; misuse; negligence; lack of or improper cleaning or maintenance; damage from incorrect installation or mounting (other than by a Moen authorized service professional) such as electrical connections due to improper installation, leaks at the sink flange, dishwasher inlet or discharge elbow, or damage from excessive torquing of manufacturer's screws; any operation inconsistent with Moen's recommendations and instructions that are generally available in Moen's Product Owner's Guide or on the Moen website at www.moen.com. NOTE: to reduce the risk of damage to the Products and personal injury, do not put into the Product items such as large whole bones, clams or oyster shells, whole corn husks, glass, china, plastic, metal such as bottle caps, tin, aluminum foil, utensils, hot grease, or other hot liquids. READ MOEN INSTALLATION AND USE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION AND USE. AND NOTE further: DO NOT attempt to lubricate your Product and NEVER put lye or caustic chemical drain cleaners into the Product, as they are considered improper maintenance and may cause corrosion of metal parts which damage will be detectable and not covered by this warranty.
- Excessive wear beyond normal wear and tear from private household use; damage from fire, flood, or other acts of God.
- Outdoor installations or use with yard or planting debris or soil.
- Repair or replacement service performed by other than by a Moen authorized service professional.
- Removal of any other materials (such as sinks, counters, tiles, flooring or other plumbing fixtures), reinstallation, refinishing, or additional labor if and to the extent required or provided by Moen's authorized service professional in order to repair or replace the Product or part under warranty.
- Installations in commercial, industrial, or investment property, or in multi-resident facilities except to purchasers who qualify as Residential Consumers or Commercial Holders, as defined above.
- Installations anywhere other than the United States and Canada.

Disclaimer of other warranties:

except AS STATED IN THE following SENTENCE, THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY OF moen WITH RESPECT TO THE PRODUCTS. ALL implied warranties ARE STRICTLY limited to the duration of THE limited warranty applicable to the products as STATED ABOVE, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. Some states OR provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

MOEN'S LIMITATION OF LIABILITY:

NOTWITHSTANDING THE TERM OF ANY OTHER LIMITED OR IMPLIED WARRANTY, OR IN THE EVENT THAT THIS LIMITED WARRANTY FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL MOEN'S ENTIRE LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT. FURTHER, MOEN SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INDIRECT, INCIDENTAL, OR PUNITIVE DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO, PERSONAL INJURY, PROPERTY DAMAGE, TEMPORARY/PERMANENT RELOCATION OF RESIDENCE OR PROPERTY, EMOTIONAL DISTRESS, LOSS OF USE, INCONVENIENCE, CLAIMS OF THIRD PARTIES FOR DAMAGES, LOST REVENUES AND LOST PROFITS, ARISING OUT OF ANY THEORY OF RECOVERY, INCLUDING STATUTORY, CONTRACT OR TORT. Some states OR provinces DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO THE ORIGINAL PURCHASER.

MAKING CLAIMS AND OBTAINING IN-HOME SERVICE: To obtain benefits under this Limited Warranty, contact Moen at www.moen.com or 1.800.289.6636 for instructions on obtaining repair or replacement and in-home service from a Moen authorized service professional. Claimant will be required to provide proof of Product purchase and premises ownership, and any replaced Product or components are required to be returned to Moen or the Moen authorized service representative. Moen will determine in its sole discretion if a Product or claim is covered by this Limited Warranty.

© 2017 Moen Incorporated

As the #1 faucet brand in North America, Moen offers a diverse selection of thoughtfully designed kitchen and bath faucets, showerheads, accessories, bath safety products, garbage disposals and kitchen sinks for residential and commercial applications each delivering the best possible combination of meaningful innovation, useful features, and lasting value.

Contact Us

About Moen

Press Room

Career Opportunities

Online Retailers

Privacy Policy

CA Supply Chain Act

Legal Notice

Favorites



Warranty for Moen Branded Bath Accessories

Limited Lifetime Warranty - If this product fails due to a defect in materials or workmanship at any time during the life of the product, Moen will replace it free of charge, postage-paid. Simply contact Moen at 1-800-882-0116 for replacement information. This warranty does not cover products which have been abused, altered, damaged, misused, cut or worn.

LIMITATION OF LIABILITY: OTHER THAN THE LIFETIME LIMITED WARRANTY STATED ABOVE, TO THE EXTENT PERMITTED BY LAW, MOEN DISCLAIMS ALL OTHER IMPLIED OR EXPRESS WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY IS YOUR SOLE REMEDY AND MOEN SHALL NOT BE LIABLE FOR ANY DAMAGES, WHETHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY, OR OTHERWISE, INCLUDING LOST REVENUES AND LOST PROFITS, ARISING OUT OF ANY THEORY OR RECOVERY, INCLUDING STATUTORY, CONTRACT OR TORT. NOTWITHSTANDING THE TERM OF ANY LIMITED OR IMPLIED WARRANTY, OR IN THE EVENT THAT ANY LIMITED WARRANTY FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL MOEN'S ENTIRE LIABILITY EXCEED THE PURCHASE PRICE OF THIS PRODUCT. SOME STATES AND PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE AND PROVINCE TO PROVINCE.

© 2017 Moen Incorporated

As the #1 faucet brand in North America, Moen offers a diverse selection of thoughtfully designed kitchen and bath faucets, showerheads, accessories, bath safety products, garbage disposals and kitchen sinks for residential and commercial applications each delivering the best possible combination of meaningful innovation, useful features, and lasting value.

[Contact Us](#)[About Moen](#)[Press Room](#)[Career Opportunities](#)[Online Retailers](#)[Privacy Policy](#)[CA Supply Chain Act](#)[Legal Notice](#)[Favorites](#)



Showerhead Warranty: Lifetime Limited Warranty

Moen products have been manufactured under the highest standards of quality and workmanship. Moen warrants to the original consumer purchaser who purchases this product for use in his or her own home, for as long as the original consumer purchaser owns that same home (the "Warranty Period" for homeowners), that this product will be free from defects in material and manufacturing workmanship during the coverage duration. All other purchasers (including, but not limited to purchasers for industrial, commercial and business use) are warranted for a period of 5 years from the original date of purchase (the "Warranty Period" for non-homeowners). Moen Incorporated will repair or replace the product free of charge, postage paid. Simply contact Moen at 1-800-BUY-MOEN for assistance.

Limitation of Liability and Exclusion of Damages:

OTHER THAN THE LIMITED LIFETIME WARRANTY STATED ABOVE, TO THE EXTENT PERMITTED BY LAW, MOEN DISCLAIMS ALL OTHER IMPLIED OR EXPRESS WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. This warranty is your sole remedy and Moen shall not be liable for any damages, whether direct, indirect, incidental, special, consequential, exemplary, or otherwise, including lost revenues and lost profits, arising out of any theory or recovery, including statutory, contract or tort. Notwithstanding the term of any limited or implied warranty, or in the event that any limited warranty fails of its essential purpose, in no event will Moen's entire liability exceed the purchase price of this product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state and province to province.

Care and Cleaning:

Like anything of lasting quality, Moen products and accessories require a certain amount of periodic care to preserve their finish. Clean your new Moen product with a mild soap, rinse thoroughly with warm water, and dry with a clean, soft cloth. Never use cleaners containing abrasive cleansers, ammonia, bleach, acids, waxes, alcohol, or solvents for cleaning as they may damage the finish. Failure to comply with these cleaning instructions may void Moen's warranty.

Install this product with a certified backflow preventer, installed at the shower hose inlet, as required by the local plumbing code. Backflow preventer shall be installed per the manufacturer's installation instructions. Consult a plumbing professional for backflow preventers and the local plumbing code requirements. Third party certified to ASME A112.18.1/CSA B125.1 INS1294

Moen Incorporated

25300 Al Moen Drive
North Olmsted, Ohio 44070-8022

© 2017 Moen Incorporated

As the #1 faucet brand in North America, Moen offers a diverse selection of thoughtfully designed kitchen and bath faucets, showerheads, accessories, bath safety products, garbage disposals and

kitchen sinks for residential and commercial applications each delivering the best possible combination of meaningful innovation, useful features, and lasting value.

[Contact Us](#)[About Moen](#)[Press Room](#)[Career Opportunities](#)[Online Retailers](#)[Privacy Policy](#)[CA Supply Chain Act](#)[Legal Notice](#)[Favorites](#)[Sitemap](#)

Stay Connected



Don't miss a thing!

Get email updates from Moen.

Send Me Updates

Select Language





LIGHTING FIXTURE WARRANTY: Sea Gull Lighting lighting fixtures (indoor and outdoor), components, and electronic products, when properly installed and under normal conditions of use, are warranted to be free from defects in materials and workmanship for one year from date of sale. LED products with dedicated LEDs or proprietary LED bi-pin modules are warranted for five years. ENERGY STAR® qualified products are warranted for three years.

Outdoor Lighting

Lighting fixtures installed outdoors are subject to change due to prolonged exposure to sunlight, pollutants and other environmental conditions. Metal finishes on outdoor fixtures will mature naturally over time, and may change in appearance, creating a living finish. Painted finishes on outdoor fixtures may naturally fade over time, depending on the fixture's exposure to the outdoor elements. Therefore, any claim for fading, discoloration or "patina" of a finish on an outdoor fixture is not applicable after expiration of the fixture's warranty.

Coastal Environments

The environment within ten miles of a sea coast can be extremely corrosive. Even with appropriate maintenance, products installed in this environment will typically deteriorate more than products installed in other, less severe environments. Corrosion and/or deterioration is considered "normal wear" in this environment. Therefore, any claim for finish failures, or for corrosion of fixture components due to coastal environment conditions is not applicable to the fixture warranty.

Sea Gull Lighting at their sole option will repair or replace, F.O.B. Factory, freight prepaid, any lighting product defective in materials or workmanship. Such replacement is the exclusive remedy against Sea Gull Lighting should any of the products delivered prove defective. Invoices for labor charges and/or charge backs for labor will be denied unless prior written approval is given.

To replace a product that has a warranted defect, the original purchaser shall return any defective parts or products to the authorized dealer from which the product was purchased, along with proof of purchase and a detailed description of the claimed product defect.

Any modification to a lighting product not made at the factory will void the products' safety listing (such as UL, ETL, etc. or other recognized laboratory) as well as the lighting warranty policy. Flood damage voids any and all warranty of lighting products. This warranty only applies when all components, including power supplies, have been provided by Sea Gull Lighting. Substituting another manufacturer's product will render the warranty completely void. Upon confirmation of a defect or failure, at our discretion we will repair or replace the item or will refund your purchase price if repair or replacement is not possible or practical. Our warranty covers only the product itself; we will assume no liability for labor costs, installation costs, or other losses. Your warranty rights will be honored only when the product has been installed and used properly. Sea Gull Lighting will not repair or replace products damaged by improper use or faulty installation.

FOR BREACH OF ANY WRITTEN EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, THE CONSUMER IS LIMITED EXCLUSIVELY TO THE REMEDIES PROVIDED IN THIS WARRANTY. IN NO EVENT SHALL SEA GULL LIGHTING BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

CEILING FAN WARRANTY: Sea Gull Lighting extends the following Limited Lifetime Warranty to the original user or consumer purchaser of this ceiling fan. To assure that this limited warranty is effective, please complete the questionnaire on the return portion of the warranty card and mail to Sea Gull Lighting Customer Service Center within ten (10) days from the date of purchase to activate warranty coverage.



This Limited Lifetime Warranty includes motor and motor-related parts only, which will be replaced or repaired as determined by Sea Gull Lighting during the period in which this warranty is in effect, as further defined below. For plated finishes, wood blades and switches, the warranty period is ninety (90) days. Glass globes and light bulbs are not covered by this warranty, but will be replaced if found broken at time of purchase. If parts should fail within the warranty period due to a defect in materials or workmanship, we will repair or replace the parts free of charge when the parts and labor are provided by our service center.

If the original user or consumer purchaser ceases to own the fan, this warranty and any other implied warranty will be voided.

No warranty, expressed or implied, including but not limited to any warranty of fitness for a particular purpose is made in respect to light fixture, glassware, light bulbs, or the finish on any metal or wooden portion of the fan.

This warranty is in lieu of all other express or implied warranties. The duration of any implied warranty, including but not limited to any implied warranty of merchantability of fitness for a particular purpose, in respect to any ceiling fan motor parts or accessories, is expressly limited to the period of the express warranty set forth above for such motor, parts, or accessories.

This warranty is void if your fan is not purchased from an authorized dealer and installed in the United States or Canada.

This warranty does not apply and is void in cases of improper installation, failure of supporting devices not supplied, such as original mounting hardware, neglect, accident, misuse, exposure to environmental extremes such as heat or humidity, or as a result of modification to the original product. All costs of removal and reinstallation of the fan are the expressed responsibility of the original user / purchaser.

Sea Gull Lighting reserves the right to modify or discontinue any product at any time and will supply equal or similar parts and/or product in the event of replacement. Repair, replacement or service to the fan motor, parts, or accessories should be secured by immediately contacting our Customer Service Department at 1-800-519-4092 (weekdays between 8:00am – 5:30pm central time). Most problems can be handled by one of our customer service representatives over the telephone.

To replace a product that has a warranted defect, the original purchaser shall return any defective parts or products to the authorized dealer from which the product was purchased, along with proof of purchase and a detailed description of the claimed product defect.

In those cases where factory repair or replacement is required, arrangements must be made with an authorized customer service representative prior to return. Sea Gull Lighting will issue a returned goods authorization number which is required to complete the return/ transaction. Under no circumstances should a product be returned without Sea Gull Lighting's prior authorization. To avoid damage in transit, all products should be returned in the original shipping carton, as Sea Gull Lighting will not be responsible for any such damage. Authorized returns of defective motor, parts or accessories should be shipped freight and insurance charged prepaid to Sea Gull Lighting

FOR BREACH OF ANY WRITTEN EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, THE CONSUMER IS LIMITED EXCLUSIVELY TO THE REMEDIES PROVIDED IN THIS WARRANTY. IN NO EVENT SHALL SEA GULL LIGHTING BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.



Gas Appliance (Fireplace) Limited Lifetime Warranty

HEARTH & HOME TECHNOLOGIES INC. ("HHT") extends the following warranty for HEATILATOR® gas appliances installed in the United States of America or Canada (the "Appliance"). Dealers and employees of HHT have no authority to make any warranty or authorize any remedies in addition to or inconsistent with the terms of this warranty.

Limited Lifetime Warranty

HHT warrants the Appliance for component failure due to a manufacturing defect of any of the following components: combustion chamber, burner pan, and logs. The Limited Lifetime Warranty specified above is subject to the conditions, exclusions and limitations listed below, is for the period the Appliance is owned by the original homeowner only, and is nontransferable.

1 Year Limited Warranty

HHT warrants the Appliance to be free from failure of any of the following components for a period of one year after installation: valve, flexible gas line connector, glass panel, fan, direct vent chimney components, factory paint, gasket, piezo ignitor, thermopile, thermocouple, junction box, pilot assembly, shutoff valve, high limit switch, refractory liners, transformer, and control box. If the Heatilator Appliance is found to be defective in either material or workmanship within one year of the date of original installation, HHT will provide replacement parts at no charge and pay reasonable labor and freight costs, and is for the period of one year following the date of original installation of the Appliance.

Conditions, Exclusions, & Limitations of Liability

- A. Both the Limited Lifetime and 1 Year Limited Warranties supplied by HHT apply only while the Appliance is in its location of original installation. HHT's obligation under this warranty does not extend to damages resulting from (1) installation, operation or maintenance of the Appliance not in accordance with the Installation Instructions, Operating Instructions, and the Listing Agent Identification Label furnished with the Appliance; (2) installation which does not comply with local building codes; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) environmental conditions, inadequate ventilation or drafting caused by tight sealing construction of the structure, air handling devices such as exhaust fans or forced air furnaces, or other causes; (5) use of fuels other than those specified in the Operating Instructions; (6) installation or use of components not supplied with the Appliance or any other components not expressly authorized and approved by HHT; and/or (7) modification of the Appliance not expressly authorized and approved by HHT in writing. This warranty is limited to only the component parts manufactured or supplied by HHT.
- B. HHT's liability under both the Limited Lifetime Warranty and the 1 Year Limited Warranty is limited to the replacement and repair of defective components or workmanship during the applicable period. HHT may fully discharge all of its obligations under such warranties by repairing the defective component(s) or at HHT's discretion, providing replacement parts at no charge and paying reasonable labor and freight costs.
- C. **EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE WARRANTY SPECIFIED ABOVE.**
- D. Some states do not allow exclusions or limitations of incidental or consequential damages, so those limitations may not apply to you. This warranty gives you specific rights; you may also have other rights which vary from state to state.

How to Obtain Service

To obtain service under this warranty you must:

- 1. Send written notice of the claimed condition to Heatilator Technical Service Department, Hearth & Home Technologies, 1915 W. Saunders Street, Mt. Pleasant, Iowa 52641-1563. You may also register your claim online at www.heatilator.com/contact.asp.
- 2. Provide proof of purchase, model number, serial number, and manufacturing date code to HHT.
- 3. Provide HHT reasonable opportunity to investigate the claim, including reasonable opportunity to inspect the Appliance prior to any repair or replacement work and before the Appliance or any component of the Appliance has been removed from the place of original installation.
- 4. Obtain HHT's consent to any warranty work before the work is done.

Additional Information:

■ If you would like information on current HEATILATOR products or want to locate a dealer in your area, call 1-800-927-6841.

©2003 Heatilator® is a Registered Trademark of Hearth & Home Technologies Inc.

LIMITED WARRANTY

Models: GSX11, GSX13, GSX14, GSZ11, GSZ13, GSZ14, GPH, GPC

This heating or air conditioning unit is warranted by Goodman Manufacturing Company, L.P. ("Goodman") to be free from defects in materials and workmanship under normal use and maintenance as described below:

• **To the original registered owner** and his or her spouse ("owner"), **all parts** are warranted for a period of **10 YEARS** or for so long as the owner owns the home in which the unit was originally installed (whichever ends first), except as provided below. However, this warranty applies only if:

- 1) The unit is installed in an owner-occupied, single family residence, and
- 2) The unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click on the word "Warranty" located on the left side of the home webpage. Next, click on the word "Product Registration" located on the left side of the Warranty page and follow the instructions.

Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.

• If the above warranty does not apply, then **all parts** are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone, or other electronic means unless the dealer selling the unit over the Internet, by telephone or other electronic means is also the installing contractor for this unit.

Regardless of time of registration, the warranty period begins on the date of the original installation. Where a product is installed in a newly constructed home, the date of installation is the date the homeowner purchased the home from the builder. If that date cannot be verified, the warranty period begins three months from the month of manufacture (indicated by the first four digits of the serial number (yy-mm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state certified or licensed contractor. Any part replaced pursuant to this warranty is warranted only for the unexpired portion of the warranty term applying to the original part.

These warranties do not apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

This warranty is in lieu of all other express warranties. **ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.** Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

GOODMAN SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Use of components or accessories not compatible with this unit.
4. Products installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement and lubrication.
6. Parts not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Units operated in incomplete structures.
12. Damage or repairs required as a result of the use of used or recycled refrigerant.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or province to province.

Installer Name _____
Model # _____
Serial # _____
Installation Date _____

Part No. PWCACHPPF
Printed in USA
8/10

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.





25 YEAR LIMITED WARRANTY

Masco Builder Cabinet Group warrants to the original consumer purchaser that our Merillat Classic® cabinetry will be free from defects in material and workmanship under normal use for a period of TWENTY-FIVE (25) YEARS from date of purchase. This warranty is not transferable. No representative of Merillat has the authority to modify this warranty.

As with other natural materials, wood is affected by environmental factors such as natural and artificial lighting. Darkening or mellowing of the wood can be expected and is a natural process of wood as it ages. Each wood specie also exhibits its own distinctive patterns and characteristics which add to its natural beauty. These variations in color and characteristics are not considered imperfections or defects. This warranty does not cover the natural aging and darkening of wood color nor does it apply to the inherent growth characteristic of wood.

We further provide a LIFETIME LIMITED WARRANTY to the original purchaser on the door hinges and drawer glides for as long as you own the product. This LIFETIME LIMITED WARRANTY provides that the door hinges and drawer glides will be free from defects in material and workmanship under normal use. Replacement hinges and drawer glides are subject to their availability from our suppliers.

Masco Builder Cabinet Group may elect to repair or replace any defective Merillat product covered by our warranty. Our warranty does not cover defects caused by misuse, abuse, negligence, alterations, environmental conditions, improper installation, storage and handling, nor any labor expenses.

From time to time, we will change design, specifications and materials as conditions require and improvements are developed, but we have no obligation to incorporate such changes in products we previously manufactured.

TO THE EXTENT PERMITTED BY LAW, ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. THIS WARRANTY EXCLUDES ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This warranty is only valid in the United States of America. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To obtain performance under this warranty, the purchaser must contact the Merillat supplier and report, in writing, all defects claimed. If you have difficulty obtaining assistance, write to: Merillat Classic® Warranty Department, Masco Builder Cabinet Group, P.O. Box 1946, Adrian, Michigan 49221.

Warranty effective with orders placed 01/05/09 and after.





E-Class Limited Warranty

SKYLIGHT MODELS EF, EFHR, EV, EVM

WASCO E-CLASS SKYLIGHT 10 YEAR "LEAK FREE" INSTALLATION LIMITED WARRANTY

The original installation of Wasco's E-Class skylights (EF and EV), provided that they are installed strictly according to Wasco's installation instructions, are warranted not to leak water for a period of ten (10) years from the original purchase date. A "leak" is penetration of water between the E-Class and the roof deck (condensation does not constitute a leak and is not covered by this warranty). Glass is guaranteed against seal failure for a period of twenty (20) years.



Wasco will, at its sole election, perform one of the following in full satisfaction of all of its warranty obligations:

- Repair the E-Class Skylight, at its expense, or
- Replace the E-Class Skylight, at its expense, or
- Reimburse the original end user \$1,000 as liquidated damages in lieu of any and all other remedies.

(Any of these options will not extend the original warranty period.)

This warranty applies to product shipped after March 1, 2010. If proof of the original purchase date can not be determined, then the start of the Warranty will begin with the manufacture date of the skylight.

Under no circumstances shall Wasco be liable for any incidental, consequential, special or any other damages. The end user is responsible to mitigate and minimize water damage that a defective skylight may cause.

This warranty is exclusive and in lieu of all other warranties. This warranty gives you specific rights. You may have other rights, which vary from state to state.

Wasco Products, Inc. 85 Spencer Drive, Unit A P.O. Box 559 Wells, ME 04090
800-388-0293 Fax: 207-216-4562 cs@wascoproducts.com www.wascoskylights.com

BUILDER SERIES

W I N D O W S



**BUILDER 1000® SERIES AND
BUILDER 17/22/50/5700® SERIES**



PLY GEM
WINDOWS

**WINDOWS & PATIO DOORS CONSUMER
LIFETIME LIMITED WARRANTY**

© MAR. 2010 Ply Gem Industries, Inc. NC3-1000/17/22/50/5700WARR-0410-IH-REVA



PLY GEM
WINDOWS

Warranty Registration Data Center
P.O. Box 787 • Wexford, PA 15090-0787
www.plygemwindows.com • 1-888-9PLYGEM

Ply Gem Windows
Warranty Registration Data Center
P.O. Box 787
Wexford, PA 15090-0787

E A S T

BUILDER 1000® SERIES AND 17/22/50/5700® SERIES VINYL WINDOWS & PATIO DOORS

CONSUMER LIFETIME LIMITED WARRANTY

This Limited Warranty covers the 1000 Series of products and the 1700 single hung, 1700 sliding window, 2200 double hung, 5000 casement & awning and 5700 sliding patio door series products and does hereby provide the following limited warranty with respect to the vinyl window and door, subject to the terms, conditions and limitations set forth herein.

A. VINYL COMPONENTS LIFETIME LIMITED WARRANTY

All Vinyl Components of the Vinyl Window are warranted during the lifetime of the Original Homeowner (defined in Section II below) to be free of any defects in material and workmanship and to be free from peeling, flaking, rusting, blistering and corrosion, under normal use and proper care. Ply Gem Windows obligation under this limited warranty shall be limited to providing to the Original Homeowner replacement Vinyl Components (or any component part thereof) for those Vinyl Components (or any component part thereof), which are determined to be defective by Ply Gem Windows. Ply Gem Windows shall supply to the Original Homeowner, free of charge, the replacement Vinyl Components. Ply Gem Windows is not responsible for installing the replacement Vinyl Components nor for any costs incurred by the Original Homeowner in removing the defective Vinyl Components. The replacement Vinyl Components may vary slightly in color or gloss in comparison to the original Vinyl Components. Ply Gem Windows shall not be responsible or liable as a result of such variance.

B. 2-YEAR HARDWARE LIMITED WARRANTY

Ply Gem Windows also warrants that the metal and vinyl hardware components in Ply Gem Windows products will be free from manufacturing defects for a period of two (2) years from the date of manufacture. This warranty is for the benefit of the Original Homeowner who purchased the product and resides in the home and may not be transferred. Defective Ply Gem Windows hardware, including locks, balances and handle sets that fails during the warranty period will be furnished by Ply Gem Windows without charge. Freight and installation will be at homeowner's expense.

C. 20-YEAR INSULATED GLASS LIMITED WARRANTY

Ply Gem Windows also warrants the Ply Gem Windows' Insulating Glass will be free from moisture infiltration between the two pieces of glass for 20 years from date of manufacture. This warranty is for the benefit of the Original Homeowner who purchased the product and resides in the home, and may not be transferred. If condensation appears between the two pieces of glass within years 1-10, Ply Gem Windows will furnish replacement glass without charge. Freight and installation will be at homeowner's expense. If condensation appears within years 11-20, Ply Gem Windows will furnish replacement glass at 50% of then current list price. Freight and installation will be at homeowner's expense. Condensation on the interior surfaces of the Insulated Glass (surfaces exposed to the interior of the dwelling only, not between the panes), which may occur as a natural result of humidity within the house or building area and interior/exterior temperature differential, does not indicate a defect in the Insulated Glass and is not covered by this limited warranty. Any films applied to the Insulated Glass, will void any and all warranties.

D. 1-YEAR GLASS DEFECT LIMITED WARRANTY

Ply Gem Windows warrants against glass scratches, spots and stress cracks, for a period of one (1) year from date of manufacture, not to include any abuse, mishandling, vandalism, wrongful cleaning, improper care and or acts of God causing damage to the glass. For the purposes hereof,

the Insulated Glass shall not be considered defective unless the reported defects contained in the Insulated Glass exceed those imperfections allowable in accordance with Specification ASTM 1036 and 1048 for heat treated or tempered glass, as may be amended from time to time. Freight and installation will be at homeowner's expense.

II. LIMITATION ON WARRANTIES AND ADDITIONAL TERMS & CONDITIONS

The limited warranty covers only the Original Homeowner of the Vinyl Window provided that: (i) such Homeowner is an individual and (ii) the Original Homeowner uses the Vinyl Window in residential property owned by said Original Homeowner (herein referred to as the "Original Homeowner"). Accordingly, this limited warranty does not provide remedies for Vinyl Windows installed upon any property other than a residential dwelling owned by the Original Homeowner. Accordingly, Vinyl Windows installed upon commercial property, schools, apartment buildings, or cooperative housing arrangements, are specifically excluded from remedies provided by this warranty. All sales, however, are subject to time exclusions set out below. Ply Gem Windows' obligation under this limited warranty is conditioned upon the normal use and proper care of the Vinyl Window by the Original Homeowner and the proper installation thereof. The Original Homeowner's sole remedy for a covered defect is as specifically set forth herein, and Ply Gem Windows shall not be liable for any incidental or consequential damages arising out of said defect or the use or inability to use the product. Under no circumstances will Ply Gem Windows be liable for damages including, but not limited to, damage or loss of other property or equipment, or for the cost of removing, installing or reinstalling any replacement part or parts furnished here under. In the event the defective part(s) are not available for whatever reason, Ply Gem Windows reserves the right to replace any of the defective parts with replacement parts of substantially equal quality. None of the above warranties applies to products that have not been installed per Manufacturers installation recommendations or finished property. Products that have been altered, modified or subjected to unauthorized repair, including but not limited to, products to which films have been applied, paint applied to vinyl components or non-standard parts have been added to, shall be deemed out of warranty. None of the above warranties cover normal wear or product failure caused by accident, abuse (including the use of corrosive or abrasive products) or acts of God. The foregoing warranty does not apply to the product's normal deterioration, accidents, acts of God, fire, mishandling, acts of nature, chemical pollutants in the atmosphere, improper care, glass breakage, ripped, torn, punctured or creased screens for any cause whatsoever, vandalism, misuse, abuse, neglect, use of harmful cleaning components, installation other than as recommended by Ply Gem Windows or any other cause or damage beyond the control of Ply Gem Windows. This warranty gives you specific legal rights and you may also have other rights that vary from state to state. Enforceability of this warranty is limited to the Original Homeowner. Ply Gem Windows does not warrant any installation. Ply Gem Windows reserves the right to discontinue or make changes in any of its products, including color changes in its vinyl product line. In the event the products covered by these warranties are not available, Ply Gem Windows reserves the right to substitute a product or component that, in Ply Gem Windows' sole discretion, is of equal quality or price. The Dealer is not authorized to change or add to this warranty. Proof of purchase must be supplied before warranty work is performed.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. PLY GEM WINDOWS EXPRESSLY EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PLY GEM WINDOWS EXPRESSLY EXCLUDES RESPONSIBILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES. THESE EXPRESS EXCLUSIONS APPLY TO ALL SALES OF PLY GEM WINDOWS, WHETHER INSTALLED IN RESIDENTIAL OR COMMERCIAL BUILDINGS.

HOW TO MAKE A WARRANTY CLAIM

To make a warranty claim write to the address on this warranty describing the product and the product failure, including the date and place where you purchased the product. The claim must be made within 30 days after the product failure occurred. Ply Gem Windows reserves the right to inspect any product that is the subject of a warranty claim before honoring the claim.

To assure full warranty benefits, please complete and mail this card. The information will help us process warranty claims smoothly, and provide us with important marketing information on our valued customers.

HOMEOWNER INFORMATION

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____
Name _____
Street _____
City _____ State _____ Zip _____
Phone _____
Date of Installation _____

BUILDER INFORMATION

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____
Date of Installation _____

Is this your first purchase of Ply Gem Windows products?

☐ Yes ☐ No

Type of project:

- ☐ New Construction
- ☐ Remodel/Room Addition
- ☐ Window Replacement

How old is your house: _____ years

Square Footage of Your Home:

- ☐ Less than 1,800
- ☐ 1,801–2,500
- ☐ 2,501–3,500
- ☐ Over 3,500

Product Style(s) Purchased: (Check all that apply)

- ☐ Single Hung
- ☐ Casements
- ☐ Round/Elliptical Tops
- ☐ Double Hung
- ☐ Awnings
- ☐ Special Shapes
- ☐ Sliding Window
- ☐ Patio Door

Glass Type: (Check all that apply)

- ☐ Clear Glass
- ☐ HP Glass
- ☐ Obscure
- ☐ Low-E
- ☐ HPSC Glass
- ☐ Tempered
- ☐ Low-Esc
- ☐ Tinted
- ☐ GBG

Why Did You Select Ply Gem Windows Products? (Check all that apply)

- ☐ Advertisements
- ☐ Price
- ☐ Product Variety
- ☐ Low Maintenance
- ☐ Warranty
- ☐ Overall Quality
- ☐ Builder's Decision
- ☐ Style/Aesthetics
- ☐ Energy Efficiency
- ☐ Recommended by Dealer



1500 VINYL COLLECTION



PLY GEM
WINDOWS

WINDOWS CONSUMER LIFETIME
LIMITED WARRANTY

© 2015 Ply Gem Industries, Inc. 370413519191101 - 1500 Series Warranty_RevC_July 2015_PMG



PLY GEM
WINDOWS

Warranty Registration Data Center
PO Box 110100 • Pittsburgh, PA 15232-0600
www.plygemwindows.com • 1-888-9PLYGEM



PLY GEM
WINDOWS

Warranty Registration Data Center
PO Box 110100 • Pittsburgh, PA 15232-0600
www.plygemwindows.com • 1-888-9PLYGEM

Ply Gem Windows
Warranty Registration Data Center
PO Box 110100
Pittsburgh, PA 15232-0600

PLY GEM WINDOWS 1500 SERIES VINYL WINDOWS LIMITED LIFETIME WARRANTY

Ply Gem Windows does hereby provide the following limited warranty with respect to the Ply Gem Windows' 1500 Series vinyl windows, subject to the terms, conditions and limitations set forth herein.

The Ply Gem Windows Limited Lifetime Warranty Promise: For as long as you own and reside in your single-family home into which Ply Gem windows were initially installed ("Lifetime"), upon notice from you as required herein, Ply Gem Windows will, at no charge to you, provide components needed to correct any of the following conditions if it is directly caused by a defect in the product as manufactured, as determined by Ply Gem Windows, and has resulted in a significant impairment in operation and usage:

A. VINYL COMPONENTS: Chipping, cracking, peeling, pitting, blistering, and corrosion, under normal use and proper care. Replacement vinyl components may vary slightly in color or gloss in comparison to the original vinyl components and Ply Gem Windows shall not be responsible or liable as a result of such variance.

B. CO-EXTRUDED CAPSTOCK EXTERIOR COLORS: Excessive fading and uneven weathering, under normal use and proper care, for period of fifteen (15) years from the original date of manufacture. "Excessive fading" is more than normal weathering (see below) which is in excess of a Delta E of 6 Hunter units, as determined by Ply Gem Windows, following the initial installation of the product, and "uneven weathering" means uneven or non-uniform change in color of contiguous elements under uniform, even and equal exposure to sunlight, natural radiation, rain, natural variations in temperature and other atmospheric conditions; provided that any excessive, uneven or abnormal fade or weathering is not due to a build-up or accumulation of stains, dirt, mold, mildew, or any other factor caused by the lack of at least an annual preventative maintenance by the Owner.

C. GLASS QUALITY AND BREAKAGE: Stress cracks, scratches, blemishes, chips and distortion in the glass for one (1) year from date of manufacture. Glass imperfections shall not be covered unless they exceed the allowable level specified by ASTM C1036 or ASTM C1048 whichever is applicable.

D. HARDWARE AND INSECT SCREENS: Failure or breakage of locks, balances, and handle sets under normal usage and proper care, and failure by deterioration of insect screens or frame under normal usage and proper care. Loss of function of stainless hardware in a corrosive environment within ten (10) years of date of installation is covered. Ply Gem Windows' obligation with respect to insect screens is limited to providing screen material. Insect screens are intended to impede intrusion of insects and are not intended to keep persons or animals in or out. Ply Gem Windows makes no warranty that insect screens will keep persons or animals in or out and shall have no responsibility for damages or injuries arising or resulting from a failure or insect screens to keep persons or animals in or out.

E. INSULATING GLASS UNIT (IGU): Condensation on the inner glass surfaces due to a failure of the IGU seal for twenty (20) years from the date of manufacture. Condensation on any external glass or frame surfaces is due to relative humidity, shall not constitute a defective product condition and is not covered by this warranty.

LABOR: Ply Gem Windows may provide, at its discretion, Skilled Labor necessary for repair or replacement of affected components for a period of one (1) year from the date of installation. Skilled Labor includes only work in which specialized product knowledge or methods are required to complete a repair and does not include any repair, refinishing, or refurbishment or materials beyond the affected Ply Gem Windows component.

SINGLE-FAMILY HOME: The warranty for Ply Gem Windows' 1500 Series windows in a single-family home application is made solely to the original consumer-purchaser of Ply Gem Windows' 1500 Series windows who both owns and resides in the single-family home into which they are initially installed and it shall continue for such time as both that ownership and residence are maintained ("Owner"). If the Owner sells or otherwise transfers the home before 20 years has elapsed after the date of product installation, Ply Gem Windows will automatically extend full coverage under this warranty to the first subsequent owner, and any later owners, until the 20th anniversary of the product installation.

MULTI-FAMILY / COMMERCIAL: The warranty for Ply Gem Windows' 1500 Series windows in a multi-family, non-owner occupied or commercial application (such as condominiums, rental properties, apartments, office buildings, schools, churches, government buildings, etc.) is solely to the owner of the property at the time they are initially installed and shall continue for a period ten (10) years from the date of product manufacture. The multi-family commercial warranty is non-assignable and is not subject to voluntary or involuntary transfer and is subject to the warranty limitations herein.

Registration: Owner must complete and submit the warranty registration card within ninety (90) days of the date of product installation.

Notice of Claim: Owner must individually provide written notice under this warranty within thirty (30) days of product failure to:

PLY GEM WINDOWS
Warranty Registration Data Center
PO Box 110100
Pittsburgh, PA 15232-0600

Each of Owner's names, property identification, proof of status as Owner, proof of purchase, date and place of purchase, date of installation, a description of the product and a description of the issue must be included.
PLY GEM WINDOWS SHALL HAVE NO OBLIGATION WHATSOEVER WITHOUT PROPER NOTICE FROM OWNER AND AN OPPORTUNITY TO RESPOND.

Upon proper notice, Ply Gem Windows shall be afforded the opportunity to inspect or take other action necessary to formulate a response. Owner agrees to pay a fee for the costs of an inspection which reveals that no action is called for under this warranty. If action is required, Ply Gem Windows shall have the sole discretion to either provide replacement components or perform a component repair. In no event shall Ply Gem Windows be liable for the costs of repair not provided by Ply Gem Windows or any shipping costs.

In the event of repair or replacement under this warranty, the warranty applicable to the replacement components or products or to the repaired components or products will extend only for the time remaining under the original warranty.

Limitations on Scope of Warranty: Ply Gem Windows shall have no obligation to address any condition not directly caused by a defect in its product as manufactured. Any Ply Gem Windows' obligation is contingent upon proper installation per manufacturer's instruction and good building practice, normal product use, maintenance and proper care by Owner. Products that have been altered, modified or subjected to unauthorized repair, including, but not limited to, products to which films have been applied, products to which paint has been applied (other than by Ply Gem Windows) or products to which non-standard parts have been added, shall be deemed outside of this warranty and Ply Gem Windows shall have no obligation with respect to them.

Ply Gem Windows makes no warranty and will have no responsibility with respect to: an IGU with any post-manufacture film or coating applied; deflection in glass surface due to temperature or barometric pressure; the level of fill or retention of gas in a particular gas-filled IGU; or any installation over 5,000 feet above sea level unless a factory installed capillary tube is properly utilized. Any IGU having a capillary tube will not be gas filled. An IGU having specialized glazing products (such as laminated, V-grooved, and decorative glass) or custom glass options not within Ply Gem Windows' literature at time of order are warranted for a period of ten (10) years from the original date of manufacture.

None of the above warranties cover normal wear or conditions caused by: aging; normal deterioration; accident; misuse; abuse (including contact with corrosive or abrasive products or other harmful chemicals, such as brick wash); neglect; mishandling; vandalism; lack of maintenance; improper care; improper or harmful cleaning; acts of God; acts of nature; fire; pollutants in the atmosphere; airborne stains, mold and mildew accumulation; warping or distortion due to exposure to excessive heat sources; unusual or excessive reflective heat sources; or excessive heat or solar radiation at altitudes above 5,000 feet above sea level or in extreme desert climates with prolonged elevated daily ambient temperatures and solar exposure; ripped, torn, punctured or creased screens from any cause whatsoever; or any other cause or damage beyond the control of Ply Gem Windows.

While vinyl and cap-stocked vinyl typically maintain the manufactured color closely as it ages, exposure to the elements will cause gradual change over time, and normal weathering is not covered by this warranty. Periodic cleaning of the vinyl surfaces with a mild soap or detergent will help prolong the original color and help protect against excessive fade and color change. Fade, discoloration or color variance attributable to atmospheric pollution or a build-up or accumulation of stains, dirt, residues, mold, mildew or any other deficiency caused by the lack of at least annual preventive maintenance by the Owner is not covered by this warranty.

Caulking is sometimes used to seal the frames or trim packages from water and/or air penetration. Caulking is not considered part of the product and is not covered under this warranty. Caulking is considered a maintenance responsibility of the homeowner.

Ply Gem Windows does not warrant any installation or any defects attributable to installation.

Ply Gem Windows reserves the right to discontinue or make changes in any of its products, including color changes. In the event the products covered by these warranties are not available, Ply Gem Windows reserves the right to substitute a product or component that, in Ply Gem Windows' sole discretion, is of substantially equal quality or price and shall not be liable as a result of any difference.

No dealer or distributor is authorized to change or add to this warranty. Proof of purchase and ownership must be supplied for all warranty claims. Owner agrees that no action or inaction of Ply Gem Windows shall constitute a waiver.

IMPORTANT OWNER INFORMATION:

EXCLUSIVE REMEDY: THIS WARRANTY IS THE EXCLUSIVE OWNER REMEDY. IT SHALL OPERATE IN LIEU OF ALL OTHER REMEDIES, WARRANTIES OR CLAIMS IRRESPECTIVE OF SOURCE AND PLY GEM WINDOWS' NEGLIGENCE.

LIMITATION OF REMEDIES: IN NO EVENT SHALL PLY GEM WINDOWS BE LIABLE FOR ANY LOSS OF USE, LOST PROFIT, DIMINUTION IN VALUE, INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, EXEMPLARY OR PUNITIVE DAMAGE OF ANY KIND. UNDER NO CIRCUMSTANCE SHALL PLY GEM WINDOWS BE LIABLE FOR AN AMOUNT EXCEEDING THE PURCHASE PRICE OF THE AFFECTED COMPONENT.

ADDITIONAL DISCLAIMER: THIS IS THE SOLE WARRANTY FOR PLY GEM WINDOWS' WINDOW AND DOOR PRODUCTS. ALL OTHER WARRANTIES, INCLUDING OF MERCHANTABILITY AND FITNESS FOR PURPOSE, ARE DISCLAIMED AND EXCLUDED. COURSE OF DEALINGS, CUSTOM AND USAGE, STATEMENTS, LABELS, ADVERTISING AND PRODUCT REPRESENTATIONS OF ANY KIND SHALL NOT EXPAND THE SCOPE OF THIS WARRANTY. Where these limitations are prohibited or otherwise altered by mandatory legal provisions, the warranty shall remain effective to the full extent of the law. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

OWNER AGREES THAT ANY OBLIGATION OF PLY GEM WINDOWS WITH RESPECT TO ITS PRODUCTS IS CONTINGENT UPON NOTICE AS DEFINED HEREIN AND PLY GEM WINDOWS' OPPORTUNITY TO RESPOND.

Product Ratings: Ply Gem Windows' products are often designed and tested in accordance with required standard procedures established by industry association such as the American Architectural Manufacturer's Association (AAMA) and the National Fenestration Rating Council (NFRC). These measure performance of sample products in a laboratory-type setting. To pursue consistency, Ply Gem Windows manufactures its products for sale utilizing the same methods and materials as in fabrication of a product for testing. All product components and manufacturing processes, however, involve an inherent range of tolerance. These and other factors can result in some variance among individual product performance.

WARRANTY REGISTRATION CARD

To assure full warranty benefits, please complete and mail this card. The information will help us process warranty claims smoothly, and provide us with important marketing information on our valued customers.

HOMEOWNER INFORMATION

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____

BUILDER INFORMATION

Name _____
Street _____
City _____ State _____ Zip _____
Phone _____
Date of Installation _____

Is this your first purchase of Ply Gem Windows products?

☐ Yes ☐ No

Type of project

☐ New Construction ☐ Replacement ☐ Remodel/Room Addition

How old is your house: _____ years

Square Footage of Your Home:

☐ Less than 1,800 ☐ 1,801–2,500
☐ 2,501–3,500 ☐ Over 3,500

Product Series Purchased:

(Check all that apply)
☐ 1500 Series

Product Style(s) Purchased:

(Check all that apply)
☐ Single Hung ☐ Casements ☐ Round/Elliptical Tops
☐ Double Hung ☐ Awnings ☐ Special Shapes
☐ Sliding Window ☐ Patio Door

Glass Type:

(Check all that apply)
☐ Clear Glass ☐ HP Glass ☐ Obscure
☐ Low-E ☐ Hp^{SC} Glass ☐ Tempered
☐ Low-E^{SC} ☐ GBG

Why Did You Select Ply Gem Windows Products?

(Check all that apply)
☐ Advertisements ☐ Price
☐ Product Variety ☐ Low Maintenance
☐ Warranty ☐ Overall Quality
☐ Builder's Decision ☐ Style/Aesthetics
☐ Energy Efficiency ☐ Recommended by Dealer

Therma-Tru® Fiberglass and Steel Door Systems

Fiberglass – Classic-Craft®, Fiber-Classic®, Smooth-Star®, and Pulse® Door Systems
Steel – Pulse®, Profiles™, Traditions,
and Therma-Tru® Fire Door (TR 12-24) Steel-Edge Door Systems

Residential Limited Warranty

For Purchases Made on or After January 1, 2015

1. WHAT THE LIMITED WARRANTY COVERS AND FOR HOW LONG

a) PRODUCT DEFINITION:

THERMA-TRU® DOOR SYSTEM ("Product") consists of a Therma-Tru fiberglass or steel door slab(s) named above and the following parts when they are genuine Therma-Tru components: sidelites, any applied or inserted panels, dentil shelf, simulated divided lites on doors and sidelites, glass lite inserts with Therma-Tru logo glass temper blaze, wood grilles, hinges, weatherstrip, door bottom sweep (gaskets), rain deflector, rain guard, sill pan, screens, internal grids, corner seal pads, door sill, astragal, steel door frame, rot-resistant jambs, rot-resistant mullions, rot-resistant brickmould and multi-point locking system door handles and lockset (on fiberglass Products only). This Limited Warranty applies only when all of these parts are genuine Therma-Tru components. Other all-wood parts including primed Pine jambs, primed Pine mullions, primed Pine brickmould, Oak jambs, Oak mullions, Oak brickmould, mull casing, and steel Product's locking systems are not covered by this Limited Warranty.

b) COVERAGE:

Subject to the limitations and exclusions below, and for the duration of the applicable stated Warranty Period, Therma-Tru warrants that Products purchased and installed in the USA or Canada:

NON-GLASS COMPONENTS: Are free from non-conformities in material and workmanship. All hinges in fiberglass and steel Product, and multi-point locking systems installed in a fiberglass Product are also warranted against non-conformities in the mechanical and locking mechanism (excluding (i) installations within 5 miles of a body of salt water, (ii) the finish, and (iii) multi-point locking systems installed in steel Products). See Section 2a "WHAT THIS LIMITED WARRANTY DOES NOT COVER" for clarification.

GLASS COMPONENTS: Are free from non-conformities in material and workmanship resulting in internal glazing failure, seal failure, internal insert slippage, and permanent and material visual obstruction from moisture or dust film formation in the air space of the sealed glass unit.

NOTES ABOUT TIMELY FINISHING OF DOOR SYSTEMS:

- For continued warranty coverage, all fiberglass Therma-Tru door systems (Products) must be finished within 6 months of the installation date; and all steel Therma-Tru door systems (Products) must be finished within several days of the installation date. However, all bare or unprotected wood surfaces (such as door frames) on all steel and fiberglass Products (including any bare or unprotected wood surfaces used or exposed by builders, contractors, dealers, or distributors on or in conjunction with the Products) should be primed and painted, or stained and top coated within the lesser of 2 weeks of installation or exposure to weather. All doors must have all 6 sides finished. (Note: If a genuine Therma-Tru door bottom sweep (gasket) is properly applied by the builder, contractor, dealer, or distributor to the bottom edge of the door, then only the 5 remaining sides of the door require finishing.) For all doors, sides, top and bottom must be inspected and maintained as regularly as the front and back face surfaces. All PVC lite frames and simulated divided lite bars must be finished within 30 days of installation and are not recommended for use behind storm doors or if exposed to direct sunlight to be painted dark colors.
- Improper or untimely finishing of the Product by the Warranty Holder or its agents (i) increases the chance for Product damage of the type which is NOT COVERED by this Limited Warranty and (ii) increases the preparatory work that must be performed by the Warranty Holder or its agents in order to properly finish and maintain the Product in a manner not inconsistent with Therma-Tru's recommendations and instructions. This is particularly a consideration for steel Products.
- Therma-Tru Same-Day® Stain finishing product is recommended for staining and top coating fiberglass Products that do NOT have a Therma-Tru factory-applied exterior finish, that is, for Classic-Craft®, Fiber-Classic®, and Pulse® Product, and is covered by a separate 5-year limited warranty from the date of purchase. (Request a copy for all terms and provisions from Therma-Tru as indicated in Section 6 below or from your builder, dealer, or contractor who installed or sold the Product.)
- See Therma-Tru's recommendations and guidance for proper finishing of fiberglass and steel Products at www.thermatru.com (i) "Recommendations For Proper Finishing and Painting or Staining", and (ii) "Frequently Asked Questions".

SUMMARY OF LIMITED WARRANTY PERIODS FOR PRODUCTS – for Residential Warranty Holders Effective January 2015

This table summarizes for Residential Warranty Holders the Warranty Periods under this Limited Warranty that apply to Products when the following genuine Therma-Tru® manufactured or recommended components are incorporated into the Door System. This table is provided for your convenience ONLY.

READ the entire Limited Warranty for the conditions and limitations that apply to this information. Commercial/Multi-Resident Warranty Holders are subject to different Warranty Coverage, Warranty Periods and Transferability restrictions which are stated in Section 1(c) "Warranty Duration".

See Notes (*)	Fiberglass	Steel		
Door System*	Classic-Craft® Fiber-Classic® Smooth-Star® Pulse®	Profiles™ Wood-Edge Pulse®	Traditions Wood-Edge	Therma-Tru. Fire Door (TR 12-24) Steel-Edge
Warranty Period	Lifetime	10 Years	5 Years	15 Years (10 Years within 5 Miles of Salt Water)
Door a/k/a Door Slab and Panels – Applied or inserted	Yes	Yes	Yes	Yes
Fire-Rated **	Select Product Codes (20-minute**)	Select Product Codes (20-minute**)	Select Product Codes (20-minute**)	90-minute**
Glass Lites – Clear, Low-E, Deco, and lite Frames Glazing, seal, internal insert placement, absence of permanent/material obstruction from moisture or dust formation in air space and applied wood grilles	Yes	Yes	Yes (10 Years)	No
Hardware – Hinges Mechanical (excluding (i) installations within 5 miles of a body of salt water and (ii) the finish)	Yes	Yes	Yes	Yes
Lockset – Multi-Point Locking System Mechanical and locking mechanisms (excluding (i) installations within 5 miles of body of salt water, (ii) the finish and (iii) multi-point locking systems installed in steel Products)	Yes	No	No	No
Corner Seal Pad – (excluding normal wear and tear)	Yes	Yes	Yes	Yes
Sills	Yes	Yes	Yes	Yes
Door Bottom Sweep (Gasket) and Weatherstrip – (excluding normal wear and tear)	Yes	Yes	Yes	Yes
Rain guard/Rain deflector – (Optional)	Yes	Yes	Yes	Yes
Aluminum or Stainable Astragal – (Optional)	Yes	Yes	Yes	Yes
Frames – Rot-resistant and sourced from Therma-Tru	Yes	Yes	Yes	Yes
Frames and Framing Components – of any type that are not sourced from Therma-Tru (see Sections 2(a), 12th bullet)	No	No	No	No
Tru-Defense. Door System eligibility and Warranty Rider	***			

*A "door" and a "door system" are not the same. A "door system" is assembled by a person (for example, your builder, contractor, dealer, or distributor) who sources and combines various separate components, including the "door Slab", into an entry system. If your door system is assembled using all genuine Therma-Tru parts, then you receive far more than just a beautiful door. You are purchasing an entry system in which every component has been manufactured or recommended by Therma-Tru to work together as an integral "door system" ... AND you will get the full benefit of a Therma-Tru door system limited warranty.

**A 20-minute Fire-rated door must be permanently labeled with a fire door certification label to signify that the Product is qualified as Fire-rated. To determine if an eligible door has been machined and is certified for use as a fire door, an official fire door certification label will be affixed, usually between the top and middle hinge, on the edge of the hinge side of the door slab. In the event that a fire door certification label is missing or has been removed, for a Fire-rated door to retain its fire rating it must be field labeled by the certification entity that originally certified the door (usually Warnock Hersey Intertek or Underwriters Laboratories). A Therma-Tru Fire Door (TR12-24) Steel-Edge must be installed with a Therma-Tru Adjusta-Fit. 2 frame with a lock bore sleeve, and a smock and draft intumescent seal to achieve a 90-minute or 60-minute positive pressure rating.

***Tru-Defense Fiberglass Door System: A Therma-Tru Fiberglass door system may qualify for supplemental reimbursement under the Tru-Defense. Door System Warranty Rider that provides for additional payment to the Warranty Holder of up to a maximum of \$2,000 reimbursement if water infiltrates under a properly assembled, installed, and maintained fiberglass door system that meets the additional provisions stated in the Tru-Defense. Door System Warranty Rider. A copy of the Tru-Defense. Door System Warranty Rider for Fiberglass Door Systems is available from Therma-Tru Corp., 1750 Indian Wood Circle, Maumee, Ohio 43537, at 1-800-537-5322 or at www.thermatru.com, or from the builder, dealer, or contractor who installed or sold the Product.

c) WARRANTY PERIOD:

Product	Warranty Holder Classification	
	Residential Warranty Holder	Commercial/Multi-Resident Warranty Holder
Fiberglass: • Classic-Craft® Doors • Fiber-Classic® Doors • Smooth-Star® Doors • Pulse® Doors	Lifetime ¹	3 Years ²
Steel: • Profiles™ (Wood-Edge Doors) • Pulse® (Wood-Edge Doors)	10 Years ²	1 Year ³
Steel: • Traditions (Wood-Edge Doors)	5 Years ²	1 Year ³
Steel: • Therma-Tru® Fire Door (TR 12-24) Steel-Edge Doors	15 Years ² (10 Years ² within 5 Miles of Salt Water)	1 Year ³

¹ Measured from date Product was originally purchased from an authorized dealer and continuing for as long as the original Residential Warranty Holder owns and resides in the premises in which the Product was installed ("Lifetime Limited Warranty"), unless a shorter duration is expressly stated for the Product component. Not transferable.

² Measured from date Product was originally purchased from an authorized dealer and continuing for the stated duration period as long as the original Residential Warranty Holder owns and resides in the premises in which the Product was installed during that entire duration period. Not transferable.

³ Measured from the earlier of the date Product was shipped from Therma-Tru or an authorized dealer; transferable to successor Commercial/Multi-Resident Warranty Holder during and for the balance of the original Commercial/Multi-Resident Warranty Period.

d) WARRANTY HOLDER CLASSIFICATIONS:

RESIDENTIAL WARRANTY HOLDERS: If the Product is installed in (i) a new residential dwelling and the first occupant owns the dwelling or (ii) an existing owner-occupied residential dwelling, and in each case, at the time of installation such owner is also responsible for Product replacement, then that owner is a Residential Warranty Holder. For example, assume the Product is installed in a condominium unit (a "dwelling") in a multi-resident building. If the first occupant of the condominium unit is the first owner of that unit and is also responsible for Product replacement, then that owner is a Residential Warranty Holder; however, if the owner is not the first occupant or if someone else other than the owner (for example, the condominium association) is responsible for Product replacement, then the owner is not a Residential Warranty Holder.

COMMERCIAL/MULTI-RESIDENT WARRANTY HOLDERS: If the Product is installed under conditions in which no one qualifies as a Residential Warranty Holder as described above, then the warranty holder is the owner of the dwelling or building in which the Product has been installed at the time of installation (and its builder and contractor). That owner is classified as a Commercial/Multi-Resident Warranty Holder. For example, this includes owners of commercial or investment buildings, or multi-resident premises in which the occupant is not responsible (other than through periodic fees/other assessments) for Product replacement whether or not the occupant owns the residential dwelling unit in the premises (including by example, certain condominiums, town homes, duplexes, apartments, cooperatives).

2. WHAT THIS LIMITED WARRANTY DOES NOT COVER

This Limited Warranty does not include non-conformities or damages attributable to or arising from:

a) GENERALLY:

- General wear and tear, including without limitation wear and tear of weatherstrip, corner seal pads, door bottom sweep (gasket), or the multi-point locking system.
- Minor scratches or minor visual imperfections outside the Product's standard manufacturing and quality specification parameters.
- The finish on a multi-point locking system (door handles and lockset) and hinges is not warranted and is purchased "AS IS". This includes but is not limited to finish discoloration, tarnishing, scratches, abrasions, and visual imperfections. Exposure to certain environmental conditions, including but not limited to salt spray, acid rain, high humidity, or other corrosive elements may adversely affect the coatings on finishes (as well as the mechanical and multi-point locking system (door handles and lockset mechanisms). Timely and proper cleaning of hinges and a multi-point locking system will help to extend the finish appearance (and mechanical mechanisms) and discourage the possibility of rust and corrosion. Hinges and a multi-point locking system (door handles and lockset) should be wiped down periodically with a soft, water-dampened cloth and dried off with a soft dry cloth. Abrasive cleaners or other harsh chemicals should never be used on hinges or a multi-point locking system (door handles and lockset). Maintenance of the finish (and mechanical mechanisms) is the responsibility of the Warranty Holder.
- The mechanical mechanism on hinges installed within 5 miles of a body of salt water.
- The mechanical and locking mechanism on the multi-point locking system if the Product is installed within (5) miles of a body of salt water or installed on any steel Products. The Warranty Holder is responsible for maintaining the mechanical features of hinges and the multi-point locking system in the same manner as noted in the 3rd bullet above. Therma-Tru does not recommend the use of multi-point locking systems with steel Products. If any multi-point locking system is used with steel Products, its use is "AS IS" WITH NO WARRANTIES.
- EXPRESS OR IMPLIED WARRANTIES, INCLUDING NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND THE OTHER PROVISIONS OF SECTIONS 4 AND 5 OF THIS LIMITED WARRANTY APPLY.

- Negligence; improper use; incorrect installation or finishing (with stain, paint, or varnish, or in any manner); lack of maintenance (including failure to properly maintain finish, see “NOTES ABOUT TIMELY FINISHING OF DOOR SYSTEMS” above); or operation inconsistent with Therma-Tru recommendations and written instructions that are generally available in Therma-Tru Product Manual as updated by bulletins or other written communications, or on the Therma-Tru website at www.thermatru.com. STEEL PRODUCTS, PARTICULARLY THOSE INSTALLED WITHIN FIVE (5) MILES OF A BODY OF SALT WATER, REQUIRE PROMPT AND CAREFUL INITIAL FINISHING AND MAINTENANCE BY THE WARRANTY HOLDER, INCLUDING PERIODIC CLEANING, FINISHING, AND REFINISHING, AND OTHER REPAIRS in accordance with Therma-Tru's above referenced recommendations and written instructions.
- Improper pre-installation storage, including inadequate shelter or inadequate venting of shipping wrap in humid locations.
- Misapplication of Products or faulty building design or construction, including inadequate flashings, caulking, building settlement, or structural failures of walls or foundations, or inadequate overhangs.
- Installation in locations or a manner that exceeds or deviates from Product design standards and/or testing and certified performance specifications, and/or not in compliance with building codes.
- Product reinstalled after removal from its original installation, except in connection with proper and timely maintenance of components which incur normal wear and tear, such as the weatherstrip, door bottom sweep (gasket), and corner seal pads.
- Rotting, splitting, warping, swelling, or other adverse condition, of or attributed to or arising from a frame system, unless the frame system is a genuine Therma-Tru rot-resistant component part (Therma-Tru Primed Pine or Therma-Tru Oak jambs, mullions and brickmould are not Rot-Resistant components). Use of a non-Therma-Tru frame system by the Warranty Holder (or its door system dealer, distributor, builder, installer, contractor, or other agent) will not automatically void this Limited Warranty. However, while Therma-Tru recommends the use of a rot-resistant or rot-free frame, Therma-Tru does NOT warrant the performance or integrity of any third party frame product (even if the manufacturer claims that its frame product is rot-resistant or rot-free), and therefore, this Limited Warranty will not apply to Product non-conformities or damages attributed to or arising from the rotting, splitting, warping, swelling, or any other condition of a third-party frame product.
- Damages aggravated or worsened because of failure by the Warranty Holder or its agents to timely take reasonable actions to mitigate any alleged damages or failure to file a claim for alleged damages promptly and during the Warranty Period.
- Harsh natural environmental conditions, including by example from substantial exposure to sun, salt spray, or airborne pollutants; other severe conditions including exposure to harsh chemicals or solvents, such as acidic brick washes or stucco leach; or damage from vandalism, or domestic or wild animals.
- Therma-Tru does not manufacture storm doors and is not responsible for any failure of, or any damage caused to, the storm door. PVC lite frames and simulated divided lite bars are not recommended to be installed behind a storm door or to be painted dark colors, if exposed to direct sunlight. However, the use of a properly installed and properly vented storm door along with a Therma-Tru door system does not void this Limited Warranty. The Therma-Tru door system will continue to be subject to the terms and provision of this Limited Warranty.
- Labor for removing, installing, or replacing Product or components or labor for other materials that are removed, reinstalled, or refinished in conjunction with repairing or replacing the Product or component.
- Any painting, staining, scratching, or other alteration of a Therma-Tru factory-applied exterior coating surface of the Products.
- Fading, discoloration, or color change of a Therma-Tru factory-applied color coating that equals or is less than five (5) Delta E units, calculated in accordance with ASTM E 308-85, ASTM E 805-81 and ASTM D 2244-85, effective on the date the Product is manufactured, and which covers less than a material portion of the exterior of the Product. Color change will be measured on an exposed color surface of the Product that has been properly maintained and cleaned of soils, and the corresponding values measured on the original or unexposed color surface. Non-uniform fading or color change is a natural occurrence if the exterior surfaces of the Product are not equally exposed to the sun and other environmental conditions.
- Products not installed in the USA or Canada.

b) GLASS:

- Minor variations in glass color or imperfections that do not affect the structural integrity of the glass or do not permanently and materially obstruct vision from moisture formation between the panes.
- Glass covered with aftermarket window films.
- Accidental glass breakage, including by example caused by debris or foreign objects striking the glass, or breakage that may occur under conditions exceeding the Product's performance parameters.
- Condensation, frost, or mold resulting from humidity within the building and interior/exterior temperature differentials. Note: There is no such thing as a “condensation-free” window in high-humidity conditions. Controlling the amount of moisture in your home is the most effective action you can take to avoid condensation.
- Stresses from localized heat which cause excessive temperature differentials over the glass.
- Post-manufacture dissipation of inert gases (as argon) or the amount of gas in Products with inert gas-filled insulating glass.
- Scratches or other imperfections, unless readily observable more than 4 feet away.
- Any sound that occurs from decorative grids striking the glass due to vibrations from daily use or outside traffic is not considered an imperfection, nor is the grid touching the glass (primarily in triple-pane window units) considered a defect.
- Mineral deposits.
- The alteration or application of any aftermarket films, coatings, tints, or other similar products not originally supplied by Therma-Tru will void this Limited Warranty.

c) ADDITIONAL LIMITATIONS, EXCLUSIONS AND CONSIDERATIONS:

- This Limited Warranty does not guarantee safety for persons or property, nor make a premises hurricane-proof or impact-proof. Follow weather and news reports in order to assess severe weather situations, and obey local authorities' shelter and evacuation orders.

- This Limited Warranty does not cover damage attributable to or caused by acts of God that include, but are not limited to, stresses, high winds, floods, fire and other conditions that exceed Product designs and testing specifications that are test evaluated and certified as referenced in Therma-Tru's published literature. CERTIFICATION APPROVAL, RATING AND REFERENCES TO OTHER PERFORMANCE STANDARDS MEAN THAT THE PRODUCT MEETS THE ESTABLISHED SPECIFICATION PARAMETERS OF THE CERTIFICATION PROCESS OR STANDARD TESTING AT THE TIME THE PRODUCT IS MANUFACTURED. However, with exposure over time to environmental conditions, including by example high-wind events and other forces of nature, the Product will be subjected to normal and abnormal wear, and its performance capability may change. It is the Warranty Holder's (and its building agents) responsibility to consult local building code laws, and the certification and rating agencies published materials and websites for guidelines on the standards necessary to meet all regulations and codes in the area where the Product will be installed.
- Product features designed to help address pressurization of a building during high-wind or other severe storm events are not a guarantee against water and air infiltration, and Therma-Tru is not responsible for claims or damages caused by water or air infiltration of Product.
- Product selection is the sole responsibility of the Warranty Holder and its building agents, not Therma-Tru.
- Damage from failure to inspect Product following each high-wind or impact event is not covered under this Limited Warranty.
- This Limited Warranty will be void if the Product rusts due to reasons other than non-conformities in material and workmanship, including without limitation rusting (on steel Products) arising from misuse, abrasions, environmental conditions, solvents, corrosives, salts, chemicals, excessive moisture, or any other damage due to normal wear and tear that could have been addressed by routine, timely, and proper initial finishing or periodic corrective maintenance.

3. THIS LIMITED WARRANTY'S EXCLUSIVE REMEDY

If the Product or any components fail to meet this Limited Warranty, Therma-Tru's sole obligation is to either (as Therma-Tru elects):

- Repair the component(s) (color and graining matching not guaranteed), or
- Provide replacement component(s) to the Warranty Holder or Therma-Tru's dealer designated (color and graining matching not guaranteed), or
- Refund the Warranty Holder's purchase price (the lesser of the original Product/component purchase price or the original catalog list price).

Repaired or replaced components are warranted only on the same terms and for the remainder of the Warranty Period. Therma-Tru reserves the right to discontinue or change any Product. If the Product or component is not available, Therma-Tru may select and provide a replacement Product or component of equal quality and price. This is the Warranty Holder's sole and exclusive remedy for the Product under this Limited Warranty. By example but not limitation, this Limited Warranty does not cover any of the following costs and expenses: (i) labor for removing, reinstalling, refinishing Product (or other materials that are removed, reinstalled, or refinished to repair or replace the Product); (ii) shipping/freight expenses to return the Product to Therma-Tru; (iii) normal maintenance; (iv) consequential, special, or indirect losses or damages of any kind.

4. DISCLAIMER OF WARRANTIES

THIS LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT ANY IMPLIED WARRANTIES MAY NONETHELESS EXIST BY OPERATION OF LAW, SUCH WARRANTIES ARE LIMITED TO THE DURATION PROVIDED BY LAW. SOME STATES/PROVINCES/TERRITORIES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY. THERMA-TRU DOES NOT AUTHORIZE ANYONE TO CREATE FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH PRODUCTS.

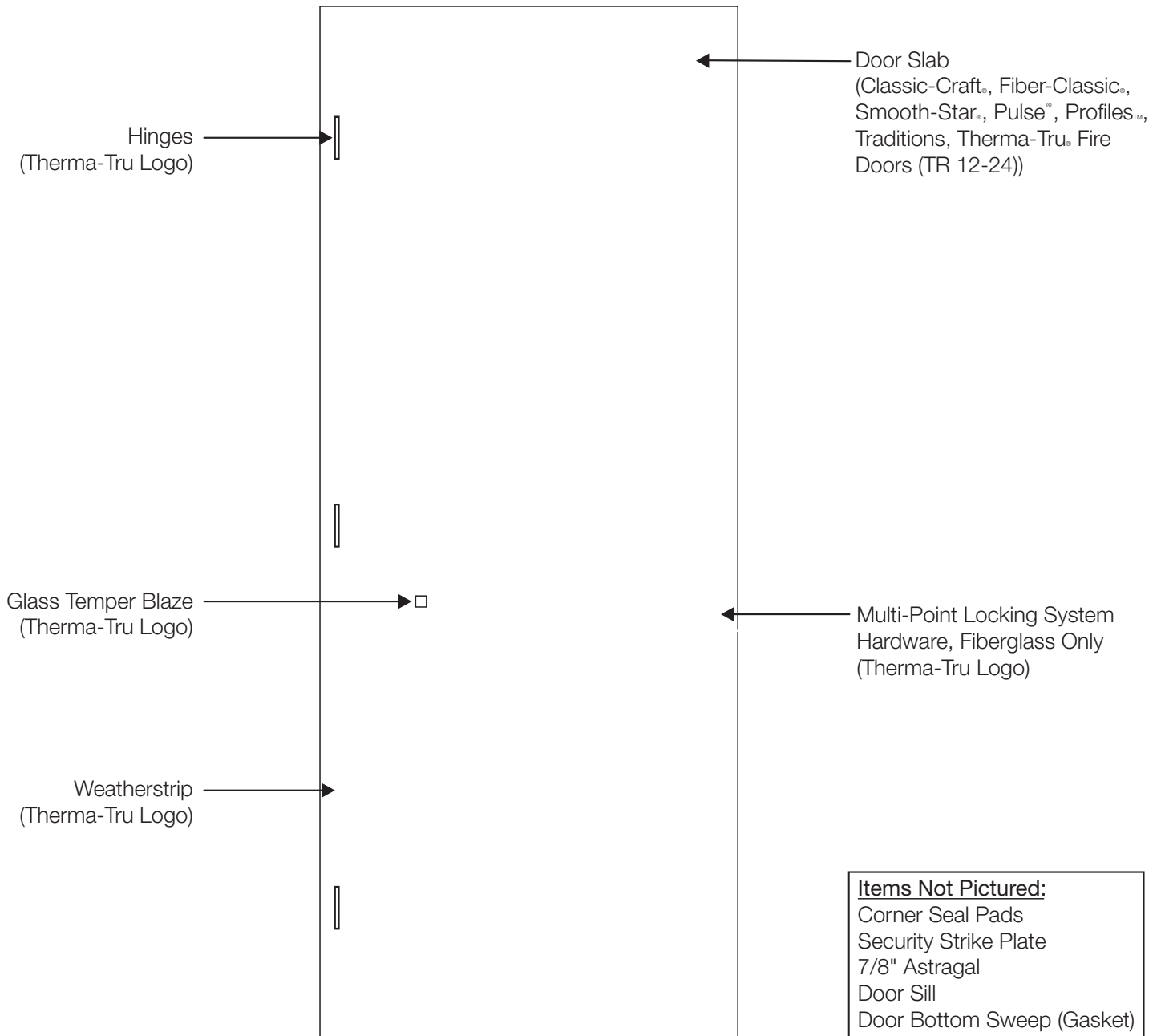
5. LIMITATION OF LIABILITY

THERMA-TRU'S SOLE LIABILITY UNDER THIS LIMITED WARRANTY IS REPLACEMENT, REPAIR, OR REFUND OF THE PURCHASE PRICE AS SET FORTH ABOVE. IN NO EVENT WILL THERMA-TRU BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGE OF ANY KIND TO A PREMISES, LOSS OF PRODUCT USE, REINSTALLATION, LABOR, REMOVAL, REFINISHING, TEMPORARY/PERMANENT RELOCATION OF RESIDENTS OR PROPERTY, LOSS OF PROFITS/REVENUE, INTEREST, LOST GOODWILL, WORK STOPPAGE, IMPAIRMENT OF OTHER GOODS OR WORK, INCREASED OPERATING EXPENSES, EMOTIONAL DISTRESS CLAIMS OR CLAIMS OF THIRD PARTIES FOR SUCH DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING BUT NOT LIMITED TO, STRICT LIABILITY OR NEGLIGENCE OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES). SOME STATES/PROVINCES/TERRITORIES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY. THIS LIMITED WARRANTY PROVIDES SPECIFIC LEGAL RIGHTS, BUT THE WARRANTY HOLDER MAY HAVE OTHER RIGHTS WHICH VARY BY LOCATION. IF THIS LIMITED WARRANTY IS DEEMED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL THERMA-TRU'S ENTIRE LIABILITY EXCEED THE LESSER OF THE PRODUCT'S OR THE NON-CONFORMING COMPONENT'S PURCHASE PRICE.

6. CLAIMS

Claims must be initiated during the Warranty Period. To initiate a claim, please contact the builder, dealer, or contractor who installed or sold the Product. If that party is unknown or unreachable, contact Therma-Tru Corp., 1750 Indian Wood Circle, Maumee, Ohio 43537 at 1-800-537-5322 or at www.thermatru.com. Claimant will be required to provide proof of premise ownership and the date of Product purchase and may be required to return the Product or component to Therma-Tru (at Claimant's expense).

Therma-Tru® Door System Genuine Component Part Identification Guide



Note: This Limited Warranty applies only to Products purchased and installed in the USA or Canada. For Products purchased or installed outside the USA or Canada, Therma-Tru disclaims any and all warranties of any kind, express or implied, by operation of law or otherwise, and any and all liability for damages of any kind.

©2015 Therma-Tru Corp. All rights reserved. THERMA-TRU and the Therma-Tru Logo are trademarks of Therma-Tru Corp. Registered trademarks are registered in the U.S. and may be registered internationally. Therma-Tru Corp. is an operating company of Fortune Brands Home & Security, Inc.

Effective January 1, 2015
 Part #MAWFEP15 MTZT NOV 2014

THERMA-TRU®
DOORS

The Original Owner of Heritage, Heritage Woodgate, Heritage Premium and Heritage Vintage shingles may transfer this Limited Warranty one time during the first five (5) years of the Term to a Purchaser. The Original Owner of Elite Glass-Seal shingles may transfer this Limited Warranty one time during the first two (2) years of the Term to a Purchaser. No other transfers are permitted.



P.O. Box 1404
Joplin, MO 64802-1404 USA
800-641-4691
www.tamko.com

FIBERGLASS/ASPHALT SHINGLE LIMITED WARRANTY

HERITAGE VINTAGE • HERITAGE PREMIUM • HERITAGE WOODGATE • HERITAGE • ELITE GLASS-SEAL

The Limited Warranty for your Shingles is the version in effect on the date of retail purchase. Information included in this version of the Limited Warranty was current at the time of printing. To obtain a copy of the most current version of this Limited Warranty, visit us online at tamko.com or call us at 800-641-4691.

THIS LIMITED WARRANTY APPLIES ONLY TO PRODUCTS INSTALLED IN THE FORTY-FOUR CONTIGUOUS UNITED STATES AND CANADA (EXCLUDING QUEBEC AND NEW BRUNSWICK). ALL PRODUCTS INSTALLED IN LOCATIONS WHERE THIS LIMITED WARRANTY DOES NOT APPLY ARE SOLD "AS IS" AND WITHOUT WARRANTY OF ANY KIND, INCLUDING ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

How Long Will Your Shingles Last? It is natural for your roof to age. The process begins as soon as your Shingles are installed and exposed to the harsh elements of nature. The length of time your Shingles will continue to perform their intended purpose of shedding water will depend on many factors, including weather, snow, intensity of ultra-violet radiation from the sun, pollution, and debris from nearby trees and many other factors. Because no two buildings experience these and other aging factors in the same way, it is difficult to accurately predict the period of time your Shingles will last. This Limited Warranty, subject to its terms and conditions, provides you a remedy during the Term (as defined below) in the event a manufacturing defect causes your Shingles to fail to perform their intended purpose of shedding water.

Definitions - In this Limited Warranty certain capitalized words have specific meanings:

"Algae Relief" means Shingles which are covered by an Algae Cleaning Limited Warranty.

"Full Start Period" means the initial period of the Term during which TAMKO's obligation is not prorated and includes the reasonable cost of labor. The length of the Full Start Period is listed in Table 1.

"High Wind Application" means application of Heritage, Heritage Woodgate, Heritage Premium and Heritage Vintage Shingles in strict accordance with the High Wind Windfastening Pattern application instructions printed on the wrapper. See local building codes for additional nailing requirements. If High Wind Application requirements are not followed, the Standard Application Wind Warranty (as set forth below) will velocity apply.

"Labor Payment Certificate" means a certificate issued by TAMKO that may be redeemed to pay some or all of the reasonable cost of labor for roof repairs, cleaning algae from the roof, or replacement of any defective Shingles according to this Limited Warranty. Certificates must be redeemed within 12 months after issuance to prevent expiration.

"Material Certificate" means a certificate issued by TAMKO and redeemable at participating distributors for a stated quantity of replacement shingles of the same type and color as the defective Shingles which are to be replaced. If shingles of the same type or color are no longer available, the Material Certificate will be for the closest TAMKO substitute available. Replacement shingles may not match the original shingles due to many factors, including but not limited to, normal weathering and manufacturing conditions. Certificates must be redeemed within 12 months after issuance to prevent expiration.

"Original Owner" means the owner of the building at the time the Shingles are installed on that building. If you purchase a new residence from its builder and are the first person to occupy the residence after its construction, TAMKO will consider you to be the Original Owner even though the Shingles were already installed.

"Purchaser" means someone who purchases from the Original Owner the building upon which the Shingles are installed, but only if the purchase occurs within the first five (5) years for Heritage, Heritage Woodgate, Heritage Premium and Heritage Vintage Shingles or within the first two (2) years for Elite Glass-Seal Shingles and the Original Owner and Purchaser comply with the requirements in this Limited Warranty in the section entitled "Transferability."

"Shingles" means the TAMKO Shingles identified in this Limited Warranty which were installed on a building owned by the Original Owner.

"TAMKO" means TAMKO Building Products, Inc.

"Term" means the period of time this Limited Warranty lasts. The Term begins on the date of retail purchase of the Shingles and continues, unless sooner terminated, for the number of months set forth in Table 1.

TAMKO Full Start Period: If, during the Full Start Period, Shingles that have been installed in strict accordance with the application instructions printed on the wrapper are determined to have manufacturing defects which have directly caused leaks, TAMKO will provide a Material Certificate for replacement shingles to repair or replace such defective Shingles (or, at TAMKO's option, the reasonable cost of replacement shingles) and a Labor Payment Certificate that may be used to pay the reasonable cost of installing such replacement shingles, according to the terms of this Limited Warranty. This is TAMKO's maximum obligation during the Full Start Period.

After the Full Start Period: If, after the end of the Full Start Period, Shingles that have been installed in strict accordance with the application instructions printed on the wrapper are determined to have manufacturing defects which have directly caused leaks, TAMKO's obligation is limited to providing the Original Owner with a Material Certificate for replacement shingles to repair or replace such defective Shingles or, at TAMKO's option, the reasonable cost of replacement shingles. The reasonable cost of replacement shingles and the quantity of such replacement shingles will be prorated over the term of this Limited Warranty. This is TAMKO's maximum obligation after the Full Start Period. TAMKO is not responsible for any cost of labor after the Full Start Period. Proration shall be determined by dividing the number of months remaining in the Term by the total number of months of the Term. For example, if TAMKO is notified of a warranty claim at a time when 100 months remain in a 300 month warranty Term, TAMKO's maximum obligation is to provide a material certificate for one third of the replacement shingles or, at TAMKO's option, payment of one third of the reasonable cost of replacement shingles. The remaining cost shall be the responsibility of the Original Owner or Purchaser.

Both during and after the Full Start Period, the extent of replacement is at the sole discretion of TAMKO. TAMKO is not responsible for the cost of any materials other than the replacement shingles (as provided herein) including, but without limitation, underlayment, flashings, metal work, etc. TAMKO is not responsible for the cost of tear-off, removing or disposing of Shingles which are to be replaced. TAMKO reserves the right to arrange directly for your Shingles to be repaired, replaced or cleaned. The remedy under this Limited Warranty is available only for Shingles actually exhibiting manufacturing defects at the time the claim is settled.

Replacement shingles will be warranted only for the remainder of the original Term. Tender of TAMKO's Maximum Obligation shall extinguish all obligations of TAMKO under this Limited Warranty and all applicable implied warranties and conditions.

Notification to TAMKO: The Original Owner or Purchaser must notify TAMKO by telephone at 800-441-7190 or by certified mail at P.O. Box 1404, Joplin, Missouri 64802-1404 of claims under this Limited Warranty within thirty (30) days following discovery of the potential problem with the Shingles. The notice must include documentary proof of Purchase. Failure to notify TAMKO as provided herein shall extinguish all obligations of TAMKO under this Limited Warranty and all applicable implied warranties and conditions. NOTE: Notice to your contractor, dealer, or home builder is NOT notice to TAMKO. You should keep this Limited Warranty for your records in the event you need to file a claim.

Right of Inspection and Time for Payment: TAMKO shall have a reasonable time after notification of a claim to inspect the Shingles. The Original Owner or Purchaser shall provide TAMKO with reasonable access to the Shingles for purposes of inspection. If requested by TAMKO, the Original Owner or Purchaser must complete and deliver to TAMKO, at the Original Owner's or Purchaser's expense, a warranty questionnaire, photographs of the roof and samples of the Shingles. If reasonable access is denied or made subject to unreasonable conditions, or if the Original Owner or Purchaser fails or refuses to cooperate in TAMKO's investigation of the complaint (such as by failing to provide sample Shingles or photographs or a completed warranty questionnaire), TAMKO's obligation under this Limited Warranty shall immediately terminate. If TAMKO determines there are manufacturing defects covered by this Limited Warranty, TAMKO will have a reasonable time after the inspection of the Shingles to process the claim. Unless authorized in writing by TAMKO, any claim for Shingles that have been replaced or repaired prior to resolution of your claim by TAMKO may be denied.

120 Month Algae Relief - Algae Cleaning Limited Warranty: If, during the initial twelve months after installation, the Shingles become significantly stained by certain algae growth, including blue-green algae, TAMKO will issue to the Original Owner or Purchaser a Labor Payment Certificate that may be used to pay the reasonable cost of cleaning the Shingles exhibiting stains (up to a maximum of \$15 per one hundred square feet of affected roof area). After the initial twelve months after installation, the Labor Payment Certificate for the reasonable cost of cleaning will be prorated over the remaining months of this Algae Cleaning Limited Warranty by dividing the number of months remaining in the Algae Cleaning Limited Warranty by 120. For example, if TAMKO is notified of an Algae Cleaning Limited Warranty claim at a time when 40 months remain in the 120 month Algae Cleaning Limited Warranty, TAMKO's Maximum Obligation is to provide a Labor Payment Certificate for one third of the reasonable cost of cleaning the Shingles exhibiting stains (up to a maximum of \$5 per one hundred square feet of affected roof area). TAMKO shall have no obligation or responsibility for cleaning Shingles: (a) after the initial 120 months after installation, or (b) Shingles not significantly stained by algae growth.

Limited Wind Warranty: This Limited Wind Warranty applies only if: (a) the Shingles were installed in strict accordance with application instructions printed on the wrapper and (b) the Shingles have had the opportunity to seal down.

- Coat Weather Installation:** Shingles that are installed in cool seasons may not seal until weather conditions are adequate to allow the seal down strip to activate and may be vulnerable to blow-offs and wind damage that would not be covered under this Limited Warranty. Shingles that are not exposed to direct sunlight or adequate temperatures may never seal. Failure to seal under these circumstances is not a manufacturing defect and requires hand sealing.
- Remedy:** If conditions (a) and (b) have been met and during the Limited Wind Warranty term the Shingles are damaged or blown off by winds at or below the designated wind velocity (see Table 1) as a result of a manufacturing defect, TAMKO will process the Original Owner's or Purchaser's claim in accordance with the sections titled "TAMKO Full Start Period" or "After the Full Start Period," whichever is applicable. Alternatively, TAMKO may, solely at its option, provide the Original Owner or Purchaser with a Labor Payment Certificate that may be used to pay the reasonable cost of manually sealing unsealed Shingles and replacing Shingles which have blown off and a Material Certificate for the number of shingles that have blown off.
- How is Wind Exposure Determined?** Shingles will be conclusively deemed to have been exposed to winds in excess of the designated wind velocity for the product if the National Weather Service or other reputable weather agency records winds or gusts in excess of the designated wind velocity for the Shingles in the county, parish, regional district or municipality where the Shingles are installed or in any adjoining county, parish, regional district or municipality. Exposure of the Shingles at any time to winds or gusts in excess of the designated wind velocity for the product shall extinguish all obligations of TAMKO under this Limited Wind Warranty.

Exclusions from Coverage: There are many reasons why roofs fail, including but not limited to the following matters, all of which are beyond TAMKO's control. TAMKO shall not be liable under any circumstances and shall have no obligation under this Limited Warranty or otherwise for:

- Shingles that have been: (a) improperly applied, stored or handled; (b) installed without adequate ventilation; or (c) not installed in strict accordance with application instructions printed on the wrapper and standard good roofing practices.
- Shedding, staining, discoloration or damage from any cause whatsoever, including, but not limited to algae (except as provided in the Algae Relief-Algae Cleaning Limited Warranty set forth in this document), moss, fungus, overhanging trees, other biological growth, birds, or animals.
- Leaks or damage resulting from Acts of God (including, but without limitation, lightning, ice damming, wind (except as set forth in the Limited Wind Warranty), hurricane or tornado (regardless of wind velocity), hail, or other storm or casualty); acid rain; impact of objects; damage to a roof due to movement, settlement, distortion, failure, defects or cracking of the building or its roof deck, walls or foundation; or for any defect in or failure of material used as a roof base over which the Shingles are applied; or for damage by traffic on the roof.
- Damage to the Shingles as a result of exposure to chemicals including, but not limited to, aliphatic or aromatic solvents, chlorinated hydrocarbons, turpentine, oils or organic or inorganic polar materials.
- Leaks or damage to the Shingles from any cause other than inherent manufacturing defect in the Shingle.

In addition to the foregoing, TAMKO shall not be liable under any circumstances and shall have no obligation under this Limited Warranty or otherwise for direct

or indirect economic damages, or for consequential, incidental or punitive damages of any kind (some states do not permit exclusion of consequential or incidental damages so this exclusion may not apply to you, damage to any building, either exterior or interior (including without limitation, mold growth), or any property contained therein or for injuries or damages of any kind whatsoever, or for removal or abatement of any asbestos present in the building on which the Shingles are applied.

Transferability: The Original Owner of Heritage, Heritage Woodgate, Heritage Premium and Heritage Vintage shingles may transfer this Limited Warranty one (1) time during the first five (5) years of the Term to a Purchaser of the building upon which the Shingles are installed. The Original Owner of Elite Glass-Seal shingles may transfer this Limited Warranty one (1) time during the first two (2) years of the Term to a Purchaser of the building upon which the Shingles are installed. The transfer must occur simultaneously with the sale of the building. To transfer this Limited Warranty, the Original Owner must provide TAMKO with written notice within thirty (30) days after the transfer. The written notice must include the names of the Original Owner and the Purchaser, the address of the building upon which the Shingles are installed, the date of retail purchase of the Shingles, and the date of the transfer. The Original Owner may transfer this Limited Warranty only one (1) time. Except for one transfer to a Purchaser as stated above, this Limited Warranty may not be sold, assigned or transferred in any manner whatsoever. Neither a Purchaser nor any other person may transfer this Limited Warranty. Except as set forth in this paragraph, any assignment, sale or transfer of this Limited Warranty or the building to which the TAMKO Shingles are applied shall immediately terminate all obligations of TAMKO for the Shingles, all warranties contained herein or hereunder and any applicable implied warranties and conditions including warranties or conditions of merchantability and fitness for a particular purpose.

Class Action Waiver: YOU AND TAMKO AGREE THAT ALL CLAIMS, DISPUTES, OR ACTIONS BETWEEN US ARISING FROM OR RELATING TO THE SHINGLES AND/OR THIS LIMITED WARRANTY WILL BE ARBITRATED (OR, IF ARBITRATION OF THE ACTION IS NOT PERMITTED BY LAW, LITIGATED INDIVIDUALLY AND NEITHER PARTY WILL CONSOLIDATE, OR SEEK CLASS TREATMENT FOR AN ACTION UNLESS PREVIOUSLY AGREED TO IN WRITING BY BOTH YOU AND TAMKO.

MANDATORY BINDING ARBITRATION: EVERY CLAIM OR CONTROVERSY BETWEEN YOU AND TAMKO AND/OR ITS EMPLOYEES AND AGENTS ARISING FROM OR RELATING TO THE SHINGLES AND/OR THIS LIMITED WARRANTY SHALL BE RESOLVED BY FINAL AND BINDING ARBITRATION. NOTWITHSTANDING THE FOREGOING, INDIVIDUALS WHO PURCHASED THE SHINGLES FOR PERSONAL, FAMILY OR HOUSEHOLD PURPOSES MAY PURSUE A CLAIM IN ANY SMALL CLAIMS COURT HAVING JURISDICTION PROVIDED THE CLAIM IS MADE AS AN INDIVIDUAL ACTION AND NOT AS PART OF A CLASS. TO ARBITRATE AN ACTION AGAINST TAMKO, YOU MUST INITIATE THE ARBITRATION IN ACCORDANCE WITH THE APPLICABLE RULES OF THE AMERICAN ARBITRATION ASSOCIATION AND JUDICIAL ARBITRATION AND MEDIATION SERVICE OR OTHER ARBITRATION SERVICE AGREED TO IN WRITING BY YOU AND TAMKO, AND PROVIDE WRITTEN NOTICE TO TAMKO BY CERTIFIED MAIL AT P.O. BOX 1404, JOPLIN, MISSOURI 64802. THE ARBITRATOR SHALL HAVE THE AUTHORITY TO RENDER THE SAME RELIEF AS A COURT OF COMPETENT JURISDICTION WHEN RESOLVING DISPUTES REGARDING THE SHINGLES AND/OR THIS LIMITED WARRANTY. THE ARBITRATOR SHALL HAVE EXCLUSIVE AUTHORITY TO RESOLVE ANY DISPUTE RELATING TO THE INTERPRETATION, APPLICABILITY, ENFORCEABILITY OR FORMATION OF THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO ANY CLAIM THAT ALL OR ANY PART OF THIS AGREEMENT IS VOID OR VOIDABLE, WHEN ALLOWED BY THE RULES OF ARBITRATION. THE PREVAILING PARTY SHALL BE ENTITLED TO RECOVER ITS COSTS AND REASONABLE ATTORNEY'S FEES.

Actions Must Be Commenced Within One Year: Any action relating to the Shingles or this Limited Warranty must be brought within one year after any initial cause of action has accrued. No claims will be allowed after this one year period has expired. In jurisdictions where statutory claims or implied warranties and conditions cannot be excluded, all such statutory claims, implied warranties and conditions and all rights to bring actions for breach thereof expire one year (or such longer period of time if mandated by applicable laws) after the date of retail purchase of the Shingles. Some states do not allow limitations on how long an implied warranty or condition lasts, so the above limitations may not apply to you.

DISCLAIMER OF ALL IMPLIED WARRANTIES AND LIMITATION OF REMEDIES: Remedies contained in this Limited Warranty are exclusive and represent the sole remedies available to the Original Owner, Purchaser or any other person or entity for all matters regarding the Shingles. IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF TAMKO BUILDING PRODUCTS, INC., INCLUDING BUT NOT LIMITED TO DIRECT AND INDIRECT ECONOMIC DAMAGES, AND INCIDENTAL, CONSEQUENTIAL AND PUNITIVE DAMAGES, ARE EXCLUDED. Some states do not allow exclusion or limitation of implied warranties or consequential or incidental damages so the above limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state. INVALIDITY OR UNENFORCEABILITY OF ANY PROVISION HEREIN (EXCEPT THE CLASS ACTION WAIVER AND MANDATORY BINDING ARBITRATION PROVISIONS) SHALL NOT AFFECT THE VALIDITY OR ENFORCEABILITY OF ANY OTHER PROVISION, ALL OF WHICH SHALL REMAIN IN FULL FORCE AND EFFECT. IN THE EVENT THE CLASS ACTION WAIVER AND/OR THE MANDATORY ARBITRATION PROVISIONS ARE DETERMINED TO BE INVALID OR UNENFORCEABLE THE ENTIRETY OF THIS LIMITED WARRANTY (EXCEPT THIS PARAGRAPH) SHALL BE NULL AND VOID AND THE SHINGLES ARE SOLD AS-IS AND WHERE IS, WITH NO WARRANTY OF ANY KIND.

NO REPRESENTATIVE, EMPLOYEE OR OTHER AGENT OF TAMKO, OR ANY PERSON OTHER THAN TAMKO'S PRESIDENT, HAS AUTHORITY TO MODIFY OR WAIVE ANY PROVISIONS OF THIS LIMITED WARRANTY OR ASSUME FOR TAMKO ANY ADDITIONAL OBLIGATIONS OR RESPONSIBILITY IN CONNECTION WITH THE SHINGLES.

This form is not to be copied or reproduced in any manner. This Limited Warranty applies to TAMKO Shingles sold on or after February 1, 2016. The Limited Warranty for your Shingles is the version in effect on the date of retail purchase.

IF YOU ARE NOT SATISFIED WITH THE TERMS AND CONDITIONS OF THIS LIMITED WARRANTY, RETURN ALL UNOPENED MARKETABLE PRODUCTS TO THE ORIGINAL PLACE OF PURCHASE FOR A REFUND.

COMPLETE FORM ON REVERSE SIDE AND
KEEP FOR YOUR RECORDS



JP 21371 12/09/2016

SHINGLE	TERM	FULL START PERIOD	STANDARD APPLICATION WIND WARRANTY	HIGH WIND APPLICATION WARRANTY	LIMITED WIND WARRANTY TERM	ALGAE CLEANING TERM
Elite Glass-Seal	300 months	5 years	60 mph	—	5 years	120 months
Heritage	360 months	15 years	110 mph	130 mph	15 years	120 months
Heritage Woodgate	360 months	15 years	110 mph	130 mph	15 years	120 months
Heritage Premium	600 months	20 years	110 mph	130 mph	15 years	120 months
Heritage Vintage	600 months	20 years	110 mph	130 mph	15 years	120 months

TABLE 1.

P.O. Box 1404
Joplin, MO 64802-1404
USA



800-641-4691
www.tamko.com

LIMITED WARRANTY INFORMATION

To be completed by Owner and Contractor

OWNER'S NAME: _____

ADDRESS WHERE APPLIED: _____

CITY: _____ STATE: _____ ZIP: _____

TYPE OF TAMKO SHINGLE APPLIED:

- | | |
|--------------------------------------------------|---------------------------------------|
| <input type="checkbox"/> TAMKO Elite Glass-Seal | 300 Months (25 Year) Limited Warranty |
| <input type="checkbox"/> TAMKO Heritage | 360 Months (30 Year) Limited Warranty |
| <input type="checkbox"/> TAMKO Heritage Woodgate | 360 Months (30 Year) Limited Warranty |
| <input type="checkbox"/> TAMKO Heritage Premium | 600 Months (50 Year) Limited Warranty |
| <input type="checkbox"/> TAMKO Heritage Vintage | 600 Months (50 Year) Limited Warranty |

NUMBER OF SALES SQUARES: _____ DATE OF APPLICATION: _____

COLOR: _____

TOTAL COST OF SHINGLES: _____ TOTAL COST OF SHINGLE APPLICATION: _____

CONTRACTOR'S NAME: _____ COMPANY NAME: _____

CONTRACTOR'S SIGNATURE: _____

DATE: _____

RETAIN THIS LIMITED WARRANTY AND YOUR CONTRACTOR'S RECEIPT(S) FOR FUTURE REFERENCE



Elite Glass-Seal



Heritage Woodgate
Heritage



Heritage Premium
Heritage Vintage

HERITAGE VINTAGE • HERITAGE PREMIUM • HERITAGE WOODGATE • HERITAGE • ELITE GLASS-SEAL



BUILDING PRODUCTS FOR THE PROFESSIONAL.

Since 1944, building professionals and homeowners have looked to TAMKO® for building products. Today, we offer a wide range of building products, including Heritage® Laminated Asphalt Shingles, Elite Glass-Seal® 3-tab Shingles, MetalWorks® steel shingles, waterproofing materials, ventilation products, Envision® Composite Lumber, EverGrain® Composite Lumber, Marquee Railing® and Tam-Rail® Railing Systems.

© 2016 TAMKO Building Products, Inc. TAMKO, Elite Glass-Seal, EverGrain, Envision, Heritage, Marquee Railing, MetalWorks, Tam-Rail, Vintage and Heritage Woodgate are registered trademarks of TAMKO Building Products, Inc.

SMOOTH - STAR[®]

FIBERGLASS HINGED & SLIDING PATIO DOOR SYSTEMS



THERMA-TRU SMOOTH-STAR[®] PATIO DOOR SYSTEM WARRANTY 20 YEAR LIMITED WARRANTY

Therma-Tru Corporation warrants the factory finished Smooth-Star patio system to the original owner against defects in material and workmanship for a period of 20 years, beginning with the date of purchase. The original owner is the private residential homeowner when the door system is first installed, not the distributor, dealer, or contractor. The Smooth-Star factory finished patio door system consists of the door, frame components including jambs, mullions, astragals and brickmould, wood grilles, operating hardware, weatherstripping, door bottom gasketing, corner seals, patio door screens (excluding the screen mesh) and the door sill. This warranty is in force only when all the above-named parts are genuine Therma-Tru components.

Provided that installation, finishing and maintenance has been performed in accordance with Therma-Tru's published recommendations, if defective material or workmanship becomes evident in the Smooth-Star factory finished patio door system during the warranty period, we will repair the defective part or system or provide a replacement, at our option, or refund the purchase price.

The Multi-Point Lock System is warranted against defects in materials and workmanship for the warranty period. The warranty does not cover discoloration on finishes. The product is warranted against red rust. The warranty covers normal usage and excludes a product: with scratches or abrasions; that has been altered, improperly installed, abused or misused; used in commercial applications; that has been damaged by acts of nature; or that has undergone normal wear and tear.

For all types of insulated glass, the warranty covers insulated airspace integrity. If the seal fails, we will repair or provide a replacement insulated glass unit.

The Smooth-Star Flush-Glazed door is warranted against accidental glass breakage only until the original owner takes possession of the residential property.

We exclude from this warranty any lock mechanisms or closer hardware, or other miscellaneous hardware, or any other door attachments, which we do not manufacture or furnish. The factory-applied exterior finishes on door and frame components are warranted against cracking, fading, peeling or chalking. We do not warrant against damage or defects that resulted from improper installation or finishing or maintenance, or from abuse or misuse. We do not warrant that published product and technical information regarding Therma-Tru's products is consistent with applications, building customs or building standards outside of North America. Therma-Tru customers outside of North America should contact the Therma-Tru International Sales Department for specific guidelines and questions regarding product warranty.

We also exclude shipping costs, and costs for installation, repair, reinstallation, or finishing, which may be incurred due to a defective part or system covered by this warranty.

THERE IS NO OTHER EXPRESS WARRANTY. [IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM PURCHASE]. THIS IS THE EXCLUSIVE REMEDY, AND LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE LIMITATION OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. UNDER ALL CIRCUMSTANCES THERMA-TRU'S MAXIMUM LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE ORIGINAL PRICE OF THE PATIO DOOR SYSTEM.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

If you make a warranty claim, we may ask you to provide evidence of original ownership, or proof of purchase. If you need information or assistance, please contact your local Therma-Tru dealer, or contact us at Therma-Tru Corporation, P.O. Box 8780, Maumee, Ohio 43537.

Effective January, 2005
MAWSSP05