



Owner Manual



Ichijo USA Homeowner Manual

Congratulations!

You are now the proud owner of an Ichijo USA home!

Welcome home! We are honored that you have chosen to purchase an Ichijo home. We take great pride in building sustainable, quality homes and hope that you will have many wonderful years in your new home.

Your Customer Service Manager will provide an initial orientation to your home, prior to closing, walking you through the home, educating you on the systems, maintenance and finishes.

To ensure your satisfaction after closing, we offer a comprehensive new home warranty and customer service program. Please review our Homeowner Maintenance Manual and the Warranty, included with your warranty documents, to obtain an understanding of your coverage.

Making Contact

Report any item under warranty regarding your home to our warranty department.

Email: warranty@ichijousa.com

Emergency Service

Please contact our subcontractors directly for emergency service. A list of 24-hour emergency contacts is provided in your documents.

How the Process Works

We will assign your request to a Project Manager who will schedule a visit to address your concerns. Please note that the service work is performed between the hours of 8:00 am and 4:00 pm on weekdays.

You will be asked to sign your Customer Service or Warranty Request upon completion of the work. This will indicate that you are satisfied with the resolution of the items on your request.

We stand behind our product and are very happy to welcome you into your new home. Feel free to contact us with any questions or concerns.

Sincerely,

Ichijo USA

Warrantable Issues - Timetable

Sod/Trees/Landscaping	30 days (from date of close)
Irrigation (sprinkler system)	30 days coverage, 1-year coverage on timeclock
Paint and Caulking	Any imperfections must be noted at the home orientation.
Countertops Tile Flooring/Walls	Any defects must be noted at the home orientation.
Carpet	Cracks, chips, scratches, color variations in tile and/or grout must be noted on home orientation. There is a 1-year manufacturer/installation warranty. No guarantee dye lot of tile will match.
Exterior Flatwork	1-year manufacturer/installation warranty and no guarantee dye lot of carpet will match.
Drainage guidelines	1-year assessment of cracks with one-time repair Any settlement crack exceeding 1/8" after the 1-year will be reviewed.
Bathtub/Windows/Mirrors	Will be reviewed – meeting code standard
Drywall	Any imperfections, scratches, cracks must be noted on home orientation, any imperfections noted after the home orientation are not warrantable.
Vinyl Flooring	Any cosmetic imperfections need to be documented at the home orientation. A crack exceeding 1/4" will be addressed for installation error.
	Scratches, nicks, and any defects must be noted at the home orientation. There is a 1- Year on manufacturer defects and/or installation

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Important Information

Your New Home

We are interested in providing you complete, accurate information regarding your new home. The following pages point out important facts about your new home, the materials used in the construction and other important details that will offer you more knowledge about your new home. Please review this section carefully; it includes many maintenance tips that will help you keep your new home in good condition

In addition to the following information, it is possible that there are specific items that pertain only to your home. Your sales representative and the Customer Service Department are your best sources of additional information about your new home.

If you have any questions about your home before you close escrow, please speak to your sales representative. After moving into your new home, please direct your questions to our Customer Service Department at warranty@ichijousa.com.

Architectural Control Committee

An Architectural Control Committee has approval authority over any changes, alterations or additions to your home, fence, landscaping, exterior colors, trim, etc. Always consult the Declaration of Restrictions for approval procedures and other information prior to making any additions, alterations or improvements to your home, including the installation of antennas, fences, storage buildings, yard art and gazebos. The Architectural Control Committee, Ichijo USA, or if applicable, your Homeowners Association typically will have the power under the Declaration of Restrictions to remove, at your expense, any unapproved additions, alterations or improvements.

Construction Dangers

Ichijo USA recommends that you contact your Sales Representative or Project manager to have them accompany you on any of our job sites. Job sites are hazardous areas since there is usually a lot of activity going on during the day. After-hours, when the workers are no longer on the jobsites, can be just as hazardous if not more so. If you choose to visit one of our jobsites without one of our representatives to accompany you, Ichijo USA does not assume any liability for any injuries or damages that you may incur.

Construction Methods

Ichijo USA builds homes that meet or exceed local building codes. Construction methods can differ from home to home due to variations in plans, elevations and the requirements of local building codes.

Declaration of Restrictions

A Declaration of Covenants, Conditions and Restrictions (sometimes referred to as Deed Restrictions or CC&R's), if applicable, govern the activities within your community. Parking restrictions use restrictions, building restrictions and, in some cases, the creation and powers of a Homeowners Association are described in your Declaration of Restrictions (a copy is included in the closing packet). Also consult your Declaration of Restrictions and, if applicable, your Homeowners Association before making any structural or cosmetic changes to your home.

Drainage and Wetlands

Wetlands serve many important functions. Many plats will show areas designated as; "Wetlands", "Jurisdictional Wetlands" or "Conservation Areas." These areas are under the control of one or more agencies which are responsible for their protection. Before making any alterations or changes to these areas it is the homeowners responsibility to contact the appropriate agency responsible for these areas and make sure such alterations will not be a violation. Violations are subject to heavy fines and penalties in many cases! The same guidelines should be used for any alterations or usage to adjacent property.

Easements and Utilities

Your property may be subject to certain easements that should be reflected on your title policy or the lot survey that will be given to you at your closing. Consult your title policy or a professional before any alterations are made to your new home or lot. In some cases, your Declaration of Restrictions will also describe present or future easements.

Additionally, in most cases, the municipality governing your community requires the first fifteen to twenty feet behind the curb in front of your home as right-of-way. You do not own this fifteen to twenty-foot right-of-way; utilities are often located in this footage. Your final survey will show the exact locations of your property lines.

Homeowners Association

Every homeowner in your neighborhood is a member of a Homeowners Association. The purpose of the association is to assure that the neighborhood is maintained in an attractive and safe manner. A Declaration of Covenants, Conditions and Restrictions have been recorded to establish a set of regulations intended to preserve the appearance and character of your neighborhood. Among other provisions, the Covenants require you to properly maintain your home and your yard and require you to receive approval from the association before making any changes to the exterior of

your home or your lot. This includes any additions, remodeling, accessory structures or changes to landscaping drainage.

The association is usually responsible for maintaining entry signs and landscaping as well as any community parks or amenities and may be responsible for maintaining drainage ponds or other facilities.

Most associations are managed by an independent management company. You are responsible for paying dues to the association, which are used to pay for the management and operation of the association, and for maintenance.

Please take time to read the Covenants and call the management company with any questions you may have.

Lot & Site Changes

The layout of each lot is unique and there will be differences in size, locations of sidewalks and driveways, and drainage that may not be exactly the same as the models. The shape and contour of certain lots may require that Ichijo USA adapt foundations, decks, patios, driveways walkways and garages to provide reasonable access, adequate drainage and aesthetic appeal. Ichijo USA reserves the right to make changes and alterations to the property and remove native trees to provide for the construction of the home. See the section on “Drainage and Wetlands” for further information regarding adjacent property and its usage.

Model Homes

Model homes have several functions. They are used as sales offices, to demonstrate products in the home and as a showcase. These multiple uses can require larger air conditioners and other types of equipment that are neither appropriate nor desirable for residential usage. The model homes also may display a variety of features, finishes, materials, colors and products that are not included in your home. The following was prepared to clarify some items and features in your new home that may differ from that in the models. Please ask your sales representative for an explanation of any differences.

- Color Variances

Color Variations occur in all manufactured products. Although every effort is made to provide consistent color, variances may be noticeable in paint, brick, stone, tile, mortar, carpet and other colored surfaces. Exposure to sun and water will alter the color more rapidly. These variances may be especially noticeable where a repair has been made. An exact color match of materials during the initial construction of your home or during repairs is not an item that is covered by your Warranty.

- Design

Your home can have design features that differ from those in the model homes. The

differences could be in materials, interior and exterior colors, surface coverings, doors, windows, garage doors and other features. Also, certain changes to the design of the home may have occurred since construction of the model homes.

- Dimensions

Your home can have different interior and exterior dimensions than those of the model homes. The differences can result from variations in the lots, changes in design that are made after the models are completed and other such factors. The differences can be seen in ceilings, windows, room sizes, placement of your home on the lot and in other areas.

- Entrances and Walkways

The entrances and walkways of the model homes can vary in size and location from your home.

- Interior Features

The model homes are used as sales offices. Therefore, the models may have features such as window coverings, window tinting, security systems, built-in features, slight plan changes, music systems and other differences from the production homes.

- Marketing

The representation of features, settings, finishes and other items that are used in advertising and sales materials may differ from those in your home.

- Substitution

Substitute materials that may differ from those in the model homes may have been made in the construction of your home due to situations beyond the control of Ichijo USA. Also, substitute materials may differ from model homes where the new materials do not alter the quality or function of your home.

Plans

Ichijo USA reserves the right to change plans, specifications and prices without notice.

Private Home Inspectors

Ichijo USA does not allow any Private Home Inspector on or about any property that is under construction without prior authorization from our office. Any Private Home Inspectors wishing to perform inspections on any of our homes must first provide us with the required proof of insurance and any other required documentation in order to be on our jobsites.

Soils

Any homeowner changes in the foundation, the grading and the landscaping of your home and lot can result in severe damage to your property and to neighboring properties. Consult a professional before any such changes are made. Architectural Control Committee approval will be required before making any changes to your property that may affect the drainage. County approval may also be required. See Grading and Drainage section for additional information.

Surrounding Property

No representation or warranty is made with respect to the use or construction of improvements on property adjacent or in the vicinity of your community. Even as to adjacent property owned by Ichijo USA, future use or construction may be altered for any reason. Please consult the municipality or county having jurisdiction over your community to determine the type of development that may occur in your area.

Trees

While Ichijo USA seeks to preserve trees, they can deteriorate and die due to a number of factors, including disease and disturbance to root systems. Over or under watering can harm trees. No representation or warranty is made regarding the trees located on your lot. You may wish to consult with an arborist to determine appropriate actions to preserve your trees.

Unauthorized Options and Upgrades by Buyers

Ichijo USA does not permit the installation of options by anyone other than Ichijo USA and its subcontractors and suppliers prior to the close of escrow. The unauthorized use of independent contractors, other than those who are under contract with Ichijo USA, or any work or changes made by the buyer, will void any warranty, implied or written, with respect to any and all damage caused, directly or indirectly, as a result of the work, and is a direct violation of your contract! Ichijo USA reserves the right to remove and destroy any alterations, materials or furnishings and possessions of the buyer, made by you or any unauthorized sub-contractor, prior to the closing of escrow, at the sole expense of the buyer.

Views

No representation or warranty is made with respect to the presence or absence of objects or items that are visible from your new home but are not located on your property. Such objects and items can be blocked or changed by future development, the growth of plants and other activities. Lot premiums, which take views into consideration, are only applicable at the time of purchase and no further warranties or representations

are implied. Ichijo USA does not assume liability for any views that are not located on the property you are purchasing.

Water Pressure

Your Ichijo USA Limited Warranty does not include any representation or warranty that the current water pressure level will prevail in the future. Please contact your water utility provider if you experience any problems after closing.

Glossary of Terms

AERATOR: Located at the end of the kitchen and bathroom faucets. It mixes air with the water in order to provide a smooth, splash-free flow of water. Occasionally, debris may collect in the aerator and restrict the flow of water. If this happens, unscrew the aerator and remove the debris.

ARCHITECTURAL CONTROL COMMITTEE: See “Pertinent Information” section of this manual.

BASEBOARD: The strip of molding or trim at the bottom of walls. The baseboard adds an attractive finish and protects the wall from scuffs and damage from furniture or vacuum cleaners.

BERM: A small ridge of soil which may direct the flow of rain and irrigation water toward drains or sewers.

CAULKING: This material is used as a sealant around sinks, tubs and showers. Other applications for caulking include sealing window and doorframes.

CEMENTITIOUS FINISH: The mortar-like material that covers the foundation and/or exterior walls of your home. This is commonly referred to as “stucco” in the building industry. Typically in residential construction this is a two (2) step process. This material is relatively brittle so you should avoid sharp blows to the walls. Its use is strictly cosmetic. Any references in our documentation to “stucco” is meant to describe this (2) step process cementitious veneer.

CIRCUIT: The electrical system in your home is separated into individual units referred to as circuits. Depending upon the layout of your home and electrical codes in your area, each circuit may be designed for a room, an area of the home or a single appliance.

CIRCUIT BREAKERS: Prevent electrical overload or shorting. The circuit breaker opens the circuit when an overload or short occurs, thereby breaking the flow of electricity. It can be reset manually by moving the circuit breaker lever to the “off” position and then to the “on” position once the source of overload has been corrected. Refer to the “Use and Care of Your Home” section of this manual for more information.

COMMON AREAS: Many neighborhoods have areas that are common property, which is owned by a homeowners association or other entity. These areas may include streets, parking areas, walkways, slopes and recreational areas. In some cases, these common areas are maintained and their use is governed by the homeowners association. Please refer to the Declaration of Restrictions.

CONDENSATION: The conversion of moisture in air to water, as on the warm room side of a cold wall; the forming of water on a surface can usually be prevented by insulating the inner wall so that its surface is kept warmer.

CONDENSER: The unit of a heating and air conditioning system that is located outside the home.

CULTURED MARBLE: This is a man-made product that has much of the durability and beauty of natural marble.

DECLARATION OF RESTRICTIONS: See “Pertinent Information” section of this manual.

DEFLECTION: Bending of a beam or any part of a structure under an applied load.

ICHIJO USA’S LIMITED WARRANTY: The one-year limited warranty made by Ichijo USA to you described in the “Warranty Procedures” section of this manual.

DRYWALL: The interior walls of a home are usually constructed of drywall. This material also is called gypsum board or sheetrock. The material is functional and can be textured and painted to complement the style of any home.

EFFLORESCENCE: The white, powdery substance that sometimes accumulates on stucco, masonry, concrete and brick. Excessive efflorescence can be removed by scrubbing with a strong vinegar solution or a commercial product.

EROSION: The flow of water from irrigation systems or rain can erode landscaping and change the drainage pattern of the yard. Most erosion can be prevented by maintaining the original grading of the yard.

EXPANSION JOINT: A break or space in construction to allow for thermal expansion and contraction of the materials used in the structure.

FLATWORK: A concrete surface usually four to six inches thick used for patios, walkways, driveways, etc.

FLUORESCENT: The lighting fixtures that provide even, soft illumination in kitchens, bathrooms and other areas of the home.

GFCI: Abbreviation for Ground Fault Circuit Interrupter. Similar to a circuit breaker, it is designed to interrupt the flow of electricity. GFCI’s are usually located in the kitchen, bathrooms, garage and exterior. In the event of a short circuit, the GFCI is designed to break the electrical circuit immediately and reduce the chance of serious electrical shock.

GROUT: Grout is the cement-like material visible between squares of ceramic tile.

HARDWARE: The hinges, locks, handles and other metal attachments to doors, cabinets and drawers are commonly referred to as hardware.

HEADER: The header is a relatively heavy, structural wood piece that spans open spaces such as doors and window frames. The header supports other structural lumber.

HOMEOWNER MAINTENANCE: As a new homeowner you need to routinely maintain the various features of your home. Some of these maintenance items have been indicated in the “Use and Care of Your Home” section of this manual. This continuing maintenance is your responsibility.

HOMEOWNERS ASSOCIATION: See “Important Information” section of this manual.

INCANDESCENT: Lighting fixtures that use traditional light bulbs are called incandescent fixtures. Incandescent lighting is used for lamps, spot lighting and exterior lighting.

MANUFACTURER’S WARRANTY: The appliances and certain other components of your new home are covered by warranties that are supplied by the original manufacturers. These warranties are passed on to you. They include components of the plumbing and electrical systems, heating and air conditioning system, water heater and other manufactured items.

MASONRY: The stonework and brickwork on a home.

MILDEW: Mildew results when moisture accumulates in a confined area. Excessive watering of landscaping can cause mildew. Due to humidity, mildew can also form on the underside of eaves, porches or box windows. Moisture can also cause mildew to form on bathroom walls.

NAIL POPS: The natural expansion and contraction of wood can cause the nails that hold the wall surfaces in place to move or pop out of place. The nails can be reset and, if necessary, touchup paint can be applied.

PORCELAIN ENAMEL: Your tubs and sinks may be constructed of porcelain enamel. Made of a silicate paint that is fired onto steel at high temperatures, it forms a durable smooth and shiny surface much like glass.

RETURN AIR VENT: Because modern homes feature almost airtight seals, the heating and air conditioning systems require return air vents to draw air back to the heating and cooling system.

SETTLING: In the first months and years after a new home is built, some settling can occur. Minor settling is normal, particularly in the first months after a new home is built. Small shrinkage cracks do not affect the structural integrity of

SILICONE: Any of a group of semi-organic polymers of siloxane, characterized by high lubricity and thermal stability, extreme water repellence, and physiological inertness. It is used in adhesives, lubricants, paints, insulation, and synthetic rubber.

SPACKLE: The puttylike material that is used to fill surface irregularities in drywall. Its most common use is to fill nail holes in walls before repainting.

SPALLING: The cracking or flaking of particles from a surface.

SUBCONTRACTOR: Most homes in our area are built by specialized trades people, or independent contractors, who contract with larger builders or developers to perform their area of specialization. This allows the builder to select those trades with the highest standards and the best reputation. Examples of subcontractors are plumbers, roofers and electricians.

Project Manager: The person who oversees the construction of homes is called the project manager. The project manager is responsible for making sure that the subcontractors perform their work on time and to the standards established by Ichijo USA.

SWALE: A swale is similar in purpose to a berm, but it is a depression in the ground. It is designed to channel rain and irrigation water away from structures and toward sewers and drains.

TACK STRIPS: The devices between the flooring and carpeting that are used to hold wall-to-wall carpeting in place.

THERMOSTAT: The wall-mounted device that controls the heating and air conditioning units is a thermostat. By cycling the heating or air conditioning units on and off, it will maintain a desired temperature in the home.

TUCK POINTING: The filling in with fresh mortar of cut-out or defective mortar joints in old masonry.

VITREOUS CHINA: The kiln-fired, pottery material that is used in most toilet bowls and tanks. It is very durable and impervious to water but can be broken by sharp blows from hard objects.

WARP: Shape distorted by twisting, especially in too rapidly dried wood.

WEEP HOLES: Small holes in door, masonry and window frames that allow water to drain away are called weep holes. They should be kept free of dirt and debris.

Quality Control

Ichijo USA Quality Control Inspections

Ichijo USA performs a variety of Quality Control Inspections on every home throughout the entire construction process. This is to ensure that each home meets or exceeds the quality level that each buyer sees in our models and spec homes when selecting their home for purchase.

Ichijo USA makes sure each home meets or exceeds the “Residential Performance Guidelines” established by the “National Association of Home Builders.” These guidelines set up standards by which the building community can establish certain quality levels in their construction. Building codes only address health, safety and welfare issues regarding new home construction.

The “National Association of Home Builders” is recognized as an objective and qualified source for setting up these standards. These standards are objective, credible and uniform and spell out the minimum performance for acceptable workmanship and product performance. Ichijo USA seeks to meet or exceed these standards on each home that we build.

Frequently asked questions about your new Ichijo USA Home Performance and Warranty

Congratulations and thank you for allowing Ichijo USA to build your home. We understand that your new home is a major investment so we would like to answer the most frequently asked questions about the warranty on your home and set realistic expectations for the performance of your home. Prior to closing, your home receives a 200+ point Quality Control Inspection from our in-house professionals to insure that it meets or exceeds the Residential Construction Standards established by the National Association of Home Builders as modified for our area.

When your home is completed and ready for closing, we will introduce you to the features and functions of your new home with an Orientation process. This usually takes between 30 minutes to an hour to complete and gives us a chance to note any final touch ups that may need to be completed prior to your closing. Then we explain homeowner responsibilities and general maintenance of your new home. Refer to your Warranty Booklet for further information. All warranty documents will be provided at

the Orientation. The final step prior to closing is to do a final walk through, to verify that all items listed on the Orientation Checklist are complete and your new home is ready for you to enjoy after closing. Once this Orientation process is complete and signed off, this signifies your acceptance of the home and that all required features or upgrades have been installed or completed. Remember, in addition to our 1 Year Builder Warranty, your home is also covered by a 10 Year Structural Warranty from Residential Warranty Corporation!

Q. What is Ichijo USA's warranty policy concerning scratched window glass, damaged countertops, damaged cabinets, or other similar damages after I close?

A. Damages such as scratched glass, cuts in vinyl flooring, damaged countertops, drywall repairs & paint touch-ups are not warranted after closing. These items must be noted on the Orientation Builders Checklist and taken care of prior to closing. Ichijo USA will not be responsible for paint touch matches after closing; however, we will match with the closest available standard color.

Q. What is Ichijo USA's policy concerning concrete?

A. Concrete surfaces will sometimes crack due to normal expansion and contraction and temperature changes; they may also develop cracks from soil movement underneath due to rain, evaporation, etc. Most cracks have no structural significance and are of no concern. Cracks in garage, driveway, walkway and patio that are in excess of 1/4 inch in width or vertical displacement will be repaired. Foundation cracks greater than 1/8 inch will be repaired. In accordance with our warranty policy, we will make any necessary repairs to correct these conditions. Ichijo USA will not be responsible for color variations when repairs are required.

Q. What are Ichijo USA's policies covering roof issues?

A. Roof issues will be covered for the first year as outlined in the warranty documents. A Materials Warranty will be provided and covered by the manufacturer; this is usually 15 to 20 years depending on the shingles used.

Q. What is Ichijo USA's warranty policies for ceramic tile?

A. Ceramic tile issue will be covered for the first year as outlined in the warranty documents. If tiles are to be replaced, Ichijo USA does not assume the responsible for color variations or die lot matches on tile that has been discontinued. Wall tiles will be also covered for one year from the date of closing.

Q. What should I do if I have a Plumbing emergency after hours?

A. Ichijo USA provides 24 hour 7 days a week emergency service through our plumbing contractor. You will be provided an emergency number for this purpose. We would like for you to contact our warranty department the next business day as well so that we may make any necessary visits to evaluate the problem and reduce the chance of other concerns.

Q. How will I know where my property lines are if I want to do make any alterations to my property after I close?

A. We will provide you with property pins on the corners of your lot, which will enable your contractor to locate the lot lines prior to his installation. It is your responsibility to provide this information to your contractors as well as your contractor's responsibility to verify these measurements prior to making any improvements to your property. Be sure to check the Covenants and Restrictions for your neighborhood prior to making any alterations to your property, as a written architectural approval is usually required.

OTHER INFORMATION:

1. Be sure to read and understand the Warranty Documents completely.
2. Be sure to contact our warranty department as soon as possible to report any leaks that you may notice. This will help reduce the chance of a small problem turning into a larger one.
3. Driveways, walks, patios and exterior walls can be pressure washed. Avoid high pressures to reduce the chance of damage to the surface being cleaned. It is not recommended that you Pressure Wash your windows as this could result in damage that might void the warranty.
4. Check your roof shingles after heavy storms or high winds to make sure that there are no damaged or missing shingles.
5. Change A/C filters monthly. Have unit serviced at least once a year for proper operation.
6. Know where all major shut-off valves are located.
7. Some items on your new home may have extended warranties that will be provided by the manufacturer. Please consult these documents for further information.
8. Ichijo USA does not assume responsible for conditions that are beyond our control.
9. Personal property including furnishings are not covered by this warranty.

How to Submit a Warranty Claim

Normal Procedures

Prior to submitting your request, please review the Ichijo Warranty on the following pages to verify that your claim is covered.

To submit your warranty request, visit the Ichijo website at: www.ichijousa.com and click on the “Homeowners” tab or email warranty@ichijousa.com directly. Please be advised that someone will respond to your request within 3 business days.

Emergency Service

<u>Problem</u>	<u>Solution</u>
Total loss of heating or air conditioning	Contact the HVAC (AirConditioning) Co.
Total loss of electricity	Check with utility company for outages
Plumbing leak or plumbing backup	Shutoff entire water supply to home
Total of loss water	Check with utility company for outages

In case of emergency, your first step should be to protect your family from harm. Once you are sure of their safety, and if you safety will not be jeopardized, you should take steps to correct or lessen the effects of the emergency.

Damage from a water leak can be minimized by turning off the water to a particular fixture or turning off the water main to your home. The water main shut-off valve is located at the water meter box, which is generally located at the property line. Please refer to the “Plumbing” section of this manual for further discussion of the water shut- off locations.

Please notify our office as soon as possible if a roof leak is experienced. Failure to notify us promptly could exacerbate the situation creating a much greater chance of further damage.

Do not delay in reporting an emergency. Subsequent damage caused by a delay in reporting an emergency will not be the responsibility of Ichijo USA. Damage to personal property is not covered by Ichijo USA’s Limited Warranty

If you situation does not fall within the emergency guidelines, please use the procedures outline for requesting routine warranty service.

Ichijo Limited Warranty

1 Coverage period

ICHIJO to provide Limited Warranty for 1 year, 2 year and 10 year respectively depending on the building components and elements. (attached hereto as Appendix A) This Limited Warranty commences on the date of closing, or the date of Home Owner's occupancy whichever occurs first. This Limited Warranty is in effect only if ICHIJO is in receipt of entire contracted/purchase price.

2 Request for warranty services

Warranty inquiries have to be in writing to be considered by ICHIJO. No Limited Warranty work will be performed nor guaranteed until request has been received in writing, unless designated an emergency.

3 Remedy

ICHIJO will, within a reasonable time, examine an alleged defect to determine if it is covered by this Limited Warranty. A defect covered by this Warranty will be repaired, replaced, or replaced with item of like kind, at ICHIJO's expense. Home Owner agreed to bear the cost for the water, gas and electricity necessary for the Warranty work for using tools and/or equipment, washing, drying, cleaning and such. Any repair or replacement shall not extend the Warranty term. The total liability of Warranty is limited and shall not exceed the purchase price of the home in the Purchase and Sale Agreement.

4 Right of access

Homeowner to provide ICHIJO access to property to perform its work under this Warranty. Failure to provide such access may relieve ICHIJO of its obligations.

5 Exclusions

- 1) Damages or losses resulting from accidents; civil commotion; acts of God or Nature – including, but not limited to wind storms, wind driven water, floods, sink holes, hail, lightning, fallen trees, earthquakes, explosions, fire, smoke, water escape, or changes in underground watertable.
- 2) Defects or damages caused by animal droppings, rubbing, eating or infestation.
- 3) Any condition which does not result in actual physical damage to the Home including, but not limited to uninhabitability or health risk due to presence or consequence of unacceptable levels of radon gas, formaldehyde, mold, carcinogenic substances, or other pollutants and contaminants, or the presence of hazardous or toxic materials.
- 4) Any soil erosion/sedimentation or storm water control management systems that are approved by a governing jurisdiction.
- 5) Expenses a Home Owner may incur as a consequence of defects or warranty repair include but are not limited to the cost of having to move out while repairs are being made, household appliances, or personal properties.
- 6) Any consequential, indirect, punitive damages which may arise from defects or warranty repair including but not limited to bodily injury, loss of use, loss of data, loss of income or profit, and/or claims of third parties.
- 7) Any defects, damage, or loss which is caused by negligence including but not limited to unattended water leak or visible mold growth, insufficient maintenance, or improper use of Home Owner or anyone other than ICHIJO or its employees, agents, or subcontractors.

6 Regarding warranty for any appliance or equipment provided by ICHIJO, including but not limited to water heaters, pumps, stoves, ranges, ovens, garbage disposals, dishwashers, furnaces, air conditioning units, heat pumps, photovoltaic systems and other similar items, Home Owner shall refer to the manufacturer's warranties to the Home Owner, which require registration by Homeowner to uphold manufacturer's specific warranty.

7 Discoloring

Repairing, repainting or replacement of interior or exterior surface, including driveways and sidewalks, shall be limited to the defective area.

8 Transfer of Ichijo Warranty

One (1) year Materials & Workmanship Warranty will automatically terminate if the property is leased, vacated or sold by original Home Owner. Only two (2) year System Warranty and ten (10) year Structural Warranty will stay with the home and automatically transfer to the new owner upon change of ownership.

Appendix A

■ 1 Year Materials & Workmanship Warranty

This warranty covers material defects and general workmanship for interior and exterior finishes. Warranty standard and coverage are as follows;

1. Finishes (Drywall, Paint, Carpet, etc.)

The Warranty provides protection against defects in finishes in the home, including drywall, lath and plaster walls and ceilings, hard-surface flooring, bathtubs, showers and countertops, resilient and finished-wood flooring, trims, interior and exterior painting and carpeting.

2. Nail pops and drywall cracks

The Warranty provides repair for nail pops and drywall cracks caused by acclimation to the temperature and humidity of the seasons.

3. Roof

The Warranty covers roof leaks that are caused by rain, normal wear or natural deterioration on a well-maintained roof. The leak caused by buildup of snow, ice, leaves, bird droppings or other build up that prevents rainwater drainage shall not be considered a defect and such water penetration shall not be covered.

4. Doors & Windows

For proper fit and smooth operation, interior, exterior and garage doors, doorknobs, deadbolts and locksets, wood, plastic and metal windows, glass and glazing; and storm doors, windows and screens are covered.

5. Concrete

For protection against defects in concrete surfaces, warranty coverage includes concrete basement and attached garage floors, slab-on-grade floors with finish flooring, stoops and steps, and interior concrete work. Small cracks not affecting structural stability are not unusual on the surface of the concrete. Cracks greater than 1/4 inch will be repaired by concrete caulk.

6. Cabinets & Vanities

To keep kitchens and bathrooms functional, warranty coverage includes defects in kitchen and vanity cabinet doors and drawers, as well as high-pressure laminated kitchen and vanity countertops.

7. Electrical Components

The Warranty provides coverage against defects in receptacles, fixtures, fuses, ground-fault circuit interrupters (GFCI) and circuit breakers. This excludes light bulbs and batteries.

8. Masonry

The Warranty coverage includes workmanship on masonry, brick and stone veneer, concrete block basement walls, stucco and cement plaster walls. Due to lime content and porous property, discoloration, efflorescence, chemical reaction or water absorption shall not be covered.

9. Thermal & Moisture Protection

The Warranty coverage provides protection against defects in waterproofing, moisture control and ventilation in basements, attics and roofs; insulation around living areas; exterior wall caulking, and siding, gutters and downspouts.

10. Mechanical

The Warranty coverage is provided for plumbing and water supply fixtures such as faucets, valves and water pipes, as well as operation of the heating and cooling system.

11. Site Work

The warranty includes protection against defects in the grading established by the builder in backfilled areas of the foundation so surface water drains away from the home. There should be no standing water in the yard 48 hours after no rainfall.

■ **2 year System Warranty**

This warranty protects a home from defects in the electrical, plumbing and mechanical distribution systems for a full two years.

1. Mechanical (Waste Piping)

For smooth-flowing pipes, the systems warranty covers repairs to sanitary sewers, fixtures, and waste and drain lines to prevent clogs or poor drainage.

2. Electrical System

The systems warranty covers wiring and electrical conductors, ensuring that the home's wiring carries its designed load

3. Mechanical (Duct Work)

To provide a temperature-controlled environment all year long, systems warranty coverage includes repairs to the home's heating and cooling ductwork if it separates or detaches.

4. Mechanical (Plumbing)

To keep water flowing in and out of the home, systems warranty coverage includes waste, vent and water pipe leaks and bursts; heating and air conditioning refrigerant lineleaks; and water supply and septic tank system operation.

■ 10 year Structural Warranty

Structural defects are defined as physical damage to a home's designated load-bearing elements described below caused by failure that affects their load-bearing function to the extent that the home becomes unsafe, unsanitary or otherwise unlivable.

1. Roof Framing Systems
2. Floor Framing
3. Load-Bearing Walls & Partitions
4. Beams, Girders
5. Columns
6. Footing & Foundation Systems.
7. Window structural and glazing units

USE AND CARE OF YOUR HOME

Your home has been constructed with quality materials and the labor of experienced craftsmen. Prior to our using any material, it must meet our specifications for quality and durability. All work is done under our supervision to attain the best possible results.

A home is one of the last hand-built products left in the world. Homebuilding is part art, part science and part hard labor. No two homes, even of the same plan, will be constructed exactly alike. Once the natural and man-made materials have been assembled, the components interact with each other and the environment. Although quality materials and workmanship have been used in your home, this does not mean that it will be free from care and maintenance. A home, like an automobile, requires care and regular maintenance. This is essential to providing a quality home for a lifetime. Please refer to the schedule in this manual for maintenance guidelines.

We are proud of the product we build and the neighborhoods in which we build. We strive to create long lasting value. This cannot be achieved unless you, as the homeowner, properly maintain your home and all of its components. Periodic maintenance is necessary because of a number of factors such as normal wear and tear, the inherent characteristics of the materials used in your home, and normal service required by the mechanical systems. Natural fluctuations in temperature and humidity can also impact your home.

Many times a minor adjustment or repair done immediately by you saves a more serious time consuming and sometimes costly repair later. Note also that negligence of routine maintenance can void applicable limited warranty coverage on all or part of your home.

We recognize that it is impossible to anticipate and describe every attention that may be needed for good home care; however, we have covered many important details. The subjects covered include components of homes we build, listed in alphabetical order. Each topic includes suggestions for use and care. Some components may be discussed here which are not present in your home.

Please take time to read the literature provided by the manufacturers of consumer products and other items in your home. Although much of the information may be familiar to you, some points may be significantly different from homes you have owned in the past. The information contained in that material is not repeated here.

We make every effort to keep our information current and accurate. However, if any detail in our discussion conflicts with the manufacturer's recommendations, the manufacturer's recommendations should be followed. Activate specific manufacturer warranties by completing and mailing the registration cards included with their materials. In some cases, manufacturer warranties may extend beyond the first year; it is in your best interest to be familiar with such coverage. By caring for your home attentively, you insure your enjoyment of it for years to come. The attention provided by each homeowner contributes significantly to the overall desirability of the community.

While we strive to build a defect free home, we are realistic enough to know that we may make mistakes or that something in the home may not perform as intended. When either occurs, we will make the necessary corrections. In support of this commitment, Ichijo USA provides you with a one year limited warranty.

**For your protection, for accuracy, and for efficient operation of our service activities, non-emergency items must be reported in writing.
We do not accept reports for routine warranty items over the phone.**

Recommended Maintenance Schedule

Maintenance (scheduling & cost) is the responsibility of the Homeowner

Item	Monthly Interval (1 thru 6)					
	1	2	3	4	5	6
Air Filter-HVAC System			Replace			Replace
Backflow Preventer (where applicable)						
Caulking – Exterior (entrances & windows)			Inspect			Inspect
Caulking – Interior (wet areas)			Inspect/Replace			Inspect/Replace
Clothes Dryer Lint Duct & Filter						Clean Out Vent
Condensation Line – HVAC System	Inspect	Inspect	Inspect	Inspect	Inspect	Inspect
Exterior Drainage						Inspect
Faucet Aerator			Clean			Clean
Fireplace Flue/Chimney						Inspect/Clean
Front Door Finish Metal/Fiberglass	Clean	Clean	Clean	Clean	Clean	Clean
Garage Doors			Lubricate			Lubricate/Inspect
Garbage Disposal	Flush/Clean	Flush/Clea	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean
Gutters/Downspouts			Inspect/Clean			Inspect/Clean
HVAC System Check *						Inspect
Plumbing Drains			Inspect/Clean			Inspect/Clean
Range Hood Fan Filter		Clean		Clean		Clean
Screens (doors & windows)			Inspect			Inspect/Clean
Smoke Detectors	Test	Test	Test	Test	Test	Test
Sprinklers (where applicable)						
Water Heater						Flush
Water Heater (tankless)						
Weep Holes (windows & sliding doors)						Inspect, Clean
Whole House Fan						

Item	Monthly Interval (7 thru 12)					
	7	8	9	10	11	12
Air Filter-HVAC System			Replace			Replace
Backflow Preventer (where applicable)						Inspect
Caulking – Exterior (entrances & windows)			Inspect			Inspect
Caulking – Interior (wet areas)			Inspect/Replace			Inspect/Replace
Clothes Dryer Lint Duct & Filter						Clean
Condensation Line – HVAC System	Inspect	Inspect	Inspect	Inspect	Inspect	Inspect
Exterior Drainage						Inspect
Faucet Aerator			Clean			Clean
Fireplace Flue/Chimney						Inspect/Clean
Front Door Finish Metal	Clean	Clean	Clean	Clean	Clean	Clean/Repaint
Garage Doors			Lubricate			Lubricate/Inspect
Garbage Disposal	Flush/Clean	Flush/Clea	Flush/Clean	Flush/Clean	Flush/Clean	Flush/Clean
Gutters/Downspouts			Inspect/Clean			Inspect/Clean
HVAC System Check *						Inspect
Plumbing Drains			Inspect/Clean			Inspect/Clean
Range Hood Fan Filter		Clean		Clean		Clean
Screens (doors & windows)			Inspect			Inspect/Clean
Smoke Detectors	Test	Test	Test	Test	Test	Test
Sprinklers (where applicable)						Inspect
Water Heater						Flush
Water Heater (tankless)						Inspect
Weep Holes						Inspect, Clean
Whole House Fan						Inspect

* Call a Licensed HVAC Contractor to service your Air Conditioning and Heating system at least once a year!

Appliances

Read and follow all manufacturer requirements for each appliance in your home.

Manufacturer Service

If a problem arises with an appliance after the one year limited warranty period, contact the Customer Service number listed in the manufacturer's warranty booklet. When reporting warranty items to the appliance manufacturer, be prepared to supply the following:

- the date of purchase (closing date)
- the serial number and model number (found on a metal plate on the side or bottom of each appliance)
- a description of the problem

Registration

Mail warranty registration cards directly to the manufacturer.

Appliance Warranties

All appliance warranties are assigned to you at the closing. The appliances are warranted directly to you in accordance with the terms and conditions of the written warranties supplied by their manufacturers.

Attic Access and Insulation

The attic space is not intended for storage of any kind (excessive weight could jeopardize the integrity of the trusses and void your warranty). Access is provided for purposes of maintaining mechanical equipment that may traverse the attic space. When performing any needed tasks in the attic, caution should be used not to step off wooden members onto the drywall. This can result in personal injury and/or damage to the ceiling below. Such injury or damage is not covered by your limited warranty.

Insulation

The effectiveness of blown insulation is diminished if it is uneven. The last step in any work done in your attic should be to confirm that the insulation lies smoothly and evenly. Do not step on drywall ceilings; personal injury or damage to drywall can result.

Building Codes

Insulation installed in your home meets or exceeds the building codes applicable to your home at the time of construction.

Cabinetry

The best practice for preserving your cabinet surfaces is to always keep them dry and clean. Leaving water, spills, & splatter on your cabinetry for prolonged periods may lead to spotting, clouding, and discoloration.

Cleaning and Maintaining Cabinetry Doors:

“Piano Finish” cabinet doors literally receive a mirror-like coating comparable to pianos. While designed to be low and easy maintenance, certain precautions are necessary to preserve the original finish. To prevent scratching, only use clean, soft fabrics such as those used to clean eye wear. For everyday maintenance, a slightly dampened cloth is sufficient, followed by drying-off excess moisture. For stubborn cleaning, use of small amounts of mild detergent or rubbing alcohol is acceptable. Actual piano cleaner/polishes are also available which are ideal as they not only clean but protect and enhance the finish.



PRECAUTIONS:

Do not use abrasives and strong chemicals such as cleansers, paint thinners, bleach, and mold/mildew removers as they can scratch and discolor the finish

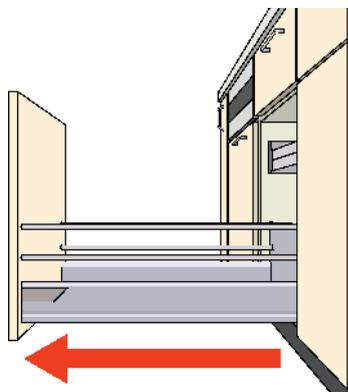
Kitchen Cabinets

DRAWER REMOVAL AND INSTALLATION

Begin by first removing everything inside the drawer box. Then follow the steps below. To prevent scratching or denting your floor, lay down floor protection such as heavy cardboard under the area of work.

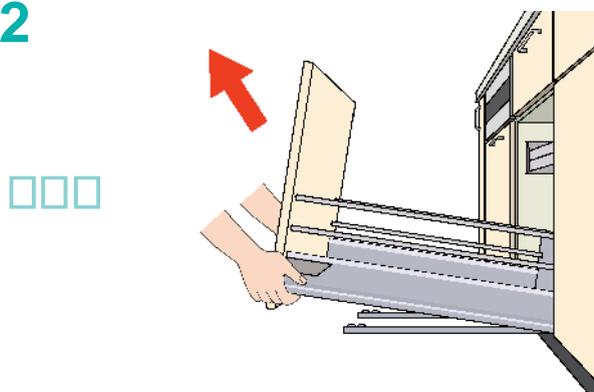
■ Drawer Removal

1



Fully extend the drawer

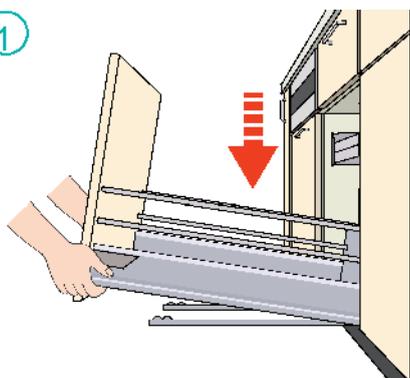
2



Using two hands, grasp the left and right front bottom corners of the drawer. The drawer will easily disconnect from the guides by tilting the drawer up and toward yourself

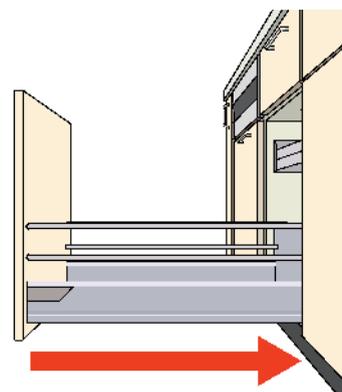
■ Drawer Installation

①



Pull the drawer guides (rails) in the cabinet all the way out. Place the drawer on the guides angled forward as illustrated.

②



Once the drawer is correctly positioned in the guides, as you push the drawer into the cabinet, the drawer will “click” into position and smoothly close.

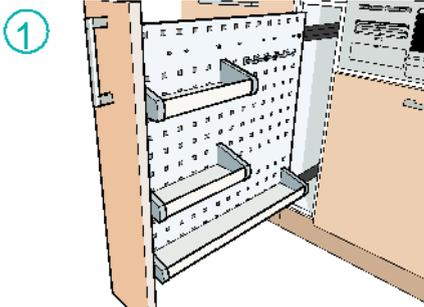
PRECAUTIONS:

- As drawers may be heavy, it is recommended that two people perform drawer removal & installation.
- It may take a few tries before you get a feel for how the drawer needs to be seated in the drawer guides. Open and closes a few times to confirm correct installation.

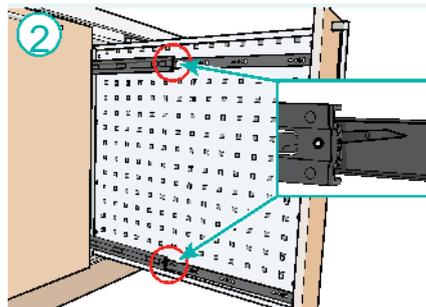
Kitchen Cabinetry Removal & Installation

Multi-purpose slide-out rack: Removal & Installation

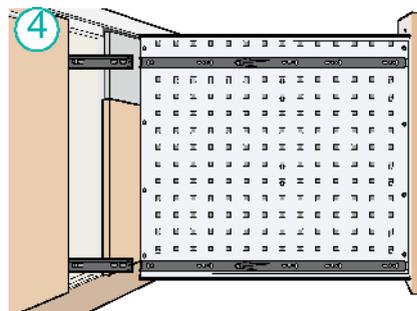
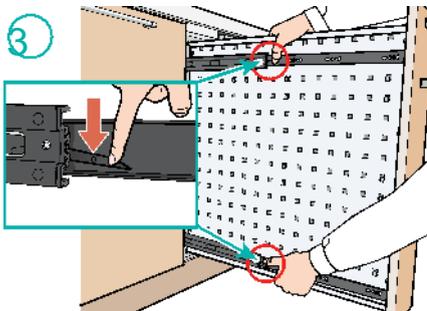
Fully open the slide-out rack. Locate tracks & release lever on the rear side. Using your thumbs, push the lever attached to both the top and bottom tracks simultaneously and pull out the drawer. This will release the track from the cabinet, allowing the drawer to be removed from the cabinet.



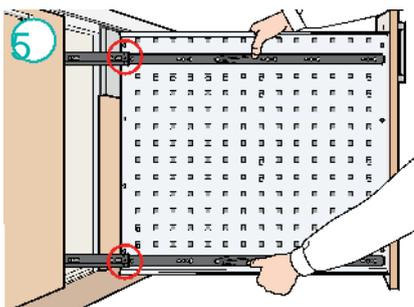
First completely remove all contents in the slide-out rack



Engage the lever on both tracks



While depressing the levers, slide the drawer all-the-way out



To reinstall the slide-out rack, simply align the rails into the tracks and push the drawer back inside

PRECAUTIONS:

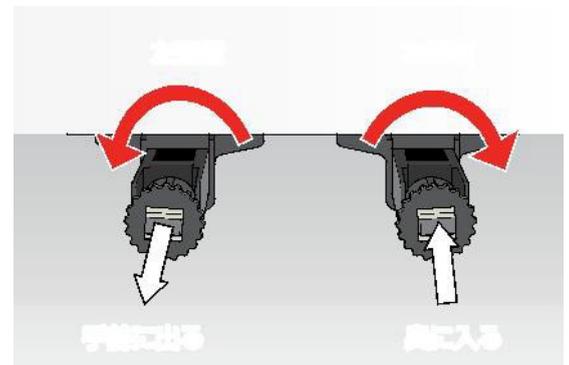
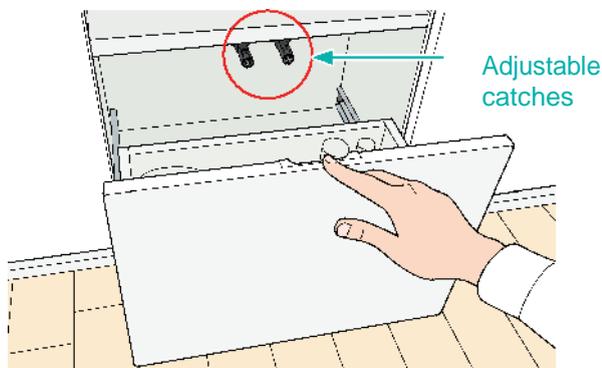
- Make sure to remove contents before attempting slide-out rack removal
- After reinstalling the slide-out rack, make certain the rails are once again locked into the tracks by pulling the drawer all the way out and back in, before placing items back into storage and ordinary use.

Vanity Cabinetry

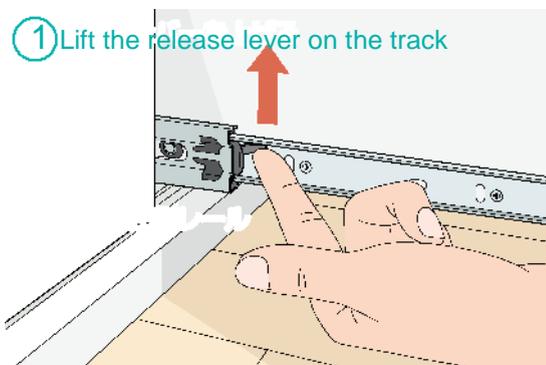
Push Latch Drawer Adjustment & Removal

Powder Rooms furnished with a push latch drawer, which opens by a simple light push without the need for pulls or knobs: Follow the steps below for adjustment and drawer removal and reinstallation.

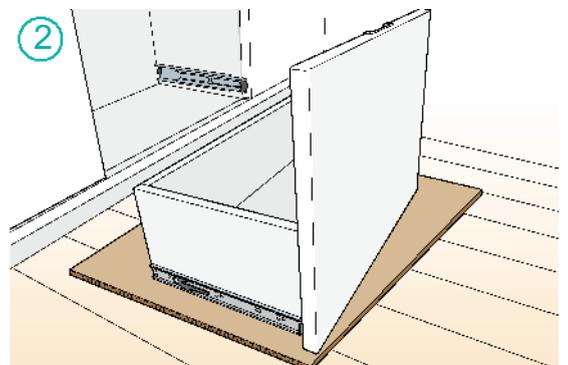
If the push latch drawer fails to operate smoothly, open the drawer and locate the two magnetic catch mechanisms. Turning the dials either to the left or right adjusts the distance of the magnet latches to the metal plate on the inside of the drawer panel. The ideal setting is for both magnets to catch simultaneously. Turn the dials in small increments until smooth operation is restored.



Drawer Removal



Fully extend the drawer. Push the release lever on the left rail up, push the release lever on the right down.



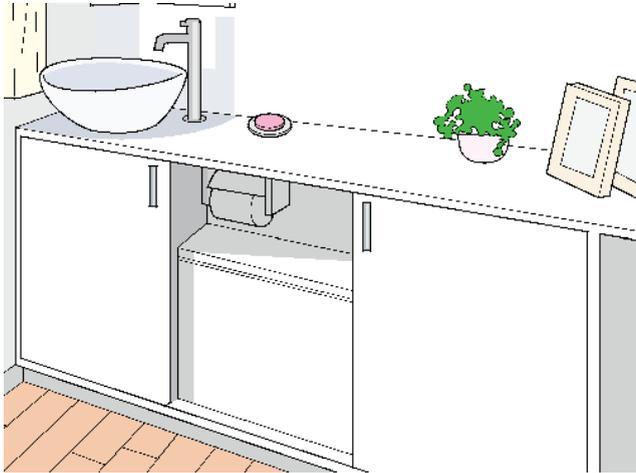
While depressing both levers, slide the drawer out and set on something which protects your floor.

Precautions:

- Remove contents in the drawer before removing/installing drawers
- Set the drawer on a sheet of thick cardboard to prevent scratching or denting your floor

Powder Room vanity usage tips

Your powder room maybe furnished with a vessel sink. Typical to vessel sinks, it may not have an overflow. When using a drainstopper, do not leave water running unattended to prevent overflows.



□ Cleaning the countertop and cabinet doors:

Using a clean soft damp cloth, wipe countertops and door surfaces. Only use mild non- abrasive household detergents for more aggressive cleaning.

Concrete

Foundation

The foundation of your home has been designed and installed in accordance with the recommendations of our consulting engineer. Even though the foundation has been designed by an engineer and constructed in accordance with engineering requirements, cracks can still develop in the wall. Unless there is water seepage coming through such a crack, it is most likely a surface crack and will not be detrimental to the structural integrity of your home. Unless cracks exceed 1/8" in width they are not covered by the Limited Warranty.

By maintaining good drainage, your home's foundation is protected as well as the concrete flatwork (e.g., porch, patio, driveway, sidewalks, entry walks, etc.).

Concrete Slab

The concrete slab in your home has been designed and installed in accordance with the recommendations of our consulting engineer. Even though the slab has been designed by an engineer and constructed in accordance with engineering requirements, cracks can still develop. Unless the cracks are significant enough to affect the finished floor appearance they are usually not of concern. If cracks develop within the area designed as living space and exceed 1/4" in width or vertical displacement they are not covered by the Limited Warranty.

Flatwork

To properly care for your exterior concrete, always be aware of areas where water is collecting and fill these in. Do not allow downspouts to drain in such a way that the water can get under the concrete.

Cracks in Flatwork

Although we use accepted construction procedures for the installation of concrete flatwork, this does not guarantee there will be no cracking. Due to normal expansion and contraction, some cracking in concrete occurs in almost all homes. Cracks do not mean that your foundation or flatwork is not operating properly. Cracks that do not exceed 1/4" are not covered by the limited homeowner warranty. When cracks are covered, the repair provided is sealing the crack. Concrete is not replaced due to cracking.

By maintaining good drainage away from your home, you are protecting your home's foundation. Maintenance of drainage away from all concrete slabs will minimize cracking and other forms of movement.

Expansion Joints

Expansion joints have been used to help control expansion; however, concrete is also susceptible to shrinking. If the concrete shrinks, moisture can penetrate underneath the concrete and lift the expansion joint. If this occurs, the gap can be filled with a gray

silicone sealant, which can be purchased at most hardware stores.

Heavy Vehicles

Do not permit heavy vehicles (e.g., moving vans, concrete trucks, etc.) to drive on your concrete work. This concrete is not intended to bear the weight of these types of vehicles.

Spalling

Repeated hosing of concrete for cleaning animal urine, radiator overflow, fertilizer, ice melting agents and/or road salts are some of the causes of spalling (e.g., chipping or flaking). Ichijo USA is not responsible for the repair of spalling.

Cleaning of the garage floor by hosing can also cause settling and increase soil movement by allowing water to penetrate any existing cracks. Ichijo USA will not be responsible for repairs needed due to such action.

Sweeping/Cleaning

Do not wash patios, porches, drives, etc. with cold water from an outside faucet when temperatures are extremely high and the hot sun has been shining on the concrete. The abrupt change in temperature can damage the surface bond of the concrete. Sweeping is the recommended method of keeping exterior concrete clean. If washing is necessary, do this when temperatures are moderate.

Settling or Heaving of Flatwork

Excessive settling or heaving (over one inch) should be reported in writing so that an inspection can be made. Please refer to your warranties to determine coverage.

Concrete Flatwork

Concrete flatwork is in essence a “floating slab” -- it is not attached to your home’s foundation. The concrete flatwork is not a structural (load bearing) element of your home and is not covered by warranties covering your home’s foundation. Concrete flatwork will move due to expansion/contraction of soils on which it rests; cracks in such flatwork are normal.

Condensation

Condensation on interior surfaces of the windows and frames is normal and results from high humidity within the home and low outside temperatures and inadequate ventilation. These conditions are significantly influenced by family lifestyle. If your home includes a humidifier, closely observe manufacturer's directions, especially during periods of cooler temperatures. Please see the section on “Mold & Mildew” in this manual as well as the “Mold Disclosure” in your contract for further information.

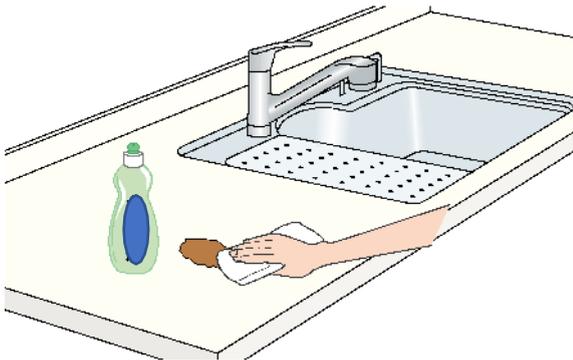
Countertops: Vanity (bathroom) & Quartz

Promptly wipe up all drips and spills which may discolor or stain your countertop, wiping it clean with a damp, soft, clean cloth. Doing so will help preserve the original look of your countertop.

■ Cleaning your countertops

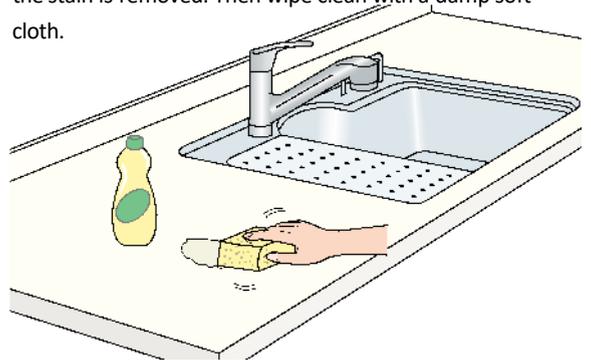
☐ Light spills

Light spills made by items such as coffee or tea can be cleaned by applying a small amount of ordinary hand-wash dish soap to a moistened soft cloth



☐ Stubborn spills

Apply a small amount of ordinary toothpaste over the area. Using a non-abrasive sponge, scrub the area until the stain is removed. Then wipe clean with a damp soft cloth.



☐ Scratch marks

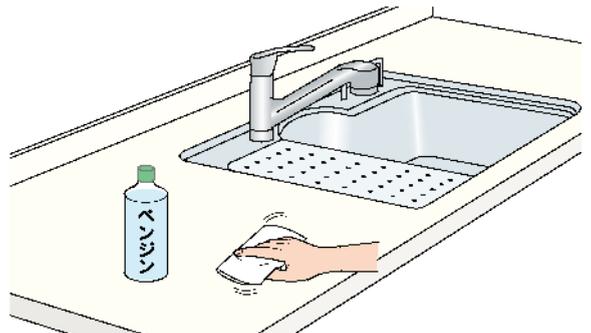
Only after unsuccessfully trying milder cleaners, apply a small amount of nail polish remover to a soft cloth, and scrub the area clean. Wipe up the remaining material immediately with a water damp soft cloth

※ Sandpaper is NOT recommended as it can leave mineral swirl marks on the surface



☐ Heavy stains

※ Always test strong chemical & abrasive cleaning agents on less noticeable areas first, since they can discolor and/or scratch countertop surfaces



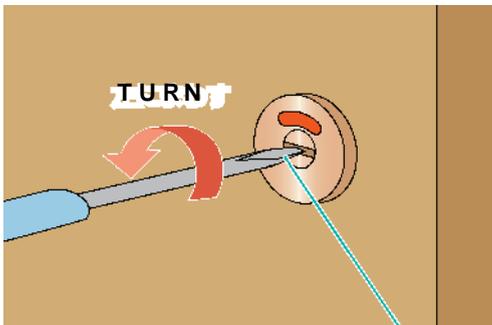
PRECAUTIONS

- Your countertop is a hard surface by design. Gently place fragile items such as glass and porcelain to prevent breakage.
- Never lay scalding hot items on your countertop as they can burn and discolor the surface.

Doors: Interior & Exterior

UNLOCKING PRIVACY DOOR LEVERS FROM THE OUTSIDE OF ROOMS:

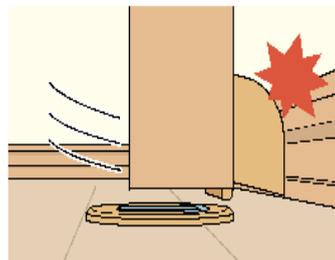
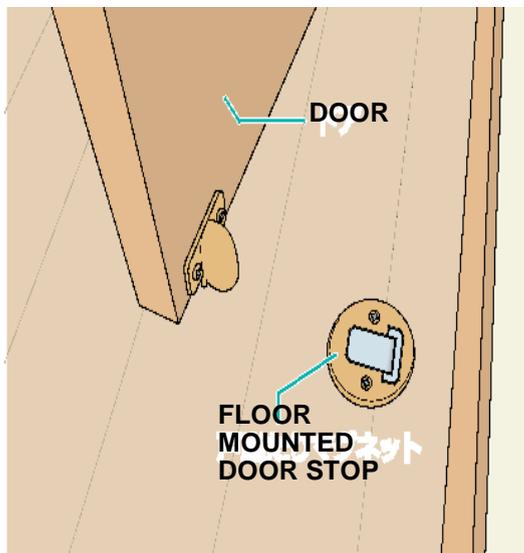
Doors installed with privacy door levers (such as bathrooms & certain bedrooms) can be unlocked from the outside of the room using a flat-head screw driver or thin coin. Simply rotate the slot on the outside of the room to unlock the door illustrated below.



Rotate slot

MAGNETIC CATCH DOOR STOPS:

How it works: As the door is opened and approaches the stop, a magnet lifts a lever, activating the door stop mechanism.



PRECAUTIONS:

Due to heavy floor wax build-up, or dirt accumulated inside the floor stop assembly, it is possible for the stop lever to become stuck in the down position. Keeping the door stop clear of build-up will ensure proper operation.

Forcefully slamming doors open may override the functionality of the stop, allowing the door swing into the wall behind. While the door stop will function properly under normal use, it is not recommended to forcefully slam doors in general.

Doors: Exterior and Locks

The doors installed in your home are typically steel, fiberglass and wood products subject to the natural characteristics of each material such as shrinkage and warpage. Due to natural fluctuations of humidity and the use of forced air furnaces, showers, and dishwashers, and so on, doors may require minor adjustments from time to time by the homeowner. Putty, filler, or latex caulk can be used to fill any minor separations that develop at mitered joints in door trim. Follow this with painting that is a homeowner responsibility.

Door Adjustments

Due to normal settling of the home, doors may require minor adjustments for proper fit. It is a homeowner's responsibility to touch up paint and make these minor adjustments.

Exterior Finish

To insure longer life for your exterior doors, plan to repaint them at least once a year.

Failure to Latch

If a door will not latch due to minor settling, this can be corrected by making a new opening in the jamb for the latch plate and raising or lowering the plate accordingly.

Hinges

A squeaky door hinge can be remedied by removing the hinge pin and applying a silicone lubricant. Do not use oil as it can gum up; graphite works as a lubricant but can create a gray smudge on the door or floor covering beneath the hinge if too much is applied.

Keys

Keep a duplicate privacy lock key where children cannot reach it in the event a youngster locks himself/herself in a room. The top edge of the door casing is often used as a place to keep the key. Some types of privacy locks can be opened with a small screw driver or similarly shaped device.

Locks

Lubricate door locks with graphite or other waterproof lubricant. Avoid oil as it will gum up.

Slamming

Slamming doors can damage both doors and jambs, and can even cause cracking in walls. Teach children not to hang on the doorknob and swing back and forth. This can work hardware loose and cause the door to sag.

Sticking

The most common cause of a sticking door is the natural expansion of lumber due to changes in humidity. When sticking is due to swelling during a damp season, do not plane the door unless it continues to stick after the weather changes. Use sandpaper to smooth the door. Be certain to repaint the area of the door where it was sanded to seal against moisture.

Before planning a door due to sticking, try two other steps -- first, apply either a paste wax, light coat of paraffin, or candle wax to the sticking surface; or second, tighten the screws that hold the door jamb or door frame.

Warping

If a door warps slightly, keep it closed as much as possible; this often helps return it to normal.

Weather Stripping

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

Doors: Garage

Since the garage door is a large, moving object, periodic maintenance along with following the manufacturer's instructions will insure safe and reliable operation.

Thirty (30) Weight Oil

Every six (6) months, apply a thirty (30) weight automobile oil or similar lubricant to all moving parts -- track, rollers, hinges, pulleys and springs. At this same interval, check to see that all hardware is tight and operating as intended without binding or scraping. Avoid over lubricating to prevent dripping on cars and the concrete flooring.

Lock

If the lock becomes stiff, apply a silicone or graphite lubricant. Do not use oil on a lock as it will stiffen in winter and make the lock difficult to operate.

Opener

To prevent damage to the garage door opener, be sure the door is completely unlocked and the rope pull has been removed before using the operator.

Painting

The garage door should be repainted when the home is repainted or more often if needed to maintain a satisfactory appearance.

Safety

Do not allow anyone except the operator near the door when it is in motion. Keep hands and fingers away from all parts of the door except the handle. Do not allow children to play with or around the door.

For your safety, after the expiration of the one year limited warranty, have any needed adjustments made by a qualified specialist. The door springs are under a considerable amount of tension and require special tools and knowledge for accurate and safe surfacing. Have the door inspected by a professional garage door technician after any significant impact to the door.

Sag

The garage door may sag slightly due to its weight and span.

Wax

Paraffin wax, rubbed on the side jambs, will help the door operate smoothly.

Drywall

Slight cracking, nail “pops” or seams may become visible in walls and ceilings. These are caused by the normal shrinkage of the wood and normal deflection of rafters to which the drywall is attached. The standards used to judge the appearance acceptability for drywall has been established by the National Association of Home Builders. It states “Any such blemishes that are readily visible from a distance of 6 feet under normal lighting conditions are unacceptable.” Ichijo USA will repair such blemishes only once during the warranty period. Ichijo USA will touch up the paint in the repaired areas, however, an exact match between original and new paint cannot be expected.

Repairs

Most drywall repairs can be easily made. This work is best done when the room is to be redecorated. To correct a nail pop, reset the nail with a hammer and punch. Cover it with spackle, which is available at paint and hardware stores. Apply two or three thin coats. When it is dry, sand the surface with fine grain sandpaper, texture and repaint. Indentations caused by sharp objects can be filled with spackle in the same manner. Hairline cracks can be repaired with a coat of paint; slightly larger cracks can be repaired with spackle or caulk and repainting.

Electrical

The master control panel located by the electric meter contains the electrical breakers for your home. The control panel includes a main shut-off that controls all the electrical power to the home. In addition, there is a sub panel typically in the garage with individual breakers that control the separate circuits. Be certain you are familiar with the location of the master control panel and sub panel.

Each breaker is marked to help you identify which breaker is connected to which major appliance, outlet or other service. Should a failure occur in any part of your home, always check the breakers in the panel boxes first.

Breakers

Circuit breakers have three positions -- on, off and tripped. When a circuit breaker trips, it must first be turned off before it can be turned on. Switching the breaker directly from the tripped position to the on position will not restore service.

Outlets

If an outlet is not working, check first to see if it is one that is controlled by a wall switch or the ground fault interrupter converter (GFCI). It may also be necessary to check the main breaker as well as another appliance.

Breaker Tripping

Breakers will often trip due to overloads caused by plugging too many appliances into the circuit, a worn cord, a defective item or operating an appliance with too high of a voltage requirement for the circuit. The starting up of an electric motor can also trip a breaker.

If any circuit trips repeatedly, unplug all items connected to it and reset. If it trips when nothing is connected to it, an electrician is needed. If the circuit remains on, one of the items that was unplugged is defective and requires repair or replacement.

Buzzing

Fluorescent fixtures use transformer action to operate them. This action sometimes causes a "buzzing" sound.

Flickering Lights

Any flickering of an individual light other than fluorescent lights should be reported to the electrical contractor. In the event all of your lights are flickering repeatedly, please contact your local utility provider.

GFCI (Ground Fault Circuit Interrupter)

GFCI receptacles have a built-in element that senses fluctuations in power. Quite simply, the GFCI is an indoor circuit breaker. Installation of these receptacles is required by building codes in the bathrooms, kitchen, outside and garage (areas where an individual can come into contact with water while holding an electrical appliance or tool). Heavy appliances such as refrigerators, freezers or power tools will trip the GFCI breaker. Do not plug a refrigerator or food freezer into a GFCI controlled outlet because it is likely that the GFCI will trip and ruin the contents.

Each GFCI receptacle has a test and reset button. Once each month press the test button. This will trip the circuit. To return service, press the reset button. If a GFCI breaker trips during normal usage, it may be an indication of a faulty appliance and some investigation is in order. Please remember that one GFCI breaker can control up to three or four outlets.

Grounded System

Your electrical system is a three-wire grounded system. Never remove the bare wire that connects to the box or device.

Light Bulbs

You are responsible for replacing any burned out bulbs other than those noted on the walk through list.

Light Fixtures

Some fixtures have an on/off switch located on the fixture. If a hanging light fixture does not work, make sure the switch is on. If your fixture does not have a switch, reset any tripped circuit breakers.

If a luminous light fixture does not work, make sure all fluorescent bulbs are installed

properly. Adjust any tubes that are flickering or buzzing. Check wall switches, circuit breakers and GFCI breakers.

Modifications

Do not tamper with or add to your electrical system. For any modification that is needed, contact an electrical contractor that is listed on your “Neighborhood Information” section of this manual. Tampering with the electrical system will void your warranty. If any changes are made to the electrical system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Power Surges

Power surges can result in damages to sensitive electronic equipment such as televisions, alarm systems, computer and the like. Ichijo USA does not warrant against damages caused by power surges and recommends you install surge protectors (available at retail stores) for added protection.

Unused Outlets

If there are small children in your home, install safety plugs to cover unused outlets. This also minimizes air infiltration that can sometimes occur with these outlets. Teach children never to touch electrical outlets, sockets or fixtures.

Underground Cables

In areas with underground utilities, check the location of buried service by contacting your local utility service. In most cases, wires run in a straight line from the service panel to the nearest public utility pad. Maintain positive drainage around the foundation to protect this service.

Expansion & Contraction

All building materials are subject to expansion and contraction caused by changes in temperature and humidity. Dissimilar materials expand or contract at different rates. This movement results in separation between materials, particularly dissimilar ones. The effects can be seen in small cracks in drywall and paint, especially where moldings meet drywall, at mitered corners, where tile grout meets the tub or sink and so on. This can be alarming to an uninformed homeowner, but, in fact, it is very normal.

Flooring

Pets and Floor Coverings

Pets can do considerable damage to all floor coverings. Ceramic flooring is less likely to be damaged by a pet; however, the grouting is easily stained and discolored if not taken care of properly. Follow manufacturer's recommendations for maintenance.

Do not allow pets to dig and paw at floor coverings. This will damage to appearance of the flooring and will not be covered under the "Limited Warranty". Abnormal wear and tear, stained areas, etc. are homeowner's responsibilities.

Owners of even the best-trained pets will occasionally encounter pet accidents. Often, the urine is not discovered until long after the accident. The types of damage from pet stains can be diverse and are dependent upon the makeup of the urine. Urine content will change over the pet's life because of the pet's diet, medications, age, health, sex, and reproductive cycles. Because of these variables, some urine stains may not be removable.

To treat urine-stained areas:

1. Blot damp areas as soon as the urine is detected, with plain white paper toweling.
2. Apply a solution of $\frac{1}{4}$ teaspoon of a liquid dishwashing detergent (non-bleach and non-lanolin) with one cup of lukewarm water. Do not use dishwashing detergent or laundry detergent.
3. Absorb the moisture with the paper towel, rinse with warm water and repeat the application of detergent. Continue rinsing and blotting with the detergent solution and water as long as there is a transfer to the toweling or improvement in the spot.
4. Follow the detergent application with a solution of one cup white vinegar to two cups water, and blot dry.
5. Apply a half-inch layer of paper towels to the affected area, and weigh down with a flat, heavy, non-fading object. Continue to change paper towels until completely dry.

Urine can affect the dyes used in carpets, although not all occurrences will result in a permanent stain. Success is dependent upon the content of the urine, the dyes and finish used, and the time elapsed after the deposit. Some urine spots may be immediately noticeable, while others may take weeks or months for a reaction. The dyes may change color immediately after contact with urine.

When urine spots develop slowly and are noticed after much time has elapsed, the dyes and carpet fibers may be permanently damaged. In beige carpet, blue dyes are attacked by pet urine, leaving behind the red and yellow dyes with a resulting stain appearing red,

yellow, or orange.

Pet urine, left unattended, can damage carpet in several ways. Moisture can weaken the layers of the carpet, allowing separation or delamination of the backing material. Seam areas can be particularly damaged and can separate.

Another problem, especially with cats, is odor. Unless the cat urine can be completely removed, complete odor removal is unlikely. A number of products are available to combat odor, but may simply mask the odor, and, in times of high humidity, the odor may reappear. Recently, enzymes, available at pet stores and veterinary offices, have been developed that are more effective; but they may be better used by a carpet cleaning professional. If odor cannot be removed, the damaged area of carpet can be replaced with a piece from reserved scrap. If carpet replacement is necessary, then replacement of padding and sub flooring may also be necessary.

Some carpet manufacturers have developed backings that resist spills and even prevent the spillage from penetrating the carpet into the carpet pad and, perhaps, the sub floor. Check with our Design Studio about these products.

Always follow manufacturer's recommendations as far as maintenance and cleaning of your floor coverings.

Carpet

Cleaning

Refer to the manufacturer's recommendations for additional information on the care of all floor covering products. Color selection sheets provide a record of the brand, style and color of floor coverings in your home. Please retain this information for future reference.

One can add years to the life of carpeting with regular care. A carpet wears out because of foot traffic and dirt particles that become trampled deep into the pile beyond the suction of the vacuum. The dirt particles abrade the fibers like sandpaper and dull the carpet.

Vacuuming high traffic areas daily helps to keep them clean and helps to maintain the upright position of the carpet nap. Wipe spills and clean stains immediately. For best results, blot or dab the spill or stain; avoid rubbing it. Test stain removers first on "out of the way" area of the carpet, such as a closet, to check for any undesirable effects. Professional cleaning should be performed regularly.

Carpet Seams

Carpet seams will be visible, especially in Berber and other tight weave carpets. Edges of carpet along moldings and edges of stairs should be held firmly in place. In some areas, metal or other edging material may be used where carpet meets another floor covering.

Ceramic Tile

Cleaning

The ceramic tile installed on walls or countertops in your home may be washed with any non-abrasive soap or detergent; abrasive cleansers will dull the finish.

Ceramic tile floors are one of the easiest floor coverings to maintain. Simply vacuum as needed. Occasionally wet mopping with warm water may be appropriate. Avoid adding detergent to the water. If you feel a cleaning agent is required, use a mild solution of warm water and dishwashing liquid. Rinse thoroughly.

Grout Discoloration

Grout that becomes yellowed or stained can be cleaned with a fiber brush, cleanser and water. Grout cleansers and whiteners are available at most hardware stores. Also, be careful what you use to clean the flooring; it may have a tendency to stain the grout since it is not sealed.

Separations

Expect slight separations to occur in the grout between tiles. These slight separations in the grout are commonly due to normal shrinkage conditions. This grout is for decorative purposes only; it does not hold the tile in place. Cracks in the grout can be filled by using "tub caulk" or premixed grout that can be purchased from flooring or hardware stores. Follow package directions. This maintenance is important to protect the underlying surface from water damage.

Sealing Grout

Sealing grout is a homeowner's decision. Once sealed, ongoing homeowner maintenance of that seal will be necessary. Please be aware that sealing grout will void the warranty coverage on such grout.

Caulking

Time and weather will shrink caulking and dry it out so that it no longer provides a good seal against moisture and air infiltration. As a matter of routine maintenance, check the caulking and make repairs as needed. Caulking compounds and dispenser guns are available at hardware stores. Recaulking is a routine homeowner maintenance item.

Latex Caulk

Latex caulk is appropriate for an area that requires painting (along the stair stringer or where a countertop backsplash meets the wall).

Silicone Caulk

Silicone caulking that will not accept paint but works best where water is present.

Wet Areas

Homeowner maintenance of caulking around tubs and showers (especially at joints with protective wall coverings such as tile or marble panels) is absolutely necessary to prevent damage to wood and other materials behind and below these wet areas.

Hardwood Floors

In caring for hardwood floors, a routine of preventive maintenance is the primary goal. The homeowner is responsible for this routine maintenance.

Cleaning

Sweep on a daily basis or as needed. Never wet mop a hardwood floor. Excessive water causes wood to expand, possibly damaging the floor; it is imperative that water be cleaned up immediately. Do not use water-based detergents, bleach or one-step floor cleaners on hardwood floors.

Humidity

Wood floors will respond noticeably to changes in the humidity level in the home especially in the winter.

Mats

Use protective mats at the exterior doors to help prevent sand and grit from getting on the floor. Gritty sand is one of wood flooring's worst enemies.

New Wood Floors

When new, splinters of wood may appear. Dimples or scratches can be caused by moving furniture, dropping heavy or sharp objects, high heels, etc. Some shrinkage or warping can be expected, especially around heat vents or any heat producing appliances. Warping will occur if the floor becomes wet repeatedly or is thoroughly soaked even one time. A dulling of the finish in heavy traffic areas is likely; a white, filmy appearance is caused by moisture (often from wet shoes).

Recoat

If the floors are coated with a polyurethane finish, in six months to a year you may want to have an extra coat of polyurethane applied. This should be done by a qualified contractor. The exact timing will depend on your particular lifestyle. If another finish was used (Glitza, for example), please refer to the manufacturer's recommendations.

Shoes

Keep high heels in good repair. Heels that have lost their protective cap (thus exposing the fastening nail) will exert over 8,000 pounds of pressure per square inch on the floor! That is high enough to damage hardened concrete; it will mark your wooden flooring!

Spills

Food spills should be cleaned up immediately using a very dry cloth. Use a vinegar and warm water solution for tough food spills.

Wax

Waxing and the use of products like Murphy's Oil Soap are neither necessary nor recommended. Once you wax a polyurethane finish floor, recoating is difficult because the new finish will not adhere to the wax. The preferred maintenance is preventive cleaning and annual recoating to maintain the desired level of luster.

Furniture Legs

Install proper floor protectors on furniture used on hardwood flooring. Protectors will allow chairs to move easily over the floor without scuffing. Clean the protectors on a regular basis to remove any grit that may accumulate.

Burns

Burns from cigarettes can be difficult or impossible to remove from your hardwood flooring. Small burns can be removed by sanding lightly and staining the area with commercial wood stain. Large burns should be referred to a flooring professional.

Yellowing and Warping

Be aware that yellowing and warping of the surface can result from rubber backing on area rugs or mats.

Vinyl Flooring

Refer to manufacturer's recommendations for additional information on the care of all floor covering products. Color selection sheets (which you received at the Design Studio) provide a record of the brand, style and color of the floor coverings in the home. Please retain this information for future reference.

Although resilient floors are designed for minimum care, they do vary in maintenance needs. Some resilient floors require regular application of a good floor finish. This assures you of retaining a high gloss. However, no cleaning or finishing agents should be used on the new floor until the adhesive has set thoroughly. This takes about two weeks. Because of its relatively soft texture, vinyl flooring can be damaged by heavy appliances, dropped objects, high-heeled shoes and by rough usage. This damage is permanent and cannot be repaired.

Limit Water

Wipe up spills immediately to avoid staining and vacuum crumbs instead of washing resilient floors frequently with water. Mopping or washing with water should be limited; excessive amounts of water on resilient floors can penetrate seams and get under edges causing the material to lift and curl. Maintain the caulking in all wet areas such as toilets, tubs, etc.

Moving Furniture

Use extreme caution when moving appliances across resilient floor covering. Tears and

wrinkles can result. Coasters should be installed under furniture legs to prevent permanent damage. Dimples and scratches can be caused by moving furniture, dropping heavy or sharp objects, high heels. Etc.

Shrinkage or Warping

Some shrinkage or warping can be expected, especially around heat vents or any heat providing appliances.

No Wax

The resilient flooring installed in your home is the no-wax type. No-wax means it is coated with a clear, tough coating which provides both a shiny appearance and a wearing surface. Even this surface will scuff or mark. Follow all manufacturers' specific recommendations for care and cleaning of all your hard surface floors. Do not use abrasive cleaners or full strength bleach on vinyl flooring. Abrasives will dull the finish and can cause permanent damage. Full strength bleach can etch and destroy the surface of the flooring.

Raised Nail Heads

Raised nail heads are the result of movements of the floor joist caused by natural shrinkage and deflection. Special nails have been used to nail down your sub floor. If a nail head becomes visible through resilient flooring, place a block of wood over it and hit the block with a hammer to reset the nail. Flooring of any type can shrink and seams may separate slightly due to this shrinkage.

Ridges

The joints of underlayment (sheets 4' x 8') have been sanded and filled to minimize the possibility of ridges showing through resilient floor coverings. Some ridging is unavoidable, however, and there is no recommended maintenance for this condition.

Scrubbing & Buffing

Frequent scrubbing or electric buffing is harder on floors than regular foot traffic. Use acrylic finishes often if you scrub or buff. Clean vinyl flooring with a solution of warm water and a commercial vinyl floor cleaner.

Seam Lifting

Seams can lift or curl if excessive moisture is allowed on the floor. A special caulking can be used at tub or floor joints to seal seams at those locations. Avoid getting large amounts of water on the floor from baths and showers.

Yellowing and Warping

Be aware that yellowing and warping of the surface can result from rubber backing on area rugs or mats.

Gas Fireplaces

Available in select floor plans is a ventless (no chimney) fireplace unit. Ventless fireplaces are designed for gas logs only. These manufactured logs do not actually burn, but give the appearance of a “real” fire. The heat source of this unit is natural gas. A porcelain log set is provided with your home purchase. Do not, under any circumstances, burn wood in this type of fireplace. This type of unit requires special operation and maintenance procedures that are different from those of wood burning fireplaces. Please refer to the fireplace instructions to determine the proper use of this ventless unit.

Gas Shut Off

There is a shut-off on the gas line near its connection to each item in your home that operates on gas. In addition, there is a main shut-off at the meter. These are pointed out during the homeowner orientation. If you suspect a gas leak, leave the home and call the gas company immediately for emergency service.

Grading and Drainage

The final grades around your home have been inspected and approved for proper drainage. Each property has been graded per county approved drainage engineering and is inspected by the local building authorities as well as Ichijo USA. It is your responsibility, as the homeowner, to maintain the drainage as established at the time of your closing. Keep earth from direct contact with wood to reduce the chance of termite infestation.

Positive Drainage

It is essential that you maintain the slopes around your home to permit the water to drain away from the foundation. Failure to do so can result in major structural damage and will void warranty.

Roof Water

If you have gutters, do not remove the splash blocks or downspout extensions from underneath the downspouts. Keep these in place and sloped at all times; this enables the water to drain away from your home quickly.

Rototilling

Be cautious when rototilling. This can significantly change drainage swales. If rototilling is done, it should be done parallel to the swales rather than across them.

Backfill Settlement

Backfilled or excavated areas around the foundation and at utility trenches should not interfere with the drainage away from your home. If these areas settle, Ichijo USA will correct them one time during the one year limited warranty period.

Erosion

Ichijo USA is not responsible for weather related damage to yards after the closing date.

New Sod

New sod installation and the extra watering that accompanies it can cause temporary drainage problems, as can unusually severe weather conditions.

Recommendations

Ichijo USA will inspect problems in writing during the one year limited warranty period and advise you as to corrective actions.

Swales

In many cases, drainage swales do follow property boundaries. Ichijo USA will not alter drainage patterns to suit individual landscape plans. Typically a lot receives water from and/or passes water on to other lots. For this reason, homeowner changes in grade often affect those adjacent or nearby. Ichijo USA advises against making such changes.

Landscaping

Landscaping can change the drainage pattern of your lot. Consult a professional landscape contractor in the event you desire to add landscaping to your lot.

Watering

Watering should be done in a uniform systematic manner as equally as possible on all sides of the foundation to keep the soil moist, not saturated. Areas of soil that do not have ground cover may require more moisture as they are more susceptible to evaporation, causing a moisture content imbalance.

During extreme hot and dry periods, close observations should be made around the foundation to insure adequate watering is being provided, preventing soil from separating or pulling back from the foundation.

During periods of frequent rains, watering should be limited, and/or stopped as necessary and monitored closely. The rule for drainage is; "water should dissipate from areas in immediate location to the home within 24 hours after a normal rain and within 48 hours after a rain in swales that are designed for drainage purposes." After a period of abnormally heavy rains, or daily rains, it may take longer for the water to dissipate in these areas. Ichijo USA does not assume liability for drainage or soggy ground when sprinklers are used during periods of frequent rain.

Trees

Trees planted within five feet of the foundation can damage the structural integrity of the foundation. Trees planted in close proximity to the foundation can develop a root system that can penetrate beneath the foundation and draw moisture from the soil. Precautionary measures such as the installation of a root shield injection system must be taken to maintain moisture equilibrium.

Gutters and Downspouts

Check gutters periodically and remove leaves or other debris (twice a year and after each heavy rain or wind storm). Materials that accumulate in gutters can slow down the draining of water from the roof, cause overflows or clog the downspouts.

Extensions and Splash blocks

Extensions should discharge outside of the rock or bark beds so that water is not dammed behind the edging materials that might be used.

Ladders

Use caution when leaning ladders against gutters as this may cause dents.

Leaks

If a joint between sections of gutters drips, caulk the inside joint using a commercial gutter caulking compound, which is available at hardware stores.

Free from Debris

As part of normal maintenance, the homeowner should keep gutters clear of debris which might clog them and cause the water to run over the downspout or the gutter's edge. It is the homeowner's responsibility to check gutters periodically to insure proper functioning.

Overflow

Gutters are installed with a slight slope so that roof water will flow to the downspouts. Gutters may overflow during periods of excessive heavy rain. Small amounts of water (up to 1 inch) will stand for short periods of time in gutters immediately after rain. No correction is required for these conditions.

Downspouts

Downspouts are placed to carry water to the ground and in extensions, which then direct the flow away from the foundation of the home. These extensions are for protection of the foundation and it is the homeowner's responsibility to maintain them. They should discharge water away from the foundation without eroding any of the ground around them.

Heating and Air Conditioning

Good maintenance of the Heat Pump or furnace can save energy dollars as well as prolong the life of the HVAC system itself. Carefully read and follow the manufacturer's literature on use and care. The guidelines here include general information.

Modifications

Do not tamper with or add to your Heat Pump/Furnace system. For any modification that is needed, contact an HVAC contractor that is listed on your "Neighborhood Information" section of this manual. Tampering with the Heat Pump/Furnace system will void your warranty. If any changes are made to the Heat Pump/Furnace system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Adjust Vents

Experiment with the adjustable registers in your home to establish the best heat flow for your lifestyle. Generally, heat can be diminished in seldom used or interior rooms. In a two-story home, with one Heat Pump or furnace, the heat flow can be balanced by restricting the registers in the top story and opening the registers on the lower story. Rooms farther away from the Heat Pump or furnace will usually need to have their vents opened more depending on your needs.

Avoid Overheating

Do not overheat your new home. Overheating can cause excessive shrinkage in framing lumber and may materially damage the home. In the beginning, use as little heat as possible and increase it gradually.

Filters

Remember to change or clean the filter every month. A clogged filter can slow air flow and cause cold spots in your home. Although it takes less than one minute to change the filter, this is one of the most frequently overlooked details of normal furnace care. Buy filters in large quantities for the sake of convenience.

Furnished Home

The heating system design was planned with a furnished home in mind. For example, draperies, blinds, screens and the like will contribute to the efficiency of your system. If you move in during the cooler part of the year and have not yet acquired all of your draperies and furnishings, the home may seem cooler to you than you would expect.

Odor

The heating system typically emits an odor for a few moments when it is first turned on after an extended period of not being used (such as after the summer months if you do not use air conditioning). This is caused by dust that has settled in the ducts and should pass quickly.

Return Air Vents

For maximum comfort and efficient energy use, arrange furniture and draperies to allow unobstructed air flow from registers and cold air returns.

Temperature

Normal temperature variations from floor to floor (depending upon the style of home) can be as much as 10° or more on extremely cold days. The Heat Pump or furnace blower will typically cycle on and off more frequently and for shorter periods of time during severe cold spells.

Trial Run

Have a trial run early in the fall to test the Heat Pump or furnace. (The same rule applies to air conditioners in the spring.) If service is needed, it is much less inconvenient to discover it prior to the heating season.

The breaker for the HVAC system blower is located in the Main breaker box.

Thermostats

The HVAC system will come on automatically when the temperature at the thermostat registers below the setting you have selected. Once the HVAC system is on, setting the thermostat to a higher temperature will not heat the home any faster.

Duct Placement

The exact placement of heating ducts will vary from those positions shown in similar floor plans or in the model homes.

Building Codes

HVAC systems will be installed in accordance with local building codes, as well as engineering designs of the particular home. The Florida Energy Efficiency Code for Building Construction specifies the minimum and maximum requirements for each home and is state mandated.

Furnaces

Gas Odor

If you smell gas, call the gas company immediately

Combustion Air

Furnaces have combustion air vents to run to them. Never cover these or block the cold air in any way. Outside air is needed to supply the furnace with sufficient oxygen. Blocking the combustion air vent will cause the furnace to draw air down the vent pipe and pull poisonous gasses back into your home. If the air vents become loose, Ichijo USA will secure as needed during the first year of ownership.

Furnace Pilot

The furnace is equipped with a Hot Surface Ignition System (electronic ignition) that eliminates the waste of a constantly burning pilot. The radiant sensor ignition control lights the main burners upon a demand for heat from the thermostat. If the unit fails to function, please contact your heating contractor.

Troubleshooting

One of the primary reasons that a furnace does not work is the pilot light is off. This, however, is not the only reason. First, the furnace has an on/off blower switch. This switch looks like a regular light switch and is located in a metal box outside of the furnace. When turned off, this switch overrides all furnace commands and shuts down the blower. This is usually done when maintenance service is being performed although children have been known to turn the furnace off using this switch. The furnace will not operate if the gas valve in the furnace closet is turned off. It is the red knob on the metal gas pipe. It should be "in line" with the pipe itself to be in the "on" position. The lower panel door must be positioned correctly for the furnace blower to operate. This panel compresses a button that tells the blower it is safe to operate. If this panel is not on tightly, the fan will not come on. Heat Pumps have Auxiliary heating in case of Emergency heating needs or compressor failure.

Furnace Sounds

You may hear some sounds through your registers that are actually generated from your furnace. They should be very slight and almost unnoticeable. These sounds are normal.

Air Conditioning/Heat Pump

Your home may be equipped with a Heat pump system or a traditional Air Conditioning system. A Heat Pump is designed to provide both Air Conditioning and Heating as needed. A Heat Pump system is also equipped with Auxiliary heating for additional heat or as a backup. A conventional Air Conditioner system only supplies cooling. If you have a conventional Air Conditioning system, please also refer to the section on Furnaces. The manufacturer's maintenance suggestions should be reviewed and followed. Air conditioning can add much to the comfort of your home, but it can be used improperly or inefficiently, resulting in wasted energy and frustrations. These hints and suggestions are provided to help you maximize your air conditioning system.

Modifications

Do not tamper with or add to your air conditioning/heat pump system. For any modification that is needed, contact an HVAC contractor that is listed on your "Neighborhood Information" section of this manual. Tampering with the air conditioning/heat pump system will void your warranty. If any changes are made to the air conditioning/heat pump system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Whole House System

To fully and efficiently utilize your air conditioning system, you must understand that it is a total, whole-house system. The air conditioner unit is the mechanism in your home that produces cooler air. The air conditioning system involves everything inside your home including, for example, drapes and windows. The heating and cooling system in your home is designed and sized using the Florida Energy Efficiency Code for Residential Construction. This is state regulated and all homes in Florida must meet these requirements. These requirements may also not be exceeded by more than 20%. A big part of the Air Conditioner's job is to remove excess humidity from within the home. Units must be capable of maintaining a 17 degree temperature differential within the home from the outside temperature. On extremely hot days your system may not appear to be cooling as well since they are designed only to maintain this 17 degree differential. This is not a system failure!

Closed System

Your home air conditioning is a closed system, which means that the interior air is continually recycled and cooled until the desired air temperature is reached. Warm outside air disrupts the system and makes cooling impossible. Therefore, you should keep all windows closed. The heat from the sun shining in through windows with open drapes is intense enough to overcome the cooling effect of the air conditioning unit. For best results, close the drapes on these windows. Your air conditioning design also contemplates that all interior doors should remain open for air circulation.

Time

Time is of paramount importance in your expectations of an air conditioning system.

Unlike a light bulb, which reacts instantly when you turn on a switch, the air conditioning unit only begins a process when you set a thermostat.

Landscaping

Additions

Prior to the installation of patio additions or other personal improvements, review the soils and take soil conditions into consideration in the design or engineering of your addition. You are responsible for maintaining the drainage that has been set up for your lot and accepted by the county.

Backfill

In some cases the area around your foundation may have been backfilled. Soil in this area is not as compact and dense as undisturbed ground. Water can penetrate through the backfill area to the foundation. This can cause potentially severe problems such as cracks in the foundation walls and floor slab movement. Avoid this problem through proper installation of landscaping and good maintenance of drainage patterns. See also “Grading and Drainage” section of this manual.

Backfill areas will settle and require prompt attention to avoid damage to your home and voiding of the structural warranty.

Downspout extensions should be kept in the down position so that roof run-off is channeled well away from the foundation area of the home. Routine inspection of downspouts, backfill areas and other drainage components is an excellent maintenance habit.

Bark or Rock Beds

Do not allow edgings around decorative rock or bark beds to dam the free flow of water away from the home. A non-woven membrane, such as Typar or Mirafi, can be used between the soil and rock or bark to restrict weed growth while still permitting normal evaporation of ground moisture.

Irrigation

Make provisions for efficient irrigation. Conduct operational checks on a weekly basis to ensure proper performance of the system. Sprinkler heads should be directed away from the home. Drain and service sprinkler systems on a regular basis.

Planting

Locate plants and irrigation heads out of the way of pedestrian and bicycle traffic and car bumpers. Space groves of trees or single trees to allow for efficient mowing and growth. Prune woody plants as needed. Do not plant trees near the home. Group plants with similar water, sun and space requirements together.

Requirements

Check with your local building department, your Architectural Control Committee and

your Homeowners Association, if applicable, prior to designing, installing or changing landscaping for any regulations you may be required to follow.

Utility Lines

Settlement will not disturb your utility lines; however, you may see a slight depression develop in the front lawn along the line of the utility trench. To correct this, roll back the sod and spread top soil underneath to level the area, then replace the sod.

Waiting to Landscape

Unlandscaped ground erodes. Correcting erosion that occurs after closing is the homeowner's responsibility. Damages to neighboring property caused by unlandscaped ground on your lot will be your responsibility.

Maintenance

Plants, trees, shrubs, and lawn sod or hydromulch are not covered by any warranty and are the homeowner's sole responsibility to maintain.

Drainage

Always maintain a proper slope away from your home to maintain efficient drainage. See "Grading and Drainage" section of this manual for additional information.

Masonry, Brick and Stone

Masonry is an extremely low maintenance material; however, periodic inspection is necessary to check for cracks resulting from normal settling. Small weep holes were created at regular intervals at the bottom of masonry walls to allow moisture which accumulates between the interior surface of the masonry and the sheathing material behind the masonry to escape. These holes must be kept open.

Brick is one of the most durable and lowest maintenance finishes for a home's exterior.

Tuck-pointing

After several years, face brick may require tuck-pointing (repairing the mortar between the bricks). Otherwise, no regular maintenance is required.

Weep Holes

You may notice small holes in the mortar along the lower row of bricks or over the door and window openings. This allows moisture to escape if any has accumulated behind the brick. Do not fill these weep holes or permit landscaping materials to cover them.

Settlement Cracks

Settlement cracks are common and should be expected within certain tolerances in bricks and mortar joints.

Color Variations

If any repairs or changes are made to your brick, variations in the color of the brick and/or mortar may result.

Mirrors

To clean your mirrors use any reliable liquid glass cleaner or polisher available at most hardware or grocery stores. Avoid splashing water under the mirror. The moisture will cause the silvering to deteriorate. Also, avoid pushing or leaning on your mirrors. This can cause chips or cracks at the mounting brackets.

Mold and Mildew

While some types of mold may cause health concerns in some people, the general perception appears to be that exposure to any mold, in any amount, for any time period, will cause health problems in anyone. That simply is not the case. Everyone is exposed to mold on a daily basis. It is even in the air we breathe. Exposure to some types of mold may cause varying health concerns but the most common types of mold are generally not hazardous.

Mold: Molds are fungi that occur naturally in the environment, and are found both indoors and outdoors in varying concentrations. In order to grow, mold requires (1) a food source (or "growth medium") -which may be any number of common household items or building materials (such as carpet, fabric, drywall, wood, etc.), (2) a temperate climate, between 40°F and 100°F and (3) moisture. If the growing conditions are right, mold can easily occur in your home.

Moisture is the only mold growth factor that can be controlled in a residential setting. Excessive moisture in the home can have many causes, including poor ventilation, high humidity, water intrusion, spills, leaks, overflows, and condensation. Residential home construction is not, and cannot be, designed or built to exclude all the conditions needed for mold to grow and spread. Good housekeeping and home maintenance practices by Buyer after closing are essential to control excessive moisture levels and mold growth, because if moisture is allowed to remain on the growth medium, mold can develop within 24 to 48 hours. Steps to be taken in this regard include:

- Indoor humidity levels should be kept below 40% and adequate ventilation should be maintained. Some recommendations include using the air conditioning and/or a dehumidifier during humid months, ventilating kitchens and bathrooms by opening windows or running exhaust fans, and maintaining and properly servicing your air conditioning and ventilation systems.
- Before bringing any item into the home that may have been stored in a damp location (such as potted plants, furnishings, stored clothing and bedding, etc.) perform a visual check for signs of mold; avoid storing organic material in damp locations;

- Regularly vacuum, dust, and clean. Mild bleach solutions and most tile cleaners are effective in eliminating or preventing mold growth;
- Inspect regularly for signs of leaks or water intrusion such as discoloration or wet spots and take notice of musty odors or any visible signs of mold. Inspect and clean condensation pans for refrigerators, air conditioners and other appliances frequently;
- Promptly clean up and thoroughly dry spills, condensation and other sources of moisture. Replace any materials that cannot be properly and thoroughly dried, such as drywall, insulation, carpets and upholstery;
- In severe cases involving flooding or other significant accumulation of moisture the homeowner should contact a qualified professional;
- Individuals with health issues who are prone to the effects of mold should limit exposure to problem areas of the home where humid, wet conditions dominate.
- Seek to prevent water intrusion into the home by regular caulking and painting and maintaining the appropriate grade to allow water to drain away from the house. Keep irrigation systems the proper distance from the home.
- Should mold develop, small areas can be thoroughly cleaned with a mild bleach solution. Porous materials, such as fabric, upholstery or carpet should be discarded. Should the mold growth be severe, call on the services of a qualified professional.

If mold does develop in your home, please review the terms of your homeowner's insurance policy as the losses arising from such a condition may be covered by the terms of that document.

Consequences of Mold

All mold is not necessarily harmful, but certain strains of mold have been shown to have adverse health effects in susceptible persons, and a limited number of mold strains are believed to be hazardous in certain concentrations (such as *Stachybotrys atra*). Individuals with weakened immune systems or respiratory diseases such as asthma may be subject to special risks.

The most common symptoms of exposure to mold are allergic reactions such as skin irritation, watery eyes, runny noses, coughing, sneezing, congestion, sore throats and headaches. While some experts contend that mold exposure causes serious symptoms and diseases which may even be life threatening, there is currently no consensus among medical experts regarding (1) the level of mold exposure necessary to cause adverse health effects and (2) the exact nature and extent of the potential health problems associated with such exposure. The Center for Disease Control has stated that there is no proven causal link between the presence of hazardous mold and the emergence of serious health conditions.

Further information regarding mold prevention, best practices and/or cleanup procedures is readily available from a variety of sources. A partial listing of agencies, which can be contacted through the identified websites or by mail, is included for your convenience

- United States Environmental Protection Agency (<http://www.epa.gov/iaq>);
- Center for Disease Control and Prevention (CDC) (<http://www.cdc.gov>);

Exterior surfaces will develop mold or mildew – this is a homeowner maintenance issue and is not covered by the limited warranty nor is it a health concern.

Mold growth can be attributed to the following factors:

- Moisture – water leaks, high humidity
- Nutrients – cellulose-based materials
- Fungal spores – mold spores
- Temperature - 50°F to 100°F
- Time – mold growth will occur within 24 – 48 hours

Of these factors, the only component that can be reasonably controlled is moisture. Mold needs moisture to get established, grow, and reproduce. Mold problems and long standing moisture or high humidity conditions go hand and hand.

The following will insure better air quality by reducing the chances of mold growth:

- When taking a shower/bath turn on your vent fan. If you do not have a fan, crack your window.
- When cooking turn on your vent hood.
- Check for leaks at water lines, i.e. refrigerator icemaker, washing machine, dishwasher, etc.

If you suspect a water leak:

- Turn off the water either under the cabinets or the main water line that is generally located at the front left or right property line about 10 feet from the street.
- Clean up any standing water.

Mold will not destroy a house, but it can make it look, feel, and smell bad if left undetected even for a short period of time. Mold can be cleaned by using a common bleach and water mix (1 part bleach to 10 parts water).

Paint and Stain

Interior

The interior woodwork has been painted with latex enamel that can be cleaned with a wet sponge. Walls have been painted with a flat latex paint and should be touched up with matching paint rather than being wiped with a wet sponge. Spackle may be used to cover any small defects prior to paint touch-up. Do not use soaps, abrasive cleansers, scouring pads or brushes.

Exterior

Regular painting and repair will preserve the beauty of and add value to your home. Check the painted/stained surfaces of your home's exterior annually. Repaint before much chipping or wearing away of the original finish occurs; this saves the cost of extensive surface preparation. Plan to refinish the exterior surface of your home approximately every three years or as often as your paint manufacturer suggests for your area and climate. The chemical structure of the paint used on the exterior is governed by the climatic conditions. Over a period of time, this finish will fade and dull a bit.

Fading

Fading due to sun and weather is normal. Periodic repainting will be required.

Maintenance

When you wish to repaint exterior wood work on your home, popped nails should be reset; the blistered or peeling portions should be wire-brushed or scraped with a putty knife, sanded and spotted with primer. The entire area can then be repainted. Be certain to apply a top quality exterior paint that has been formulated for local climate conditions. Do not allow sprinklers to spray water on the exterior walls of your home. This will cause blistering, peeling, splintering, mold/mildew and other types of damage to the home. Trim painted white or light colors will more readily show grain and cracks and, therefore, requires additional maintenance.

Severe Weather

Hail and wind can cause a great deal of damage in a severe storm, and your home should be inspected after such weather. Report damage caused by severe weather to your insurance company promptly.

Stain

For interior stain touch-ups, Old English Furniture Polish and Scratch Cover are inexpensive, easy to use and blend in with the wood grain. Follow directions on the bottle when using.

Touch-Up

When doing paint touch-up, use a small brush and apply paint only to the damaged area. Touch-up may not match the surrounding area exactly, even if the same paint mix is used.

When it is time to repaint a room, prepare the wall surfaces first by cleaning with a mild soap and water mixture or a reliable cleaning product. Do not scrub the walls with excessive pressure; do this very gently.

Wall Cracks

Wait until after the first heating season to repair drywall cracks or other separations due to shrinkage. See the "Drywall" section of this manual for additional information concerning repairs.

Phone Jacks

Each home is equipped with telephone jacks as shown on the blueprints and selection sheets. Initiating phone service, additions to phone service and/or moving phone outlets is the homeowner's responsibility.

Plumbing

Your main water shut-off is located on the of your home as well as in the front of your meter box. This is helpful to know if you install a sprinkler system or if you plan an addition to your home. It is also important to know and remember the location of the shut-off for emergencies such as a water line freeze or break. Other water shut-offs are located under the sinks in the bathroom and the kitchen. Each toilet has a shut-off valve behind the toilet bowl on the wall.

Modifications

Do not tamper with or add to your plumbing system. For any modification that is needed, contact a plumbing contractor that is listed on your "Neighborhood Information" section of this manual. Tampering with the plumbing system will void your warranty. If any changes are made to the plumbing system, we must assume that any warranty issues that arise are the result of the changes made and the responsibility will fall on the person or contractor who made the changes.

Debris in Pipes

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. However, minerals, etc. caught in these aerators may cause the faucets to drip because washers wear more rapidly when they come in contact with foreign matter. Any tampering or alterations to the plumbing will be considered the cause of the debris in the pipes and will not be covered by the limited warranty. See "Dripping Faucets" section of this manual for additional information.

Care and Cleaning

Follow manufacturers' directions for cleaning fixtures. Avoid abrasive cleansers as they remove the shiny finish leaving behind a porous surface that is difficult to keep clean. Clean plumbing fixtures with a soft sponge and soapy water, (a non-abrasive cleanser such as Spic-N-Span or a liquid detergent is usually recommended by manufacturers) then polish with a dry cloth to prevent water spots.

Clogs

Many plumbing clogs are caused by improper garbage disposal usage. Always use plenty of cold water when running the disposal. This applies to grease also. Supplied with a steady flow of cold water, the grease congeals and is cut up by the blades. If hot water is used, the grease remains a liquid and then cools and solidifies in the sewer line. Allow the water to run a minimum of 15 seconds after shutting off the disposal. Any charges for sending the plumber to unclog a drain that have been caused by the homeowner will be the homeowner's responsibility to pay.

Clogged traps (P-traps) can usually be cleared with a 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, pull out the rod attached to the plunger and lift the stopper. Clean and return the mechanism to its original position.

The main causes of toilet clogs are various domestic items such as disposable diapers, excessive amounts of toilet paper, sanitary supplies, Q-tips, dental floss, toys, etc.

Dripping Faucets

A dripping faucet may be repaired by shutting off the water at the valve directly under the sink, then remove the faucet stem, change the washer and reinstall the faucet stem. The shower head is repaired in the same manner. 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.

Freezing Pipes

Provided your home is heated at a normal level, pipes should not freeze at temperatures above 0° Fahrenheit. Heat should be set at 65° if you are away during the winter months. Keep garage doors closed to protect plumbing lines that may run through this area from freezing temperatures.

Garbage Disposal

Do not load the disposal unit with food items before turning it on. For proper operation, turn on the cold water and start the disposal unit. Then, drop the food items slowly into the unit.

When the unit sounds clear, turn it off and leave the water running for several seconds. This allows the food waste to be carried into your sewer lines.

Only foods that are non-fibrous and easily pulverized should be placed into the disposal unit. Examples of foods not to place in the disposal unit are corn husks, celery, onion skins, olive pits, bones and solid or liquid grease. These items may cause your unit to overload or jam. If this happens, follow these correctivemeasures.

Turn off the disposal unit and the cold water. Wait three minutes for the disposal unit to cool, then press the reset button usually located on the bottom of the unit.

If this does not correct the problem, your disposal unit is probably obstructed. Follow these steps for proper removal.

Always verify that the disposal unit switch on the wall is in the "off" position before attempting a repair yourself.

Check the circuit breakers. An overload of this type may have tripped the circuit. Reset any tripped circuit breakers.

If your disposal unit has a service wrench, insert one end of the wrench into the bottom of the unit. Work back and forth until the disposal unit turns freely. If your disposal unit does not have a service wrench, insert a broom handle or mop handle into the throat of the unit and rotate the impeller back and forth. The obstruction will be loosened so that it can be removed.

After verifying that the disposal unit switch is in the "off" position, remove the obstruction, press the reset button and proceed with the above steps for proper use.

Laundry Tub

If you have a laundry tub, the faucet does not have an aerator. This enables 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 plumbing contractor. If possible, the water should be gotten up as quickly as possible. Any delays in contacting Ichijo USA or allowing water to stand will reduce our liability for repairs.

If a leak is noticed under a sink or toilet, turn off the water to the fixture by using the shut-off valves located under or behind the unit. The next step would be to arrange for service.

If you notice a leak in the tub or shower, turn off the water at the main shut-off valve and do not use the shower or tub until service can be provided.

If there is a leak in the water heater, turn the shut-off valve on top of the heater to "off". Turn off the gas if your water heater is powered by gas or the circuit breaker if you have an electric water heater; then drain the water heater.

If you notice water spots (darkened areas) on your walls or ceilings, you may have a water leak. Determine the source of water if possible and take steps to prevent further damage. If the leak can be traced to one location (one toilet, sink or tub), turn off the water to that particular fixture.

Low Pressure

It will occasionally be necessary to remove and clean the aerators on faucets to allow the proper flow of water; normally every three or four months is sufficient.

Exterior Faucets

Outside faucets are not freeze proof; therefore, it is recommended that you remove garden hoses during cold weather and leave faucets open to drip. 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 homeowner maintenance item. Ichijo USA does not warrant exterior faucets against freezing.

Porcelain

A sharp blow from a heavy object can damage porcelain enamel. It can also be scratched. Do not stand in the bathtub wearing shoes unless you have placed a protective layer of newspaper over the bottom of the tub. If paint is splattered onto the porcelain enamel surfaces during redecorating, it should be wiped up immediately. If some spots are dry before being noticed, use a recommended solvent. Clean porcelain finishes with a non-abrasive cleanser designed for bathroom usage.

Running Toilets

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, adjust the set screws on top of the valve until the shut-off float 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.

Stainless Steel

Stainless steel sinks should be cleaned 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/Bowl Care

Toilets are made of vitreous china, a glasslike material that is almost impervious to staining. Clean your toilets with a toilet bowl cleaner and a brush or cloth. Vitreous china is brittle and will easily break or shatter if hit with a hard object. Do not stand on your toilets. Uneven pressure applied to the toilet can break the wax seal at the base of the toilet, thereby causing a leak.

Toilets which are designed to use less water, approximately 1.6 gallons, have been installed in your home in an effort to reduce the amount of water used and the amount of wastewater treated and returned to our water sources. All of this result in a lower utility cost to you and an improvement to our environment.

Since these toilets use approximately 50% of the water that older, traditional toilets use, you need to be aware of a few inconveniences you may experience. The toilets have a tendency to become clogged more frequently than a traditional toilet because of the newer toilet's reduced water flush capacity. On the occasions where one needs to dispose of a large amount of tissue, it is advisable to flush the toilet prior to the disposal of all tissue. Educating your family members as to the capacity of the toilet will help avoid unnecessary stoppages. Do not place objects other than toilet paper in the toilet.

Always keep a plumber's plunger on hand to use in the event of a stoppage of a toilet. If a stoppage occurs, close the shut-off valve on the back side of the toilet. Usually a few vigorous pumps with the plunger will free the obstruction. Stoppages that are not construction related are the homeowner's responsibility. If you are unable to clear the obstruction yourself, we suggest that you call a plumber.

Do not use drain cleaners in toilets. The harsh chemicals in drain cleaners can damage the toilet seals and cause a leak.

The flush valve in your toilet should last for many years. If it fails or begins to leak, a new flush valve can be purchased at a home center or hardware store. If you are not entirely comfortable with this do-it-yourself project, a plumber can perform this task.

Toilet Seat Cover

Do not stand on the toilet seat cover. It is not designed for this purpose and may crack.

Water Heaters

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

Electric Water Heaters

Temperature

Set the water heater thermostat at the recommended setting; higher settings waste energy. The recommended setting for normal use is 140 degrees on electric models.

No Hot Water

If you discover you have no hot water, check the electrical breaker, temperature setting, and water supply valve before calling for service. Refer to the manufacturer's literature for specific locations of these items and other trouble shooting information.

Gas Water Heaters

Temperature

Set the water heater thermostat at the recommended setting; higher settings waste energy. The recommended thermostat setting for normal everyday use is "normal" on gas models.

No Hot Water

If you discover you have no hot water, check the pilot, temperature setting, and water supply valve before calling for service. Refer to the manufacturer's literature for specific locations of these items and other trouble shooting information.

Condensation

Condensation inside your new water heater may drip onto the burner flame. This causes no harm and in most cases will disappear in a short period of time.

Roof

Clean Gutters

Maintain the gutters and downspouts so that they are free of debris and able to drain precipitation quickly and efficiently from the roof.

Leaks

If a leak occurs, try to detect the exact location; this will greatly simplify locating the area that requires repair when the roof is dry.

Limit Walking

Limit walking on your roof. The weight and movement can loosen the roofing material and break the integrity of the roofing material, which can, in turn, result in leaks. Never attempt to walk on the roof of your home when the shingles are wet--they are extremely slippery.

Severe Weather

After severe storms, do a visual inspection of the roof for damages. Notify your homeowner insurance company if damage is noted. Even when properly installed, wind driven rain may enter through vents. This is not a defect.

Siding

Caulking

All caulking shrinks and replacement is a homeowner maintenance item. Separation at the joints in the exterior trim and between the trim and the surfaces of exterior siding or masonry should not exceed 1/4 of an inch. Siding, trim and masonry must be capable of excluding the elements. Ichijo USA will correct if necessary.

Also see "Paint and Stain" section and "Wood Trim" on section.

Smoke Detectors

Read the manufacturer's manual for detailed information on the care of your smoke detectors. Maintain fresh fully charged batteries.

Cleaning

Once a quarter, smoke alarms should be cleaned (vacuumed) to prevent a false alarm or lack of response to a fire. After cleaning, push the red button to test; the alarm should sound. For your safety, it is important that these devices be kept clean and in good operating condition.

No Representation

Ichijo USA does not represent that the smoke detection device will provide the protection for which it is installed. The homeowner is responsible for obtaining insurance.

Vents

Range Hood

Remove and clean the filter. Clean accumulated grease deposits from the fan housing.

Dryer Vent

Remove the dryer hose from the dryer vent stack. Check for lint build up or blockage. This will help increase the life expectancy of the dryer.

Windows & Sliding Doors

Cleaning & General Maintenance

■ General window cleaning:

Dilute ordinary hand-washing dish soap with lukewarm water. Moisten a soft cloth or non-abrasive sponge to clean the window surfaces. Wipe-off dirt and excess moisture with a soft dry cloth or sponge. The bottom track area is especially prone to dust and dirt accumulation. Vacuum the area with a soft detail nozzle. For more stubborn dirt accumulation, use a small bristle brush like an old retired toothbrush to get into the track area. Wipe clean.

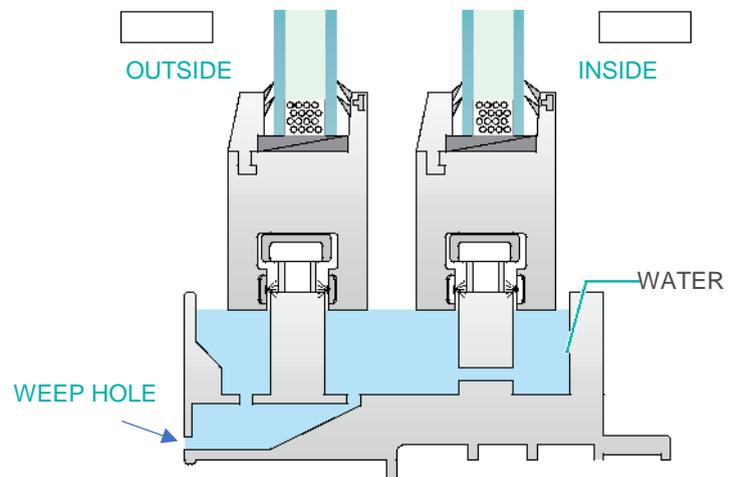
PRECAUTIONS:

Vinyl is a widely used and effective product for window manufacturing. However, under extremely high temperatures vinyl is prone to warp or melt. To avoid possible fires, do not set items such as stoves, clothes irons, or hair dryers near windows.

Also, vinyl components can be adversely affected by extremely harsh chemicals and solvents. Do not allow items such as paint thinners, solvents, insecticides, or mold and mildew removers to come into contact with vinyl components.

■ Water accumulation in the bottom track area:

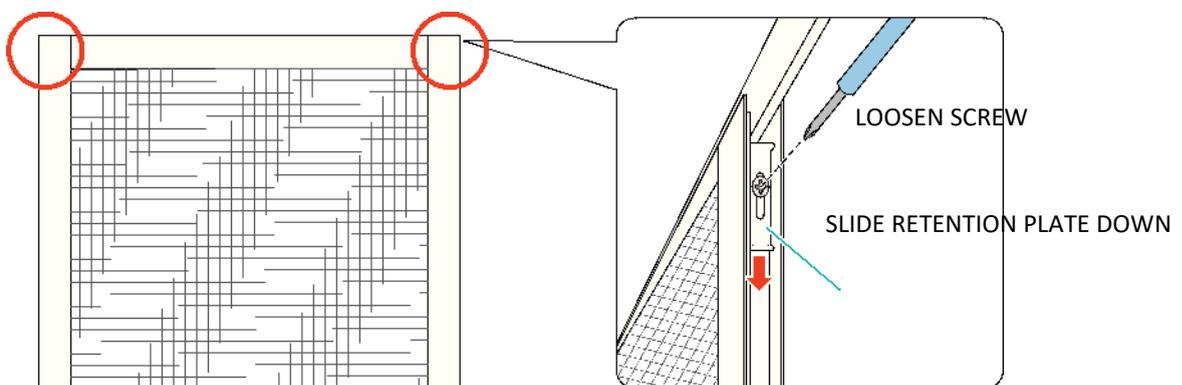
Ichijo vinyl horizontal sliding windows and patio doors are designed in a way that during torrential rain and sustained strong wind, water from the exterior of the home accumulates in the track area, creating a pressure barrier to prevent wind and water from actually entering the home. Once harsh weather subsides, water in the track area is designed to flow back out and naturally dries out. If water in the track does not dissipate, check to make certain weep holes built into the bottom of the window frame are not clogged and clear of dirt or debris.



Window Screen Removal & Replacement

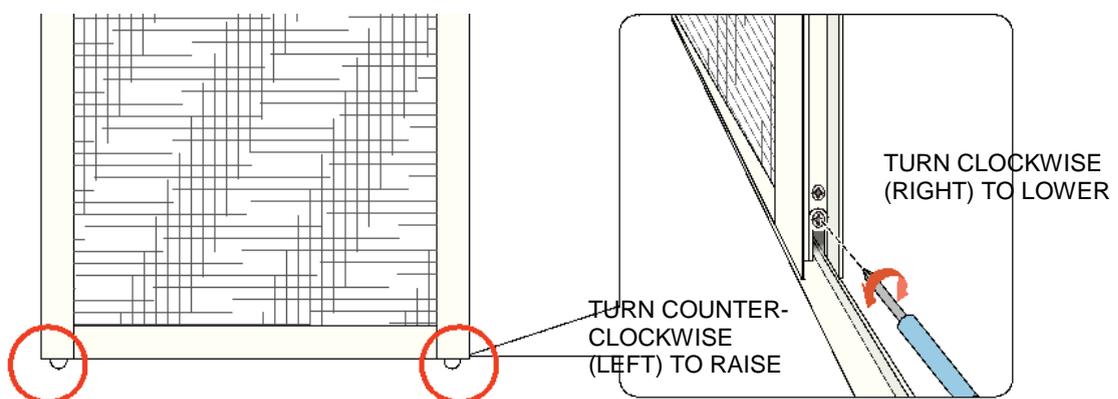
Horizontal sliding windows are furnished with insect screens. To remove the screen from the window: 1) Locate a screw on the upper edge of the screen frame 2) Loosen the screw 3) Slide the metal retention plate under the screw down 4) Lift the screen frame out of the window frame track. To reinstall, reverse the process.

66



? SCREEN FRAME ADJUSTMENT

If the screen fails to slide smoothly across the window frame track, adjust the rollers located in the screen frame. Two rollers are located on the bottom at each end of the screen frame. The adjustment screws are located at the lower edges of the screen frame. Turn clockwise to lower, counter-clockwise to raise. Smooth operation is achieved when both rollers are level across the window frame track.



⚠ PRECAUTIONS

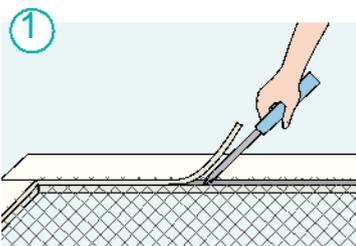
To prevent the screen from detaching from the window during extremely high winds, always engage the retention plate by sliding it to the “up” position before tightening the screw over the plate. Take care not to force the plate up to the point where it creates friction and scratches the window track.

Window Screen Replacement

Insect screens can be replaced relatively easily, and all parts and tools are readily available at home centers. If a screen begins to appear “wavy” due to continued use, it can be stretched to appear taut once again.

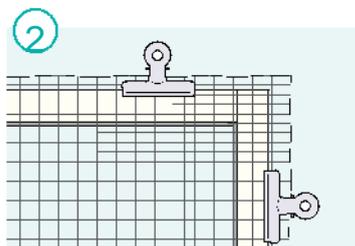
Materials and tools checklist:

Insect screen, 3.5mm or equivalent spline (flexible nylon tubing in a coil to hold the screen in place), flathead screwdriver, light duty clamps, utility knife, insect screen roller tool



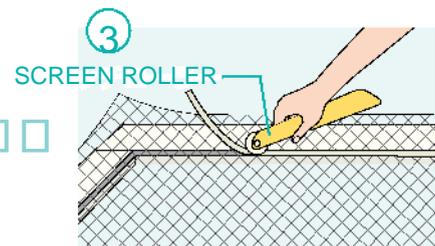
Remove the old material

Find where the spline ends meet. Using a flathead screwdriver, gently pry out a small section of spline. Using your hands, remove the remaining spline and screen.



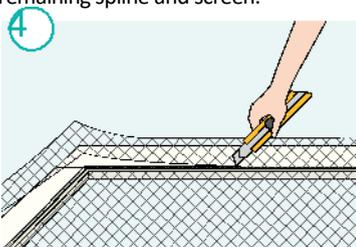
Position the new screen

Cut screen slightly larger than it needs to be in both directions. Position the screen over the frame, and temporarily clamp to secure



Install new screen

Push spline and screen together into the groove. With your other hand, apply slight and steady pressure, to keep the screen taut as it is being inserted into the screen frame groove.

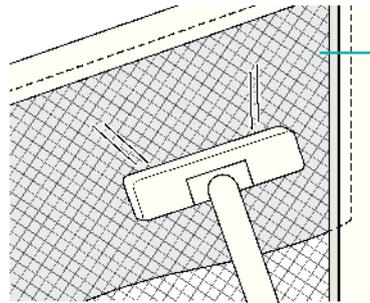
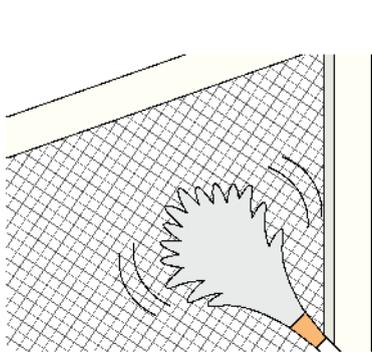


Remove excess screen

Confirm that the screen is evenly and fully seated in the frame to your satisfaction. If not, repeat previous steps. Once satisfied, cut-away the excess screen along the outside perimeter of the spline.

Cleaning Window Screens

Screens can be cleaned using a variety of methods: Using a soft feather duster, gentle tap the screen surface releasing dust accumulation. A vacuum cleaner with a soft bristle brush attachment can be used right over the screen. Screens can also be wiped clean using a warm damp cloth. For tough dirt accumulation, removing screens from windows and washing them with soap and water using a sponge or soft bristle brush may be necessary.

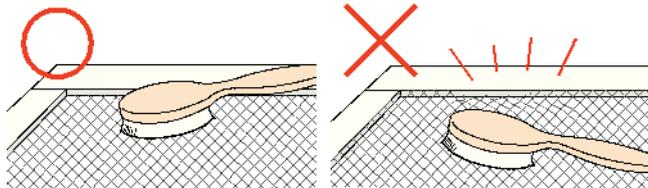


NEWSPAPER
BEHIND SCREEN

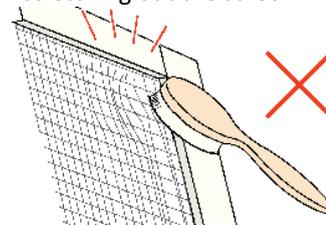
Placing newspaper behind the screen will enhance the suction and performance of the vacuum cleaner method.

□ When screens are removed from windows, lay the screen down horizontally

Lay the mohair side facing opposite to the side cleaned to prevent damage or detachment from the screen frame. When using a brush, do not pound on the screen because you may damage, detach, or loosen the screen from the frame.



When cleaning the screen removed from the window, always lay down the screen horizontally. Do not clean vertically, because you increase the chances of damaging the screen and frame, as well as possibly stretching out the screen material.



Cemplank[®] Lap Siding

Cempanel[®] Vertical Siding

25 Year Limited Transferable Product Warranty

1. LIMITED WARRANTY: Subject to the terms and conditions of the warranty, the Manufacturer warrants (for the installation in the U.S. and Puerto Rico) that Cemplank[®]/Cempanel[®] products ("the Products"), when manufactured, comply with ASTM C1186, and are free from defects in material and workmanship. When used for their intended purpose, properly installed and maintained according to the Manufacturer's published installation instructions, the Products are warranted for a period of 25 years from the date of purchase. This Limited Warranty extends only to (i) the first retail purchaser of the Product; (ii) the first owner of the structure to which the Product is applied and (iii) the first transferee (each a "Covered Person"). If during the Warranty period, any Product proves to be defective, the Manufacturer, in its sole discretion, shall replace the defective Product before it is installed, or, during the first 10 years, reimburse the covered person for losses up to no more than twice the retail cost of the defective portion of the Product. During the 11th through the 25th year, the warranty payment shall be reduced by 6.70% each year such that after the 25th year no warranty shall be applicable. If the original retail cost cannot be established by the covered person, the cost shall be determined by the Manufacturer in its sole and reasonable discretion. The Manufacturer's replacement of the defective Product or granting of a refund pursuant to Section 1 of this Warranty shall be the sole exclusive remedy available to the covered person with respect to any defect. MANUFACTURER WILL NOT REFUND OR PAY ANY COSTS IN CONNECTION WITH LABOR OR ACCESSORY MATERIALS.

2. WHAT YOU MUST DO/CONDITIONS OF LIMITED WARRANTY. Warranty coverage under this Limited Warranty shall be subject to the following terms and conditions:

- (A) A Covered Person must provide written notice to Manufacturer within thirty (30) days after discovery of any claimed defect covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location and details of the claimed defect and any additional information necessary for Manufacturer to investigate the claim. Photos of the Product, showing the claimed defect must accompany the notice. A claimant under this Limited Warranty must provide proof to Manufacturer that such claimant is a Covered Person as defined in Section 1 above.
- (B) The Product must be installed according to Manufacturer's printed installation requirements and must comply with all building codes adopted by federal, state or local governments or government agencies applicable to the installation.
- (C) Upon discovery of a claimed defect, a Covered Person must immediately, and at a Covered Person's own expense, provide for protection of all property that could be affected until the claimed defect is remedied if applicable. Before any permanent repair to the Product, a Covered Person must allow Manufacturer or Manufacturer's authorized agent to enter the property and structure where the Product is installed, if applicable, and examine, photograph and take samples of the Product. Any repairs initiated by or on behalf of a Covered person without prior authorization from Manufacturer may void the warranty.

3. WHAT IS NOT COVERED. This Limited Warranty does not cover damage or defects resulting from or in any way attributable to: (a) The improper storage, shipping, handling or installation of the Product, including, without limitation, failure of the Product to be installed in strict compliance with the Conditions of Limited Warranty set forth in Section 2 of this Limited Warranty and/or improper installation of studs or other accessories); (b) Further processing, modification or alteration of the Product after shipping from Manufacturer; (c) Neglect, abuse, or misuse; (d) Repair or alteration; (e) Settlement or structural movement and/or movement of materials to which the Product is attached; (f) Damage from incorrect design of the structure; (g) Exceeding the maximum designed wind loads; (h) Acts of God including, but not limited to, tornados, hurricanes, floods, earthquakes, severe weather or other natural phenomena, (including, but not limited to, unusual climate conditions); (i) Efflorescence, peeling or performance of any third party paints, stains and/or coatings; (j) Growth of mold, mildew, fungi, bacteria, or any organism on any surface of the Product (whether on the exposed or unexposed surfaces); (k) Lack of proper maintenance. or (l) Any cause other than defects in material and workmanship attributable to Manufacturer.

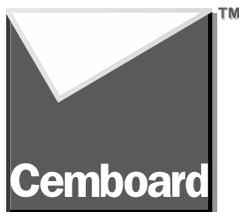
4. LIMITATION OF LIABILITY. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, ANY CLAIMS OF PROPERTY DAMAGE, BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT, OR ANY OTHER LEGAL THEORY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

5. LIMITATION OF WARRANTY. THE ABOVE LIMITED WARRANTY IS THE EXCLUSIVE WARRANTY FOR THE PRODUCT. MANUFACTURER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE OR OTHERWISE. In the event that applicable consumer law prohibits the disclaimer of an implied warranty, the above Limited Warranty shall not extend the time period of any such implied warranty. Some states do not allow limitations for consumers on how long an implied warranty lasts, so the above limitation may not apply to you. This Limited Warranty gives you specific legal rights, and you may have additional rights, which vary from state to state.

6. ENTIRE AGREEMENT. This Limited Warranty contains and represents the only warranty extended by Manufacturer for the Product. No employee or agent of Manufacturer or any other party is authorized to make any other warranty in addition to those made in this Limited Warranty.

7. MODIFICATION OR DISCONTINUATION OF PRODUCTS. Manufacturer reserves the right to discontinue or modify the Product at any time without notice. In the event that repair or replacement of the Product pursuant to this Limited Warranty is not possible, Manufacturer will fulfill any repair or replacement obligation under this Limited Warranty with a product of equal or greater value.

8. HOW TO OBTAIN LIMITED WARRANTY SERVICE. For warranty service call 1.866.375.8603 or write Claims Department, 10901 Elm, Avenue, Fontana, California 92337.



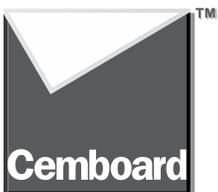
Homeowner Care and Maintenance Tips

- ❖ **Patching** - Dents, chips and cracks can be filled using a good quality cement patching compound (acrylic mortar patch) which can be found at your local Home Center or Hardware Store.
- ❖ **Mold/Mildew** - Remove using a commercial mold/mildew remover. Consult your paint manufacturer's recommendations before applying any mold or mildew remover.
- ❖ **Loose Siding** - Re-nail using a properly-sized corrosion-resistant fastener. Note: See Cemboard's written installation requirements at cemplank.com and NER405 (ESR-1844 for cempanel) for further details.
- ❖ **Caulk Replacement** - When sealant is in need of replacing, carefully remove existing caulk and replace with a high quality, paintable latex caulk. For best results use a latex caulk that complies with ASTM C 834, ASTM C920 or better. Caulking should be applied in accordance with the caulking manufacturer's written installation instructions.
- ❖ **Paint Maintenance** - Remove any damaged, chipped or cracked paint. Prior to repainting make sure that the surface area is properly cleaned and prepared. Repaint immediately using 100% acrylic paint.
- ❖ **Product Replacement** - Replacement of one or more pieces of Cemboard product should be done in accordance with Cemboard's written installation requirements and best practice guides.
- ❖ **Call 1-800-942-7343 to obtain written installation requirements or for more detailed technical information.**

COMPLETE AND SAVE FOR YOUR OWN RECORDS

Name of Owner _____
Installation Address _____
Name of Installing Contractor _____
Date Installed _____ Phone# _____

SAVE YOUR RECEIPTS





30-Year Limited Warranty

(AL, AR, GA, HI, FL, LA, MS, OK, SC, TX, PR and limited areas of AZ, CA, KY, NC, NM, NV, OR, TN, VA, & WA)

HardiePlank® HZ10® Lap Siding, HardiePanel® HZ10® Vertical Siding,
HardieShingle® HZ10® Siding, HardieSoffit® HZ10® Panels

James Hardie Building Products Inc. ("Hardie") warrants, for a period of thirty (30) years (the "Limited Warranty Period") from the date of purchase of Hardie Fiber-Cement HARDIEPLANK® HZ10®, HARDIEPANEL® HZ10®, HARDIESHINGLE® HZ10®, and HARDIESOFFIT® HZ10® products (each, the "Product") within the HZ10 Product Locations (as further defined in Section 9 below), that such purchased Product complies with ASTM C1186, will resist damage caused by hail or termite attacks, and is free from defects in material and workmanship. This Limited Warranty extends only to (i) to the first retail purchaser of the Product; (ii) the first owner of the structure to which the Product is applied and (iii) the first transferee (each a "Covered Person") where the Product is installed in an HZ10 product location as defined in Section 10 below.

If, during the Limited Warranty Period, the Product is defective in material or workmanship, Hardie will, in its sole discretion, either repair or replace the defective portion of the Product, or, during the first (1st) through the thirtieth (30th) year, reimburse the Covered Person for up to twice the original retail cost of the defective portion of the Product. After the 30th year, this Limited Warranty will expire and shall no longer be applicable. If the original retail cost cannot be established by the Covered Person to Hardie's reasonable satisfaction, the cost shall be determined by Hardie in its sole and reasonable discretion. Hardie's repair, replacement, or refund of the defective portion of the Product or reimbursement pursuant to Section 2 of this Limited Warranty is the exclusive remedy for the Covered Person for any defect in materials or workmanship.

Warranty coverage under this Limited Warranty shall be subject to the following terms and conditions:

- (A) A Covered Person must provide written notice to Hardie within thirty (30) days after discovery of any claimed defect covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location and details of the claimed defect and any additional information necessary for Hardie to investigate the claim. Photos of the Product, showing the claimed defect must accompany the notice. A claimant under this Limited Warranty must provide proof to Hardie that such claimant is a Covered Person as defined in Section 1 above.
- (B) The Product must be installed in the HZ10 Product Locations and according to Hardie's printed installation requirements and must comply with all building codes adopted by federal, state or local governments or government agencies applicable to the installation.
- (C) Upon discovery of a claimed defect, a Covered Person must immediately, and at a Covered Person's own expense, provide for protection of all property that could be affected until the claimed defect is remedied if applicable. Before any permanent repair to the Product, a Covered Person must allow Hardie or Hardie's authorized agent to enter the property and structure where the Product is installed, if applicable, and examine, photograph and take samples of the Product. Any repairs initiated by or on behalf of a Covered person without prior authorization from Hardie may void the warranty.

This Limited Warranty does not cover damage or defects resulting from or in any way attributable to: (a) The improper storage,



■ HZ10®
Limited Coverage
Warranty Area

shipping, handling or installation of the Product including, without limitation, failure of the Product to be installed in strict compliance with the Conditions of Limited Warranty set forth in Section 3 of this Limited Warranty and/or improper installation of studs or other accessories; (b) Further processing, modification or alteration of the Product after shipping from Hardie; (c) Neglect, abuse, or misuse; (d) Repair or alteration; (e) Settlement or structural movement and/or movement of materials to which the Product is attached; (f) Damage from incorrect design of the structure; (g) Exceeding the maximum designed wind loads; (h) Acts of God including, but not limited to, tornados, hurricanes, floods, earthquakes, severe weather or other natural phenomena, (including, but not limited to, unusual climate conditions); (i) Efflorescence, peeling or performance of any third party paints, stains and/or coatings; (j) Growth of mold, mildew, fungi, bacteria, or any organism on any surface of the Product (whether on the exposed or unexposed surfaces); (k) Lack of proper maintenance; (l) Installation of the Product outside an HZ10 Product Location; or (m) Any cause other than defects in material and workmanship attributable to Hardie.

IN NO EVENT SHALL HARDIE BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, ANY CLAIMS OF PROPERTY DAMAGE, BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT, OR ANY OTHER LEGAL THEORY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

THE ABOVE LIMITED WARRANTY IS THE EXCLUSIVE WARRANTY FOR THE PRODUCT. HARDIE DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE OR OTHERWISE. In the event that applicable consumer law prohibits the disclaimer of an implied warranty, the above Limited Warranty shall not extend the time period of any such implied warranty. Some states do not allow limitations for consumers on how long an implied warranty lasts, so the above limitation may not apply to you. This Limited Warranty gives you specific legal rights, and you may have additional rights, which vary from state to state.

This Limited Warranty contains and represents the only warranty extended by Hardie for the Product. No employee or agent of Hardie or any other party is authorized to make any other warranty in addition to those made in this Limited Warranty.

Hardie reserves the right to discontinue or modify the Product at any time without notice. In the event that repair or replacement of the Product pursuant to this Limited Warranty is not possible, Hardie will fulfill any repair or replacement obligation under this Limited Warranty with a product of equal or greater value.

For warranty service call 1.866.375.8603 or write Limited Warranty Department, James Hardie Building Products Inc., 10901 Elm Avenue, Fontana, California 92337.

Approved HZ10 product geographic installation locations shall mean Alabama, Arkansas, Georgia, Hawaii, Florida, Louisiana, Mississippi, Oklahoma, South Carolina, Texas, and Puerto Rico as well as limited areas of Arizona, California, Kentucky, North Carolina, New Mexico, Nevada, Oregon, Tennessee, Virginia, and Washington, but only in the zip codes noted on the following pages.

* Elevation Based Zip Codes - Use of HZ10 products in these CA, OR & WA zip codes is only appropriate for elevations below 2000 ft. Locations above 2000 ft. should utilize HZ5 products. If you are unsure of your elevation, visit www.hardiezone.com or call 1-866-9-HARDIE.

AZ ARIZONA

00014	85128	85274	85378	85702	86022	86505
00015	85130	85275	85379	85703	86023	86506
00197	85131	85277	85380	85704	86024	86507
00199	85132	85278	85381	85705	86025	86508
85001	85135	85280	85382	85706	86028	86510
85002	85137	85281	85383	85707	86029	86511
85003	85138	85282	85385	85708	86030	86512
85004	85139	85283	85387	85709	86031	86514
85005	85140	85284	85388	85710	86032	86515
85006	85142	85285	85390	85711	86033	86520
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85009	85147	85290	85396	85714	86036	86540
85010	85172	85291	85501	85715	86038	86544
85011	85173	85292	85502	85716	86039	86545
85012	85178	85293	85530	85717	86040	86547
85013	85190	85294	85531	85718	86042	86549
85014	85191	85295	85532	85719	86043	86555
85015	85192	85296	85533	85720	86044	86556
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85017	85194	85298	85535	85722	86046	
85018	85201	85299	85536	85723	86047	
85019	85202	85301	85539	85724	86048	
85020	85203	85302	85540	85725	86049	
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85022	85205	85304	85542	85728	86051	
85023	85206	85305	85543	85730	86052	
85024	85207	85306	85544	85731	86053	
85026	85208	85307	85545	85732	86054	
85027	85209	85308	85546	85733	86055	
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85034	85216	85320	85554	85740	86062	
85035	85217	85321	85561	85741	86063	
85036	85218	85322	85562	85742	86064	
85037	85219	85323	85563	85743	86065	
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85040	85222	85326	85567	85746	86068	
85041	85223	85327	85568	85747	86069	
85042	85224	85328	85569	85748	86070	
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85051	85232	85336	85576	85755	86077	
85053	85233	85337	85577	85756	86078	
85054	85234	85338	85578	85757	86079	
85055	85235	85339	85579	85758	86080	
85060	85236	85340	85580	85759	86081	
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85071	85247	85351	85591	85770	86092	
85072	85248	85352	85592	85771	86093	
85074	85249	85353	85593	85772	86094	
85075	85250	85354	85594	85773	86095	
85076	85251	85355	85595	85774	86096	
85078	85252	85356	85596	85775	86097	
85079	85253	85357	85597	85776	86098	
85080	85254	85358	85598	85777	86099	
85082	85255	85359	85599	85778	86100	
85083	85256	85360	85600	85779	86101	
85085	85257	85361	85601	85780	86102	
85086	85258	85362	85602	85781	86103	
85087	85259	85363	85603	85782	86104	
85096	85260	85364	85604	85783	86105	
85097	85261	85365	85605	85784	86106	
85098	85262	85366	85606	85785	86107	
85099	85263	85367	85607	85786	86108	
85117	85264	85368	85608	85787	86109	
85118	85265	85369	85609	85788	86110	
85119	85266	85370	85610	85789	86111	
85120	85267	85371	85611	85790	86112	
85121	85268	85372	85612	85791	86113	
85122	85269	85373	85613	85792	86114	
85123	85270	85374	85614	85793	86115	
85124	85271	85375	85615	85794	86116	
85125	85272	85376	85616	85795	86117	
85127	85273	85377	85617	85796	86118	

CA

00012	90060	90303	90748	91209	91412	91773	92051	92166	92307
00016	90061	90304	90749	91210	91413	91775	92052	92167	92308
00017	90062	90305	90755	91214	91416	91776	92054	92168	92309
00018	90063	90306	90801	91221	91423	91778	92055	92169	92310
00019	90064	90307	90802	91222	91426	91780	92056	92170	92311
00020	90065	90308	90803	91224	91436	91784	92057	92171	92312
00022	90066	90309	90804	91225	91470	91785	92058	92172	92313
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00028	90068	90311	90806	91282	91495	91788	92060	92174	92315
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00035	90074	90405	90814	91306	91504	91795	92068	92182	92322
00037	90075	90406	90815	91307	91505	91797	92069	92184	92323
00038	90076	90407	90822	91308	91506	91801	92070	92186	92324
00039	90077	90408	90831	91309	91507	91802	92071	92187	92325
00040	90078	90409	90832	91310	91508	91803	92072	92190	92326
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00050	90083	90503	90842	91320	91526	91902	92081	92195	92332
00051	90084	90504	90844	91321	91601	91903	92082	92196	92333
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00055	90088	90507	90848	91324	91604	91908	92085	92199	92336
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00058	90090	90509	90855	91326	91606	91910	92088	92202	92338
00061	90091	90510	90859	91327	91607	91911	92091	92203	92339
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90001	90094	90602	91003	91329	91609	91913	92093	92211	92341
90002	90095	90603	91006	91330	91610	91914	92096	92220	92342
90003	90096	90604	91007	91331	91611	91915	92101	92222	92344
90004	90099	90605	91008	91333	91612	91916	92102	92223	92345
90005	90101	90606	91009	91334	91614	91917	92103	92225	92346
90006	90103	90607	91010	91335	91615	91921	92104	92226	92347
90007	90189	90608	91011	91337	91616	91931	92105	92227	92350
90008	90201	90609	91012	91340	91617	91932	92106	92230	92352
90009	90202	90610	91016	91341	91618	91933	92107	92231	92354
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90013	90212	90623	91023	91345	91708	91942	92111	92235	92359
90014	90213	90624	91024	91346	91709	91943	92112	92236	92363
90015	90220	90630	91025	91350	91710	91944	92113	92239	92364
90016	90221	90631	91030	91351	91711	91945	92114	92240	92365
90017	90222	90632	91031	91352	91714	91946	92115	92241	92366
90018	90223	90633	91040	91353	91715	91947	92116	92242	92368
90019	90224	90637	91041	91354	91716	91948	92117	92243	92369
90020	90230	90638	91042	91355	91722	91950	92118	92244	92371
90021	90231	90639	91043	91356	91723	91951	92119	92247	92372
90022	90232	90640	91046	91357	91724	91962	92120	92248	92373
90023	90233	90650							

...NC

NORTH CAROLINA

27602	27830	27941	28090	28235	28358	28464	28608	28709	28814
27603	27831	27942	28091	28236	28359	28465	28609	28710	28815
27604	27832	27943	28092	28237	28360	28466	28610	28711	28816
27605	27833	27944	28093	28241	28362	28467	28611	28712	28901
27606	27834	27946	28097	28242	28363	28468	28612	28713	28902
27607	27835	27947	28098	28243	28364	28469	28613	28714	28903
27608	27836	27948	28101	28244	28365	28470	28615	28715	28904
27609	27837	27949	28102	28246	28366	28472	28616	28716	28905
27610	27839	27950	28103	28247	28367	28478	28617	28717	28906
27611	27840	27953	28104	28250	28368	28479	28618	28718	28909
27612	27841	27954	28105	28253	28369	28480	28619	28719	87010
27613	27842	27956	28106	28254	28370	28501	28621	28720	87011
27614	27843	27957	28107	28255	28371	28502	28622	28721	87012
27615	27844	27958	28108	28256	28372	28503	28623	28722	87013
27616	27845	27959	28109	28258	28373	28504	28624	28723	87014
27617	27846	27960	28110	28260	28374	28508	28625	28724	87015
27619	27847	27962	28111	28262	28375	28509	28626	28725	87016
27620	27849	27964	28112	28263	28376	28510	28627	28726	87017
27621	27850	27965	28114	28265	28377	28511	28628	28727	87018
27622	27851	27966	28115	28266	28378	28512	28629	28728	87020
27623	27852	27967	28117	28269	28379	28513	28630	28729	87021
27624	27853	27968	28119	28270	28380	28515	28631	28730	87022
27625	27855	27969	28120	28271	28382	28516	28633	28731	87023
27626	27856	27970	28123	28272	28383	28518	28634	28732	87024
27627	27857	27972	28124	28273	28384	28519	28635	28733	87025
27628	27858	27973	28125	28274	28385	28520	28636	28734	87026
27629	27860	27974	28126	28275	28386	28521	28637	28735	87027
27634	27861	27976	28127	28277	28387	28522	28638	28736	87028
27635	27862	27978	28128	28278	28388	28523	28640	28737	87029
27636	27863	27979	28129	28280	28390	28524	28641	28738	87031
27640	27864	27980	28130	28281	28391	28525	28642	28739	87032
27650	27865	27981	28133	28282	28392	28526	28643	28740	87034
27656	27866	27982	28134	28284	28393	28527	28644	28741	87035
27658	27867	27983	28135	28285	28394	28528	28645	28742	87036
27661	27868	27985	28136	28287	28395	28529	28646	28743	87037
27668	27869	27986	28137	28288	28396	28530	28647	28744	87038
27675	27870	28001	28138	28289	28398	28531	28649	28745	87040
27676	27871	28002	28139	28290	28399	28532	28650	28746	87041
27690	27872	28006	28144	28296	28401	28533	28651	28747	87042
27695	27873	28007	28145	28297	28402	28537	28652	28748	87043
27697	27874	28009	28146	28299	28403	28538	28653	28749	87044
27698	27875	28010	28147	28301	28404	28539	28654	28750	87045
27699	27876	28012	28150	28302	28405	28540	28655	28751	87046
27701	27877	28016	28151	28303	28406	28541	28656	28752	87047
27702	27878	28017	28152	28304	28407	28542	28657	28753	87048
27703	27879	28018	28159	28305	28408	28543	28658	28754	87049
27704	27880	28019	28160	28306	28409	28544	28659	28755	87051
27705	27881	28020	28163	28307	28410	28545	28660	28756	87052
27706	27882	28021	28164	28308	28411	28546	28661	28757	87053
27707	27883	28023	28166	28309	28412	28547	28662	28758	87056
27708	27884	28024	28167	28310	28420	28551	28663	28759	87057
27709	27885	28025	28168	28311	28421	28552	28664	28760	87059
27710	27886	28026	28169	28312	28422	28553	28665	28761	87060
27711	27887	28027	28170	28314	28423	28554	28666	28762	87061
27712	27888	28031	28173	28315	28424	28555	28667	28763	87062
27713	27889	28032	28174	28318	28425	28556	28668	28765	87063
27714	27890	28033	28201	28319	28428	28557	28669	28766	87064
27715	27891	28034	28202	28320	28429	28560	28670	28768	87068
27717	27892	28035	28203	28323	28430	28561	28671	28770	87070
27722	27893	28036	28204	28325	28431	28562	28672	28771	87072
27801	27894	28037	28205	28326	28432	28563	28673	28772	87083
27802	27895	28038	28206	28327	28433	28564	28675	28773	87101
27803	27896	28039	28207	28328	28434	28570	28676	28774	87102
27804	27897	28040	28208	28329	28435	28571	28677	28775	87103
27805	27906	28041	28209	28330	28436	28572	28678	28776	87104
27806	27907	28042	28210	28331	28438	28573	28679	28777	87105
27807	27909	28043	28211	28332	28439	28574	28680	28778	87106
27808	27910	28052	28212	28333	28441	28575	28681	28779	87107
27809	27915	28053	28213	28334	28442	28577	28682	28781	87108
27810	27916	28054	28214	28335	28443	28578	28683	28782	87109
27811	27917	28055	28215	28337	28444	28579	28684	28783	87110
27812	27919	28056	28216	28338	28445	28580	28685	28784	87111
27813	27920	28070	28217	28339	28447	28581	28687	28785	87112
27814	27921	28071	28218	28340	28448	28582	28688	28786	87113
27815	27922	28072	28219	28341	28449	28583	28689	28787	87114
27816	27923	28073	28220	28342	28450	28584	28690	28788	87115
27817	27924	28074	28221	28343	28451	28585	28691	28789	87116
27818	27925	28075	28222	28344	28452	28586	28692	28790	87117
27819	27926	28076	28223	28345	28453	28587	28693	28791	87118
27820	27927	28077	28224	28347	28454	28589	28694	28792	87119
27821	27928	28078	28226	28348	28455	28590	28697	28793	87120
27822	27929	28079	28227	28349	28456	28594	28698	28801	87121
27823	27930	28080	28228	28350	28457	28601	28699	28802	87122
27824	27932	28081	28229	28351	28458	28602	28701	28803	87123
27825	27935	28082	28230	28352	28459	28603	28702	28804	87124
27826	27936	28083	28231	28353	28460	28604	28704	28805	87125
27827	27937	28086	28232	28355	28461	28605	28705	28806	87131
27828	27938	28088	28233	28356	28462	28606	28707	28810	87144
27829	27939	28089	28234	28357	28463	28607	28708	28813	87151

NM

NEW MEXICO

00064	87153	87533	87940	88231	88901	89131
00066	87154	87535	87941	88232	88905	89132
87001	87158	87537	87942	88240	89001	89133
87002	87174	87538	87943	88241	89002	89134
87004	87176	87539	88001	88242	89003	89135
87005	87181	87540	88002	88244	89004	89136
87006	87184	87543	88003	88250	89005	89137
87007	87185	87544	88004	88252	89006	89138
87008	87187	87545	88005	88253	89007	89139
87009	87190	87548	88006	88254	89008	89140
87010	87191	87549	88007	88255	89009	89141
87011	87192	87551	88008	88256	89010	89142
87012	87193	87552	88009	88260	89011	89143
87013	87194	87553	88011	88262	89012	89144
87014	87195	87554	88012	88263	89013	89145
87015	87196	87556	88013	88264	89014	89146
87016	87197	87557	88020	88265	89015	89147
87017	87198	87558	88021	88267	89016	89148
87018	87199	87560	88022	88268	89017	89149
87020	87301	87562	88023	88301	89018	89150
87021	87302	87564	88024	88310	89019	89151
87022	87305	87565	88025	88311	89020	89152
87023	87310	87566	88026	88312	89021	89153
87024	87311	87567	88027	88314	89022	89154
87025	87312	87569	88028	88316	89023	89155
87026	87313	87571	88029	88317	89024	89156
87027	87315	87573	88030	88318	89025	89157
87028	87316	87574	88031	88321	89027	89159
87029	87317	87575	88032	88323	89028	89160
87031	87319	87576	88033	88324	89029	89161
87032	87320	87577	88034	88325	89030	89162
87034	87321	87578	88036	88330	89031	89163
87035	87322	87579	88038	88336	89032	89164
87036	87323	87580	88039	88337	89033	89165
87037	87325	87581	88040	88338	89036	89166
87038	87326	87582	88041	88339	89037	89169
87040	87327	87583	88042	88340	89039	89170
87041	87328	87592	88043			

OREGON

TENNESSEE

...NV	OR					elevation based zip codes	TN										
89440	00068	97204	97357	97489	97828	37010	37131	37306	37408	37748	37901	38083	38255	38454			
89441	00069	97205	97361	97490	97830	37011	37132	37307	37409	37752	37902	38088	38256	38455			
89442	00070	97206	97362	97491	97831	37012	37133	37308	37410	37753	37909	38101	38257	38456			
89444	00077	97207	97364	97493	97833	37013	37134	37309	37411	37754	37912	38102	38258	38457			
89445	97001	97208	97365	97494	97834	97011*	37014	37135	37412	37755	37914	38103	38259	38459			
89446	97002	97209	97366	97495	97835	97016*	37015	37136	37413	37756	37915	38104	38260	38460			
89448	97004	97210	97367	97496	97836	97019*	37016	37137	37414	37757	37916	38105	38261	38461			
89449	97005	97211	97369	97498	97837	97028*	37018	37138	37415	37760	37917	38106	38271	38462			
89450	97006	97212	97370	97499	97838	97037*	37019	37140	37416	37762	37918	38107	38281	38463			
89451	97007	97213	97371	97501	97839	97049*	37020	37141	37417	37763	37919	38108	38301	38464			
89452	97008	97214	97373	97502	97840	97064*	37022	37142	37418	37764	37920	38109	38302	38468			
89460	97009	97215	97374	97504	97841	97067*	37023	37143	37419	37765	37921	38111	38303	38469			
89496	97010	97216	97375	97525	97842	97103*	37024	37144	37420	37766	37922	38112	38305	38471			
89501	97013	97217	97376	97528	97843	97106*	37025	37145	37421	37769	37923	38113	38308	38472			
89502	97014	97218	97377	97530	97844	97108*	37026	37146	37422	37770	37924	38114	38310	38473			
89503	97015	97219	97380	97533	97845	97109*	37027	37148	37423	37771	37925	38115	38311	38474			
89504	97017	97220	97381	97535	97846	97112*	37028	37149	37424	37772	37926	38116	38313	38475			
89505	97018	97221	97383	97540	97848	97117*	37029	37150	37425	37773	37927	38117	38314	38476			
89506	97020	97222	97384	97544	97850	97119*	37030	37151	37426	37774	37928	38118	38315	38477			
89507	97021	97223	97385	97548	97856	97121*	37031	37152	37427	37777	37929	38119	38316	38478			
89509	97022	97224	97386	97552	97857	97122*	37032	37153	37428	37778	37930	38120	38317	38481			
89510	97023	97225	97388	97553	97859	97125*	37033	37160	37429	37779	37931	38122	38318	38482			
89511	97024	97227	97389	97555	97861	97131*	37034	37161	37430	37781	37932	38124	38320	38483			
89512	97026	97228	97390	97556	97862	97133*	37035	37162	37431	37782	37933	38125	38321	38485			
89513	97027	97229	97391	97557	97864	97138*	37036	37163	37432	37783	37934	38126	38324	38486			
89515	97029	97230	97392	97558	97865	97141*	37037	37166	37433	37784	37935	38127	38326	38487			
89519	97030	97231	97394	97559	97867	97144*	37040	37167	37434	37785	37936	38128	38327	38488			
89520	97031	97232	97401	97560	97868	97145*	37041	37171	37435	37787	37937	38130	38328	38501			
89521	97032	97233	97402	97561	97869	97146*	37042	37172	37436	37789	37938	38131	38329	38502			
89523	97033	97236	97403	97562	97870	97148*	37043	37174	37437	37790	37939	38132	38330	38503			
89533	97034	97238	97404	97563	97872	97149*	37044	37175	37438	37791	37940	38133	38331	38504			
89555	97035	97239	97405	97564	97873	97342*	37046	37178	37439	37813	38001	38134	38332	38505			
89557	97036	97240	97407	97565	97875	97344*	37047	37179	37440	38002	38135	38333	38506				
89570	97038	97242	97408	97566	97876	97346*	37048	37180	37441	38004	38136	38334	38541				
89595	97039	97256	97409	97567	97877	97347*	37049	37181	37442	38006	38137	38336	38542				
89701	97040	97258	97411	97568	97880	97350*	37050	37183	37443	38007	38138	38337	38543				
89702	97041	97266	97412	97569	97882	97358*	37051	37184	37444	38008	38139	38338	38544				
89703	97042	97267	97414	97570	97883	97360*	37052	37185	37445	38010	38141	38339	38545				
89704	97044	97268	97416	97571	97884	97368*	37055	37186	37446	38011	38145	38340	38547				
89705	97045	97269	97417	97572	97885	97378*	37056	37187	37447	38012	38147	38341	38548				
89711	97048	97280	97419	97573	97886	97396*	37057	37188	37448	38014	38148	38342	38549				
89712	97050	97281	97420	97574	97901	97406*	37058	37189	37449	38015	38150	38343	38550				
89713	97051	97282	97423	97575	97902	97410*	37059	37190	37450	38016	38151	38344	38551				
89714	97053	97283	97424	97576	97903	97413*	37060	37191	37451	38017	38152	38345	38552				
89721	97054	97286	97426	97577	97904	97415*	37061	37201	37452	38018	38157	38346	38553				
89801	97055	97290	97430	97578	97905	97425*	37062	37202	37453	38019	38159	38347	38554				
89802	97056	97291	97431	97579	97906	97427*	37063	37203	37454	38021	38161	38348	38555				
89803	97057	97292	97432	97580	97907	97429*	37064	37204	37455	38022	38163	38351	38556				
89815	97058	97293	97434	97581	97908	97442*	37065	37205	37456	38024	38166	38352	38557				
89820	97060	97294	97435	97582	97909	97443*	37066	37206	37457	38025	38167	38355	38558				
89821	97062	97296	97436	97583	97910	97447*	37067	37207	37458	38027	38168	38356	38559				
89822	97063	97298	97437	97584	97911	97463*	37068	37208	37459	38028	38173	38357	38560				
89823	97065	97299	97438	97585	97913	97466*	37069	37209	37460	38029	38174	38358	38562				
89824	97068	97301	97439	97586	97914	97484*	37070	37210	37461	38030	38175	38359	38563				
89825	97070	97302	97440	97587	97917	97488*	37071	37211	37462	38034	38177	38361	38564				
89826	97071	97303	97441	97588	97918	97492*	37072	37212	37463	38036	38181	38362	38565				
89828	97075	97304	97444	97589	97920	97497*	37073	37213	37464	38037	38182	38363	38567				
89830	97076	97305	97446	97590		97503*	37074	37214	37465	38039	38183	38365	38568				
89831	97077	97306	97448	97591		97520*	37075	37215	37466	38040	38184	38366	38569				
89832	97080	97307	97449	97592		97522*	37076	37216	37467	38041	38186	38367	38570				
89833	97086	97308	97450	97593		97523*	37077	37217	37468	38042	38187	38368	38571				
89834	97089	97309	97451	97594		97524*	37078	37218	37469	38044	38188	38369	38572				
89835	97101	97310	97452	97595		97526*	37079	37219	37470	38045	38190	38370	38573				
89883	97102	97311	97453	97596		97527*	37080	37220	37471	38046	38193	38371	38574				
	97107	97312	97454	97597		97531*	37082	37221	37472	38047	38194	38372	38575				
	97110	97314	97455	97598		97532*	37083	37222	37473	38048	38197	38374	38577				
	97111	97317	97456	97599		97534*	37085	37224	37474	38049	38201	38375	38578				
	97113	97321	97457	97600		97536*	37086	37227	37475	38050	38202	38376	38579				
	97114	97322	97458	97601		97537*	37087	37228	37476	38052	38221	38377	38580				
	97115	97324	97459	97602		97538*	37088	37229	37477	38053	38222	38378	38581				
	97116	97325	97461	97603		97539*	37090	37230	37478	38054	38223	38379	38582				
	97118	97326	97462	97604		97541*	37091	37232	37479	38055	38224	38380	38583				
	97123	97327	97464	97605		97543*	37095	37234	37480	38057	38225	38381	38585				
	97124	97329	97465	97606			37096	37235	37481	38058	38226	38382	38587				
	97127	97330	97467	97607			37097	37236	37482	38059	38229	38387	38588				
	97128	97331	97469	97608			37098	37238	37483	38060	38230	38388	38589				
	97130	97333	97470	97609			37101	37240	37484	38061	38231	38389					
	97132	97335	97471	97610			37110	37241	37485	38063	38232	38390					
	97134	97336	97473	97611			37111	37242	37486	38066	38233	38391					
	97135	97338	97476	97612			37115	37243	37487	38067	38235	38392					
	97136	97339	97477	97613			37116	37244	37488	38068	38236	38393					
	97137	97341	97478	97614			37118	37246	37489	38069	38237	38401					
	97139	97343	97479	97615			37119	37249	37490	38070	38238	38402					
	97																

VIRGINIA

VA

20101	22031	22301	22556	22811	23025	23170	23345	23513	23874	24033	24167	24361	24544
20102	22032	22302	22558	22812	23027	23173	23347	23514	23875	24034	24168	24363	24549
20103	22033	22303	22560	22815	23030	23175	23350	23515	23876	24035	24171	24366	24550
20104	22034	22304	22565	22820	23031	23176	23354	23517	23878	24036	24174	24368	24551
20105	22035	22305	22567	22821	23032	23177	23356	23518	23879	24037	24175	24370	24553
20106	22036	22306	22570	22824	23035	23178	23357	23519	23881	24038	24176	24374	24554
20107	22037	22307	22572	22827	23038	23180	23358	23520	23882	24040	24177	24375	24555
20108	22038	22308	22576	22830	23039	23181	23359	23521	23883	24042	24178	24377	24556
20109	22039	22309	22577	22831	23040	23183	23389	23523	23884	24043	24179	24378	24557
20110	22040	22310	22578	22832	23043	23184	23395	23529	23885	24044	24184	24380	24558
20111	22041	22311	22579	22833	23045	23185	23396	23541	23887	24045	24185	24381	24562
20112	22042	22312	22580	22834	23047	23186	23397	23551	23888	24048	24201	24382	24563
20113	22043	22313	22581	22835	23050	23187	23398	23601	23889	24050	24202	24401	24565
20115	22044	22314	22601	22840	23055	23188	23399	23602	23890	24053	24203	24402	24566
20116	22046	22315	22602	22841	23056	23190	23401	23603	23891	24054	24205	24411	24569
20117	22060	22320	22603	22842	23058	23192	23404	23604	23893	24055	24209	24412	24570
20118	22066	22331	22604	22843	23059	23218	23405	23605	23894	24058	24210	24413	24571
20119	22067	22332	22610	22844	23060	23219	23407	23606	23897	24059	24211	24415	24572
20120	22079	22333	22611	22845	23061	23220	23408	23607	23898	24060	24212	24416	24574
20121	22081	22334	22620	22846	23062	23221	23409	23608	23899	24061	24215	24421	24576
20122	22082	22401	22622	22847	23063	23222	23410	23609	23901	24062	24216	24422	24577
20124	22095	22402	22623	22848	23064	23223	23412	23612	23909	24063	24217	24426	24578
20128	22096	22403	22624	22849	23065	23224	23413	23628	23915	24064	24218	24430	24579
20129	22101	22404	22625	22850	23066	23225	23414	23630	23917	24065	24219	24431	24580
20130	22102	22405	22626	22851	23067	23226	23415	23651	23919	24066	24220	24432	24581
20131	22103	22406	22627	22853	23068	23227	23416	23661	23920	24067	24221	24433	24586
20132	22106	22407	22630	22901	23069	23228	23417	23662	23921	24068	24224	24435	24588
20134	22107	22408	22637	22902	23070	23229	23418	23663	23922	24069	24225	24437	24589
20135	22108	22412	22639	22903	23071	23230	23419	23664	23923	24070	24226	24438	24590
20136	22109	22427	22640	22904	23072	23231	23420	23665	23924	24072	24228	24439	24592
20137	22116	22428	22641	22905	23075	23232	23421	23666	23927	24073	24230	24440	24593
20138	22118	22430	22642	22906	23076	23233	23422	23667	23930	24076	24236	24441	24594
20139	22119	22432	22643	22907	23079	23234	23423	23668	23934	24077	24237	24442	24595
20140	22121	22433	22644	22908	23081	23235	23424	23669	23936	24078	24239	24445	24597
20141	22122	22435	22645	22909	23083	23236	23426	23670	23937	24079	24243	24448	24598
20142	22124	22436	22646	22910	23084	23237	23427	23681	23938	24082	24244	24450	24599
20143	22125	22437	22649	22911	23085	23238	23429	23690	23939	24083	24245	24457	24601
20144	22134	22438	22650	22920	23086	23240	23430	23691	23941	24084	24246	24458	24602
20146	22135	22442	22652	22922	23089	23241	23431	23692	23942	24085	24248	24459	24603
20147	22150	22443	22654	22923	23090	23242	23432	23693	23943	24086	24250	24460	24604
20148	22151	22446	22655	22924	23091	23249	23433	23694	23944	24087	24251	24463	24605
20149	22152	22448	22656	22931	23092	23250	23434	23696	23947	24088	24256	24464	24606
20151	22153	22451	22657	22932	23093	23255	23435	23701	23950	24089	24258	24465	24607
20152	22156	22454	22660	22935	23101	23260	23436	23702	23952	24090	24260	24467	24608
20153	22158	22456	22663	22936	23102	23261	23437	23703	23954	24091	24263	24468	24609
20155	22159	22460	22664	22937	23103	23269	23438	23704	23955	24092	24265	24469	24612
20156	22160	22463	22701	22938	23105	23273	23439	23705	23958	24093	24266	24471	24613
20158	22161	22469	22709	22939	23106	23274	23440	23707	23959	24095	24269	24472	24614
20159	22172	22471	22711	22940	23107	23276	23441	23708	23960	24101	24270	24473	24619
20160	22180	22472	22712	22942	23108	23278	23442	23709	23962	24102	24271	24474	24620
20163	22181	22473	22713	22943	23109	23279	23443	23801	23963	24104	24272	24476	24622
20164	22182	22476	22714	22945	23110	23282	23450	23803	23964	24105	24273	24477	24624
20165	22183	22480	22715	22946	23111	23284	23451	23804	23966	24111	24277	24479	24627
20166	22185	22481	22716	22947	23112	23285	23452	23805	23967	24112	24279	24482	24628
20167	22191	22482	22718	22948	23113	23286	23453	23806	23968	24113	24280	24483	24630
20168	22192	22485	22719	22949	23114	23288	23454	23821	23970	24114	24281	24484	24631
20169	22193	22488	22720	22952	23115	23289	23455	23822	23974	24115	24282	24485	24634
20170	22194	22501	22721	22957	23116	23290	23456	23824	23976	24120	24283	24486	24635
20171	22195	22503	22722	22958	23117	23291	23457	23827	24001	24121	24290	24487	24637
20172	22199	22504	22723	22959	23119	23292	23458	23828	24002	24122	24292	24501	24639
20175	22201	22507	22724	22960	23120	23293	23459	23829	24003	24124	24293	24502	24640
20176	22202	22508	22725	22963	23123	23294	23460	23830	24004	24126	24301	24503	24641
20177	22203	22509	22726	22964	23124	23295	23461	23831	24005	24127	24311	24504	24646
20178	22204	22511	22727	22965	23125	23297	23462	23832	24006	24128	24312	24505	24647
20180	22205	22513	22728	22967	23126	23298	23463	23833	24007	24129	24313	24506	24649
20181	22206	22514	22729	22968	23127	23301	23464	23834	24008	24130	24314	24512	24651
20182	22207	22517	22730	22969	23128	23302	23465	23836	24009	24131	24315	24513	24656
20184	22209	22520	22731	22971	23129	23303	23466	23837	24010	24132	24316	24514	24657
20185	22210	22523	22732	22972	23130	23304	23467	23838	24011	24133	24317	24515	24658
20186	22211	22524	22733	22973	23131	23306	23471	23839	24012	24134	24318	24517	
20187	22212	22526	22734	22974	23138	23307	23479	23840	24013	24136	24319	24520	
20188	22213	22528	22735	22976	23139	23308	23480	23841	24014	24137	24322	24521	
20189	22214	22529	22736	22980	23140	23310	23482	23842	24015	24138	24323	24522	
20190	22215	22530	22737	22987	23141	23313	23483	23843	24016	24139	24324	24523	
20191	22216	22534	22738	22989	23146	23314	23486	23844	24017	24141	24325	24526	
20192	22217	22535	22739	23001	23147	23315	23487	23845	24018	24142	24326	24527	
20194	22219	22538	22740	23002	23148	23316	23488	23846	24019	24143	24327	24528	
20195	22222	22539	22741	23003	23149	23320	23501	23847	24020	24146	24328	24529	
20196	22225	22542	22742	23004	23150	23321	23502	23850	24022	24147	24330	24530	
20197	22226	22544	22743	23005	23153	23322	23503	23851	24023	24148	24333	24531	
20198	22227	22545	22746	23009	23154	23323	23504	23856	24024	24149	24340	24533	
20598	22230	22546	22747	23011	23155	23324	23505	23857	24025	24150	24343	24534	
22003	22240	22547	22748	23014	23156	23325	23506	23860	24026	24151	24347	24535	
22009	22241	22548	22749	23015	23160	23326	23507	23866	24027	24153	24348	24536	
22015	22242	22551	22801	23018	23161	23327	23508	23867	24028	24155	24350	24538	
22025	22243	22552	228										

WA

WASHINGTON

											elevation based zip codes
00072	98089	98207	98340	98439	98579	98685	98940	99133	99302		
00073	98092	98208	98342	98442	98580	98686	98941	99134	99320		
00074	98093	98213	98343	98443	98581	98687	98942	99135	99321		
00076	98101	98221	98344	98444	98582	98801	98943	99136	99322		
00195	98102	98222	98345	98445	98583	98802	98944	99137	99323	98022*	
98001	98103	98224	98346	98446	98584	98807	98946	99138	99324	98045*	
98002	98104	98231	98348	98447	98585	98811	98947	99139	99326	98065*	
98003	98105	98232	98349	98448	98586	98812	98948	99140	99328	98220*	
98004	98106	98233	98350	98464	98587	98813	98950	99141	99329	98223*	
98005	98107	98235	98351	98465	98588	98814	98951	99143	99330	98224*	
98006	98108	98236	98352	98466	98589	98815	98952	99144	99333	98225*	
98007	98109	98237	98353	98467	98590	98816	98953	99146	99335	98226*	
98008	98110	98238	98354	98471	98591	98817	99001	99147	99336	98227*	
98009	98111	98239	98357	98481	98592	98819	99003	99148	99337	98228*	
98010	98112	98241	98358	98490	98593	98821	99004	99149	99338	98229*	
98011	98113	98243	98359	98492	98595	98822	99005	99150	99341	98230*	
98012	98114	98244	98361	98493	98596	98823	99006	99151	99343	98240*	
98013	98115	98245	98364	98496	98597	98824	99008	99152	99344	98247*	
98014	98116	98249	98365	98497	98599	98826	99009	99153	99345	98248*	
98015	98117	98250	98366	98498	98602	98827	99011	99154	99346	98251*	
98019	98118	98253	98367	98499	98604	98828	99012	99155	99347	98252*	
98020	98119	98255	98368	98501	98605	98829	99013	99156	99348	98264*	
98021	98121	98256	98370	98502	98606	98830	99014	99157	99349	98284*	
98023	98122	98257	98371	98503	98607	98831	99015	99158	99350	98288*	
98024	98123	98258	98372	98504	98609	98832	99016	99159	99352	98294*	
98025	98124	98259	98373	98505	98610	98833	99017	99160	99353	98304*	
98026	98125	98260	98374	98506	98611	98834	99018	99161	99354	98305*	
98027	98126	98261	98375	98507	98612	98836	99019	99163	99356	98320*	
98028	98127	98262	98376	98508	98613	98837	99020	99164	99357	98321*	
98029	98129	98263	98377	98509	98614	98840	99021	99165	99359	98323*	
98030	98131	98266	98378	98510	98617	98841	99022	99166	99360	98326*	
98031	98132	98267	98380	98511	98619	98843	99023	99167	99361	98330*	
98032	98133	98270	98383	98512	98620	98844	99025	99169	99362	98331*	
98033	98134	98271	98384	98513	98621	98845	99026	99170	99363	98336*	
98034	98136	98272	98385	98516	98622	98846	99027	99171	99371	98338*	
98035	98138	98273	98386	98522	98623	98847	99029	99173	99401	98355*	
98036	98139	98274	98387	98524	98624	98848	99030	99174	99402	98356*	
98037	98141	98275	98388	98527	98625	98849	99031	99176	99403	98360*	
98038	98144	98276	98390	98528	98626	98850	99032	99179		98362*	
98039	98145	98277	98392	98530	98628	98851	99033	99180		98363*	
98040	98146	98278	98393	98531	98629	98852	99034	99181		98381*	
98041	98148	98279	98394	98532	98631	98853	99036	99185		98382*	
98042	98154	98280	98395	98533	98632	98855	99037	99201		98391*	
98043	98155	98281	98396	98535	98635	98856	99039	99202		98520*	
98046	98158	98282	98397	98536	98637	98857	99040	99203		98526*	
98047	98160	98283	98398	98537	98638	98858	99101	99204		98548*	
98050	98161	98286	98401	98538	98639	98859	99102	99205		98555*	
98051	98164	98287	98402	98539	98640	98860	99103	99206		98560*	
98052	98165	98290	98403	98540	98641	98862	99104	99207		98563*	
98053	98166	98291	98404	98541	98642	98901	99105	99208		98564*	
98054	98168	98292	98405	98542	98643	98902	99107	99209		98575*	
98055	98170	98293	98406	98544	98644	98903	99109	99210		98601*	
98056	98171	98295	98407	98546	98645	98904	99110	99211		98603*	
98057	98174	98296	98408	98547	98647	98907	99111	99212		98616*	
98058	98175	98297	98409	98550	98648	98908	99113	99213		98649*	
98059	98177	98303	98410	98552	98650	98909	99114	99214		98671*	
98061	98178	98310	98411	98554	98651	98920	99115	99215		98675*	
98062	98181	98311	98412	98556	98660	98921	99116	99216			
98063	98184	98312	98413	98557	98661	98922	99117	99217			
98064	98185	98314	98414	98558	98662	98923	99118	99218			
98067	98188	98315	98415	98559	98663	98925	99119	99219			
98068	98190	98322	98416	98561	98664	98926	99121	99220			
98070	98191	98324	98417	98562	98665	98929	99122	99223			
98071	98194	98325	98418	98565	98666	98930	99123	99224			
98072	98195	98327	98419	98566	98668	98932	99124	99228			
98073	98198	98328	98421	98568	98670	98933	99125	99251			
98074	98199	98329	98422	98569	98672	98934	99126	99252			
98075	98201	98332	98424	98570	98673	98935	99127	99256			
98077	98203	98333	98430	98571	98674	98936	99128	99258			
98082	98204	98335	98431	98572	98682	98937	99129	99260			
98083	98205	98337	98433	98576	98683	98938	99130	99299			
98087	98206	98339	98438	98577	98684	98939	99131	99301			

** Elevation Based Zip Codes - Use of HZ10 products in these CA, OR & WA zip codes is only appropriate for elevations below 2000 ft. Locations above 2000 ft. should utilize HZ5 products. If you are unsure of your elevation, visit www.hardiezone.com or call 1-866-9-HARDIE.*



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HS11124



Warranty

Residential Resilient LVP / LVT Products Limited Warranty

Products

Shaw Industries, Inc. (Shaw) warrants the Shaw LVP / LVT floor products to be free from manufacturing defects for a specified length of time from the date of purchase as set forth below.

Replacement/Repairs

Shaw reserves the right to repair any floor and/or to use its own source to obtain an installer for replacement flooring. If Shaw repairs or replaces a floor as a result of a warranty claim, it is the customer's responsibility to be clear, at their own expense, any items placed over the affected areas subsequent to the original installation. In the event that Shaw repairs a floor, this warranty shall remain in effect with respect to such floor.

Coverage

This warranty covers manufacturing defects, delaminating, loss of original pattern and color due to fading or wear, when the flooring is subject to normal residential use, provided the flooring covered by this warranty is installed and maintained according to the instructions included in the sold package. All StaTite floating product joints are warranted to be 'Water Tight'.

Terms for Warranty

Within One Year— If a defect covered by this warranty is found and reported to the merchant from which the floor was purchased in writing within one year of purchase, Shaw will supply new flooring material of similar color, pattern and quality to replace the defective area. Shaw will also pay reasonable labor costs if professional installation was paid for when the floor was originally installed.

Within Two Years — If a defect covered by this warranty is found and reported to the merchant from which the floor was purchased in writing after one year but within two years of purchase, Shaw will supply new flooring material of similar color, pattern and quality to replace the defective area. Shaw will also pay fifty percent of reasonable labor costs if professional installation was paid for when the floor was originally installed.

After Two Years — If a defect covered by this warranty is found and reported to the merchant from which the floor was purchased in writing after two years but within the warranty period specified below, as applicable, Shaw will supply new flooring material of similar color, pattern and quality to replace the defective area. Shaw will not pay labor costs. In case of questions regarding the terms for warranty, please contact our Shaw Information Center at # 1 .800 .441 .7429.

Exclusions

The following are not covered by this warranty:

- Darker, solid colors naturally show more scratches and dirt and require more maintenance. We cannot warrant the product against such claims.
- We will not accept shading claims for an overall white floor with touching white planks or tiles.

- Damage caused by fire, flood, moisture intrusion caused by emissions from subfloor, intentional abuse, damage caused by vacuum cleaner beater bar, indentations or damage caused by improper rolling loads, chairs or other furniture not using proper floor protectors or caster wheels, and cutting from sharp objects, asphalt staining and staining from rubber mats, surface scratches, changes in color or sheen appearance when exposed to a natural light source, exterior application or loss due to inconvenience, loss of time, incidental expenses or consequential damages.
- Minor shading, color or texture differences between samples and delivered product
- This warranty is void if prior to installation, Shaw floors are not acclimated to room temperature (between 65°F and 85°F) at job site between 24 and 48 hours and if post-installation, Shaw floors are not continuously maintained at such temperature.

Warranty Owner

This Warranty applies only to a resident homeowner who is the original purchaser of the Shaw LVP / LVT floor products, not to any subsequent homeowner. For details please contact our customer support department. This warranty shall not include loss of time, inconvenience, incidental expenses (such as telephone calls, labor and/or materials) incurred in the removal or reinstallation of the affected material, and any other incidental or consequential damages.

Implied Warranties

Please note - The warranty is not transferable. It extends only to the original end-use purchaser. Shaw does not grant to any person or entity the authority to create for it any obligation or liability in connection with this product. Shaw shall not be liable to the consumer or any other person or entity for any incidental, special or consequential damages, arising out of breach of this limited warranty or any implied limited warranty (excluding merchantability).

All implied warranties, including an implied warranty of merchantability or fitness for a particular purpose, are hereby limited to the duration of this limited warranty. Some states do not allow the exclusion or limitation of implied warranties or the limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to the purchaser. This warranty gives the purchaser specific legal rights, such rights may vary from State to State.

How to File a Claim

The Shaw Information Center provides information about proper installation and maintenance of your Shaw flooring. If you have other questions, please feel free to write or call us.

If you think that there is a defect in your flooring that is covered by this Shaw warranty, you must notify the Shaw retailer who sold you the flooring. Your retailer will be able to file the claim with Shaw for you. If you are unable to contact your retailer or do not receive satisfaction, write:

**Shaw Industries Financial Services
P.O. Box 2128
Mail Drop 026-04
Dalton, GA 30722-0040**

www.shawnow.com

Be sure to include a full description of the problem, photos if available, proof of purchase showing the price paid for the flooring excluding pad and labor.

How to contact the Shaw Information Center

1.800.441.7429 or
www.shawfloors.com/customer-care/contact-us

Revision: 09122018

Laminate Flooring Warranty Information

Warranty

This quality laminate flooring is under warranty for 25 years not to fade, wear through or stain. This warranty applies only to the original purchaser and proof of purchase is required for all claims. The warranty is for replacement or refund of the laminate material only, no labor. The warranty does not cover chipping (laminate will chip if sharp objects are dropped on it), warping (laminate will warp if excessive moisture is absorbed by the boards) or bridging (which is caused by insufficient expansion spacing near objects). We will not consider any claims for these problems. Claims for wear must show a minimum dime-size area. This warranty is pro-rated on the amount of time the floor has been installed.

INSTALLATION INSTRUCTIONS

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE YOU BEGIN INSTALLATION. IMPROPER INSTALLATION WILL VOID WARRANTY

. Always check panels for defects such as chips and color or sheen differences under good light conditions. Also check that channel is clean and free of debris. Always work out of multiple boxes to mix product to achieve proper pattern repeat.

. Your Laminate flooring **MUST** be allowed to acclimate to the environment of the installation area. Leave the closed packages in a horizontal position in the room for 48 hours prior to installation. Preferable temperature should be approximately 17-23C (62-73F) with a relative humidity of 45-60 percent. Humidity should never be allowed to drop below 30% as this may cause gapping.

. If existing baseboard moldings are difficult to remove, they may be left in place.

Quarter round molding is all that is needed to cover the expansion space between.

TOOLS AND SUPPLIES REQUIRED ARE:

. Foam underlay, pressure sensitive polypropylene adhesive tape as Tuck Tape or equivalent, spacers, tapping block, pull bar, saw, hammer, utility knife, pencil, tape measure, ruler, construction adhesive.

.If installing over a crawlspace or on a concrete floor, you must also install a 4 mil (or thicker) polyethylene vapor barrier under your foam underlay or use a convenient 2 in 1 foam underlay that has a vapor barrier built-in, When installing 2 in 1 foam underlay, butt seams and then completely seal seams using Tuck Tape.

SUITABLE TYPES OR SUBFLOORS AND FLOOR PREPARATION

. The underfloor or subfloor must be thoroughly even, dry, clean and solid. Carpet staples or glue residue must be removed and floor must be clean to ensure proper installation.

. To check for evenness, hammer a nail into the center of the floor, tie a string to the nail and push the knot against the floor. Pull the string tight to the farthest corner of the room and examine the floor at eye level for any gaps between the string and floor. Move the string around the perimeter of the room noting any gaps larger than 3mm (1/8"). Any floor unevenness of more than 3mm (1/8") per 1(3'2") meter must be sanded down or filled in with an appropriate filler.

. Floor must be carefully checked for moisture problems. Any moisture problems need to be solved before installation. New concrete needs to cure for at least 60 days before installation.

. This product is not suitable for damp rooms such as bathrooms, saunas, rooms with damp concrete, rooms with floor drains or rooms that could potentially flood.

. For installation on concrete floors or any floor over a crawl space, a vapor barrier **MUST** be laid down first. Use 4 mil poly. Run the poly 5cm (2") up walls and overlap seams 45cm (18"), Tape seams.

BASIC INSTALLATION

. All flooring installations require foam underlay. Run the foam underlay in the same direction as the laminate panels. Underlay should be butted side by side with no overlap. Tape seams together. Diagram 1.

. You will need to remove the tongue on the side of the panel the face the wall. This is to ensure that the decorative surface of the laminate floor is well under the finished trim when installed. Use a utility knife to score through the tongue several times until it easily snaps off.

. Start in a corner by placing the first panel with its trimmed side-facing the wall. Use spacers along each wall to maintain an expansion space of 8-12mm (5/16"-3/8") between the wall and the flooring. Diagram 2

Remember that this product is primarily wood and needed room to expand and contract. At no point should you attach the floor to any surface

. To attach your second panel, insert the end tongue of the panel into the end groove of the first panel at a 45 degree angle. Lower the panel flat to the floor. Line up edges carefully. Diagram 3.

. Continue connecting the first row until you reach the last full panel. Fit the last panel by rotating the panel 180 degrees with the pattern side upward, place beside row, mark and saw off excess. Attach as described above. Diagram 4.

. When using a handsaw cut on the decorative surface. If you use a jig or circular saw cut with the decorative side down to avoid chipping, Diagram 5.

. Begin the next row with the off-cut piece from the previous row to stagger the pattern, Pieces should be a minimum of 20cm (8") long and joint offset should be at least 40cm (16"). Diagram 6.

. To start your second row. Push the side tongue of the panel into the side groove of the very first panel at about a 45-degree angle. When lowered, the plank will click into place. Diagram 7.

. Attach the second panel of the new row on the long side as described above. Push this panel as close as possible to the previous row. To attach this second panel to the previous panel, tap the end using a tapping block and rubber mallet. Continue along in the same fashion. Diagrams 8/9.

. To fit the last row, lay a panel on top of the previous row. With the tongue to the wall, lay another panel upside down on the one to be measured and use it as a ruler. Don't forget to allow room for spacers. Cut the panel and attach into position. Diagram 10.

. Door frames and heating vents also require expansion room. First cut the panel to the correct length. Then place the cut panel next to its actual position and use a ruler to measure the areas to be cut out and mark them. Cut out the marked points allowing the necessary expansion distance on each side, Diagram 11.

. You can trim door frames by turning a panel upside down and using a handsaw to cut away the necessary height so that panels slide easily under frames. Diagram 12.

. Remove spacers and you are ready to install finishing molding

FINISHING MOLDING

. Reducer molding is used to finish flooring when the adjoining surface is lower than the laminate flooring or when flooring meets carpet. Position the U track 7mm (1.4") between each edge of the flooring. Screw, nail or glue down the track directly to the subfloor and then insert the reducing strip into the track.

. T-molding is used to finish flooring when two level surfaces meet in doorway or for expansion joints. Install same as above. If your room is more than 7m (23") wide you will need to allow for an expansion joint. Expansion joints use T-molding and can be positioned in any inconspicuous place.

. Landing molding is used to finish flooring on landings or stair edges. Moldings need to be glued and screwed down to the sub-floor for safety and stability. Color fill should be used to cover counter sunk screws.

. To finish the perimeter of the room, install quarter round molding using finishing nails. Quarter Round molding is nailed directly into the baseboard.

MAINTENANCE AND CLEANING

. Preferable temperature should be approximately 17-23 C(62-73F) with a relative humidity of 45-60 percent, Humidity should never be allowed to drop below 30% as this may cause gapping.

. Do not use a wet spray micro fiber mop. Use a well rung out damp cloth to clean up any dirt and footprint but avoid using excessive moisture. All spills should be cleaned up immediately. Never use wax, polish or scouring agents as they may dull or distort the finish. You can use acetone or a cleaner specially formulated for laminate to remove stubborn marks.

. To avoid scratches apply felt pads to your furniture legs and use only soft rubber casters. Protect high traffic areas with runners and area rugs.

. It's a good idea to save a few boards in case of accidental damage. Boards can be replaced or repaired by a flooring professional.

Rainier Park Emergency Contact List

SYSTEM	CONTRACTOR	CONTACT
Heating & Hot Water	Bob's Heating and Ventilation	800-840-3346
Ventilation	Bob's Heating and Ventilation	800-840-3346
Plumbing	Yeti Plumbing	360-223-5190
Line Voltage - Service	Provident Electric	206-714-0762
Line Voltage - Electrical	Provident Electric	206-714-0763
Low Voltage - Electrical	Provident Electric	206-714-0764
Cable	Comcast	800-266-2278
Cable/Phone	Centry-Link	877-348-9007
Roofing	R & C Roofing/Chinook Roofing	253-922-6902
Garage Door	National Door Inc.	425-276-7550
Fireplace	Fireside	425-251-9447
Siding	James Hardie	1-888-542-7343
HOA	The Management Trust	425-897-3506
Warranty	<u>warranty@ichijousa.com</u>	



The Management Trust

AN EMPLOYEE OWNED COMPANY

Welcome to your new Ichijo USA home!

As an owner in this new neighborhood you are automatically a member of the homeowners association. A brochure entitled “A Strong Community Begins With You” is included in your Ichijo USA homeowner’s manual. The pamphlet provides an overview of the services your association provides, and your responsibilities as an owner. Together, you and your neighbors will maintain a vibrant community and enhance the appearance of this special enclave.

The Management Trust is proud to have been selected as your association manager. We look forward to helping each of you feel at home. You will receive a packet of critical association information in the near future. Until then, feel free to contact us with any related questions. Your association manager is Kate Bostwick. She may be reached by calling (425) 897-3506, or by emailing Kate.Bostwick@managementtrust.com. You may also reach us through our website www.managementtrust.com. Simply select the “Contact Us” link for Washington.

Once again, welcome to the neighborhood!

Rainier Park Utility Contacts

Once your closing date has been confirmed by our Project Manager during your walkthrough, please take a moment to contact the utility providers to give them your name, address and your closing date to ensure continued service. Thank you!

Electricity/Gas

Puget Sound Energy

1-888-225-5773, customercare@pse.com

Homeowner's Association

The Management Trust

Phone: 425-897-3506

Water/Sewer

City of Kent

253-856-5201

CustomerService@KentWA.gov

King County

Sewer Capacity Charges

Phone: 206-296-1450

Fax: 206-263-6073

Garbage/Recycling/Food Waste Containers

Republic Services

Phone: 206-682-9735 option 3

Cable/Internet

Comcast

Phone: 1-800-934-6489

www.xfinity.com

FIREX®

SIGNALING



Smoke Alarm User Guide

i4618AC, i4718AC, i5000AC Series

Model: i4618AC



- 120 Volt Smoke Alarm with 9 Volt Battery Back-up
- Front Load Battery
- Test and Hush® Button

⚠ ATTENTION: Please take a few minutes to thoroughly read this user guide which should be saved for future reference and passed on to any subsequent owner.

What to do When the Alarm Sounds!

Smoke Alarm Procedure

NEVER IGNORE THE SOUND OF THE ALARM!

Smoke alarms are designed to minimize false alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if it is located too close to the cooking area. Large quantities of combustion particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non-recirculating type) will also help remove these combustion particles from the kitchen.

If the alarm sounds, check for fires first. If a fire is discovered, follow these steps. Become thoroughly familiar with these steps and review with all family members:

- Alert small children in the home.
- Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- In leaving, don't open any inside door without first feeling its surface. If hot, or if you see smoke seeping through cracks, don't open that door! Instead, use your alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
- If the air is smoky, stay close to the floor. Breathe shallowly through a cloth, wet if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from your cell phone outside or neighbor's home - not from yours!
- Don't return to your home until the fire officials say that it is all right to do so.

A.C. Wire-in Single and/or Multiple Station (up to 24 Devices) Ionization Smoke Alarm with 9 Volt Battery Back Up and HUSH™ Control to temporarily silence nuisance alarms.

Thank you for purchasing this smoke alarm. It is an important part of your family's home safety plan. You can trust this product to provide the highest quality safety protection. We know you expect nothing less when the lives of your family are at stake. Firex alarms and accessories CAN ONLY BE interconnected with other Kidde and FireX alarms and accessories as well as specified brands and models of interconnect compatible alarms. Connection of Firex products to a non-specified manufacturer's interconnect system, or connection with non-specified equipment from another manufacturer into an existing Firex system could result in nuisance alarming, failure to alarm, or damage to one or all of the devices in the interconnect system. Refer to the User Guide supplied with each Firex product for interconnect compatible models, brands, and devices. Refer to the wiring instructions in section 3 for NFPA initiating device limits.

This alarm detects products of combustion using the ionization technique. It contains 0.9 microcurie of Americium 241, a radioactive material (see Section 9). Distributed under U.S. NRC License No. 32-23858-01E. Manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements. Do not try to repair the smoke alarm yourself. Refer to the instructions in Section 12 for service.

IMPORTANT! READ ALL INSTRUCTIONS BEFORE INSTALLATION AND KEEP THIS USER GUIDE NEAR THE ALARM FOR FUTURE REFERENCE.

CONTENTS OF THIS USER GUIDE

- 1 -- RECOMMENDED LOCATIONS FOR SMOKE ALARMS
- 2 -- LOCATIONS TO AVOID
- 3 -- INSTALLATION INSTRUCTIONS
- 4 -- OPERATION AND TESTING
- 5 -- NUISANCE ALARMS
- 6 -- MAINTENANCE
- 7 -- LIMITATIONS OF SMOKE ALARMS
- 8 -- GOOD SAFETY HABITS
- 9 -- NRC INFORMATION
- 10 -- NFPA PROTECTION STANDARD 72
- 11 -- CALIFORNIA STATE FIRE MARSHAL REQUIRED INFORMATION
- 12 -- SERVICE AND WARRANTY

⚠ WARNING! REMOVAL OF THE SMOKE ALARM BATTERY AND DISCONNECTING or LOSS OF A.C. POWER WILL RENDER THE SMOKE ALARM INOPERATIVE.

ELECTRICAL RATING: 120 VAC, 60HZ, 80mA maximum per alarm (maximum 80mA for originating unit with 24 devices interconnected).

1. RECOMMENDED LOCATIONS FOR ALARMS

- Locate the first alarm in the immediate area of the bedrooms. Try to monitor the exit path as the bedrooms are usually farthest from the exit. If more than one sleeping area exists, locate additional alarms in each sleeping area.
- Locate additional alarms to monitor any stairway as stairways act like chimneys for smoke and heat.
- Locate at least one alarm on every floor level.
- Locate an alarm in every sleeping room.
- Locate an alarm in every room where electrical appliances are operated (i.e. portable heaters or humidifiers).
- Locate an alarm in every room where someone sleeps with the door closed. The closed door may prevent an alarm not located in that room from waking the sleeper.
- Smoke, heat, and combustion products rise to the ceiling and spread horizontally. Mounting the smoke alarm on the ceiling in the center of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction.
- For mobile home installation, select locations carefully to avoid thermal barriers that may form at the ceiling. For more details, see MOBILE HOME INSTALLATION.
- When mounting an alarm on the ceiling, locate it at a minimum of 4" (10 cm) from the side wall (see FIGURE 1).
- When mounting the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 4" (10 cm) and a maximum of 12" (30.5 cm) below the ceiling (see FIGURE 1).
- Put smoke alarms at both ends of a bedroom hallway or large room if the hallway or room is more than 30 feet (9.1 m) long.
- Install Smoke Alarms on sloped, peaked or cathedral ceilings at or within 3ft (0.9m) of the highest point (measured horizontally). NFPA 72 states: "Smoke alarms in rooms with ceiling slopes greater than 1 foot in 8 feet (.3m in 2.4 m) horizontally shall be located on the high side of the room." NFPA 72 states: "A row of detectors shall be spaced and located within 3 ft (0.9m) of the peak of the ceiling measured horizontally" (see FIGURE 3).

- Install Smoke Alarms on tray-shaped ceilings (coffered ceilings) on the highest portion of the ceiling or on the sloped portion of the ceiling within 12" (305mm) vertically down from the highest point (see figure 4).

MOBILE HOME INSTALLATION

Modern mobile homes have been designed and built to be energy efficient. Install smoke alarms as recommended above (refer to RECOMMENDED LOCATIONS and FIGURES 1 and 2).

In older mobile homes that are not well insulated compared to present standards, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may create a thermal barrier which can prevent the smoke from reaching an alarm mounted on the ceiling. In such units, install the smoke alarm on an inside wall with the top edge of the alarm at a minimum of 4" (10 cm) and a maximum of 12" (30.5 cm) below the ceiling (see FIGURE 1).

If you are not sure about the insulation in your mobile home, or if you notice that the outer walls and ceiling are either hot or cold, install the alarm on an inside wall. For minimum protection, install at least one alarm close to the bedrooms. For additional protection, see SINGLE FLOOR PLAN in FIGURE 2.

⚠ WARNING: TEST YOUR SMOKE ALARM OPERATION AFTER MOBILE HOME VEHICLE HAS BEEN IN STORAGE, BEFORE EACH TRIP AND AT LEAST ONCE A WEEK DURING USE.

2. LOCATIONS TO AVOID

- In the garage. Products of combustion are present when you start your automobile.
- Less than 4" (10cm) from the peak of an "A" frame type ceiling.
- In an area where the temperature may fall below 40°F (4.4°C) or rise above 100°F (37.8°C), such as garages and unfinished attics.

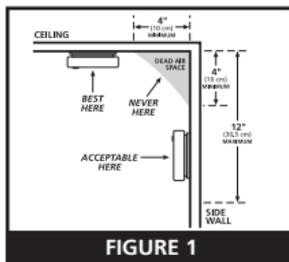


FIGURE 1

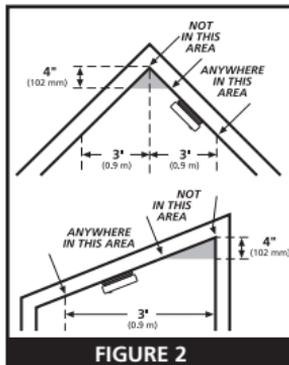


FIGURE 2

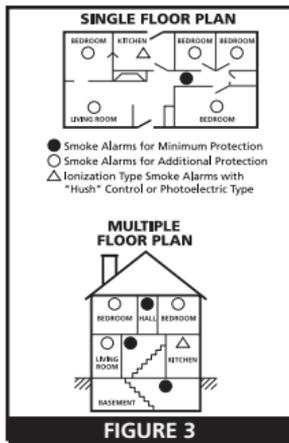


FIGURE 3

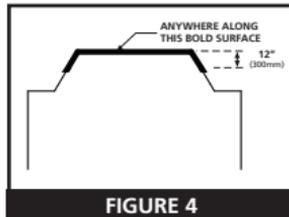


FIGURE 4

- In dusty areas. Dust particles may cause nuisance alarm or failure to alarm.
- In very humid areas (greater than 95% R.H.). Moisture or steam can cause nuisance alarms.
- In insect-infested areas.
- Smoke alarms should not be installed within 3 ft (.9m) of the following: the door to a kitchen, the door to a bathroom containing a tub or shower, forced air supply ducts used for heating or cooling, ceiling or whole house ventilating fans, or other high air flow areas.
- Kitchens. Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silence feature or be a photoelectric type.
- Near fluorescent lights. Electronic "noise" may cause nuisance alarms.
- Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) has been evaluated and found suitable for that purpose..

3. INSTALLATION INSTRUCTIONS

WIRING REQUIREMENTS

- This smoke alarm should be installed on a U.L. listed or recognized junction box. All connections should be made by a qualified electrician and all wiring used shall be in accordance with articles 210 and 300.3(B) of the U.S. National Electrical Code ANSI/NFPA 70, NFPA 72 and/or any other codes having jurisdiction in your area. The multiple station interconnect wiring to the alarms must be run in the same raceway or cable as the AC power wiring. In addition, the resistance of the interconnect wiring shall be a maximum of 10 ohms.
- The appropriate power source is 120 Volt A.C. Single Phase supplied from a non-switchable circuit which is not protected by a ground fault interrupter.

⚠ WARNING: This alarm cannot be operated from power derived from a square wave, modified square wave or modified sine wave inverters. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

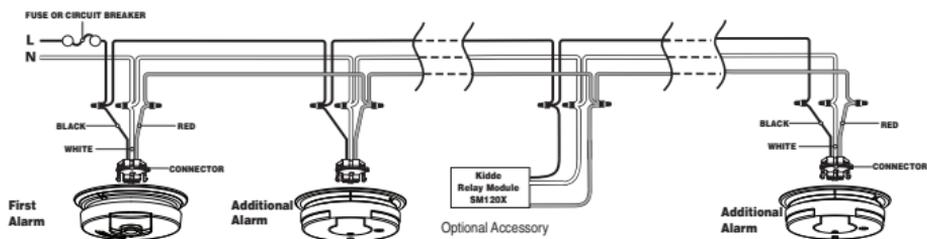
WIRING INSTRUCTIONS FOR A.C. QUICK CONNECT HARNESS

⚠ CAUTION! TURN OFF THE MAIN POWER TO THE CIRCUIT BEFORE WIRING THE ALARM.

- For alarms that are used as single station, DO NOT CONNECT THE RED WIRE TO ANYTHING. Leave the red wire insulating cap in place to make certain that the red wire cannot contact any metal parts or the electrical box.
- When alarms are interconnected, all interconnected units must be powered from a single circuit.

- A maximum of 24 Kidde and/or FireX devices may be interconnected in a multiple station arrangement. The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms and/or 18 alarms total (smoke, heat, carbon monoxide, etc.). With 18 alarms interconnected, it is still possible to interconnect up to a total of 6 remote signaling devices and/or relay modules.
- When mixing models which have battery backup (1275, 1276, 1285, i12040, i12040A, i12060, i12060A, i12080, i12080A, i4618, i4618A, i4618AC, i4718A, i4718AC, i5000A, i5000AC, PE120, P12040, Pi2000, Pi2010, KN-COPE-I, KN-SM-FM-I, KN-COSM-IB, KN-COSM-IBA, HD135F, KN-COB-IC, KN-COP-IC, i12010S, i12010SCO, RF-SM-ACDC) with models without battery backup, (1235, i12020, i12020A, KN-COSM-I, SM120X, CO120X, SL177i, SLED177i) be advised that the models without battery backup will not respond during an AC power failure.
- For more information about compatible interconnect units and their functionality in an interconnect system, visit our web site at: www.Kidde.com
- The maximum wire run distance between the first and last unit in an interconnected system is 1000 feet.
- **NOTE:** This alarm is not compatible with Kidde CO-relays and Strobes manufactured before Nov. 1, 2011.
- Figure 5 illustrates interconnection wiring. Improper connection will result in damage to the alarm, failure to operate, or a shock hazard.
- Make certain alarms are wired to a continuous (non-switched) power line. NOTE: Use standard UL listed household wire (as required by local codes) available at all electrical supply stores and most hardware stores.

FIGURE 5 INTERCONNECT WIRING DIAGRAM



WIRES ON ALARM HARNESS

Black
White
Red

CONNECTED TO

Hot Side of A.C. Line
Neutral Side of A.C. Line
Interconnect Lines (Red Wires) of Other
Units in the Multiple Station Set up

BATTERY INSTALLATION

See MAINTENANCE (Section 6) for battery installation.

⚠ CAUTION! THIS UNIT WILL NOT FUNCTION WITHOUT A PROPERLY INSTALLED BATTERY, AND IS EQUIPPED WITH A BATTERY LOCKOUT FEATURE WHICH PREVENTS THE BATTERY DOOR FROM CLOSING IF A BATTERY IS NOT INSTALLED CORRECTLY.

MOUNTING INSTRUCTIONS

⚠ CAUTION: THIS UNIT IS SEALED. THE COVER IS NOT REMOVABLE!

1. Remove the trim ring from the back of the alarm by holding the trim ring and twisting the alarm counter-clockwise.
2. After selecting the proper smoke alarm location as described in Section 1 and wiring the AC Quick Connector as described in the WIRING INSTRUCTIONS, attach the trim ring to the electrical box (see Figure 6). To ensure aesthetic alignment of the alarm with the hallway or wall, the "A" line on the mounting bracket must be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.

When mounting in a hallway, the "A" line should be parallel with the hallway.



When wall mounting, the "A" line should be horizontal.

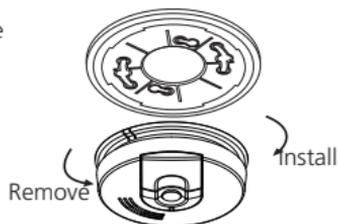


FIGURE 6

Alignment Marks

3. Pull the AC QUICK CONNECTOR through the center hole in the mounting bracket and secure the bracket, making sure that the mounting screws are positioned in the small ends of the keyholes before tightening the screws.
4. Plug the AC QUICK CONNECTOR into the back of the alarm (see Figure 7), making sure that the locks on the connector snap into place. Then push the excess wire back into the electrical box through the hole in the center of the mounting bracket.
5. Install the alarm on the mounting bracket and rotate the alarm clockwise until the alarm ratchets into place (this ratcheting function allows for aesthetic alignment).

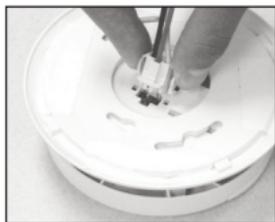


FIGURE 7

NOTE: The alarm will mount to the bracket in 4 positions (every 90 degrees). When wall mounting, make sure the battery box is at the bottom of the unit. (see Figure 5).

6. Pull the Battery Pull Tab completely out of the unit. This will automatically connect the battery.

⚠ CAUTION: Due to the loudness (85 decibels) of the alarm, always stand an arms length away from the unit when testing.

7. Turn on the AC power. The green Power On Indicator should be lit when the alarm is operating from AC power. Confirm unit operation by pressing the Test/Hush button.

8. Test the unit to ensure proper operation by pressing the Test/Hush Button for a minimum of 5 seconds. (All interconnected, battery backed up, alarms should respond).

TAMPER RESIST FEATURES

Smoke Alarm Tamper Resist Feature

This alarm has a tamper resist feature, which helps prevent someone from removing the unit from the mounting bracket. It can be very effective in preventing smoke alarm tampering.

Activate the smoke alarm tamper resist feature by breaking off the four posts in the square holes in the mounting bracket (see Figure 8A). When the posts are broken off, the tamper resist tab on the base is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help deter children and others from removing the alarm from the bracket. NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab, and rotate the alarm off the bracket (see Figure 8B).

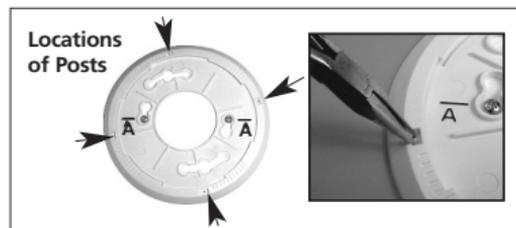


FIGURE 8A



FIGURE 8B

4. OPERATION AND TESTING

OPERATION: The smoke alarm is operating once A.C. power is applied, a fresh battery is installed and testing is complete. When the smoke alarm ionization chamber senses products of combustion, the horn will sound a loud (85db) temporal alarm until the sensing chamber is cleared of smoke particles.

HUSH™ CONTROL: The "HUSH" feature has the capability of temporarily desensitizing the alarm circuit for up to 8 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm. The smoke alarm is desensitized by pushing the "TEST/HUSH" button on the smoke alarm cover. If the smoke is not too dense, the alarm will silence immediately. The red LED will illuminate for 1.5 seconds every 8-10 seconds while in hush. This indicates that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately 8 minutes and sound the alarm if particles of combustion are still present. The "HUSH" feature can be used repeatedly until the air has been cleared of the condition causing the alarm. Pushing the Test/Hush button on the alarm will end the hush period.

This alarm has a low battery HUSH feature. If the alarm is sounding a low battery warning chirp, you can silence this chirp for approximately 13 hours by pressing the Test/Hush button.

NOTE: DENSE SMOKE WILL OVERRIDE THE HUSH CONTROL FEATURE AND SOUND A CONTINUOUS ALARM.

⚠ CAUTION: BEFORE USING THE ALARM HUSH FEATURE, IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.

LED INDICATORS: This smoke alarm is equipped with red and green LED indicators. The green LED (when illuminated) indicates the presence of AC power. The red LED has four modes of operation:

Standby Condition: The red LED will flash every 40 seconds to indicate that the smoke alarm is operating properly.

Alarm Condition: When the alarm senses products of combustion and goes into alarm, the red LED will flash one flash per second. The flashing LED and pulsating alarm will continue until the air is cleared.

WHEN UNITS ARE INTERCONNECTED, only the red LED of the alarm which senses the smoke or is being tested (the originating unit) will flash. All other units in the interconnect system will sound an alarm but their red LED's will NOT be flashing.

- Alarm Memory:** This smoke alarm is equipped with an alarm memory, which provides a visual indication when an alarm has been activated. The red LED will illuminate for about 1.5 seconds every 16-20 seconds to indicate the memory condition. The memory will remain activated until pushing the Test/Hush Button resets it or will time-out between 11 to 13 hours. In an interconnected installation only the memory of the originating alarm will be activated.
- Hush® mode:** The red LED will illuminate for 1.5 seconds every 8-10 seconds, indicating the smoke alarm is in the Hush® mode.

TESTING: Test by pushing the Test/Hush button on the cover and hold it down for a minimum of 5 seconds. This will sound the alarm if all the electronic circuitry, horn and battery are working. In an interconnected installation all interconnected alarms should sound when the test feature on any one of the interconnected alarms is activated. If no alarm sounds, check the fuse or circuit breaker supplying power to the alarm circuit. If the alarm still does not sound, the unit has defective batteries or other failure. **DO NOT** use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and start a structure fire.

TEST THE ALARM WEEKLY TO ENSURE PROPER OPERATION. Erratic or low sound coming from your alarm may indicate a defective alarm, and it should be returned for service (see Section 12).

5. NUISANCE ALARMS

Smoke alarms are designed to minimize nuisance alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if the alarm is located close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non-recirculating type) will also help remove these combustible products from the kitchen.

Model i4618AC has a "HUSH" feature that is extremely useful in a kitchen area or other areas prone to nuisance alarms. For more information, refer to Section 4 OPERATION AND TESTING.

If the alarm does sound, check for fires first. If a fire is discovered, get out and call the fire department. If no fire is present, check to see if one of the reasons listed in Section 2 may have caused the alarm.

6. MAINTENANCE / TROUBLESHOOTING

ALARM REMOVAL

IF SMOKE ALARM TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO SMOKE ALARM TAMPER RESIST FEATURE IN SECTION 3 FOR REMOVAL INSTRUCTIONS.

To remove the alarm from the trim ring, rotate the alarm counter clockwise in the direction of the "OFF" arrow on the cover. To disconnect the A.C. power harness, squeeze the locking arms on the sides of the Quick Connector while pulling the connector away from the bottom of the alarm (see Section 3, Figure 7).

BATTERY INSTALLATION AND REMOVAL

To replace or install the battery slide the battery door in the direction indicated on the cover of the alarm. The battery can then be pulled out of the carrier. When installing a new battery into the carrier, make sure that the polarity matches the markings printed on the inside of the battery compartment. Completely slide the battery door to the closed position.

A missing or improperly installed battery will prevent the battery door from closing and result in improper alarm operation.



SLIDE



OPEN



INSERT

This smoke alarm uses a 9V carbon zinc battery (alkaline batteries may also be used). A fresh battery should last for one year under normal operating conditions.

This alarm has a low/missing battery monitor circuit which will cause the alarm to "chirp" approximately every 30-40 seconds for a minimum of seven (7) days when the battery gets low. Replace the battery when this condition occurs.

NOTE: Low/missing battery monitor circuit WILL cause the unit to chirp while replacing the battery. This function will cease once the new battery has been installed. To avoid this "chirp" the unit can be removed from the base and disconnected from the AC power when replacing the battery, but it is not necessary.

USE ONLY THE FOLLOWING 9 VOLT BATTERIES FOR SMOKE ALARM

BATTERY REPLACEMENT.

Carbon-zinc type EVEREADY 1222; GOLD PEAK 1604P OR 1604S
GOLDEN POWER G6F22M

Alkaline type ENERGIZER 522; DURACELL MN1604 OR MX1604; GOLD PEAK 1604A PANASONIC 6AM6, 6AM-6, 6AM-6PI, 6AM6X, AND 6LR61 (GA)

NOTE: Do not use lithium batteries in this unit.

These batteries can be purchased at your local retailer.

NOTE: WEEKLY TESTING IS REQUIRED!

⚠ WARNING! BE SURE TO FOLLOW BATTERY INSTALLATION INSTRUCTIONS PRINTED ON THE BACK OF THE ALARM AND USE ONLY THE BATTERIES SPECIFIED. USE OF DIFFERENT BATTERIES MAY HAVE A DETRIMENTAL EFFECT ON THE SMOKE ALARM.

⚠ WARNING: THIS ALARM WILL “CHIRP” IF ABNORMAL OPERATION OF THE SMOKE-SENSING CHAMBER IS DETECTED. THIS CHIRP WILL OCCUR APPROXIMATELY 20 SECONDS AFTER THE RED LED FLASH. REPLACE THE ALARM IF THIS CONDITION OCCURS.

CLEANING YOUR ALARM

YOUR ALARM SHOULD BE CLEANED AT LEAST ONCE A YEAR

To clean your alarm, remove it from the mounting bracket as outlined in the beginning of this section. You can clean the interior of your alarm (sensing chamber) by using compressed air or a vacuum cleaner hose and blowing or vacuuming through the openings around the perimeter of the alarm. The outside of the alarm can be wiped with a damp cloth. After cleaning, reinstall your alarm, verify the green LED is on and test your alarm by using the Test/Hush Button. If cleaning does not restore the alarm to normal operation the alarm should be replaced.

7. LIMITATIONS OF SMOKE ALARMS

⚠ WARNING: PLEASE READ CAREFULLY AND THOROUGHLY

- NFPA 72 states: Life safety from fire in residential occupancies is based primarily on early notification to occupants of the need to escape, followed by the appropriate egress actions by those occupants. Fire warning systems for

dwelling units are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or young, or physically or mentally impaired such that they cannot escape even when warned early enough that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue are necessary.

- Leading authorities recommend that both ionization and photoelectric smoke alarms be installed to help insure maximum detection of the various types of fires that can occur within the home. Ionization sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionization alarms.
- A battery powered alarm must have a battery of the specified type, in good condition and installed properly.
- A.C. powered alarms (without battery backup) will not operate if the A.C. power has been cut off, such as by an electrical fire or an open fuse.
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.
- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners and renters should have adequate insurance to protect their lives and property.

8. GOOD SAFETY HABITS

DEVELOP AND PRACTICE A PLAN OF ESCAPE

- Install and maintain Fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency.
- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need a rope or chain ladder.

- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you all can meet if a fire occurs.
- Familiarize everyone with the sound of the smoke alarm and train them to leave your home when they hear it.
- Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan. Practice allows all occupants to test your plan before an emergency. You may not be able to reach your children. It is important they know what to do.
- Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

WHAT TO DO WHEN THE ALARM SOUNDS

- Alert small children in the home.
- Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- In leaving, don't open any inside door without first feeling its surface. If hot, or if you see smoke seeping through cracks, don't open that door! Instead, use your alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
- Stay close to the floor if the air is smoky. Breathe shallowly through a cloth, wet if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from your cell phone outside or neighbor's home - not from yours!
- Don't return to your home until the fire officials say that it is all right to do so.

There are situations where a smoke alarm may not be effective to protect against fire. For instance:

- Smoking in bed.
- Leaving children unsupervised.

- Cleaning with flammable liquids, such as gasoline.
- Fires where the victim is intimate with a flaming initiated fire; for example, when a person's clothes catch fire while cooking.
- Fires where the smoke is prevented from reaching the detector due to a closed door or other obstruction.
- Incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located detectors

9. NRC INFORMATION

Ionization type smoke alarms use a very small amount of a radioactive element in the sensing chamber to enable detection of visible and invisible combustion products. The radioactive element is safely contained in the chamber and requires no adjustments or maintenance. This smoke alarm meets or exceeds all government standards. It is manufactured and distributed under license from the U.S. Nuclear Regulatory Commission.

10. NFPA REQUIRED PROTECTION

The National Fire Protection Association's Standard 72 provides the following information:

Smoke Detection – Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

- (1) In all sleeping rooms and guest rooms.
- (2) Outside of each separate dwelling unit sleeping area, within 21 ft (6.4 m) of any door to a sleeping room, with the distance measured along a path of travel.
- (3) On every level of a dwelling unit, including basements.
- (4) On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics.
- (5) In the living area(s) of a guest suite.
- (6) In the living area(s) of a residential board and care occupancy (small facility).

Smoke Detection – Are More Smoke Alarms Desirable? The required number of smoke alarms might not provide reliable early warning protection for those areas

separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of the smoke alarms in the kitchen, attic (finished or unfinished), or garage is normally not recommended, as these locations occasionally experience conditions that can result in improper operation.

This equipment should be installed in accordance with the National Fire Protection Association's Standard 72 (NFPA, Batterymarch Park, Quincy, MA 02269).

NOTIFY YOUR LOCAL FIRE DEPARTMENT AND INSURANCE COMPANY OF YOUR SMOKE ALARM INSTALLATION.

11. CAUTION (AS REQUIRED BY THE CALIFORNIA STATE FIRE MARSHAL)

"Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows. A smoke alarm installed in each separate sleeping area (in the vicinity of, but outside of the bedrooms), and heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages."

12. SERVICE AND WARRANTY

If after reviewing this user guide you feel that your smoke alarm is defective in any way, do not tamper with the unit.

Return it for servicing to: KIDDE, 1016 Corporate Park Dr., Mebane, NC 27302. 1-800-880-6788 (See Warranty for in-warranty returns).

FIVE YEAR LIMITED WARRANTY (i4618AC, i4718AC Series)

Kidde warrants to the original purchaser that the enclosed smoke alarm (but not the battery) will be free from defects in material and workmanship or design under normal use and service for a period of five years from the date of purchase. The obligation of Kidde under this warranty is limited to repairing or replacing the smoke alarm or any part which we find to be defective in material, workmanship or design, free of charge to the customer, upon sending the smoke alarm with proof of date of purchase, postage and return postage prepaid, to Warranty Service Department, Kidde, 1016 Corporate Park Dr., Mebane, NC 27302.

This warranty shall not apply to the smoke alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate A.C. or D.C. electrical power.

THE LIABILITY OF KIDDE OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS ARISING FROM THE SALE OF THIS SMOKE ALARM OR UNDER THE TERMS OF THIS LIMITED WARRANTY SHALL NOT IN ANY CASE EXCEED THE COST OF REPLACEMENT OF SMOKE ALARM AND, IN NO CASE, SHALL KIDDE OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS BE LIABLE FOR CONSEQUENTIAL LOSS OR DAMAGES RESULTING FROM THE FAILURE OF THE SMOKE ALARM OR FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE COMPANY'S NEGLIGENCE OR FAULT.

Since some states do not allow limitations on the duration of an implied warranty or do not allow the exclusion or limitation of incidental or consequential damages, the above limitations or exclusions may not apply to you. While this warranty gives you specific legal rights, you may also have other rights which vary from state to state.

Also, Kidde makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

The above warranty may not be altered except in writing signed by both parties hereto.

TEN YEAR LIMITED WARRANTY (i5000AC Series)

Kidde warrants to the original purchaser that the enclosed smoke alarm (but not the battery) will be free from defects in material and workmanship or design under normal use and service for a period of ten years from the date of purchase. The obligation of Kidde under this warranty is limited to repairing or replacing the smoke alarm or any part which we find to be defective in material, workmanship or design, free of charge to the customer, upon sending the smoke alarm with proof of date of purchase, postage and return postage prepaid, to Warranty Service Department, Kidde, 1016 Corporate Park Dr., Mebane, NC 27302.

This warranty shall not apply to the smoke alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate A.C. or D.C. electrical power.

THE LIABILITY OF KIDDE OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS ARISING FROM THE SALE OF THIS SMOKE ALARM OR UNDER THE TERMS OF THIS LIMITED WARRANTY SHALL NOT IN ANY CASE EXCEED THE COST OF REPLACEMENT OF SMOKE ALARM AND, IN NO CASE, SHALL KIDDE OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS BE LIABLE FOR CONSEQUENTIAL LOSS OR DAMAGES RESULTING FROM THE FAILURE OF THE SMOKE ALARM OR FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE COMPANY'S NEGLIGENCE OR FAULT.

Since some states do not allow limitations on the duration of an implied warranty or do not allow the exclusion or limitation of incidental or consequential damages, the above limitations or exclusions may not apply to you. While this warranty gives you specific legal rights, you may also have other rights which vary from state to state.

Also, Kidde makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

The above warranty may not be altered except in writing signed by both parties hereto.

QUESTIONS OR FOR MORE INFORMATION

Call our Consumer Hotline at **1-800-880-6788** or contact us at our website at **www.kidde.com**

FIREX[®]

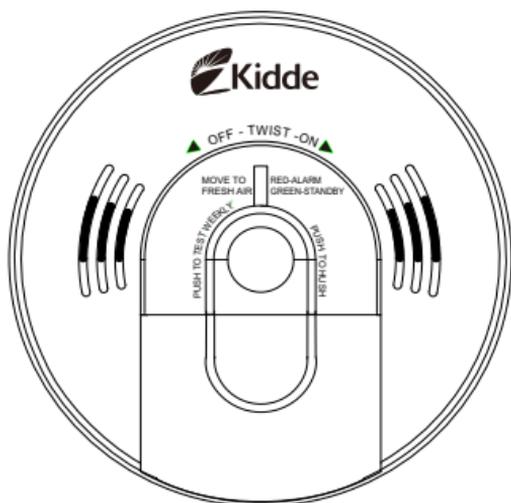
Kidde 1016 Corporate Park Drive, Mebane, NC 27302
Made in China



User Guide for Model KN-COSM-IBA

Combination Smoke and Carbon Monoxide Alarm

- 120V AC
- 2 - AA Battery Backup
- 2-LED Display
- Peak Level Memory
- Test/Hush® button
- Voice Message System



SIGNALING



For questions concerning your Smoke and Carbon Monoxide Alarm, please call our Product Support Line at 1-800-880-6788.

For your convenience, write down the following information. If you call our Product Support Line, these are the first questions you will be asked:

Alarm Model Number
(located on back of the alarm):

Date of Manufacture
(located on back of the alarm):

Date of Purchase:

Where Purchased:

READ AND SAVE THIS USER GUIDE

P/N 2544-7201-01 EN

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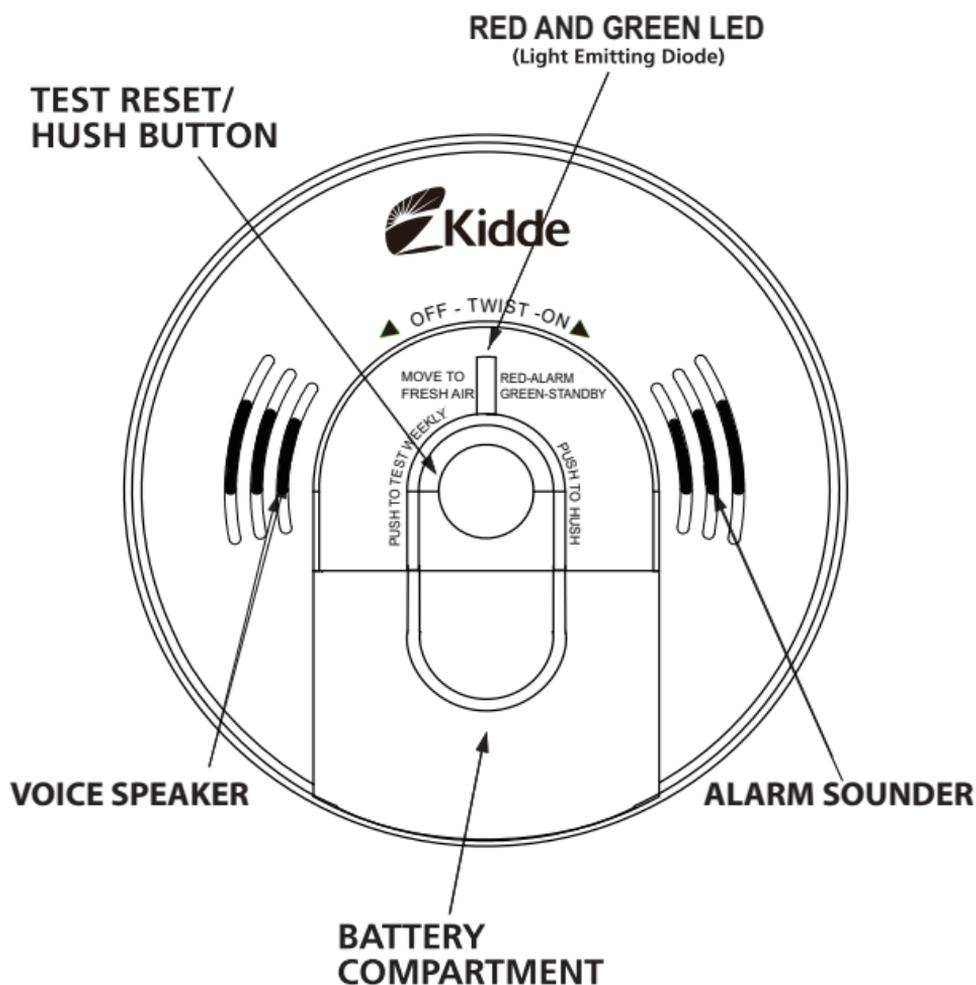
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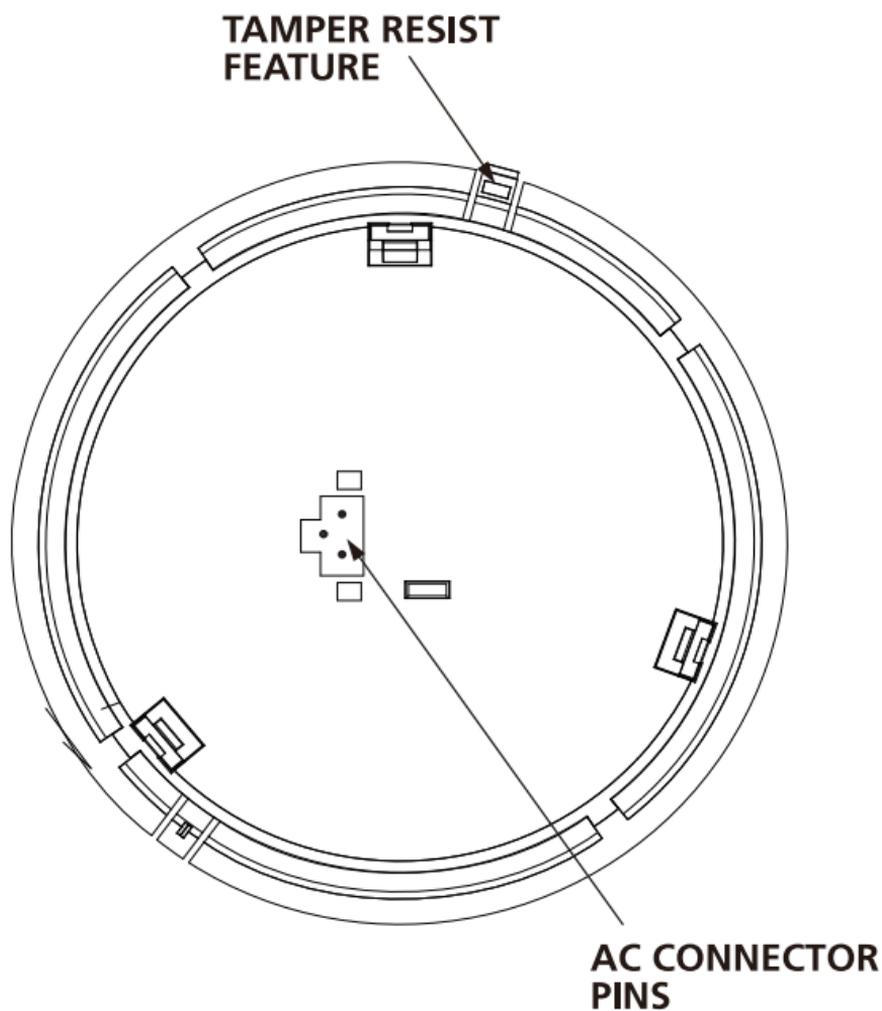
Introduction

Thank you for purchasing the Kidde Combination Smoke and Carbon Monoxide Alarm model # KN-COSM-IBA. This alarm is suitable as a Single Station and/or Multiple Station (24 devices) alarm. This alarm has a ten-year limited warranty. Please take a few minutes to thoroughly read this user guide, and save for future reference. Teach children how to respond to the alarms, and that they should never play with the unit. Your Kidde Smoke/CO Alarm was designed to detect both smoke and carbon monoxide from any source of combustion in a residential environment. It is not designed for use in a recreational vehicle (RV) or boat. If you have any questions about the operation or installation of your alarm, please call our toll free Product Support Line at 1-800-880-6788. The guide on Page 27 will help you determine the correct location of safety products that will help keep your home a safer place.

Product View

FRONT





Features

- Loud 85 decibel alarm.
- Permanent independent smoke and carbon monoxide sensors.
- **Smoke alarm takes precedence** when **both** smoke and carbon monoxide are present.
- Powered by 120V AC (60 Hz, 45mA max) wire-in connector and two AA battery backup.
- Interconnectable to other Kidde/Nighthawk brand smoke and CO alarms (see page 15 for details).
- Alarm/Voice message warning system that alerts you of the following conditions in the manner described below, thus eliminating any confusion over which alarm is sounding:

FIRE: The alarm/voice pattern is three long alarm beeps followed by the verbal warning message "FIRE!" This pattern is repeated until the smoke is eliminated. The red LED light will flash while in alarm/voice mode.

CARBON MONOXIDE: The alarm/voice pattern is four short alarm beeps followed by the verbal warning message "WARNING! CARBON MONOXIDE!". This continues until the unit is reset or the CO is eliminated. While powered by battery only, after four minutes the alarm/voice pattern will sound once every minute. The red Light Emitting Diode (LED) light will flash while in alarm/voice mode.

LOW BATTERY: When the batteries are low and need replacing the red LED light will flash and the unit will "chirp" one time, followed by the warning message "LOW BATTERY." This cycle will occur once every minute and will continue for at least seven days. Under battery power, the "LOW BATTERY" voice only occurs once every 15 minutes.

- Voice Message System that alerts user to the following conditions:
 - Only for smoke alarm Hush
System announces "HUSH MODE ACTIVATED" when the unit is first put into HUSH Mode.
 - Only for smoke alarm Hush

Features

System announces "HUSH MODE CANCELLED" when unit resumes normal operation after Hush Mode has been cancelled.

- Only if button is pushed

System announces "CAUTION, CARBON CONOXIDE PREVIOUSLY DETECTED" when the unit has detected CO concentrations of 100 ppm or higher.

- System announces "PUSH TEST BUTTON" when the unit is powered up, reminding user to activate the Test Button.
- End of Life Hush. At end of product life, the button can be pushed to silence the end of life "chirp" for approximately 3 days at a time, for a maximum of 30 days life extension.
- One "chirp" every 30 seconds coupled with a green LED flash twice a second is an indication that the alarm is malfunctioning. If this occurs call the Product Support Line at 1-800-880-6788.
- Test/Reset button performs functions.(See page 14).
- HUSH Control Feature that silences the unit during nuisance alarm situations (see page 15).
- Peak Level Memory Feature which alerts user when the unit has detected CO concentrations of 100 ppm or greater (see page 16).
- Alarm Memory Feature that gives visual indication when an alarm has sensed a hazardous condition.
- Green and red LED lights that indicate normal operation and alarm status (see page 16 and 17 for details).
- Tamper Resist Feature that deters children and others from removing the alarm (see page 17).
- Battery reminder flag that prohibits installation when batteries are not present.

Features and General Information

Smoke Alarm

The smoke alarm monitors the air for products of combustion that are produced when something is burning or smoldering. When smoke particles in the smoke sensor reach a specified concentration, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. The smoke alarm takes precedence when both smoke and carbon monoxide are present.

 **WARNING: PLEASE READ CAREFULLY AND THOROUGHLY**

NFPA 72 states: Life safety from fire in residential occupancies is based primarily on early notification to occupants of the need to escape, followed by the appropriate egress actions by those occupants. Fire warning systems for dwelling units are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or young, or physically or mentally impaired such that they cannot escape even when warned early enough that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue are necessary.

- Smoke alarms are devices that can provide early warning of possible fires at a reasonable cost; however, alarms have sensing limitations. Ionization sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionization alarms. Home fires develop in different ways and are often unpredictable. For maximum protection, Kidde recommends that both Ionization and Photoelectric alarms be installed.
- A battery powered alarm must have a battery of the specified type, in good condition and installed properly.
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.
- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.

Features and General Information

- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners and renters should have adequate insurance to protect their lives and property.

Carbon Monoxide (CO) Alarm

The Carbon Monoxide (CO) alarm monitors the air for the presence of CO. It will alarm when there are high levels of CO present, and when there are low levels of CO present over a longer period of time (see page 21 for alarm times). When a CO condition matches either of these situations, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. The carbon monoxide sensor uses an electrochemical technology.

 CAUTION: This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

Individuals with medical problems may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30 ppm.

Installation Instructions

Step 1

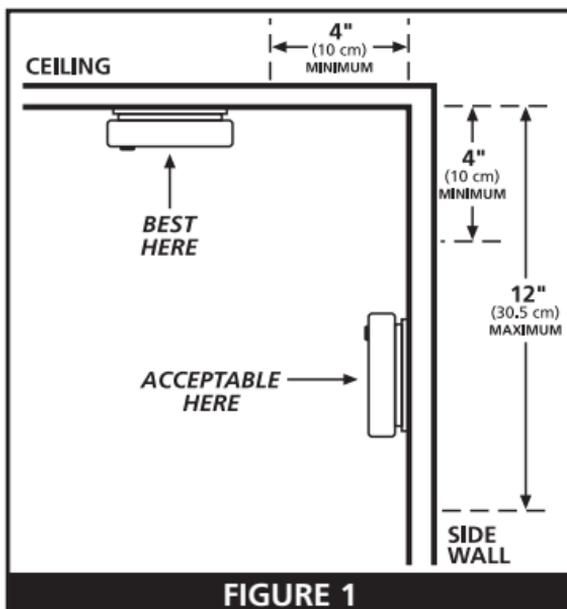
Installation Guide:

IMPORTANT: THIS ALARM MUST BE MOUNTED ON A CEILING OR WALL. IT WAS NOT DESIGNED FOR USE AS A TABLETOP DEVICE! INSTALL ONLY AS DETAILED!

A. Recommended Installation Locations:

Kidde Safety recommends the installation of a Smoke/CO Alarm in the following locations. For maximum protection we suggest an alarm be installed on each level of a multilevel home, including every bedroom, hallways, finished attics and basements. Put alarms at both ends of bedroom, hallway or large room if hallway or room is more than 30 ft (9.1m) long. If you have only one alarm, ensure it is placed in the hallway outside of the main sleeping area, or in the main bedroom. Verify the alarm can be heard in all sleeping areas.

Locate an alarm in every room where someone sleeps with the door closed. The closed door may prevent an alarm not located in that room from waking the sleeper. Smoke, heat and combustion products rise to the ceiling and spread horizontally. Mounting the alarm on the ceiling in the center of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction. When mounting an alarm on the ceiling, locate it at a minimum of 4" (10cm) from the side wall (see figure 1). If installing the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 4" (10cm) and a maximum of 12" (30.5cm) below the ceiling (see figure 1).



Installation Instructions

Sloped Ceiling Installation:

The following information is from the National Fire Protection Association and is listed in Fire Code 72.

Install Smoke Alarms on sloped, peaked or cathedral ceilings at, or within 3 ft (0.9m) of the highest point (measured horizontally). NFPA 72 states "Smoke alarms in rooms with ceiling slopes greater than 1 ft to 8 ft (.3 m-2.4 m) horizontally shall be located on the high side of the room".

NFPA 72 states "A row of alarms shall be spaced and located within 3 ft (0.9 m) of the peak of the ceiling measured horizontally" (see figure 2).

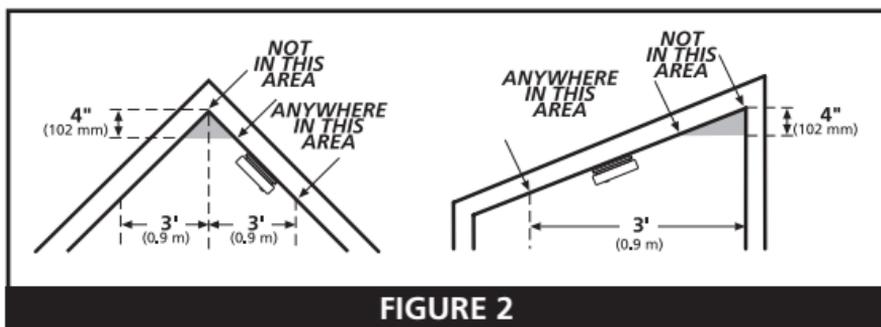


FIGURE 2

Mobile Homes:

Modern mobile homes have been designed and built to be energy efficient. Install Smoke/CO alarms as recommended above (refer to Recommended Installation Instructions and figure 1). In older mobile homes that are not well insulated, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may cause a thermal barrier, which can prevent smoke from reaching an alarm mounted on the ceiling. In such mobile homes install your Smoke/CO Alarm on an inside wall with the top edge of the alarm at a minimum of 4 inches (10cm) and a maximum of 12 inches (30.5cm) below the ceiling (see figure 2). If you are not sure about the insulation in your mobile home, or if you notice that the outer walls and ceiling are either hot or cold, install your alarm on an inside wall **ONLY!**

Installation Instructions

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).



WARNING - This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards.

B. Where Not to Install:

Do not install in garages, kitchens, furnace rooms or bathrooms! INSTALL AT LEAST 5 FEET AWAY FROM ANY FUEL BURNING APPLIANCE.

Do not install within 3 ft (.9m) of the following: The door to a kitchen, or a bathroom that contains a tub or shower, forced air supply ducts used for heating or cooling, ceiling or whole house ventilating fans, or other high air areas. Avoid excessively dusty, dirty or greasy areas. Dust, grease or household chemicals can contaminate the alarm's sensors, causing it to not operate properly.

Place the alarm where drapes or other objects will not block the sensor. Smoke and CO must be able to reach the sensors to accurately detect these conditions. Do not install in peaks of vaulted ceilings, "A" frame ceilings or gabled roofs. Keep out of damp and humid areas.

Install at least one (1) foot away from fluorescent lights, electronic noise may cause nuisance alarms. Do not place in direct sunlight and keep out of insect infested areas. Extreme temperatures will effect the sensitivity of the Smoke/CO Alarm. Do not install in areas where the temperature is colder than 40 degrees Fahrenheit (4.4° Celsius) or hotter than 100 degrees Fahrenheit (37.8° Celsius), such as garages and unfinished attics. Do not install in areas where the relative humidity (RH) is above 85%. Place away from doors and windows that open to the outside.

Installation Instructions

Step 2

Wiring Instructions:

WIRING REQUIREMENTS

- This smoke alarm should be installed on a U.L. listed or recognized junction box. All connections should be made by a qualified electrician and all wiring used shall be in accordance with articles 210 and 300.3(B) of the U.S. National Electrical Code ANSI/NFPA 70, NFPA 72 and/or any other codes having jurisdiction in your area. The multiple station interconnect wiring to the alarms must be run in the same raceway or cable as the AC power wiring. In addition, the resistance of the interconnect wiring shall be a maximum of 10 ohms.
- The appropriate power source is 120 Volt AC Single Phase supplied from a non-switchable circuit, which is not protected by a ground fault interrupter.
- Smoke alarms are not to be used with detector guards unless the combination (alarm and detector guard) have been evaluated and found suitable for that purpose.
-  **WARNING:** The alarm cannot be operated from power derived from a square wave, modified square wave or modified sine wave, inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

WIRING INSTRUCTIONS FOR AC QUICK CONNECT HARNESS

CAUTION! TURN OFF THE MAIN POWER TO THE CIRCUIT BEFORE WIRING THE ALARM.

- For alarms that are used as single station, **DO NOT CONNECT THE RED WIRE TO ANYTHING.** Leave the red wire insulating cap in place to make certain that the red wire cannot contact any metal parts or the electrical box.
- When alarms are interconnected, all interconnected units must be powered from a single circuit.

Installation Instructions

- A maximum of 24 Kidde Safety devices may be interconnected in a multiple station arrangement. The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms and/or 18 alarms total (smoke, CO, Smoke/ CO Combination, heat, etc.). This Smoke/CO combination alarm must be counted as a smoke alarm when determining the number of units on an interconnect line. With 18 alarms interconnected, it is still possible to interconnect up to a total of 6 remote signaling devices and /or relay modules (see page 15 for details on interconnecting Kidde devices).
- The maximum wire run distance between the first and last unit in an interconnected system is 1000 feet.
- Figure 3 illustrates interconnection wiring. Improper connection will result in damage to the alarm, failure to operate, or a shock hazard.
- Make certain alarms are wired to a continuous (non-switched) power line. NOTE: Use standard UL Listed household wire (as required by local codes) available at all electrical supply stores and most hardware stores.

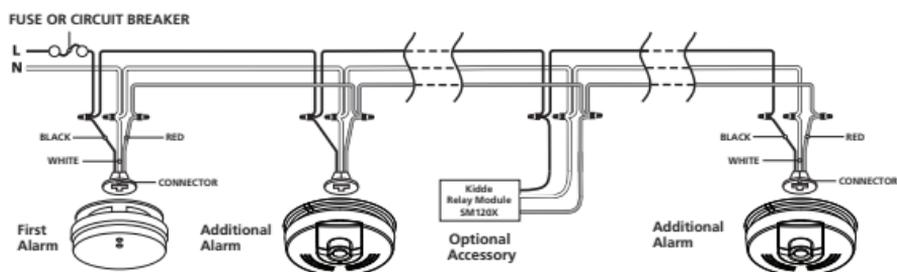


FIGURE 3 Interconnect Wiring Diagram

WIRES ON ALARM HARNESS

- Black
- White
- Red

CONNECTED TO

- Hot Side of AC Line
- Neutral Side of AC Line
- Interconnect Lines (Red Wires) of Other Units in the Multiple Station Set up

Installation Instructions

Step 3

Mounting Instructions:

⚠ CAUTION: YOUR SMOKE/CO ALARM IS SEALED AND THE COVER IS NOT REMOVABLE!

1. To help identify the date to replace the unit, write the "Replace by" date (10 years from initial power up) in permanent marker in the space provided on the side of the alarm. See Alarm Replacement section for additional information.
2. Remove the mounting bracket from the back of the alarm by holding the mounting bracket and twisting the alarm in the direction indicated by the "OFF" arrow on the alarm cover.
3. After selecting the proper location for your Smoke/CO Alarm, as described on Pages 8-10, and wiring the AC QUICK CONNECT harness as described in the WIRING INSTRUCTIONS (NOTE: AC power should be turned off at this stage), attach the mounting bracket to the electrical box. To ensure aesthetic alignment of the alarm with the hallway, or wall, the "A" line on the mounting bracket must be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.

4. Pull the AC QUICK CONNECT through the center hole in the mounting bracket and secure the bracket, making sure that the mounting screws are positioned in the small ends of the keyholes before tightening the screws.

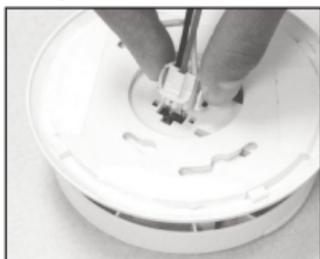


FIGURE 4
Installing AC Quick Connect

5. Remove the cardboard square from the connector pins and plug the AC QUICK CONNECT into the back of the alarm (see figure 4), making sure that the locks on the connector snap into place. Then push the excess wire back into the electrical box through the hole in the center of the mounting bracket.
6. Install the alarm on the mounting bracket and rotate the alarm in the direction of the "ON" arrow on the cover until the alarm ratchets into place (this ratcheting function allows for aesthetic alignment). Note: The alarm will mount to the bracket in 4 positions (every 90 degrees).

Installation Instructions

7. Turn on the AC power. The green AC Power On Indicator should be lit when the alarm is operating from AC power.
8. Two labels are included with your alarm. They have important information on what to do in case of an alarm. Add the phone number of your emergency service provider (Fire Department or 911) in the space provided. Place one label next to the alarm after it is mounted, and one label near a fresh air source such as a door or window.
9. Remove the red cardboard from the battery compartment, install batteries, close battery door.

Step 4

Testing the Alarm

 **CAUTION: Due to the loudness (85 decibels) of the alarm, always stand an arms length away from the unit when testing.**

After installation, TEST THE UNIT'S ELECTRONICS by pressing and releasing the test/reset button. You will then hear the following sequence of "beeps" and verbal warnings:

Three long beeps.

Verbal warning: "FIRE!"

Three long beeps.

Four quick beeps.

Verbal warning: "WARNING! CARBON MONOXIDE"

Four quick beeps

Single beep to reset

Weekly testing is required! If at anytime it does not perform as described, verify power is connected correctly and that the battery doesn't need replacing. Clean dust and other buildup off the unit. If it still doesn't operate properly call the Product Support Line at 1-800-880-6788.

Interconnect Feature

Your Combination Smoke/CO Alarm is interconnectable to other multiple station Kidde, Nighthawk and Kidde/Fyrnetics products:

- When compatible smoke alarms and heat alarms are interconnected to your Smoke/CO Alarm, they will only respond to a smoke related event.

Operating Instructions

- When mixing compatible models with battery backup with models without battery backup, be advised that the models without battery backup will not respond during an AC power failure.
- This unit is only approved to interconnect with other Kidde/Nighthawk products. It is NOT approved to interconnect with any other brand of detection product.
- This alarm is interconnect compatible with the following alarms and accessories:
 - Smoke alarms: 1235, 1275, 1276, 1285, i12020, i12020A, i12040, i12040A, i12060, i12060A, i4618, i4618A, KN-SMFM-I, RF-SM-ACDC, PE120, P12040, Pi2000, Pi2010, KN-COSM-I, KN-COSM-IB,
Kidde/Firex: i4618, i4618A
 - Heat alarm: HD135F
 - CO alarms: KN-COB-IC, KN-COP-IC, KN-COPE-I
 - Relay modules: SM120X, CO120X
 - Strobe Light: SL177i, SLED177i
- For more information about compatible interconnect units and their functionality in an interconnect system, visit our web site at www.kidde.com.

Smoke HUSH Control Feature

The HUSH feature has the capability of temporarily desensitizing the smoke alarm circuit for approximately 9 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm. When the unit is in alarm, You can put your Smoke/CO Alarm in HUSH mode by pushing the test/reset button. If the smoke is not too dense, the alarm will silence immediately, the unit will verbally announce "HUSH MODE ACTIVATED", and the green LED will flash every 2 seconds for approximately 9 minutes. This indicates that the smoke alarm is in a temporarily desensitized condition. Your Smoke/CO Alarm will automatically reset after approximately 9 minutes. When the unit returns to normal operation after being in HUSH mode, it will verbally announce "HUSH MODE CANCELLED", and sound the alarm if smoke is still present. The HUSH feature can be used repeatedly until the air has been cleared of the condition causing the alarm. While the unit is in HUSH mode, pushing the test/reset button on the alarm will also end the HUSH period.

NOTE: DENSE SMOKE WILL OVERRIDE THE HUSH CONTROL FEATURE AND SOUND A CONTINUOUS ALARM.

Operating Instructions

⚠ CAUTION: BEFORE USING THE ALARM HUSH FEATURE, IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.

Reset Feature

If the the Smoke/CO Alarm is sounding a CO alarm, pressing the test/reset button will silence the alarm.

If the CO condition that caused the alert continues, the alarm will reactivate within 200 seconds (follow the action plan on page 20).

CO Peak Level Memory

If the green LED is blinking once every 10 seconds, the unit has detected a hazardous CO condition. If the CO sensor has detected a CO level of 100 PPM or higher since last reset, it will be recorded by the Peak Level Memory function. To access the Peak Level Memory press the test/reset button. If a reading of 100 PPM or higher has been recorded, the unit will announce "Caution,Carbon Monoxide Previously Detected." If you've been away from home this feature allows you to check if there was a CO reading of 100, or higher, during your absence. Pushing the test/reset button resets the memory. It's also reset when the power is removed. Note: the green LED blinking portion of CO Peak Level Memory is disabled when the unit is on battery power only.

LED Indicator Operation

Red LED

The red LED will flash as described below under the following conditions:

- During smoke or CO alarm, with every beep
- During testing (same as alarm)
- Low battery, single flash with chirp
- End of product life, double flash every 30 seconds with chirp
- Unit error mode, single flash with chirp every 30 seconds
- Unit error mode, a Fault Code is flashed every 30 seconds (can be observed and reported to customer service for troubleshooting).

Operating Instructions

Green LED

The green LED will flash as described below under the following conditions:

- Standby Condition (powered by AC and battery backup):
The LED will be constantly on.
- Standby Condition (powered by only battery backup):
The LED will flash every 60 seconds..
- Alarm Memory Condition: The LED will flash every second during alarm. When the alarm condition goes away, the originating alarm unit will flash the LED every 16 seconds until the test/reset button is pressed, thus resetting the alarm.
- CO Peak Memory (10 second flash rate), AC powered only. Indicates CO greater than 100PPM was detected. Press Test button to announce Peak message and clear Peak Memory.
- Initiating Alarm condition (1 second flash rate), indicates the unit initiated an alarm.
- Trouble Fault/Error mode (1/2 second flash rate), AC powered only. Helps owner locate the mysterious chirping unit
- HUSH MODE Condition: The LED will flash every 2 seconds while the alarm is in HUSH mode.

Tamper Resist Feature

To make your smoke/CO alarm tamper resistant, a tamper resist feature has been provided. Activate the tamper resist feature by breaking off the four posts in the square holes in the trim ring (see figure 5A). When the posts are broken off, the tamper resist tab on the base is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help deter children and others from removing the alarm from bracket. NOTE: To remove the alarm when the tamper resist tab is

Operating Instructions

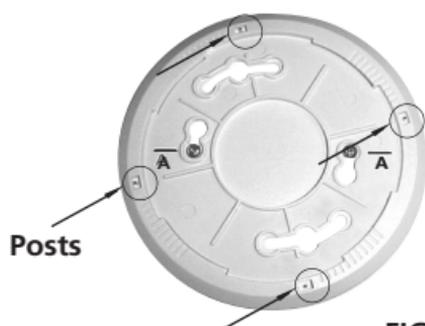


FIGURE 5A

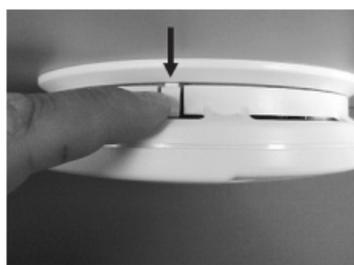


FIGURE 5B

engaged, press down on the tamper resist tab, and rotate the alarm off of the bracket (see figure 5B).

NEVER IGNORE THE SOUND OF THE ALARM!

Determining what type of alarm has sounded is easy with your Combination Smoke/CO Alarm. The voice message warning system will inform you of the type of situation occurring. Refer to the Features section on pages 4-7 for a detailed description of each alarm pattern.

What To Do If The Alarm Sounds When the smoke alarm sounds:

Smoke alarms are designed to minimize false alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if located too close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non recirculating type) will also help remove these combustible products from the kitchen.

What To Do If The Alarm Sounds

If the alarm sounds, check for fires first. If a fire is discovered follow these steps. Become thoroughly familiar with these items, and review with all family members!

- Alert small children in the home.
- Leave immediately using one of your planned escape routes (see page 26). Every second counts, don't stop to get dressed or pick up valuables.
- Before opening inside doors look for smoke seeping in around the edges, and feel with the back of your hand. If the door is hot use your second exit. If you feel it's safe, open the door very slowly and be prepared to close immediately if smoke and heat rush in.
- If the escape route requires you to go through smoke, crawl low under the smoke where the air is clearer.
- Go to your predetermined meeting place. When two people have arrived one should leave to call 911 from a neighbor's home, and the other should stay to perform a head count.
- **Do not reenter under any circumstance until fire officials give the go ahead.**
- There are situations where a smoke alarm may not be effective to protect against fire as stated in the NFPA Standard 72. For instance:
 - a) smoking in bed
 - b) leaving children unsupervised
 - c) cleaning with flammable liquids, such as gasoline

The CO sensor meets the alarm response time requirements of UL standard 2034. Standard alarm times are as follows:

At 70 PPM, the unit must alarm within 60-240 minutes.

At 150 PPM, the unit must alarm within 10-50 minutes.

At 400 PPM, the unit must alarm within 4-15 minutes.

This carbon monoxide alarm is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect any other gas.

Fire Departments, most utility companies and HVAC contractors will perform CO inspections, some may charge for this service. It's advisable to inquire about any applicable fees prior to having the service performed. Kidde Safety will not pay for, or reimburse, the owner or user of this product, for any repair or dispatch calls related to the alarm sounding.

What To Do If The Alarm Sounds

When the carbon monoxide alarm sounds:



WARNING - Actuation of your CO Alarm indicates the presence of Carbon Monoxide (CO) which can kill you.

If alarm signal sounds:

1) Operate the test/reset button

2) Call your emergency

services (Fire Dept. or 911)

PHONE NUMBER

3) Immediately move to fresh air - outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises has been aired out, and your alarm remains in its normal condition.

4) After following steps 1-3, if your alarm reactivates within a 24 hour period, repeat steps 1-3 and call a qualified appliance technician

PHONE NUMBER

to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturer's instructions, or contact the manufacturer's directly, for more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

Never restart the source of a CO problem until it has been fixed. **NEVER IGNORE THE ALARM!**

Battery Replacement

Alarm Removal

IF TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO TAMPER RESIST FEATURE DESCRIPTION ON PAGE 17 FOR REMOVAL INSTRUCTIONS.

Remove the alarm from the mounting bracket by rotating the alarm in the direction of the "OFF" arrow on the cover.

Battery Replacement

If any form of battery failure is detected the red LED light will flash and the unit will "chirp" one time, followed by the warning message "LOW BATTERY". This cycle will occur once every minute, and will continue for at least seven days. On battery power, the "LOW BATTERY" voice occurs once every 15 minutes.

If the red LED light flashes along with a chirp every 30 seconds, and is not followed by the voice message "LOW BATTERY" as described above, and if the green LED flashes twice per second (AC power only) your unit has malfunctioned. Call our toll free Product Support Line at 1-800-880-6788 for instructions on how to return the unit.

BATTERY INSTALLATION AND REMOVAL

To replace or install the batteries slide the battery door in the direction indicated on the cover of the alarm. When installing new batteries into the carrier, make sure that the polarity matches the markings printed on the inside of the battery compartment, press the battery reminder finger down into the battery compartment and install the battery (see Figure 6). Completely slide the battery door to the closed position. A missing or improperly installed battery will prevent the battery door from closing and result in improper alarm operation.



Battery finger

FIGURE 6



SLIDE



OPEN



INSERT

Battery Replacement

Replace batteries with one of the following approved brands: Duracell MN1500, MX1500, Energizer E91, Gold Peak 15A or Golden Power GLR6A . These batteries can be purchased at your local retailer.

 **WARNING!** Use only the batteries specified. Use of different batteries may have a detrimental effect on the Smoke/CO alarm. A good safety measure is to replace the batteries twice a year, at the same time. A good safety measure is to replace the batteries twice a year, at the same time you change your clocks for daylight saving time.

End of Life Notification

Ten (10) years after unit is first powered, this alarm will beep two times every 30 seconds to indicate it is time to replace the alarm.

REPLACE IMMEDIATELY! IT WILL NOT DETECT CO IN THIS CONDITION.

End of Life Hush can be activated by pushing the test button to silence the End of Life chirp for approximately 3 days at a time for a maximum of 30 day life extension.

General Maintenance

To keep your Smoke/CO Alarm in good working order, please follow these simple steps:

- Verify the unit's alarm and LED lights operation by pushing the test/reset button once a week.
- Remove the unit from mounting bracket and vacuum the alarm cover and vents with a soft brush attachment once a month to remove dust and dirt. REINSTALL IMMEDIATELY AFTER CLEANING AND THEN TEST USING THE TEST/RESET BUTTON!
- Never use detergents or other solvents to clean the unit.
- Avoid spraying air fresheners, hair spray, or other aerosols near the Smoke/CO Alarm.

Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect smoke and CO. Never attempt to disassemble the unit or clean inside. This action will void your warranty.

Move the Smoke/CO Alarm and place in another location prior to performing any of the following:

- Staining or stripping wood floors or furniture
- Painting
- Wall papering
- Using adhesives

Storing the unit in a plastic bag during any of the above projects will protect the sensors from damage. Do not place near a diaper pail.

 **WARNING:** Reinstall the Smoke/CO Alarm as soon as possible to assure continuous protection.

When household cleaning supplies or similar contaminants are used, the area must be well ventilated. The following substances can effect the CO sensor and may cause false readings and damage to the sensor:

Methane, propane, iso-butane, iso-propanol, ethyl acetate, hydrogen sulfide, sulfide dioxides, alcohol based products, paints, thinner, solvents, adhesives, hair spray, after shave, perfume, and some cleaning agents.

General Maintenance

Carbon Monoxide Safety Information

General CO Information

Carbon monoxide (CO) is a colorless, odorless, and tasteless poison gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen.

Possible Sources

CO can be produced when burning any fossil fuel: gasoline, propane, natural gas, oil and wood. It can be produced by any fuel-burning appliance that is malfunctioning, improperly installed, or not ventilated correctly. Possible sources include furnaces, gas ranges/stoves, gas clothes dryers, water heaters, portable fuel burning space heaters, fireplaces, wood-burning stoves and certain swimming pool heaters. Blocked chimneys or flues, back drafting and changes in air pressure, corroded or disconnected vent pipes, and a loose or cracked furnace exchanger can also cause CO. Vehicles and other combustion engines running in an attached garage and using a charcoal/gas grill or hibachi in an enclosed area are all possible sources of CO.

The following conditions can result in transient CO situations: Excessive spillage or reverse venting of fuel-burning appliances caused by outdoor ambient conditions such as: Wind direction and/or velocity, including high gusts of wind, heavy air in the vent pipes (cold/humid air with extended periods between cycles), negative pressure differential resulting from the use of exhaust fans, simultaneous operation of several fuel-burning appliances competing for limited internal air, vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters, obstructions in, or unconventional, vent pipe designs which can amplify the above situations, extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.), temperature inversions which can trap exhaust gasses near the ground, car idling in an open or closed attached garage, or near a home.

Carbon Monoxide Safety Information

CO Safety Tips

Every year have the heating system, vents, chimney and flue inspected and cleaned by a qualified technician. Always install appliances according to manufacturer's instructions and adhere to local building codes. Most appliances should be installed by professionals and inspected after installation. Regularly examine vents and chimneys for improper connections, visible rust, or stains, and check for cracks in furnace heat exchangers. Verify the color of flame on pilot lights and burners is blue. A yellow or orange flame is a sign that the fuel is not burning completely. Teach all household members what the alarm sounds like and how to respond.

Symptoms of CO Poisoning

Initial carbon monoxide poisoning symptoms are similar to the flu with no fever and can include dizziness, severe headaches, nausea, vomiting and disorientation. Everyone is susceptible but experts agree that unborn babies, pregnant women, senior citizens and people with heart or respiratory problems are especially vulnerable. If symptoms of carbon monoxide poisoning are experienced seek medical attention immediately. CO poisoning can be determined by a carboxyhemoglobin test.

The following symptoms are related to CARBON MONOXIDE POISONING and should be discussed with ALL members of the household:

1. **Mild Exposure:** Slight headache, nausea, vomiting, fatigue (often described as "Flu-like" symptoms).
2. **Medium Exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate.
3. **Extreme Exposure:** Unconsciousness, convulsions, cardiorespiratory failure, death.

The above levels of exposure relate to healthy adults. Levels differ for those at high risk. Exposure to high levels of carbon monoxide can be fatal or cause permanent damage and disabilities. Many cases of reported carbon monoxide poisoning indicate that while victims are aware they are not well, they

Carbon Monoxide Safety Information

become so disoriented they are unable to save themselves by either exiting the building, or calling for assistance. Also, young children and household pets may be the first effected. Familiarization with the effects of each level is important.

Fire Safety Information

Escape Plan

Familiarize everyone with the sound of the smoke alarm and train them to leave the home when they hear it. Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan. Practice allows all occupants to test your plan before an emergency. You may not be able to reach your children. It is important they know what to do. Know two ways out of every room (door & window) and identify a meeting place outside the home where everyone will gather once they have exited the residence. When two people have reached the meeting place, one should leave to call 911 while the second person stays to account for additional family members.

Establish a rule that once you're out, you never reenter under any circumstance!

Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

Fire Prevention

Never smoke in bed, or leave cooking food unattended. Teach children never to play with matches or lighters!

Train everyone in the home to recognize the alarm pattern, voice message warning and to leave the home using their escape plan when it's heard.

Know how to do "Stop, Drop and Roll" if clothes catch on fire, and how to crawl low under smoke. Install and maintain fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency. Second level and higher occupied rooms with windows, should have an escape ladder.

Fire Safety Information

Industry Safety Standards

NFPA (National Fire Protection Association)

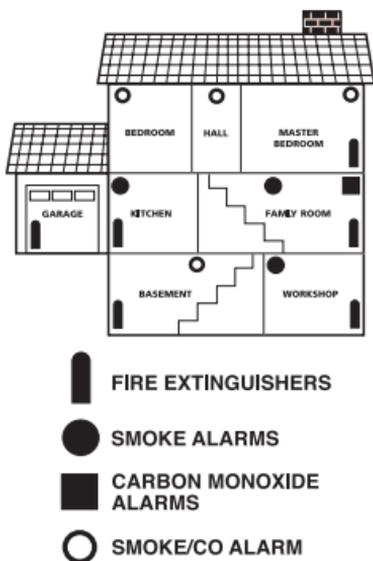
For your information, the National Fire Protection Association's Standard 72, reads as follows:

Smoke Detection. Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows: (1) In all sleeping rooms Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units. (2) Outside of each separate sleeping area, in immediate vicinity of the sleeping rooms. (3) On each level of the dwelling unit, including basements Exception: In existing one- and two-family dwelling units, approved smoke alarms powered by batteries are permitted.

Smoke Detection - Are More Smoke Alarms Desirable? The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

California State Fire Marshall

Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: A smoke alarm installed in each separate sleeping area (in the vicinity, but outside the bedrooms), heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages.



Industry Safety Standards

Consumer Product Safety Commission

The Consumer Product Safety Commission (CPSC) recommends the use of at least one CO Alarm per household, located near the sleeping area.

NRC

Ionization type smoke alarms use a very small amount of a radioactive element in the sensing chamber to enable detection of visible and invisible combustion products. The radioactive element is safely contained in the chamber and requires no adjustments or maintenance. This smoke alarm meets or exceeds all government standards. It is manufactured and distributed under license from the U.S. Nuclear Regulatory Commission.

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Warranty and Service Information

Limited Warranty

TEN YEAR LIMITED WARRANTY

KIDDE warrants that the enclosed alarm (but not the battery) will be free from defects in material and workmanship or design under normal use and service for a period of ten years from the date of purchase. The obligation of KIDDE under this warranty is limited to repairing or replacing the alarm or any part which we find to be defective in material, workmanship or design, free of charge, upon sending the alarm with proof of date of purchase, postage and return postage prepaid, to Warranty Service Department, KIDDE, 1016 Corporate Park Dr., Mebane, NC 27302.

This warranty shall not apply to the alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate AC or DC power. Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and fitness for a particular purpose, are limited in duration to the above warranty period. In no event shall the Manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The Manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion.

Since some states do not allow limitations of the duration of an implied warranty or do not allow the exclusion or limitation of incidental or consequential damages, the above limitations or exclusions may not apply to you. While this warranty gives you specific legal rights, you may also have other rights which vary from state to state.

Also, KIDDE makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

Warranty and Service Information

The above warranty may not be altered except in writing signed by both parties hereto.

Your Kidde Combination Smoke & CO Alarm is not a substitute for property, fire, disability, life or other insurance of any kind. Appropriate insurance coverage is your responsibility. Consult your insurance agent.

Removal of the front cover will void the warranty.

This alarm is not intended to alert hearing impaired individuals.

During the specified warranty period Kidde Products will repair or replace, at its discretion any defective Kidde Combination Smoke & CO Alarms that are returned in a postage paid package to the following address: Kidde Products Attn: Warranty Returns, 1016 Corporate Park Dr., Mebane, NC 27302, USA. Please include your name, address and phone number along with a brief description of what is wrong with the unit. For further assistance please call our toll free Product Support Line at 1-800-880-6788. Damage from neglect, abuse or failure to adhere to any of the enclosed instructions will result in termination of the warranty, and the unit will not be replaced or repaired.

This user guide and the products described herein are copyrighted, with all rights reserved. Under these copyright laws, no part of this user guide may be copied for use without the written consent of Kidde. If you require further information please contact our Product Support Line at 1-800-880-6788 or write us at: Kidde Products, 1016 Corporate Park Dr., Mebane, NC 27302.

Our internet address is www.kidde.com.

QUESTIONS OR FOR MORE INFORMATION

Call our Product Support Line at **1-800-880-6788** or contact us at our website at **www.kidde.com**



Kidde 1016 Corporate Park Drive, Mebane, NC 27302

Custom Assembled in China with U.S. and Foreign Components