Ringer Windows, Inc. - Installation Guidelines Replacement Window Application

IMPORTANT INFORMATION

There can be a wide variance of installation techniques required and/or used with "replacement window" applications. Unlike a new construction setting where the window opening is unfinished and pre-sized, replacement applications present many different scenarios that require adjustments and alterations during the removal of the old windows (demo) and installation of the new replacement window. Therefore, the GUIDELINES contained herein are only recommendations.

The applicable product warranty sets forth the entire extent, if any, of Ringer Windows potential liability with regard to this product. Complete copies of the Ringer Window Product Warranties may be found at the Ringer Window Website (ringerwindows.com). Ringer Windows assumes no responsibility for the consequences of inadequate or improper installation or lack of care of the installed product. Ringer Windows reserves the right to modify, make obsolete, delete or add product lines, and to make changes to these recommendations at any time without notice.

IMPORTANT INFORMATION: These installation recommendations are guidelines only. No representation or warranty is made, or can be implied, from these recommendations. *Given the variety of field conditions, all responsibility for product installation rest with the Installer.* Consult with the contractor, engineer, and/or architect for proper installation, according to local building codes, site condition, and/or ordinances. Do not proceed unless you have addressed the factors necessary to achieve appropriate integration for a weather-tight installation and a properly functioning product. Ringer Windows assumes no liability for any personal injury or property damage incurred in installation.

Installations of Ringer Windows over 35 feet high (measured at the sill level) or any installation or architectural feature impacting the installation of Ringer Windows not addressed in these recommendations must be specified and detailed by and architect or engineer.

Before vou Start

It is the responsibility of the owner, architect, and/or builder to select products and installation methods in compliance with applicable laws, site requirements, and building codes. Ensure the correct window is to be installed in the opening **before** starting the job.

Make sure that windows contain the correct type of glass, features, and options **before** starting the job. Some laws and building codes require safety features (e.g. tempered glass and/or egress requirements). It is the sole responsibility of the purchaser, architect, builder and/or contractor to determine the need for safety features to conform to local codes, REGARDLESS IF A SET OF BUILDING PLANS WAS PROVIDED TO RINGER WINDOWS OR NOT. Ringer Windows are manufactured with double strength annealed glass unless otherwise specified.

Caution must always be exercised, as broken glass can cause personal injury.

Appropriate selection of materials and tools will impact the installation and performance of your Ringer Window products. Care should be taken when selecting installation tooling and sealant materials. Regular upkeep of installation components is required. Continuing maintenance obligations are not addressed here, and each owner is directed to their installer for information regarding the materials used in their window installation.

Safety, Handling, Misc.

- Read and fully understand ALL guidelines before beginning.
- Use caution when handling windows and/or glass. Never work alone when installing windows.
- Wear appropriate protective gear at all times when working with and around windows.
- Never drag windows, or parts of windows, across the floor or ground.
- Always store windows in dry, well-ventilated areas, in a vertical position. Do not stack windows horizontally.
- Protect windows from exposure to direct sunlight before installation.
- Install windows only when conditions and sheathing are dry.
- Check with all relevant governmental entities before installation to verify necessary permits, if any.

Installation Recommendations

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These recommendations are based upon the criteria set out in AAMA 2400 and/or ASTM2112 standards for window installation guidelines. Consult these standards for additional information regarding appropriate window installation procedures.

Preparation

- Always consider framing loads, weight restrictions, and carpentry issues before installing windows. Vinyl windows could be heavier than the windows they are replacing. Framing around the window should be sufficient to support the weight of the new window(s). Always repair damaged, rotted, or insufficient framing prior to installing the new windows. Consult with an Architect or Engineer if there are any questions about load requirements.
- Check state and local code restrictions for additional compliance on installation and/or fastening. Vinyl window accessory trims are provided for aesthetic purposes only, and not designed to be watertight or structural. Installation into masonry or replacement openings must be sealed to the openings using an approved, proper method.
- Hinged and pivoting windows may require additional fasteners located near the hinge or pivot points. Check with an Architect or Engineer if unsure about any fastening issues.

- Field-applied protective coatings can damage window sealants and gaskets, and are not recommended.
- Stucco, concrete, paint, harsh cleaning products, acid, or masonry products left to cure on frames and glass may damage these surfaces. Remove and clean all such materials from surfaces before any curing action takes place. Rinse all surfaces exposed to leaching water from new concrete or stucco with clean water to prevent damage.
- EFIS installation relies on sealants and appropriate integration of the EFIS material with building penetration. Any product that penetrates the envelope of an EIFS or Stucco Structure must be installed and sealed properly. Installation of Ringer Windows into an EFIS building envelope that is not properly applied and maintained will void the applicable warranty. Consult your EIFS ir Stucco manufacturer/contractor AND sealant manufacturer for their recommended practices.
- When removing sash beads or any trims that are caulked, it is always a good idea to score the caulk-line with a razor knife. Use special care when removing caulk because it may have adhered to sheetrock tape or another finished surface to which it is attached. Removing it too quickly, without cutting a line, may result in damaging or accidental removal of finished surfaces.

Installation Guidelines

- Each window installation is different. Ringer Windows recommends that windows be installed with sashes installed, in a closed and locked position.
- Ringer Windows recommends installation of one window at a time to ensure that only one opening is exposed at all times.
- Removal of the existing window must be performed in a manner that is appropriate for the frame type and installation of the unit. Failure to accommodate the existing frames and any damage caused by improper removal of the existing window unit can compromise the performance of the Ringer Windows replacement unit to be installed.
- Clean and prepare the opening to accept the new window. Replace rotted or unsound framing as required.
- Check each window size and window opening to be replaced. Always make sure that the new windows will fit into the designated openings **BEFORE** the old window is removed. Test fit the window into the rough opening to ensure that it will fit before securing into the framing. If this test fit reveals a need for adjustments, make-ready with shims and approved fastening screws. If the window(s) do not fit properly, or to the satisfaction of the Installer, stop the job, reseal the opening, and re-evaluate the best way to complete the job properly.
- Install shims around the perimeter of the window, as needed, leveling and supporting the window into a square and level position. Installer should use great care to adequately support the base of a window flat on the sill. Secure all shims before the window is set and secured into final position.
- After the old window is removed, apply appropriate flashing and integrate it into existing drainage planes in order to accept new window. See ASTM 2112 for guidelines.
- Check operation of window several times during the installation process. Check to see that an even sash reveal around all operable sashes exists. Windows should operate smoothly and freely, with minimal effort. Screws or fasteners should NEVER be installed inside the sash track that will impede the smooth and efficient operation of the window. Caulks and sealants must never impede the window operation.

- Check the rough opening to determine for Plumb, Level, & Square prior to installing the new window. If any part of rough opening is not plumb, level, or square, it may be necessary to install all-weather shims to ensure that your Ringer Window is plumb, level and/or square. If shimming places undue stress on the new window or otherwise compromises the water-tight nature of the installation, please consult with the contractor, architect or other responsible design professional.
- Set the window into the opening and attach with appropriate fasteners. Ringer Windows provides Viny-L-Hold Fastener Screws® that are specifically designed to work with our windows. Viny-L-Hold screws are available through Ringer Windows for a very nominal charge. Fasteners and shims should be used to secure the window to the building framing to adequately support and secure the window, without compromising the water-tight nature of the unit. After the window is set into final position, it should be checked again for plumb, level, and square. Windows should always be installed as plumb, level, and square as the opening will allow. Failure to install a window plumb, level, or square can cause operational issues. **NEVER OVERTIGHTEN fasteners**, no matter the type used.

NOTE: Each window opening is different. Ringer Window frames are not predrilled for fastening screws. The installer is responsible for selecting appropriate location and number of fasteners necessary for any particular installation. Fasteners should NEVER be installed into the sash track that impede the operation of the window. Ringer Windows recommends no less than four (4) fasteners are used to secure the window to the structure. The exposed heads of the screws/fasteners should be sealed with silicone before they are used to fasten the unit to the framing.

PENETRATIONS IN THE SILL OF THE WINDOW UNIT SHOULD BE AVOIDED IF AT ALL POSSIBLE.

Penetration(s) running through the sill for fasteners and/or alarms might cause or contribute to leaks or water intrusion. Sills are designed for, and promote, water drainage & relief with Ringer Window Systems. While it may be necessary or desired to attach the window through the Sill, Ringer Windows does NOT warrant against any direct or indirect damage that may result from water intrusion through or at the Sill, at these penetrations. If the Sill is penetrated for any reason, it must be properly sealed with silicone before the window installation is finalized. Given the many different possible field conditions with replacement window installations, all responsibility for product installation rest with the Installer, including penetrations into the Sill. Consult with the contractor, engineer, and/or architect for proper installation, according to local building codes, site condition, and/or ordinances.

- When the window is properly secured to the structure, install any dust plugs provided with your Ringer Window. Ringer Windows recommends that a very small amount of clear silicone be placed on the underneath side of the plug before it is set into final position.
- After window is completely installed and adjusted for best possible fit and function, batt style insulation should be packed around perimeter of window as best possible, making sure to keep lose. Lose-fitting insulation does not place undue expansionary pressure on the window. NEVER USE EXPANDING FOAM INSULATON AROUND THE WINDOW, AS IT CAN DISTORT OR COMPROMISE THE FRAME.
- If applying exterior window trims, leave a 1/8" space between the frame and trim for expansion, if at all possible. After all trims are installed, they should be sealed with the appropriate silicone or caulk.
- Windows may be trimmed-out with wood trims on the exterior and interior. Ringer Windows are designed and equipped to be trimmed-out with proprietary Ringer Window Vinyl Accessory Trims. These trims are color matched with each of the Ringer Window colors and they integrate into each window through our Accessory Pockets. All Ringer Window Accessory Trims are available for purchase for a nominal charge. Please see the Ringer Window Website for a list of trims that are available.

- Check to see that all weep holes are free of debris and clean. Clogged week holes, or any malfunction with the weep hole doors, may cause water damage. No matter what trim or sealant is being used, care should be exercised to ensure appropriate drainage with the weep holes is never compromised. Never cover or block a weep hole.
- Perform a final check for proper window operation, adjust if needed. Ensure that all locks and latches easily engage at this time.
- Clean the unit and install screens, if any. Care should be taken when cleaning to avoid the use of any able at a line of the state of solvents or other harmful materials. See the "Care and Use Recommendations" applicable to Ringer Window products for recommendations regarding cleaning. This form is available at the Ringer Window