KINRO® EXTERIOR ENTRY DOOR

(MANUFACTURED HOUSING)

OEM INSTALLATION MANUAL

LIPPERT COMPONENTS®

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Introduction

Correct installation of a Kinro® Manufactured Housing (MH) Exterior Entry Door is essential for proper function. Improper installation will void the limited warranty. These installation instructions for Kinro manufactured housing doors are recommendations only. They represent the proper installation of the Kinro doors. They do not indicate the only method of installation. Local building codes may impose additional requirements, and those codes may supersede these instructions. Determining the acceptability of alternate installation methods is the sole responsibility of the installer, contractor, architect or housing manufacturer.

Lippert Components, Inc. makes no warranty, expressed or implied, with respect to these or any other third party instructions. Lippert shall not be liable for any damage or liability that may arise in connection with any product installation not performed by Lippert.

Safety

Read, understand and adhere to all safety labels prior to performing any procedure.

⚠WARNING

The "WARNING" symbol above is a sign that an installation procedure has a safety risk involved and may cause death, serious personal injury, severe product and/or property damage if not performed safely and within the parameters set forth in this manual.

⚠CAUTION

The "CAUTION" symbol above is a sign that a procedure has a safety risk involved and may cause personal injury or product and/or property damage if not performed safely and within the parameters set forth in this manual.

⚠WARNING

Due to the weight of Kinro door products, follow proper lifting techniques. Assistance from other persons with the required abilities to lift, carry and install the Kinro door assembly is highly recommended. Serious personal injury or severe product or property damage may occur.

⚠CAUTION

Always wear eye protection when performing this installation procedure. Other safety equipment to consider would be hearing protection, gloves, and possibly a full face shield, depending on the nature of the installation procedure.

⚠CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

⚠CAUTION

Do not store doors in direct sunlight when still wrapped in delivery material. Doors or mounting flanges may be damaged or otherwise distorted.

Resources Required

- 1-2 people, depending on task
- Wood screws
- Door shims
- Tape measure
- Cordless or electric drill or screw gun
- Appropriate drill bits
- Gunnable sealant
- Putty or butyl tape
- Framing square
- Caulking gun
- Appropriate drive bits

Fasteners

Fasteners should be selected to ensure compliance with applicable building codes. Consideration should be given to wind loads, temperature variations and other site conditions. Screws, nails or staples may be used as fasteners for door installation into wood framing. Only screws should be used for door installation into metal home framing. The fastener must penetrate the framing at least one inch, allowing for exterior sheathing.

Any fastener that is left exposed to the weather should be plated or otherwise coated to prevent corrosion.

It is suggested that one fastener be placed in every pre-punched mounting hole for maximum fastening strength.

Actual fastening methods and materials may be dictated by the project plans or applicable local codes. Fastening methods may also be directed by an architect or professional engineer. Site specific requirements may be enforced by the Florida Building Code (FBC) or Texas Department of Insurance (TDI). Consult the FBC or TDI website for anchorage specifics, when applicable.

Preparation

Read these instructions completely before installing a Kinro manufactured housing door. Figs. 1 and 2 illustrate terminology used in this manual.

NOTE: Brick mold removed from images for clarity.

Fig. 1

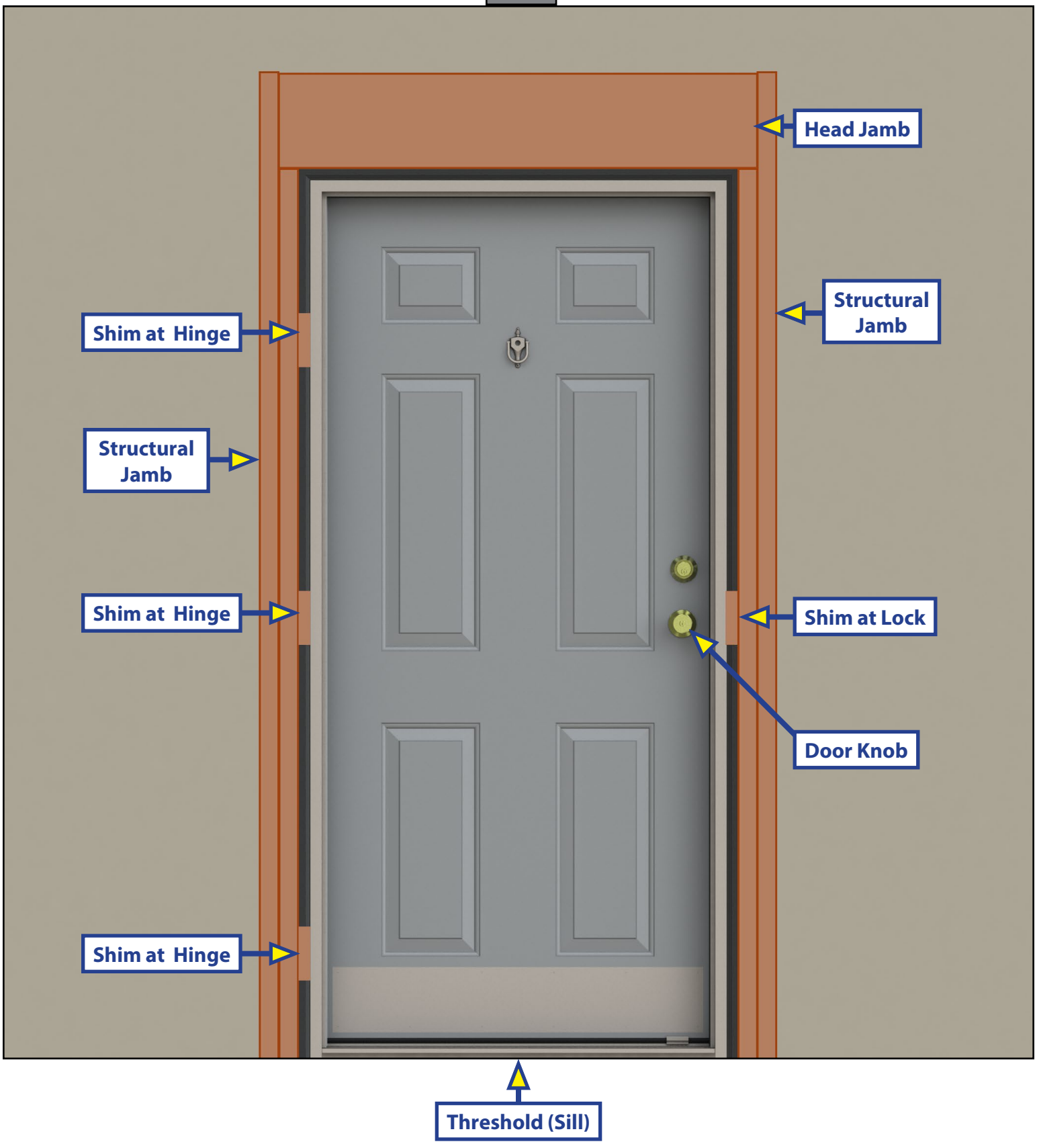
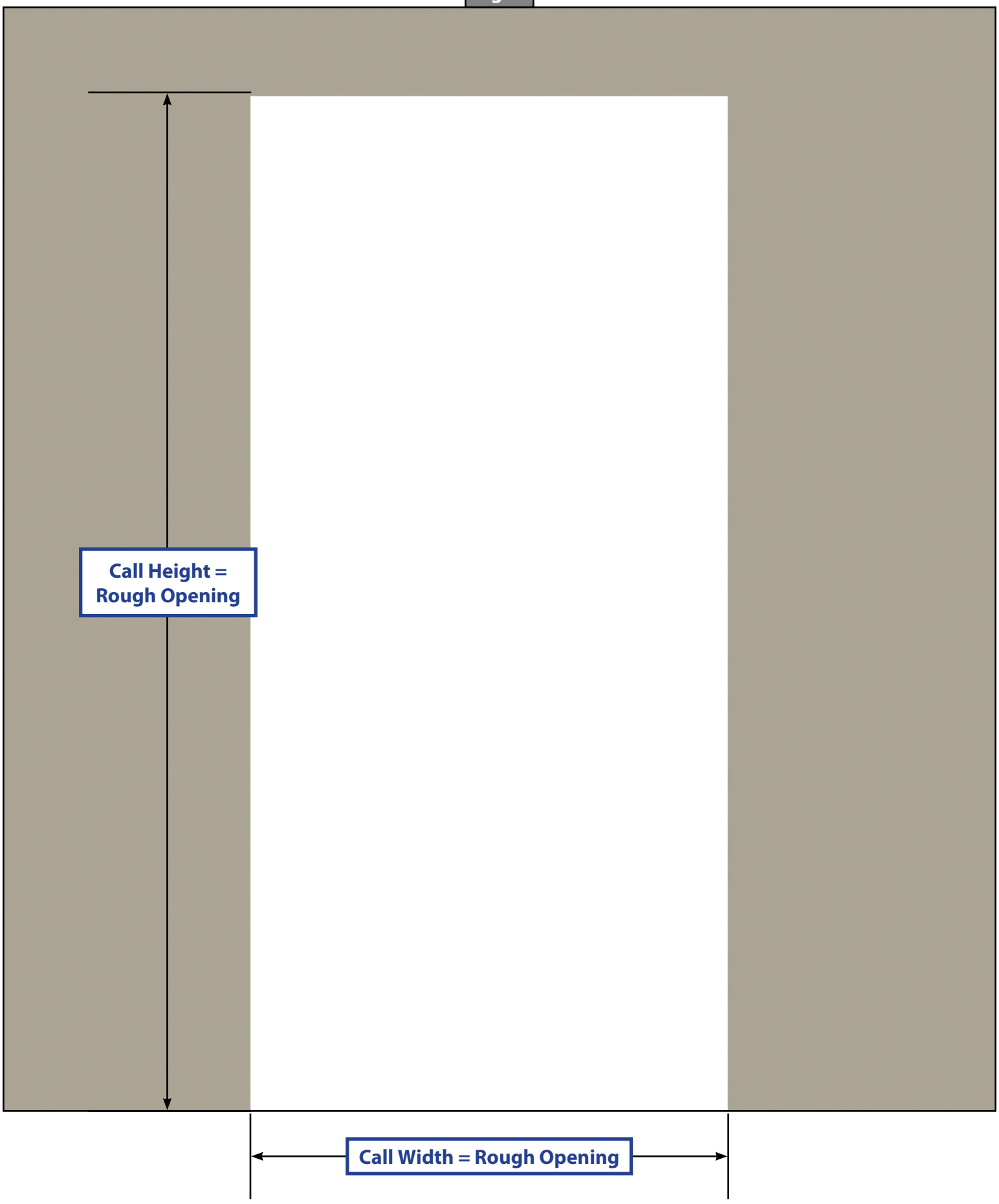


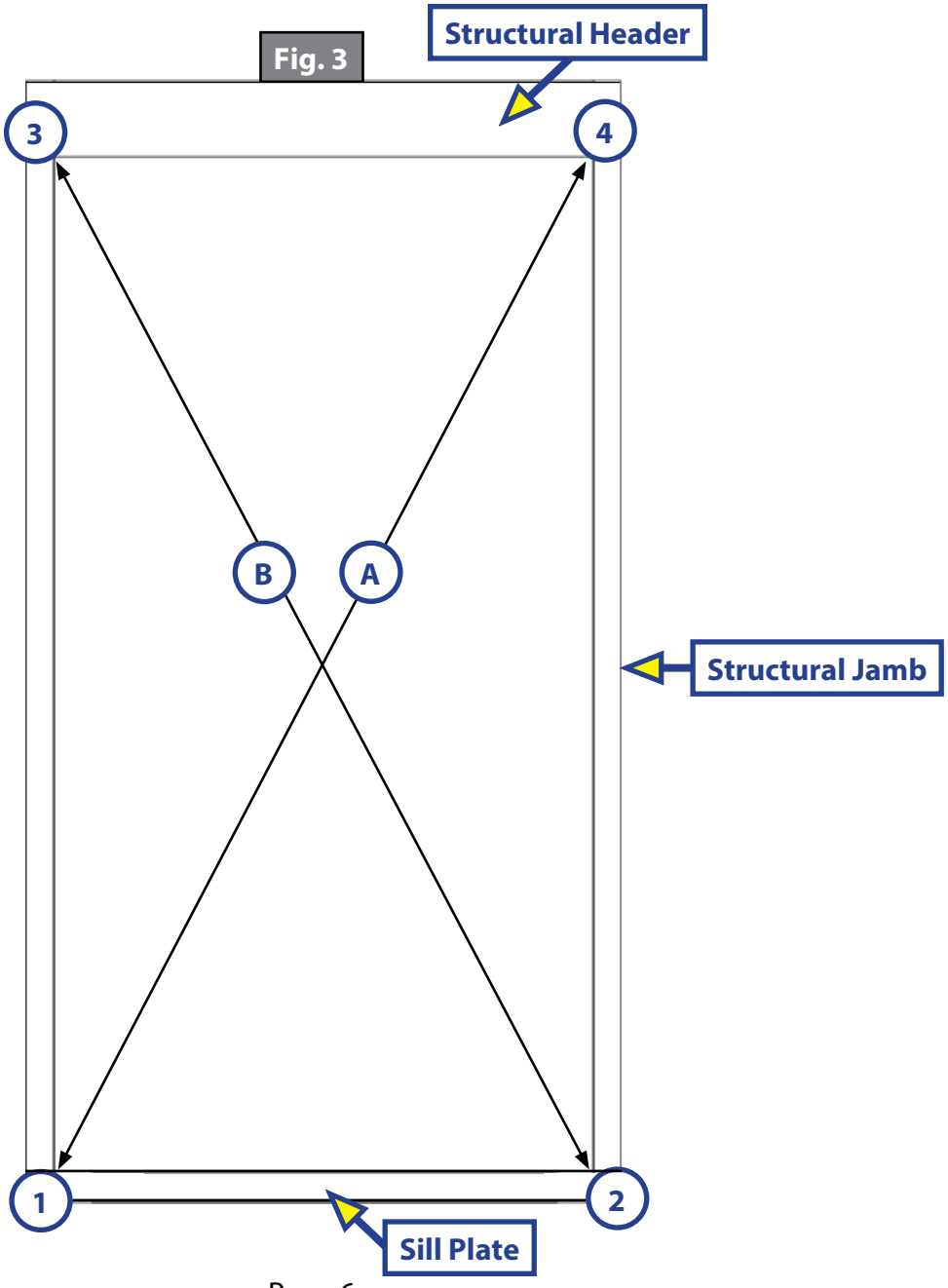
Fig. 2



Rough Opening Preparation

1. Using a tape measure, measure the rough opening to make sure it is correctly sized and constructed. The rough opening equals the door call size in width and call height (example: 34 x 76 call size = 34'" wide x 76" high). The rough opening sill must be square to the floor with an allowance of ⅛" or less across the entire width. If the rough opening sill is out of square by more than ⅛" inch, it may not be possible to shim and square the door in the opening.
2. Use a framing square to check the squareness with diagonal measurements.
   - **A.** For either a flange-mounted door or a side jamb-mounted door, the difference between the diagonal measurements between points 1 to 4 (Fig. 3A) and points 2 to 3 (Fig. 3B) must not exceed ¼".
   - **B.** If the difference between the two diagonal measurements exceeds ¼", the rough opening sill must be modified so the sill is square within tolerance and the diagonals are within the ¼" allowance.
3. Inspect the exterior face of the rough opening where the mounting flange of the door will make contact with the doorjamb. There must be no gaps or open areas where the mounting flange will contact the rough opening. To completely and safely secure the door assembly, the sheathing or exterior wall material to which the door will be fastened must be structurally adequate so the door unit is fully anchored.

Fig. 3



Prior to Installation

1. Before installing the door, use a tape measure to measure the door to make sure that it matches the rough opening call size: Call width minus ½" to ¾" and call height minus ⅜".
2. Inspect the mounting flanges to confirm they have not been damaged during shipping or handling. If the mounting flanges have been damaged or otherwise distorted, they will not lie flat against the exterior perimeter of the rough opening. Attempt to straighten the mounting flange or contact Lippert Components, Inc.
3. During the installation process, the door must remain closed at all times. Every Kinro door is shipped with installed spacer blocks and/or installation clips to assist when installing the door by maintaining the gap between the frame and the door core until the door is completely installed. Fill any gaps or voids between the door mounting flange and the exterior perimeter of the rough opening. Gaps or voids in this area may provide a path for water and air to enter.

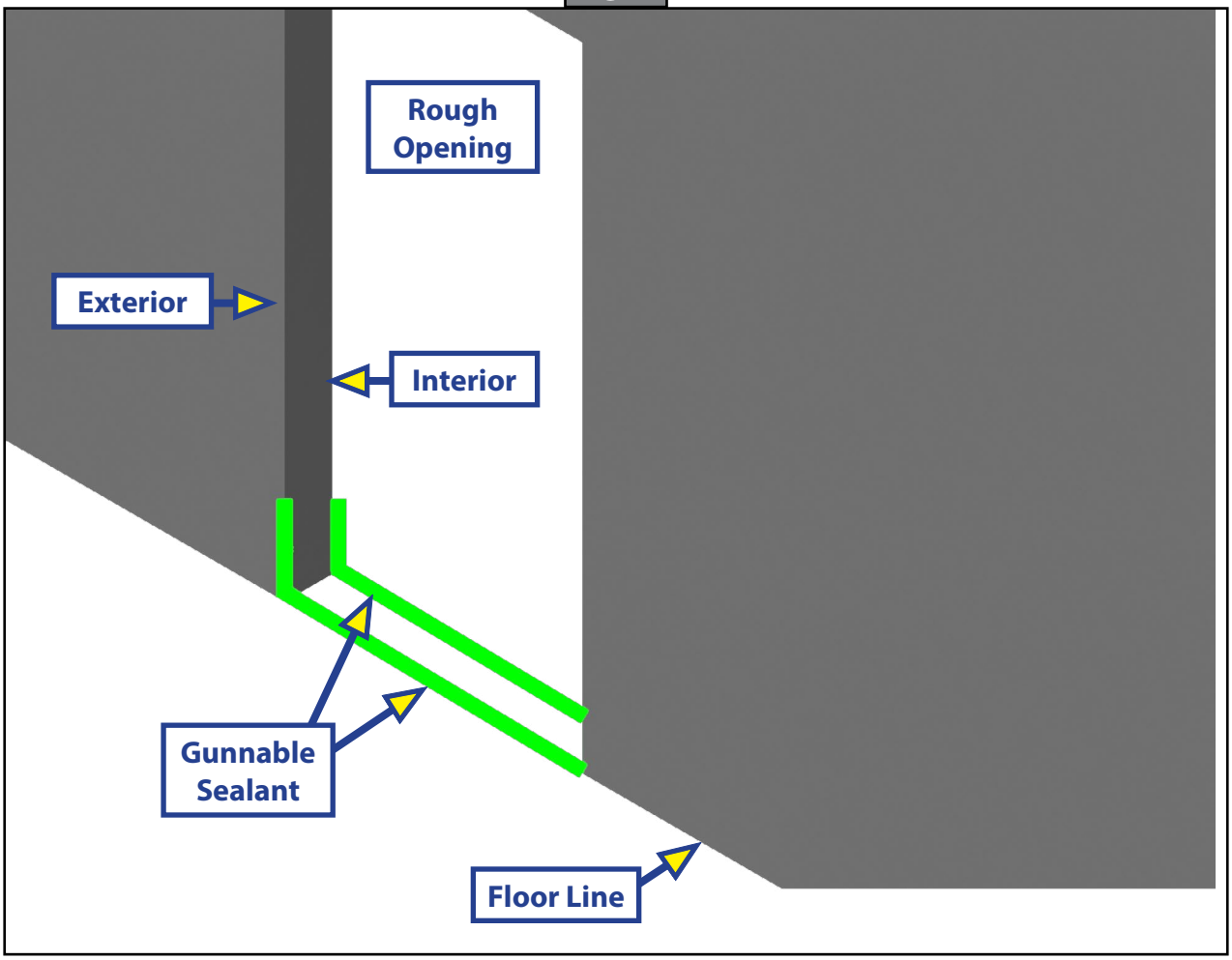
⚠ CAUTION

If the door assemblies are pre-sealed with pumpable caulk prior to installation, a skin may form on the gunnable sealant causing failure; however, putty and butyl tape do not have this issue. Refer to sealant manufacturer's instructions for sealant curing time. Door must be installed prior to the sealant reaching its maximum curing time and before the sealant sets up on the mounting flange.

4. Apply gunnable sealant (Green lines, Fig. 4) on the floor so the outside edges of the sill (both sides) will be sealed to the floor and extending about 6" up the frame/jamb (Green lines, Fig. 4).
5. Apply gunnable sealant to the backside of the mounting flange in line with the pre-punched holes.

NOTE: As an alternative, putty or butyl tape may also be used.

Fig. 4



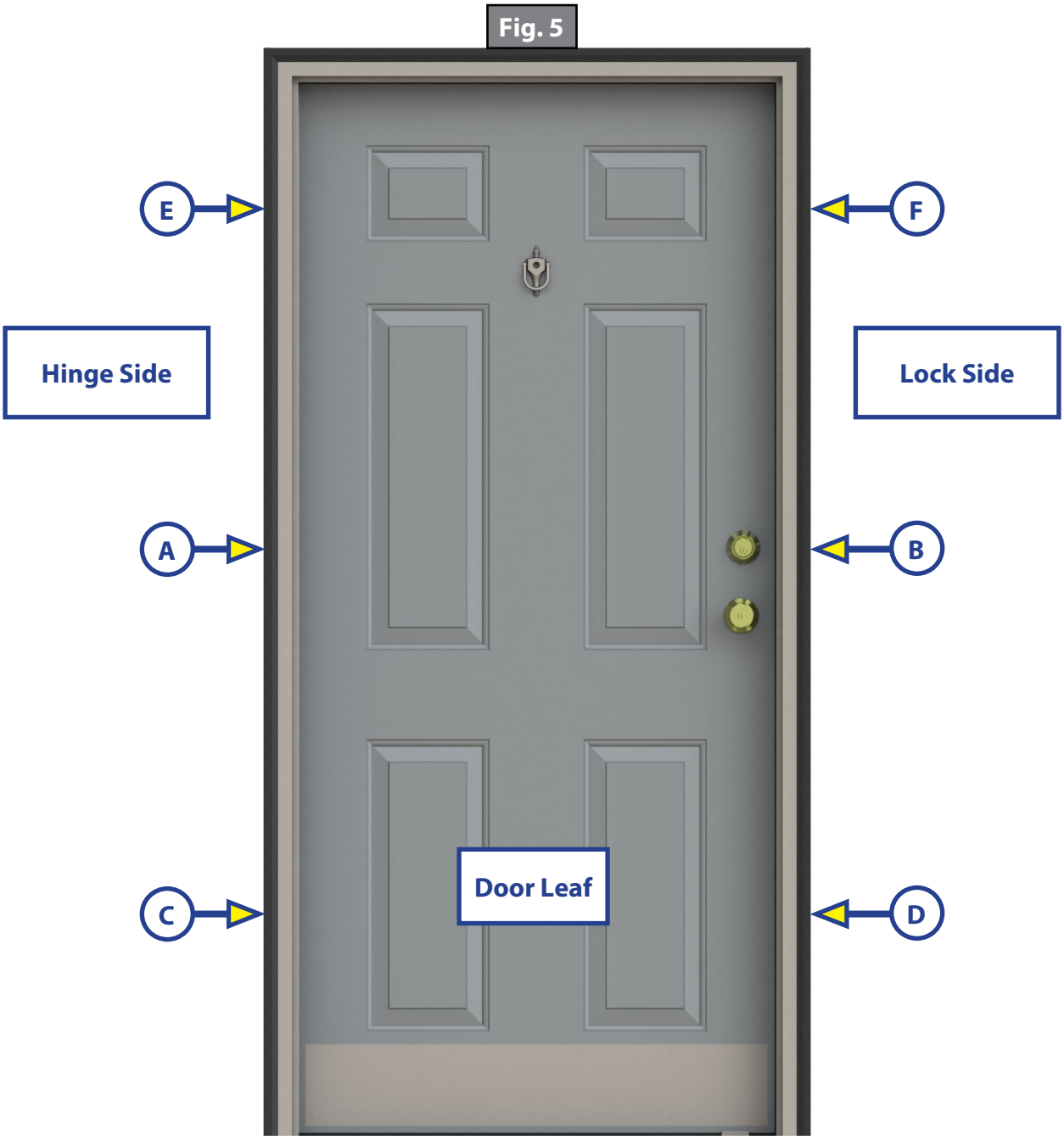
Door Installation

Flange Mounting System

1. Place the door in the rough opening with the door sill resting on the rough opening sill. If the rough opening sill is not square to the floor, remove the door and restructure the rough opening so the sill is square.
2. Apply a ¼" continuous bead of gunnable sealant over mounting holes (Green line, Fig. 7).
3. Center the door from left to right. The door sill **MUST** remain in contact with the rough opening sill. When installing doors, use corrosion resistant fasteners that produce a minimum of 1" of penetration into the framing members.
4. While holding the door frame flat against the exterior of the wall, install fasteners into both jambs and at the head. Install screws at the designated mounting locations (Fig. 5A-F) in the order shown. Make sure that there is at least 1" of penetration from the doorjamb or header into the wall studs.

NOTE: Door shown without brick mold.

Fig. 5



⚠ CAUTION

Do not overdrive fasteners. Overdriving fasteners will fracture or distort the mounting flange and compromise the seal. Do not apply fasteners or staples through any other surfaces of the door other than specified Kinro designated areas or the mounting flange. Failure to comply may void any manufacturer's warranty.

5. Check the door frame a second time to confirm it is centered from side-to-side in the opening and the door frame members are straight and the door frame square. Measure opposite corners of the door frame in a manner similar to measuring the diagonals of the rough opening shown in Fig. 3. Difference between corner measurements must be ⅛" or smaller. If not, remove fasteners and re-install frame per steps 1-3.

NOTE: If scaffolding interferes with the top of the door, it is acceptable to install fasteners later when they are more accessible.

6. Remove shipping blocks and retain them for future use.

⚠ CAUTION

Mounting flange is provided with pre-punched holes. Never leave holes or slots unsealed as moisture can penetrate and cause damage.

7. Continue to install the rest of the fasteners starting in the center of each side of the door and progressing out to the corners. Fasteners must be installed in every hole to ensure the gunnable sealant on the back of the mounting flange makes full contact with the exterior perimeter of the rough opening.

⚠ CAUTION

Shims should only be used if there is a gap between the doorjamb or the strike plate and sidewall studs. Do NOT force shims in. Do NOT use shims at the frame head of a door assembly. If the rough opening header deflects, building loads will be transferred to the door causing improper operation or failure of door.

8. From the interior of the house, place shims between the frame at the hinge locations into the frame/jamb and at the strike plate.

9. Open the door and install a fastener into all three hinges through the open hole in the center of each hinge. Additionally, screws of sufficient length to penetrate the structural member of the rough opening a minimum of 1" should be run through the jamb between the lock plate and the deadbolt strike plate.

10. After the door is securely fastened in place, remove any pre-squaring clips and install any remaining door hardware so door opens and closes during testing for correct operation.

11. Add screw covers or brick mold over mounting fasteners, if applicable.

12. Reinstall shipping blocks prior to transporting.

Side Jamb Mounting System

Read and fully understand all instructions prior to installation. Figs. 1 and 2 illustrate terminology used in this manual.

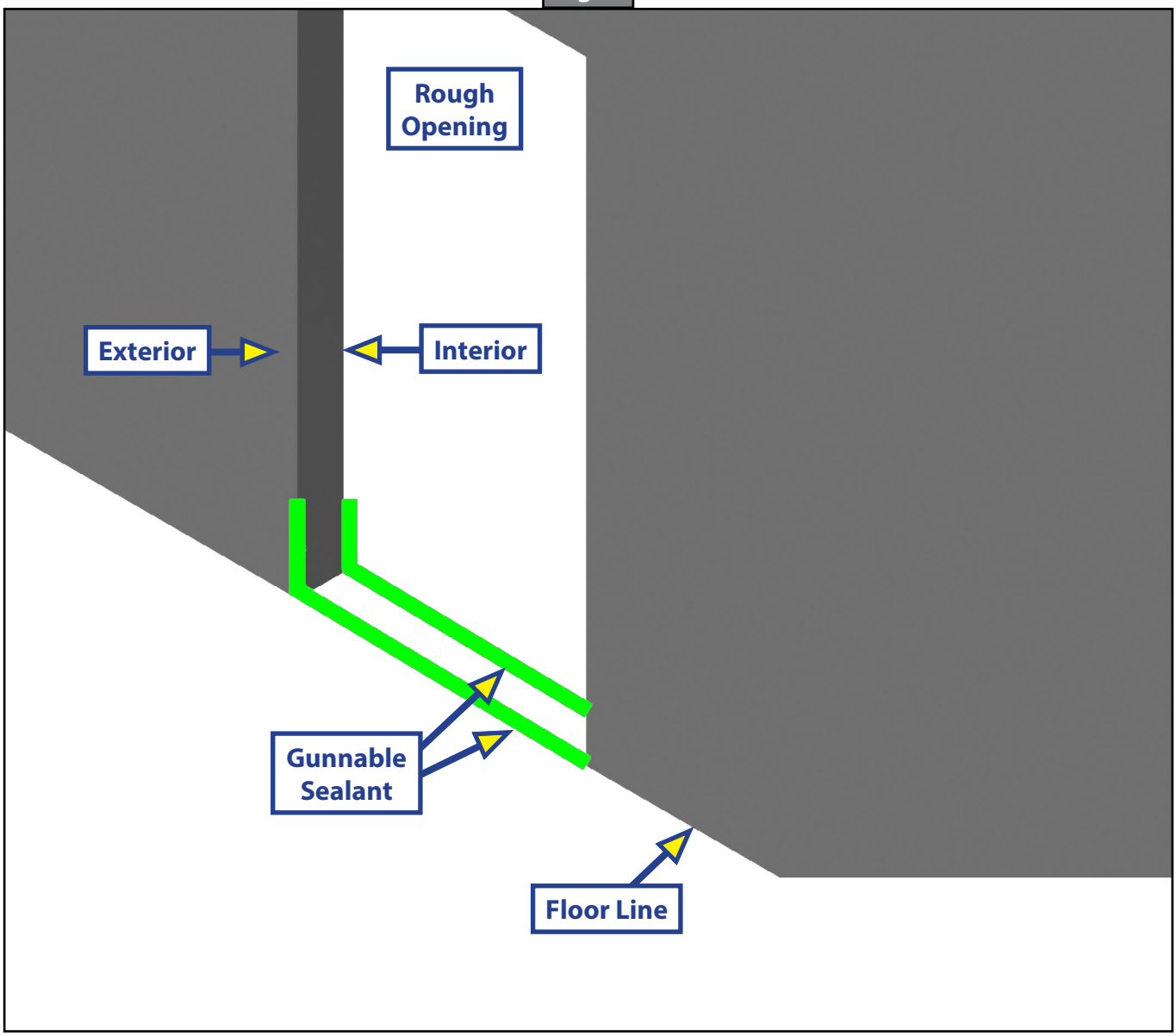
⚠ CAUTION

If the door assemblies are pre-sealed with gunnable caulk prior to installation, a skin may form on the gunnable sealant causing failure; however, putty and butyl tape do not have this issue. Refer to sealant manufacturer's instructions for sealant curing time. Door must be installed prior to the sealant reaching its maximum curing time and the sealant sets up on the mounting flange.

1. Using a caulking gun, apply a 1" continuous bead of gunnable sealant on the floor extending about 6" up the frame/jamb so that the outside edges (both sides) of the frame sill will be sealed to the floor (Fig. 6).

NOTE: As an alternative, putty or butyl tape may also be used.

Fig. 6

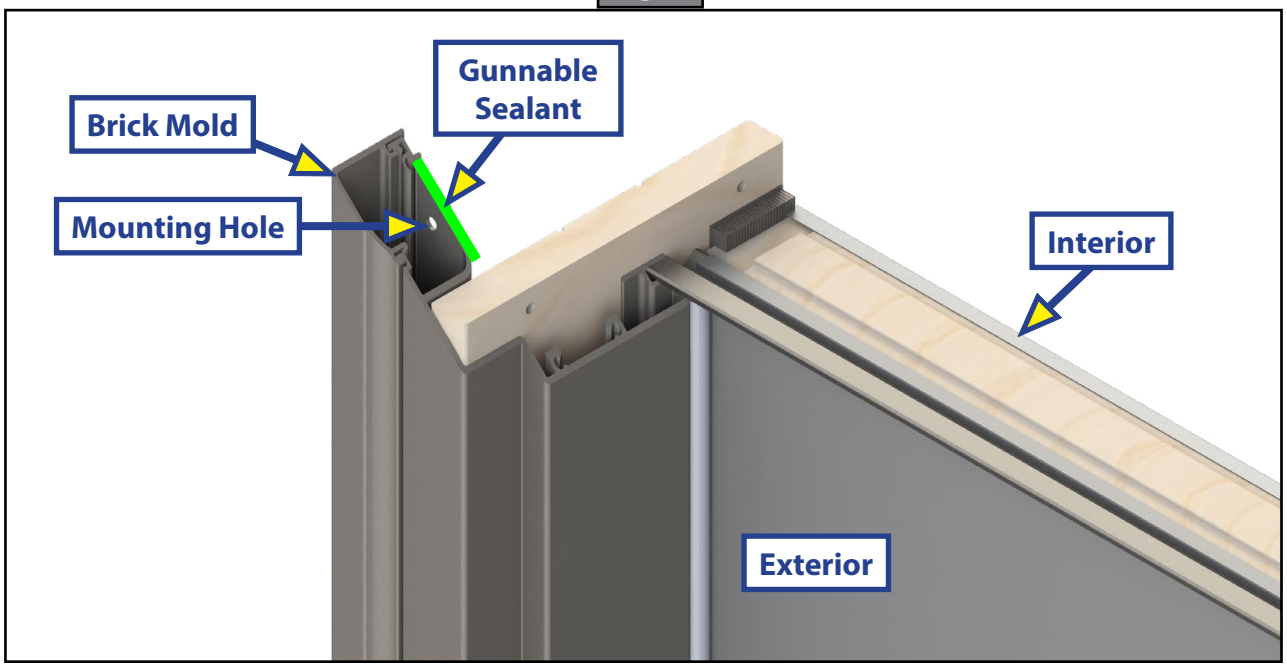


2. Apply a ¼" continuous bead of gunnable sealant (Green line, Fig. 7) to the back side of the brick mold.

NOTE: As an alternative, putty or butyl tape may also be used.

3. Place the door in the rough opening with the door sill resting on the rough opening sill. If the rough opening sill is not square to the floor, wood shims (or equivalent) can be placed beneath the low corner of the unit until the sill of the unit is square. Additional shims must be placed every 12" on-center to fully support the weight of the door assembly.

Fig. 7



4. Center the door from left-to-right but, do not remove the sill from contact with the rough opening sill and any shims that were required to square the sill of the door assembly.

5. From the exterior, square the door into the rough opening and temporarily tack the door in place through the brick mold.

NOTE: If scaffolding is used and interferes with the top of the door, it is acceptable to install this later when it is more accessible. When making final installation, use of corrosion-resistant fasteners that penetrate the structural member (wood framing) a minimum of 1" is required. For metal framing systems, see metal framing supplier for appropriate fastener selection.

⚠ CAUTION

Shims should only be used if there is a gap between the doorjamb or the strike plate and sidewall studs. Do NOT force shims in. Do NOT use shims at the frame head of a door assembly. If the rough opening header deflects, building loads will be transferred to the door causing improper operation or failure of door.

6. From the interior of the house, place shims between the frame and rough opening at the hinge locations, at the strike plate and at fastener locations.

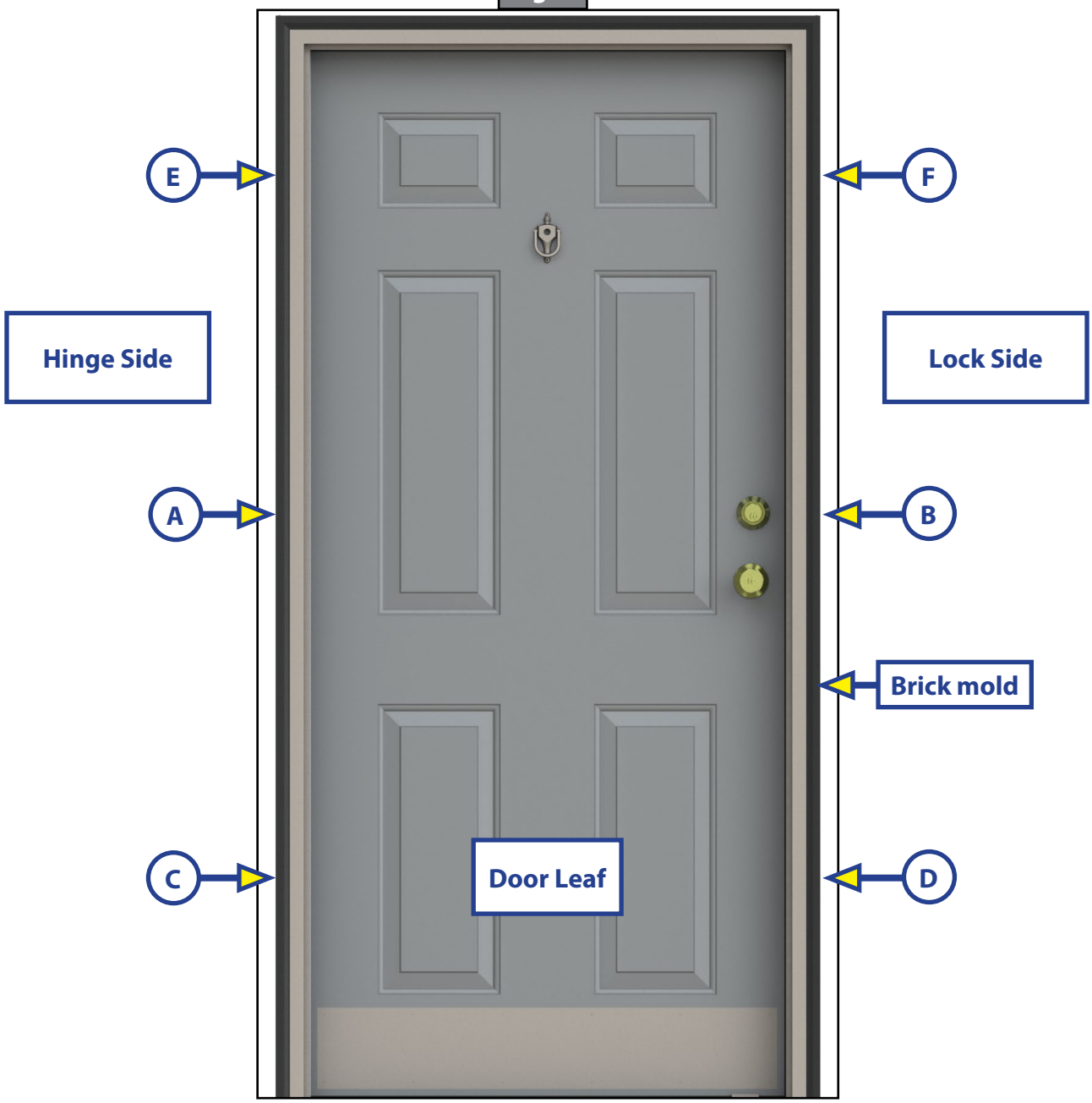
NOTE: Shims should only be used if there is a gap between the doorjamb and sidewall studs. Do not force shims in.

7. Examine the weatherstrip along the lock jamb and head of the door. The gap should be consistent between the core and the blind stop, and the seal should make good contact at all points. If it does not, adjust door assembly accordingly until a consistent gap is achieved and the seal makes good contact with the core. Failure to do so may result in excessive air and/or water infiltration.
8. Open the door and install a fastener (provided) into all three mounting jamb hinges through the open hole in the center of each hinge. Install fasteners (not provided) that penetrate the sidewall stud (wood framing) at least 1" through the jamb on the lock side. See Fig. 8A-F for order of screw placement and location.

NOTE: Fasteners at the lock and head jamb may be located behind the seal when next to the rough opening. Make sure to use shims in these areas if needed. For metal framing systems, see metal framing supplier for appropriate fastener selection.

NOTE: For doors with attached sidelights or swing patio doors, the fasteners at the fixed side **MUST** be placed through the jamb on the exterior side.

Fig. 8



9. After the door is securely fastened in place, remove any pre-squaring clips and install any remaining door hardware so the door opens and closes during testing for correct operation.

NOTE: See separate instructions for hardware installation.

10. The brick mold must be seated flat to the exterior perimeter of the structure and caulked. Caulk around the entire brick mold to seal out any moisture or air penetration.

Optional Installation Procedures

Insulation

⚠ CAUTION

Do not overpack insulation, as bowed frame/jambs may result. Expandable foam type material may bow frame as well, causing improper operation of the unit.

Insulate between the door frame and the interior of the rough opening at both jambs and at the head.

Cleaning

Do not use abrasive cleaners on the glass as they can permanently scratch or mar the surface. Any cleaners, other than mild detergent and a soft cloth, should be tried in a corner of the door to check whether they actually damage the finish.

J-Rail

Optional legged J-rail (furnished by others) improperly installed may cause water or air to enter. Contact J-rail manufacturer for proper installation procedures. Failure to properly install J-Rail may void the warranty.

Painting and Staining

Do not paint or stain weatherstripping, hardware components, tracks or vinyl components.

Flashing

LCI recommends the use of flashing for proper moisture control in accordance with the AAMA Installer Certification Manual.

To minimize moisture intrusion, ensure there is proper flashing at the threshold. Flexible flashing is recommended. Additional moisture prevention steps can be taken when the exterior around the door entry is being completed. Roof covering is also critical to minimize the effects of water intrusion at the door opening.

Storm Door Installation-Optional

The following information was obtained from Kinro document number 9021, Residential Storm Door Installation Instructions (Series 5600 Storm Door on a 7000/9000 Series Prime Door).

Read and fully understand all instructions and adhere to all safety labels prior to performing any of the following procedures:

1. Inspect all door components for damage. Components should be free of twists, dents and major scratches.

⚠ WARNING

Follow proper lifting techniques. Assistance from other persons with the required abilities to lift, carry and install the Kinro door assembly is highly recommended. Serious personal injury, severe product or property damage may occur.

⚠ CAUTION

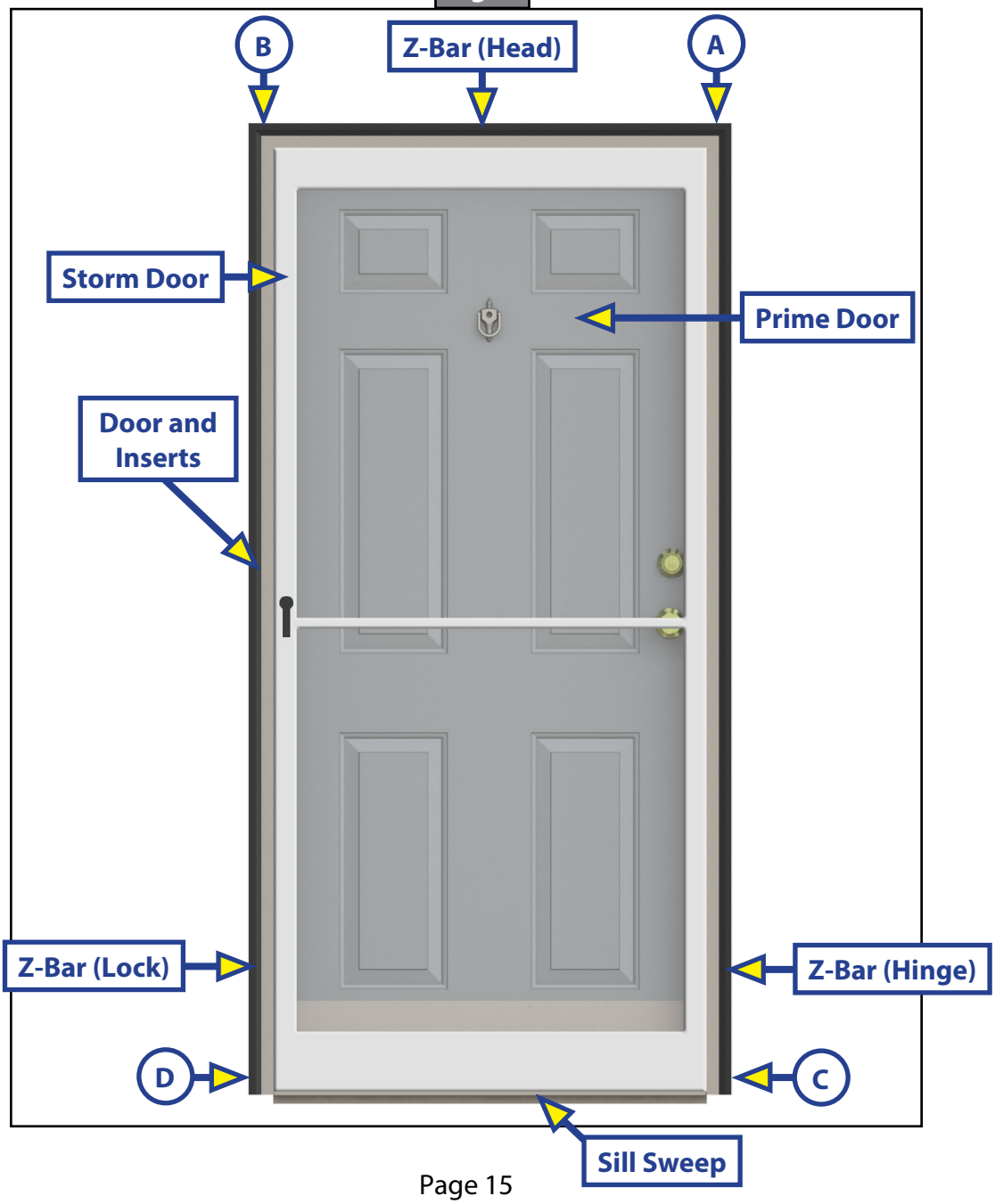
Always wear eye protection when performing this installation procedure. Other safety equipment to consider would be hearing protection, gloves, and possibly a full face shield, depending on the nature of the installation procedure.

⚠ CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

2. Adjust the sill sweep on the storm door (Fig. 9) to the highest position.
3. Slightly back out the screws attaching the shipping clips to the Z-bar to reduce the length on the backside. Do not remove the screws.
4. Place the storm door onto the prime door (Fig. 9). Make sure that the head of the storm door is flush against the head of the prime door.
5. Install two #8 x 5/8" screws in the head Z-bar at pre-punched mounting hole locations A and B (Fig. 9).
6. Install one #8 x 5/8" screw in the bottom of the hinge Z-bar at location C (Fig. 9).
7. Install one #8 x 5/8" screw in the bottom of the lock Z-bar at pre-punched mounting hole location D (Fig. 9).
8. Remove the shipping clip screws. Save the shipping clip screws to be used later.
9. Install #8 x 5/8" screws in the remaining pre-punched mounting holes on the head, hinge and lock Z-bars.
10. Open the storm door and remove the screws attaching the shipping clips to the door core. Remove shipping clips. The previously-removed shipping clip screws may be reinstalled to cover the holes in the Z-bar.
11. Install handle hardware, closer cylinder and chain kit per separately supplied instructions.
12. Adjust sill sweep to desired position.

Fig. 9



LIPPERT COMPONENTS®

Please recycle all obsolete materials.

For all concerns or questions, please contact
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