



FLANGE MOUNTING SYSTEM - DOOR INSTALLATION FOR MANUFACTURED HOUSING

Correct installation of the Kinro Manufactured Housing Door is essential for proper function. Improper installation will void the limited warranty.

Please read all instructions completely prior to door installation.

1. The following directions represent the proper installation of the Kinro doors. These directions do not indicate the only method of installation; however, acceptable methods of alternate installation will be considered the sole responsibility of the housing manufacturer.
2. All personal protective equipment, i.e. safety glasses, gloves, steel-toed boots or shoes, should be worn during the installation of the Kinro door.

WARNING!

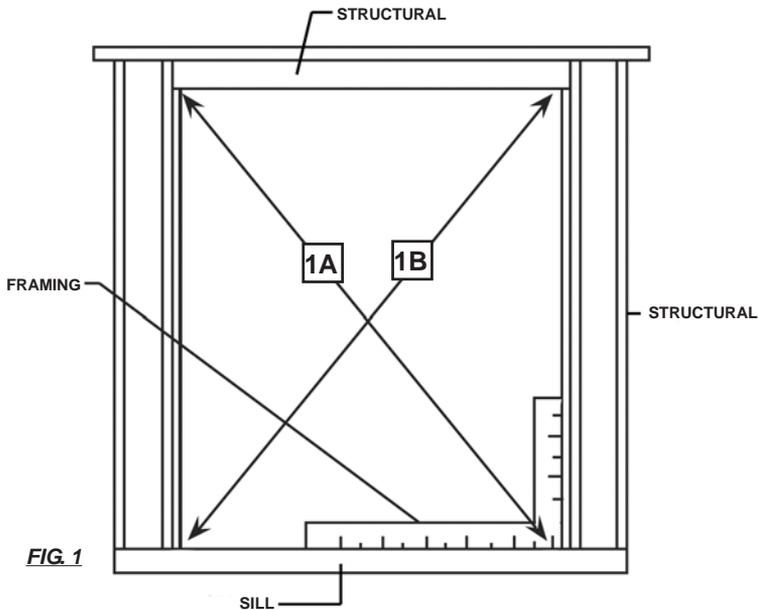
Due to the weight of the Kinro door products, proper lifting is required. Please use a reasonable amount of people with the required abilities to lift, carry and install the Kinro door assembly.

The safety directions in this manual are not intended to provide answers for all contingencies. It is the responsibility of the housing manufacturer to provide and implement all safety practices.

3. Kinro, Inc. does not warrant that all door products and directions provided comply with all applicable codes and regulations. The housing manufacturer is responsible for ensuring all components and installation methods used to build the housing conform with all codes and regulations.
4. Do not store doors in direct sunlight when still wrapped in delivery material.

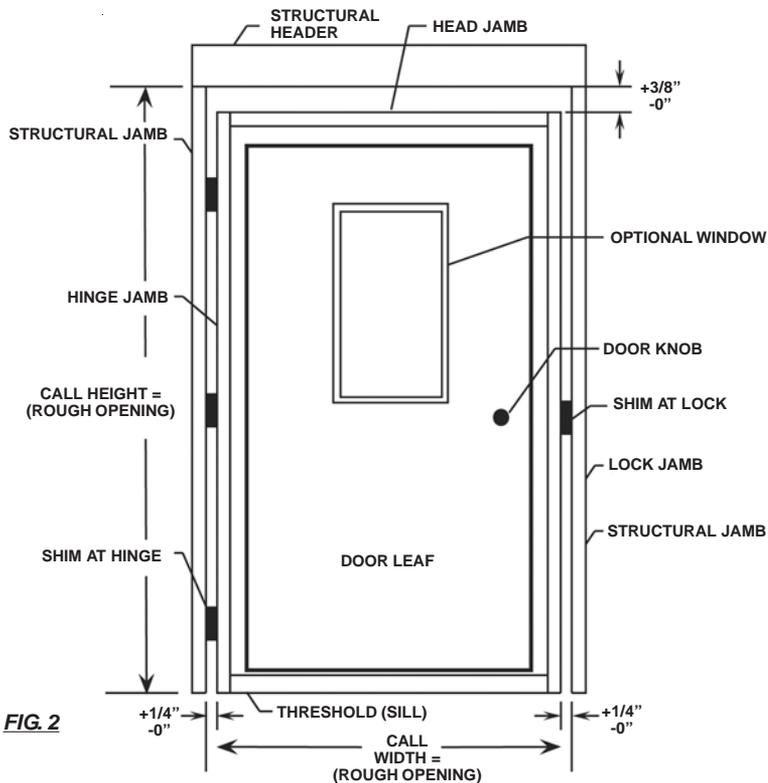
PREPARATION OF THE ROUGH OPENING

1. The Rough Opening must be correctly sized and constructed. The Rough Opening is referred to by the door call size, e.g. 30 X 72 is Rough Opening of 30" wide by 72" high. The Rough Opening sill must be square to the floor with a allowance of 1/8" or less across the entire width. If the Rough Opening sill is out of square by more than 1/8" inch, shimming the door may be possible to square the door to the Rough Opening.
2. Be sure to confirm the squareness of the Rough opening with diagonal measurements, see Fig. 1 on page 2. The measurement between Fig. 1A and Fig. 1B must not exceed 1/4". The Rough Opening sill will need to be modified if the difference between the two diagonal measurements exceeds 1/4".
3. The Rough Opening must be inspected on the exterior face where the Mounting Flange of the door will make contact. 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, sheathing or other exterior wall material must be structurally sound.



DOOR INSPECTION AND PREPARATION

Terminology - Figure 2 gives all of the door terminology used in this manual.



1. Prior to installation, door must be measured to ensure it matches the Rough Opening call size, call width minus 1/2" and call height minus 3/8".
2. Be sure to inspect 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 Kinro, Inc.
3. During the installation process, the door must remain closed at all times. Spacer blocks and or installation clips are installed in every Kinro door to assist when installing door by maintaining reveal between the frame and the door core until the door is completely installed.

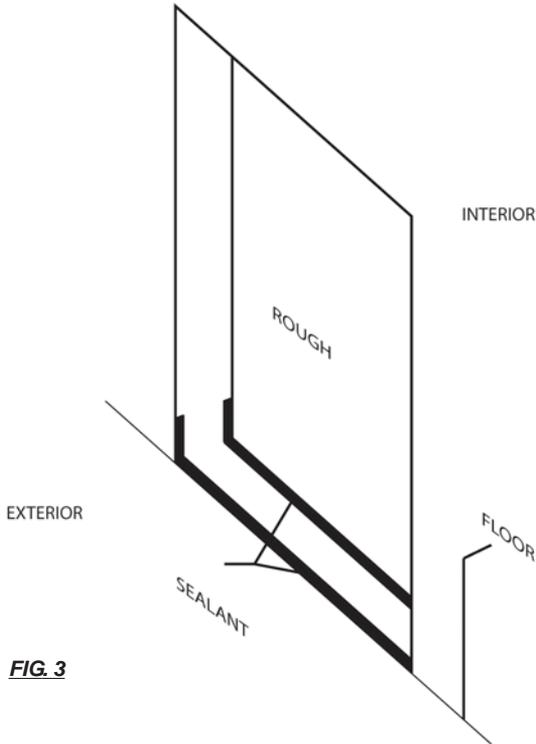


FIG. 3

4. Apply sealant on the floor so the outside edges of the sill (both sides) will be sealed to the floor extending about 6" up the frame/jamb, see Fig. 3. Prior to using sealant, see WARNING! below.
5. Apply sealant to the backside of the mounting flange, in line with the pre-punched holes.

WARNING!

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

DOOR INSTALLATION

1. Place the door in the Rough Opening with the 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 that the sill is square.

2. Center the door from left to right, DO NOT remove the sill from contacting the Rough Opening sill. When installing doors, the use of corrosion resistant fasteners that produce a minimum of 1" of penetration into the framing members.

WARNING!

While holding the door frame flat against the exterior of the wall, fasteners should be installed into both jambs and at the head. Install screws at the designated mounting locations making sure that there is at least 1" of penetration from the door jamb or head into the wall studs, see Fig. 4 for order of install.

WARNING!

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 by Kinro designated areas or the Mounting flange. Failure to comply may void any manufacturer's warranty.

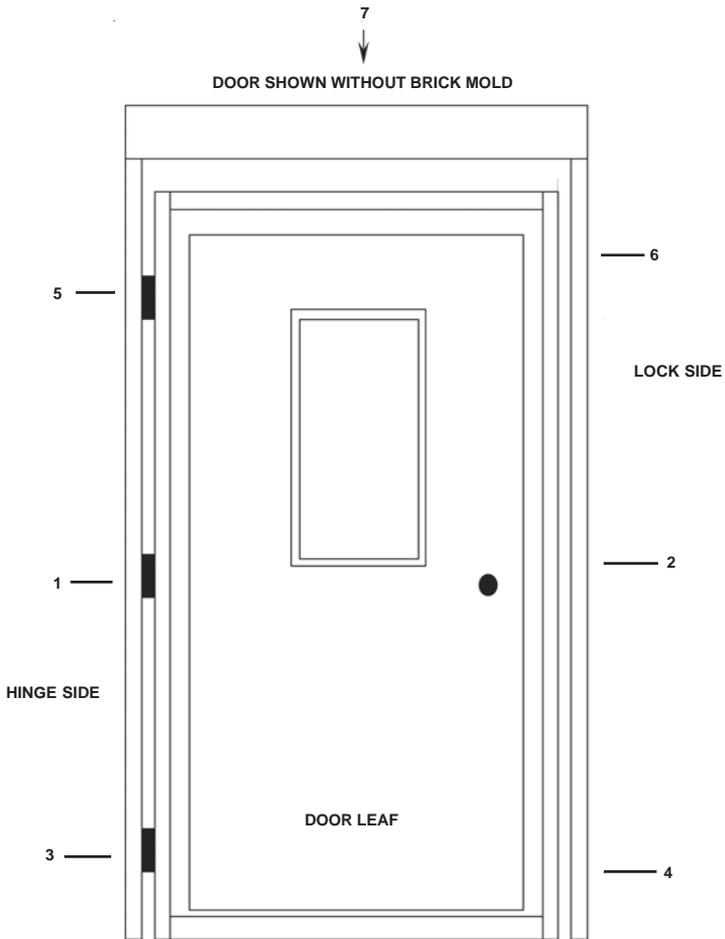


FIG. 4

3. Be sure to 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 in Fig. 1. Allowance should be 1/8" or smaller. If not, remove fasteners and re-install frame as per above directions.

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

WARNING!

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

WARNING!

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 sealant on the back of the Mounting Flange makes full contact with the exterior perimeter of the Rough Opening.

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

NOTE: Shims should only be used if there is a gap between the door jamb or the strike plate and sidewall studs. Do not force shims in.

NOTE: Shims should not be used at the frame head of a unit. If the Rough Opening header deflects, building loads will be transferred to the door causing improper operation or failure of door.

5. Open the door and install a fastener into all 3 mounting jamb 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.

6. Once 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.

7. Add screw covers or brickmold over mounting fasteners if applicable.

8. Re-install shipping clips prior to transporting.

OPTIONAL INSTALLATION PROCEDURES

Insulation - Insulate between the door frame and the interior of the Rough Opening at both jambs and at the head.

WARNING!

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.

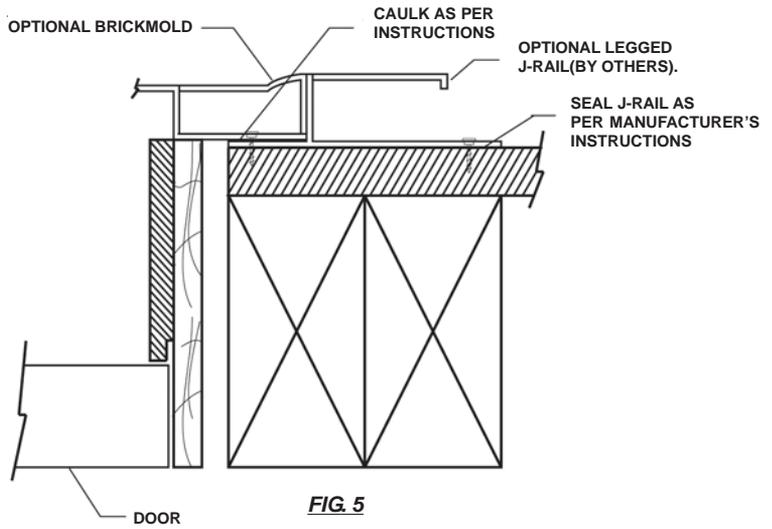
Cleaning - Do not use abrasive cleaners on the glass as they can permanently scratch or mar the surface. Any cleaners, other than mild detergent and a soft cloth should be tried in a corner of the door to check whether they actually damage the finish.

WARNING!

Legged "J"-rail improperly installed may cause water or air to enter. Refer to the J-rail manufacturer for proper installation procedures. Failure to do so may void the warranty, see Fig. 5.

Weatherstripping, hardware components, tracks or vinyl components should not be painted or stained.

Flashing - Kinro recommends the use of flashing for proper moisture control. Refer to Section 21 (New Construction Installations) of the AAMA Installer Certification Manual.



TYPICAL SECTION AT THE JAMB
SHOWING POSSIBLE "J-RAIL" BY OTHERS