

Norwood Windows Permaglass Fiberglass Products Installation Instruction

Care and storage of fiberglass windows:

Fiberglass products purchased from Norwood Windows must be stored in a dry sheltered area and protected from direct sunlight until they are installed. When windows are left stacked and exposed to direct sunlight heat may build up as the sunlight is magnified as it passes through multiple glass units this may cause damage to the finishes or sealed units.

Even though pultruded fiberglass is a strong material, it should be handled with care. If the units are dropped, bumped or dragged it may cause cracking in the material, paint finish or hardware thus creating operational issues.

Proper Installation:

Improper installation is the greatest cause of operational issues with windows. It has been shown that a high percentage of service call and customer dissatisfaction are due to poor installation. Care should be taken during installation to ensure that good quality materials are used and that the window has been properly shimmed, plumb, level and square. Good installation will dramatically reduce cost associated with poor performance and product failure.

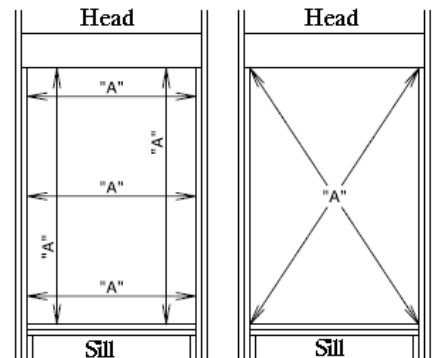
Determining Rough Opening:

The first step to good installation is to have the correct rough opening (R.O.) size. The Architects Manual should be for the recommended R.O. for the specific job where the windows are to be installed.

However, when the R.O.s is framed it is important that a degree of accuracy is maintained to minimize the amount of time the install takes to install the window.

Note:

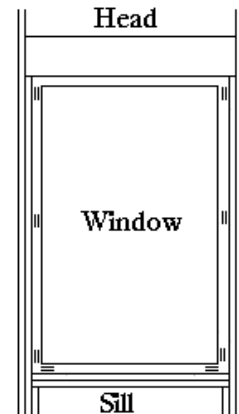
- A- Specified R.O. dimension +/- 1/16" (2mm)
- B- The width should be within 1/8" (3mm) from top to bottom.
- C- The sill should be level and flat.



Shims:

The correct placement of shims is very important to a good installation.

- On the sill under each Window jamb.
- On the sides at the top and bottom.
- On double and single hungs at the meet rail (center sides)
- For taller casements and pictures at the center points on the height.
- Do Not place shims on the top of the window.



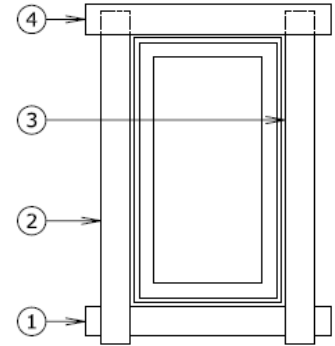
|| = Shims

Ice and Water Shield:

Ice and Water Shield is a self-adhesive membrane and when applied properly will provide a barrier and keep air and moisture from entering around the window. This material can be used in any type of installation including with or without nailing fin.

To apply cut the Ice and Water shield 6" to 10" longer/wider than the window.

- 1- Apply bottom piece first.
- 2- Apply the sides allowing it to overlap the full width of the bottom piece.
- 3- Apply the top piece, be sure that it extends past the vertical pieces and that the vertical top ends are covered.



Installation Materials:

Norwood recommends the use of high quality installation materials when installing Fiberglass windows. These materials when used correctly will ensure that the windows operate trouble free for many years.

- Corrosion resistant pan head screws.
- Cedar shims or spacers.
- Galvanized drip cap.
- High quality exterior grade silicone sealant.
- Low expansion insulating foam or batt insulation. **Do Not use high expansion Foams.**
- 6" wide Ice and Water Shield.
- Backer rod, (may be required in certain applications)

General installation instruction:

Before you begin please read and understand these installation instructions. The following installation instructions are recommended by Norwood and failure to follow them may void the warranty.

The following installation instructions are the minimum required by Norwood. If local building codes exceed these installation instructions then the local building codes must be followed.

Because of newer construction methods and the increasing need for energy efficiency in our homes, this installation method seals the window to the exterior weather barrier. A sill pan is used to capture any water that may collect under the window and redirects it to the outside preventing it from entering the wall cavity.

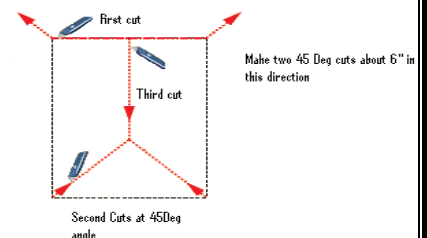
These installation instructions are to be used in the installation of flat windows only. For any other window type such as bays and bows consult your local Norwood dealer.

Check the rough opening (RO):

- Make sure that the opening is level, square and plumb.
- Measure the opening, the opening should be $\frac{3}{4}$ " larger than the window in both height and width. For larger windows measure in several places to ensure that the studs or header is not bowed.

Cutting the Weather resistant Barrier:

- Start by cutting along the top of the weather barrier (tight to the header) from one side to the other.
- At the bottom of the opening cut an inverted "Y" in the weather barrier. Start at each bottom corner and cut at a 45° angle toward the center. From the center where the 2 angle cuts meet cut straight up to the header.
- Fold the two sides and bottom of the weather barrier over the rough opening and fasten using staples to the interior of the opening. **DO NOT FASTEN THE TOP.**
- At the top of the opening cut two 6" 45° angle cuts in the weather barrier. Make the cuts up and away from the opening.
- Temporarily staple the top flap of weather barrier up and away from the opening, exposing the wall sheathing.



Installing the sill pan (if required):

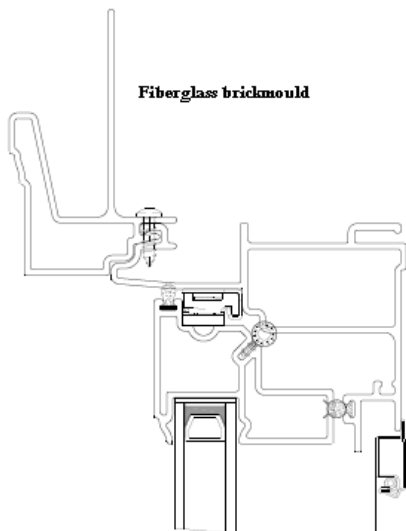
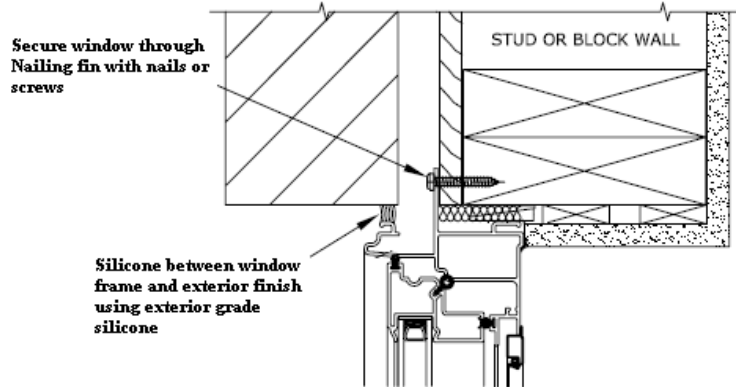
- Place sill pan in the opening for a “dry fit”.
- If sill is not level place shims under the sill pan (not the window) to level it.
- Remove the sill pan and put two 3/8” beads of silicone on the sill.
- Put 3/8” bead of silicone on the inside of the downward lip of the sill pan.
- Place sill pan back into opening and press into silicone to ensure a good fit.
- Fasten sill pan to framing using screws 16” on center.
- Cover the heads of the screws with silicone.

Note: If a Pre-manufactured sill pan is being used, install it in accordance to manufacturer’s instructions.

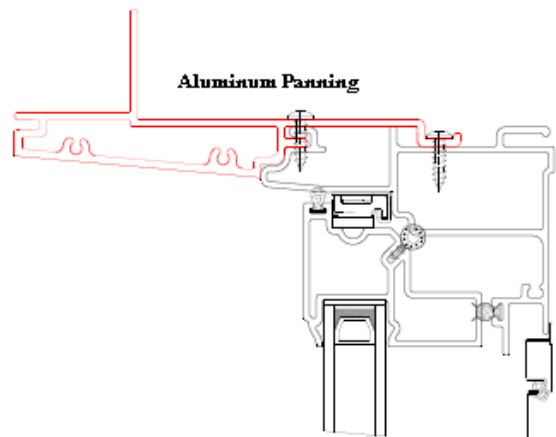
Installation Methods:

• Nailing Fin

- Secure window through predrilled holes in nailing fin using # 8 x 2” pan head screws.
- Check any operating window for proper operation. If window is not operating properly, adjustments may be required to the shims (may be over shimmed).
- Silicone between window frame and exterior finish using exterior grade silicone.



Window showing fiberglass brickmould



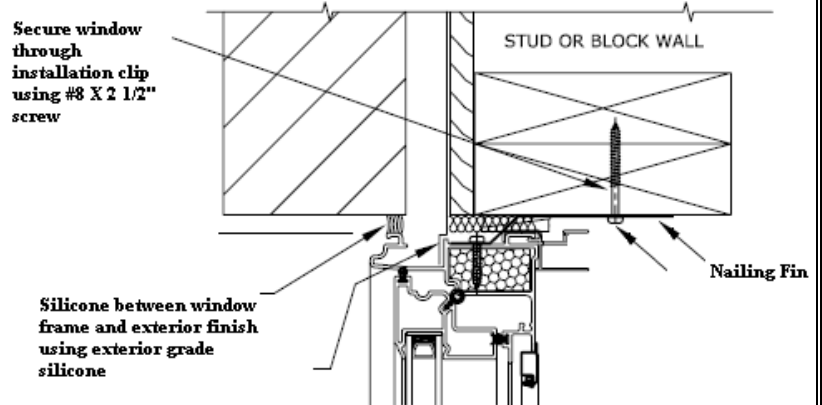
Window showing Aluminum Panning

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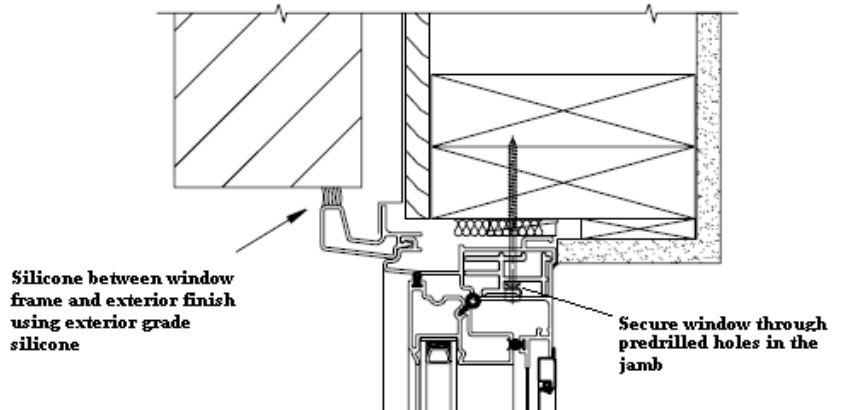
• Installation Strap

- Remove marked screw from side of window and secure installation strap to window jamb. Do not over tighten screw.
- Secure window to rough stud opening using #8 x 2" screws.
- Check any operating window for proper operation. If window is not operating properly, adjustments may be required to the shims (may be over shimmed).
- Silicone between window frame and exterior finish using exterior grade silicone.



• Through Jamb

- Secure window with screws through predrilled holes in window jamb using #8 x 2 1/2" pan head screws.
- Check any operating window for proper operation. If window is not operating properly, adjustments may be required to the shims (may be over shimmed).
- Silicone between window frame and exterior finish using exterior grade silicone.

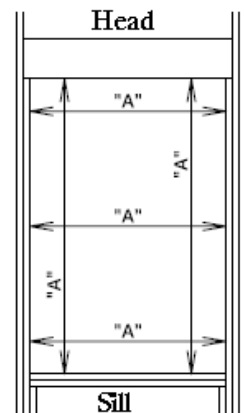


Replacement and Retrofit windows:

When replacing windows into existing window frames it is important that the frames have the same degree of accuracy as installing them into new openings.

When measuring the existing window frame for the replacement window size, take the narrowest with (A) and deduct 3/4" (19mm) from that measurement in both width and height.

Install the window in the existing window frame ensuring that it is plumb, level and square. This type of replacement window typically installed through the jamb. However if not please see above for the correct installation procedure.



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Painting:

If the fiberglass window is required to be painted in the fields please follow the steps below:

- Use a high quality primer and paint, formulated for fiberglass materials.
- Rough up the existing paint surface using a light abrasive like steel wool or emery cloth.
- Thoroughly clean with mild soap and water and allow to dry completely.
- Prime and paint as per paint manufactures instructions.
- If aluminum or vinyl components need to be repainted be sure to use the properly formulated paint.

Note: Do Not paint the weather stripping or hardware.

Maintenance and Cleaning:

Regular inspection, maintenance and cleaning of your fiberglass windows will provide many trouble free years of operation.

Glass:

Clean using mild soap or vinegar based solution.

Hardware:

Because of a wide range of environments that our products are installed, some cleaning and lubrication is required. The hardware and tracks should be checked at least once a year and cleaned of any build-up of dirt or grime.

Painted Surfaces:

All painted surfaces and be cleaned with a non- abrasive soap and warm water using a soft cloth.