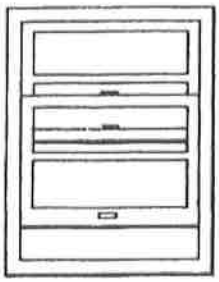
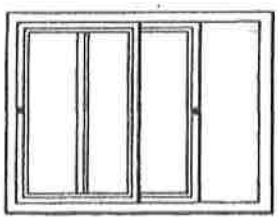
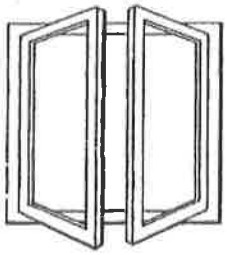
VINYL WINDOW AND DOOR INSTITUTE
THE SOCIETY OF THE PLASTICS INDUSTRY INC







RECOMMENDED PROCEDURE FOR INSTALLATION OF VINYL WINDOWS

This procedure applies to the installation of vinyl-framed replacement windows, from pre- through post-installation procedures. Consistently followed, the procedure helps to ensure the installation of replacement windows, in a safe and effective manner. Actual conditions in existing buildings vary greatly, and in some cases substantial additional care and precaution may have to be taken.

Improper installation of units may reduce their thermal effectiveness, lead to excessive air and water leakage, condensation, and may promote the deterioration of wall constructions, windows, and their finishes.

PRE-INSTALLATION PROCEDURES

1. Measure the opening and the new window to insure proper fit before you begin removal.
2. Check for signs of decay, air leakage or water leakage that the replacement window alone will not solve. Do not install a replacement window without correcting these problems.
3. Use a drop cloth and collect all debris.

METAL WINDOW REMOVAL

The objective in removing a metal window and preparing the opening is to create a jamb with a stop that will serve the same purpose as a blind stop on a wooden window. Exterior capping and head flashing are necessary to making a proper installation.

ALUMINUM REMOVAL

Aluminum Fin Windows are generally nailed to the studs in frame construction with siding run over the fin on the outside, and a dry wall return from the interior wall to the window frame.

For removal, first remove the inserts. Then pry up the aluminum sill in the middle, and cut the frame with a hack saw, using care not to damage the interior of the opening. Break each half of the sill away from the corners, and pry out the jamb heights starting from the bottom, cutting nails where practical. Then remove the header.

STEEL REMOVAL

Steel casements are generally found in homes of masonry construction, and consist of the casement frame itself, plus an interior steel pan. Removal of the pan can create major complications, such as damage to interior walls.

The casement frame is usually screwed or bolted into a steel flange, which is nailed to the rough-in framing. To remove the casement, first remove the screws or bolts (whose heads may be embedded in putty). Then pry the frame to the center of the opening to give the clearance necessary to remove it. You may have to break glass and/or cut part of the frame in this process. You may also have to chisel off the heads of bolts or screws.

TOOLS AND HARDWARE REQUIRED FOR INSTALLATION

(NOT PROVIDED BY THE MANUFACTURER)

1. Level
2. Square
3. Hammer
4. Screw gun / Screwdriver
5. Caulk Gun
6. Drill/ Drill Bits
7. Pry Bar
8. Hack Saw
9. Chisel
10. Razor Knife
11. Tape Measure
12. #8 X 2 ½" pan head screws (retrofit)
13. #8 X 1 ½" pan head screws (nail fin installation)

PROPER DISPOSAL OR RECYCLING OF PRODUCTS BEING REMOVED

Any glass should be placed in a secure container and recycled. Aluminum and steel frames should be cleaned up and recycled. Any wood or other debris created by the removal and installation process should be placed in a suitable container and put in the landfill. Placing glass or any metal debris into the landfill should be the last resort as recycling will help reduce landfill volume as these are not biodegradable items. Any debris from any structures built before 1978 should be disposed properly in accordance with the EPA's Lead Renovation, Repair and Painting Rule (RRP Rule).

OPENING PREPARATION AFTER METAL REMOVAL

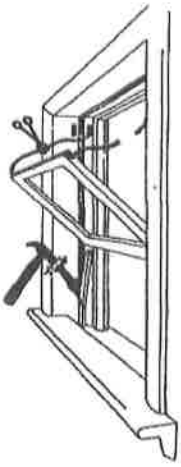
Whether the window removed was steel or aluminum frame the opening to match, as closely as is reasonable, a flush jamb at least 4" in depth with a stop such as you will find in a standard wood opening. The framing lumber may provide only part of the jamb, with a steel pan or dry wall providing the rest, as long as the jamb is flush from the inside to the stop. Move the stop as far to the outside of the opening as possible, to allow a reasonable amount of exposed inside sill.

Caulk and cover with trim coil the exposed exterior framing, and flash the head.

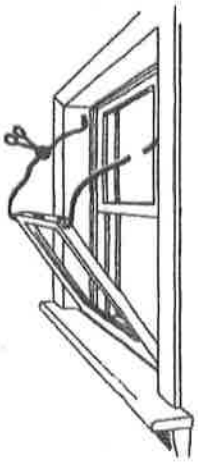
Follow the instructions for a standard installation in a wood opening.

WOOD REMOVAL

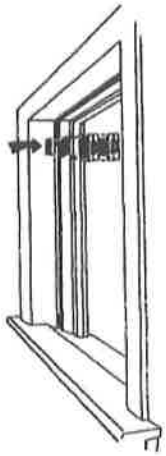
1. Remove sash bead. Score first with a razor knife and use special care in removal if the existing sash bead is to be reinstalled.



3. Remove parting bead, cut cords, and remove upper sash.



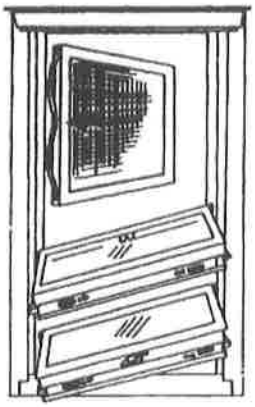
2. Cut cords and remove lower sash.

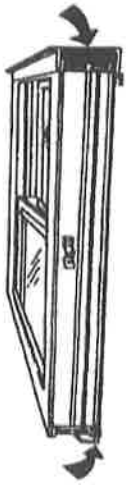


4. Remove or pound in pulley on both sides of opening.

INSTALLATION PROCEDURES

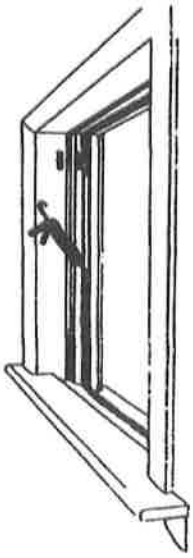
1. Remove both sash and screen from the master frame. You may install small windows with sash in place, but do not allow the master frame to spread far enough for the sash to come loose from the balance shoes.

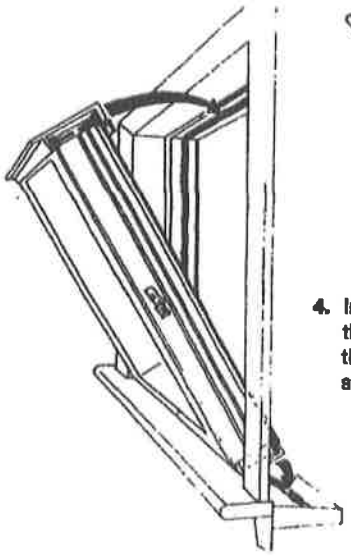




2. Mount the head expander, if used, and sill angle, both cut to the same width as the master frame. Insert the short side of the sill angle into the slot, unless the longer side is needed to raise the window in the opening, or compensate for a steeply-sloped sill. If necessary, check the fit of the master frame in the opening.

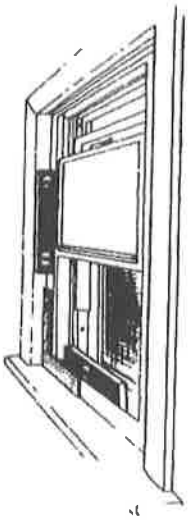
3. Clean the opening of dirt and debris, then caulk the stops and sill.

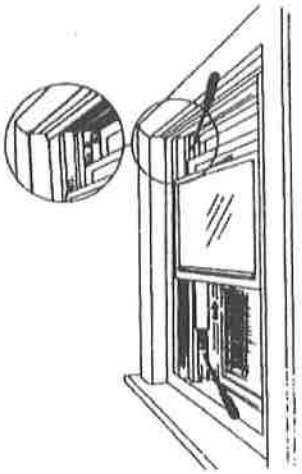




4. Insert the window frame into the opening and compress it tightly against the caulked stops and sill.

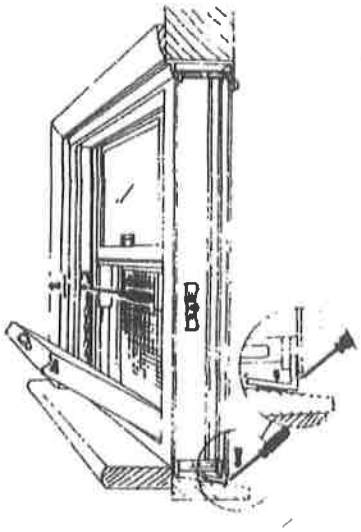
5. Use a level and square to make sure the frame is level, square, and plumb, regardless of the squareness of the opening.





6. Run until just snug all four installation screws, first the top two, then the bottom two, centering the frame from side to side and checking to be sure the frame remains square. Temporarily shimming each corner as you run the screws helps to keep the frame centered and square.

7. Turn the center alignment clip screws in the center of each side of the jamb height until each jamb height is straight and the opening at the center of the main frame measures the same as the opening at the top or bottom. Force the sill angle down firmly into the caulking.



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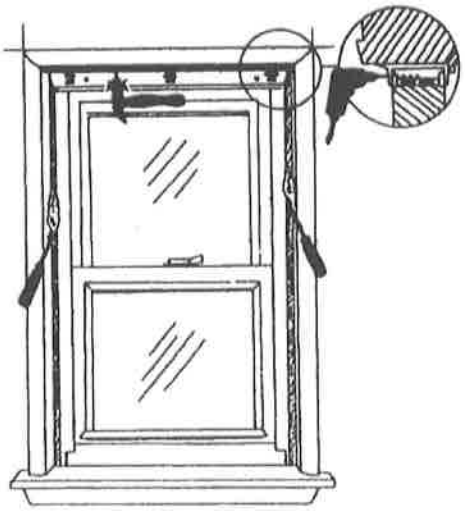
8. Install the screen and both sashes. Check for proper operation, locking, and fit, and make adjustments as necessary.

9. Raise the head expander and first nail the flange into the header jamb. Then pop rivet the head expander to the master frame. Stuff fiberglass insulation into the cavities between the master frame and the opening, and caulk the window to the opening.

10. Reinstall the sash bead or mount new sash bead.



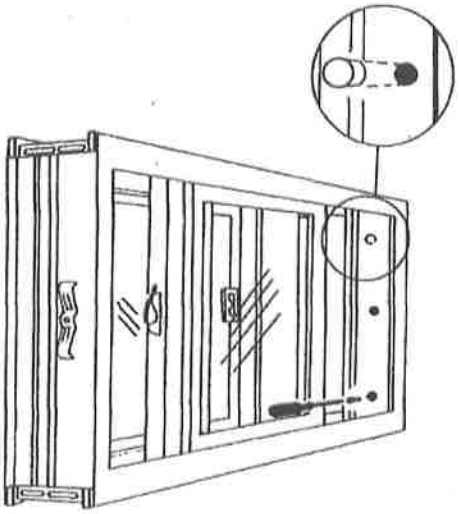
SLIDING WINDOWS: SPECIAL INSTRUCTIONS

a) One sash is fixed in place, and the other can be removed by pushing it into the header and lifting it out.

b) Make sure that the sill is level and firmly supported — use shims if necessary.

c) Secure the header with F channel or by running screws through the header into the jamb. Measure the height of the main frame while securing the header to insure that it neither sags down nor bows up.

d) Place the cover buttons supplied in the installation screw packs into the installation holes.



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SPECIAL INSTALLATION NOTE

EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA (or an EPA authorized state), and use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices.