WINDOW REPAIR MANUAL
&
REFERENCE GUIDE
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Double hung and single hung parts

Inside

Outside

Bottom sash – inside

Bottom sash - outside

A: Tilt Latch  B: Lock  C: Lift Rail (non removable)  
A: Interlock (non removable)  C: Bulb Gasket

B: Glazing Bead  D: Pivot Bar
Top sash- inside

Top sash- outside

A: Lift Rail (non removable)  B: Tilt Latch  A: Weather stripping  B: Pivot Bar
C: Vent Latch  D: Keeper  E: Interlock (non removable)  C: Tilt Latch  D: Glazing Bead

Note: Single hung top glass is glazed directly into the frame.
Casement Parts

A. Stud Bracket
B. Operator

A. Snap in sil
B. Operator
C. Hinge
D. Operator cover
E. Crank handle
Screen parts

4200 slider ½ screen
A) Push pin
B) Screen tab
C) Corner key top
D) Corner key bottom

4200 non-locking ½ screen
A) push pins
B) Screen tab
C) corner key top
D) corner key bottom

4100/4800/4900 ½ screen
A) Bug Flap part
B) Weather stripping part
C) crescent spring
4805 Non-Locking screen
A) pull tab part #
B) crescent springs
C) bug flap part

4100, 800, 4900 full screen

4800 full screen

700 series Casement screen
How to remove a tilt-in sash

Using lift rail raise sash at least 5 inches. Disengage tilt latches.

Tilt sash so that it is parallel with the floor.

Lift one side of the sash straight up until it pops out of shoe. Lift up the other side and remove from frame.
How to remove a balance

With the sash removed, carefully release the string of the balance from the shoe.

Slowly let the string rise up inside the balance.

Unscrew the balance from the top. Remove balance.
How to install a balance

Screw the balance into top of window using existing hole.

Slowly pull the string downwards toward the shoe.

Re-engage balance into the shoe.

Parts of the balance system
How to remove Tilt Latch

Release the latch on the bottom of the tilt latch and push tilt latch out of slot.

How to remove a vent latch

Open vent latch. Using a pair of pliers, gently pull vent latch out of the opening.
How to raise the balance shoe without the sash
If you tilt your window in without raising it 5” or more, you will force the pivot bar out of the balance shoe thus locking the balance shoe to low in the jamb to install the sash.

With the sash removed, locate the balance shoe in the frame.

Using a flat head screw driver, insert the tip of the screwdriver into the silver “U” shaped piece located in the bottom of the balance shoe. Carefully turn the screwdriver 90 degrees counter clockwise. This will disengage the balance shoe lock. CAUTION! THE SHOE WILL WANT TO SNAP UP TOWARD THE TOP OF THE WINDOW! Allow the shoe to rise so it is at least 5” above the sill. Rotate the screwdriver 90 degrees clockwise to engage the balance shoe lock. The open end of the “U” will be facing upward. Follow the above steps for both balance shoes if necessary. Re-install your sash.
How to remove a balance shoe

With the sash removed and the balance string disengaged, unlock the shoe and move it to the bottom of the frame. Heat the inside leg of frame, just enough to soften the vinyl. Use caution you do not want to overheat the vinyl.

Quickly remove shoe.
Using a putty knife, move heated vinyl and install new shoe. Reheat slightly and mold leg back into shape. Remember to reconnect balance before installing sash.
GLASS REPLACEMENT

CAUTION: ALWAYS WEAR GLOVES AND SAFETY GLASSES WHEN HANDLING GLASS.

Using a 2" putty knife break the seal between the silicone the glass and the vinyl. To do this slide the putty knife in as far as it will go. Carefully slide the knife around the perimeter of the sash. Use extreme caution so as not to break the glass.

Using the same putty knife, remove the glazing bead from the sash by slipping the knife under the bead and gently prying it out of the glazing channel which it snaps not. Use caution not to damage the glazing bead.
Remove the glazing bead from all four sides.

Remove the glass from frame. **CAUTION! THE EDGES OF THE GLASS ARE EXTREMELY SHARP.**

Clean off any excess silicone that may still be on the sash in the glazing pocket. Using clear silicone, place a 1/8” to ¼” bead on each of the four sides of the sash over the existing silicone.
Set the new glass into the sash making sure the entire perimeter is firmly against the silicone. Install two setting blocks on each of the four sides of the glass.

Take one of the strips of glazing bead that has been cut to fit the width of the window. Firmly snap the glazing bead into the glazing track near the edge of the glass about an inch from the corner of the glazing pocket. Once you get a couple of inches snapped in place, slide the strip over as far as it will go and continue to snap the rest of the length into place.

***It takes a little practice to get the glazing bead to snap into the channel. It must slip into the groove next to the edge of the glass, not into the glazing pocket.
How to repair damaged J-Channel

J-channel repair is available in 16 ft lengths. All repairs must be measured and cut on the jobsite. It is advised that all repairs are from corner to corner to minimize visual impact.

Measure the length of the side with the damaged J-Channel

Cut the J-Channel to a longer length and slip over damaged side. With a pencil, scribe the location of the 45 degree angle. Cut the angle with a pair of scissors or tin snips. Flip over the J-Channel repair and notch it to accept the weld flash.
Slip the piece back over the damaged J-Channel
HOW TO REMOVE A CASEMENT SASH

Open the window so the sash is about 45 degrees to the frame. Pull straight up on the sill cover. This will reveal the operator and sash bracket. To disconnect the operator from the bracket, slide the silver lock on the operator arm back toward the operator. Push down on the arm and remove it from the pin on the bracket.

Using a flat head screwdriver, disconnect the top & bottom pivot arms from the hinge track and slide the sash towards the center of frame until sash slide disengages from hinge track.
How to remove the glazing bead (casement and picture window)
Remove the glazing bead, from the inside for picture window, outside for casement sash, using a chisel and rubber mallet. Insert the chisel edge at a corner where the glazing bead meets the frame. Tap the chisel just hard enough to disengage the bead from the frame while pushing down on the handle to pry the bead away from the frame. Once disengaged at the corner the bead should be easily pried out. Be careful not to mar or damage the bead or frame with the chisel.

Glass Replacement
To replace the glass, use a 2” putty knife to cut the seal between the vinyl frame and the glass. Once the seal is cut lift out the glass. Carefully remove all silicone from glazing area on the frame or sash. Be sure area is clean and free of dirt, grease, etc.
Run a bead of silicone ¼” in diameter completely around the perimeter of the glazing area. The silicone bead must be higher than the tip of the glazing leg by about 1/16” but should not fill the pocket.
Place the new glass into the frame or sash. If you are replacing glass in a picture window place a glazing block 2” to 4” from each corner on the sill and halfway up each jamb to center the glass. If you are replacing glass in a casement sash, place a glazing block 2” in from the corner of the sill and a block 2’ from the corner up the jamb on the hinge side and do the same on the opposite top corner.
Replace the glazing bead. The casement window should be closed and locked. Inspect the outside frame to sash siteline. If the gap is unequal, shim the sash in the frame and don’t operate until silicone is dry.
How to install Patio Door Handle

2. HANDLE INSTALLATION:
   ASSEMBLE HANDLES TO ESCUTCHEON PLATES ACCORDING TO THE HAND OF THE DOOR, WITH 4 SCREWS. INSERT TURN LEVER TAIL INTO DOOR LATCH HUB SLOT. PLACE THE INTERIOR AND EXTERIOR HANDLE ASSEMBLIES ON DOOR WITH HANDSPRING TOWARDS GLASS. INSTALL THE TWO LONG SCREWS AND TUBE NUTS THROUGH PLATES AND TIGHTEN.

3. FRAME KEEPER:
   INSTALL KEEPER ON DOOR JAMB WITH TWO SCREWS. AFTER DOOR ROLLERS ARE ADJUSTED, ADJUST KEEPER FOR PROPER LATCH ENGAGEMENT.

IF REQUIRED:
   REDRILL SCREW HOLES WITH 1/4" DRILL, DRILL FROM EXTERIOR OF DOOR.

NOTE:
   LATCH MUST ALWAYS ENGAGE UPWARD.

P/N 1947 SHIM (IF INCLUDED)

#1911 KEEPER

#2153 KEEPER

INSTRUCTIONS FOR HOMEOWNER.

MR. CARPENTER: THESE INSTRUCTIONS ARE FOR HOMEOWNER.

T15
Drywall Meeting Rail and Installation`  
2900 Single Hung Window

Removal:
1. From the inside of the window, remove the sash instructions on page 1. Put the sash down in a safe place where it will not get damaged.
2. Deglaze the glass, see instructions on page. The only variation will be, on the drywall window we do not glaze with silicone we use a foam gasket for easier deglazing and you will not clean out the channel you leave the foam intact. From the inside you will see two L brackets located underneath the meeting rail which holds it in place. There are 2 screws 1 of which is screwed into the frame and the second which is screwed into the meeting rail. Unscrew the screw that is attached to the frame on either side and remove the meeting rail. The bracket will stay attached to the meeting rail by the second screw. Put the meeting rail and screw and glazing bead with sash. You will need all of these to re-install.

Installation:
1. Reglaze glass see instructions page.
2. Reinstall meeting rail and attach using existing screw hole.
Meeting Rail Removal and Installation
4200 Single Hung Window

**Removal:**

1. From the inside of the window, raise the lower sash a few inches and tilt it in as if you were going to clean the outside glass. With the sash tilted in, lift up on the part of the sash closest to the frame. You should be able to lift the sash out of the balance shoes and out of the frame. Put the sash down in a safe place where it will not get damaged.

2. From the inside of the window, you will see two screws where the meeting rail meets each jamb. Remove these two screws and put in a safe location. (You will need these screws when you reinstall the upper panel). Use caution here, the only thing holding in the entire upper panel at this point are the notches in the vinyl. While holding the meeting rail firmly in your hand, carefully, but with some force, push out on one of the points where the meeting rail meets the jamb. The entire upper panel should come out of the frame. Once you have removed this panel, put it in a safe location so it does not get damaged.

**Installation:**

1. Take the panel you removed and apply a 1/8” or larger bead of silicone around the perimeter of it on the flat leg that will sit against the frame of the window.

2. Lift the panel into position so that the “U” part at the top of the panel fits onto the head of the window frame.

3. Pull the lower part of the panel (part with the meeting rail) into the frame until the meeting rail “snaps” into the prepunched notches. **DO NOT PULL FROM THE CENTER OF THE PANEL AS THIS MAY BREAK THE GLASS. PULL FROM THE ENDS NEAR THE JAMBS.**

4. Once the panel is in place, screw the meeting rail into the jambs using the screws you removed earlier.

5. Reinstall the lower sash reversing the process you used to remove it.