

Inspect Window

Is it structurally sound? Look for loose joints, rot, broken muntins.

What is condition of glass? Look carefully for small cracks

What is condition of glazing? Does it all need to be removed?

Useful Tools

Stiff 1 1/2" putty knife (I like a multi-tool), heat gun (variable temp best), large dry wall knife (6 or 10") for heat shield, small dull chisel, scraper, needle nose pliers, utility knife (use sparingly), hammer (use very sparingly), an index finger (preferably your own).

Remove old putty

In all these steps be gentle. Glass doesn't flex and muntins are easy to break or damage. With old windows 10-15% breakage is not unusual but try to be kind to both your fingers and the window.

Pop off all the really loose stuff.

Then using the putty knife or dull chisel (bevel side down) try to pry up the remaining putty. Sometimes it will release in large sections. OK to tap with a hammer but don't force it. You will come back with the heat to get the tough stuff.

If the putty has pulled away slightly from the muntin, try sliding the utility knife into the void and levering a little bit. I would strongly recommend not trying to cut out the putty because I can almost guarantee you'll end up slicing the muntin.

For what's left use your heat source to soften the putty. If using a gun angle the dry wall knife blade on top of the glass butting its edge against the bottom of the putty. This will guard against overheating and breaking the glass. Don't be overly aggressive with the heat. Scorching or setting the sash on fire is not so great. Remove the softened putty with your putty knife. IF YOU PUT THE GUN DOWN WITHOUT TURNING IT OFF LOOK TO SEE WHAT IT'S POINTING AT. BURNING DOWN THE BUILDING IS EVEN WORSE THAN SETTING THE SASH ON FIRE.

Using your pliers remove the glaziers points. There will be one or two on each side. You can also lever them out by wiggling them side to side with your putty knife. If they are triangular or diamond shaped hang onto them because you may need to use them when you reinstall the glass.

If you're lucky, the glass can be lifted right out but it may be stuck. Make sure there is no putty still holding it and you have removed all the points. If that's not the problem, tap it gently from the back to see if it releases (be careful it doesn't come flying out onto the floor). If it still doesn't release, take your utility knife and run it between the glass and the muntin. If it still doesn't release, exert some more force being careful not to slice open your fingers when the glass breaks. USE CARE BECAUSE IT'S UNPROFESSIONAL TO GET BLOOD ON YOUR WORK.

Clean up the muntins with a scraper.

Make Any Necessary Repairs To The Window and Prep for Painting

Tighten loose joints

Fix rot and wear with epoxy consolidant and epoxy putty.

This is a good time to do any painting prep work (scraping, sanding etc.)

At a minimum prime the muntins with a fast drying oil based primer but it's also a good time to prime the entire exterior sash side of the window if needed.

Install The New Glass

Take a golf ball size gob of putty and knead it in your hand until it is quite soft and pliable. It will take longer if the putty is old or cold. If it doesn't soften in 5 minutes Add a dash of linseed oil or throw it out and go to Spenards.

Using your finger or putty knife, coat the bottom of the glass rabbet with a thin (1/16" or so) layer of putty. I find dabbing and spreading with my finger works, but experiment and do what works best for you. You want to end up with a thin bed of putty that cushions the glass and gives a weather tight seal.

Take the glass and press it gently but firmly down on the putty. Some may ooze out but that can be cleaned up later. Check for voids because you are looking for a good seal. If you're not happy with the seal lift out the glass scrape off the putty and try it again. Remember, the glass is not really held in place yet so don't lift the sash on end to admire your work.

Once you're happy with the seal use your putty knife to push in the glaziers points. For most windows one point at the top and bottom and one or two on the sides is sufficient. For larger windows every 12" is the rule of thumb.

Knead a billiard ball size gob of putty until soft and pliable. Roll it between your palms into a long cylinder the approximate length of the muntin that you're glazing. Feed it onto the glass pressing it into the muntin.

Glazing The Window

Holding your putty knife with the edge pointed down at the glass and angled into the top of the muntin, press the putty into the muntin. If you are using an inch and a half knife you will have to do this six or seven times as you work across the glass. You do this to get a tight bond between the glass and wood.

Now finally after all of the above, you're ready to glaze. Starting at one end of the muntin with you knife at an angle to bevel the putty, draw the knife across the glazing to the opposite end. Once you start don't stop because if it's not just right you can go back and do it again. How's it look. Lousy? Do it again and see how things smooth out. Stand the window up on end and look at it from the inside. Oops, from the inside I see this white band of putty all around the perimeter. Not good. Draw the knife

across the putty again at a steeper angle to cut it back. Look at it again. Still looks like its slip is showing? Do it again, if not, great, move on to the next muntin. Repeat the whole process.

Corners. You've done the two sides so now you've got a corner that needs to be cut at a 45 degree angle to get a nice crisp miter. You can get this by eyeballing it, and with a couple of quick flicks of your knife get the miter or like me, you'll spend two hours playing with it but eventually it's there.

Keep doing this process on the remaining two sides and you're done. Well almost. Look at it. Happy? Yes? Great! No? Maybe you need to cut it back a little more with your knife or use your finger, the ultimate tool, to smooth it out a bit. Take a final look at the backside to make sure you know what isn't showing and go have a beer.

A few days later come back and if there is a skin on the putty give it a coat of primer. You want to overlap the primer a 1/16" onto the glass to get a good seal. Let it dry and paint the whole thing pink, Send a picture off to Old House Journal and you're done.

Congratulations!!!