

## INSTALLING THE GLASS IN YOUR ISETTA SLIDING WINDOW COUPE

By Bruce Fullerton

Additional commentary by Bill Waite

In the Winter 2002 installment of *Two Guys From Texas (Minutia Volume 11 – Number 4)*, Robert Mace and I briefly discussed popping the glass back our cars. We were mid-stream in the project, parts a'flying, trying to get our cars ready for the 2002 Microcar & Minicar Nationals in Duncanville, Texas and weren't able to give the topic the space it deserves due to time constraints. In the interim, questions concerning getting the job done right seem to have sprouted up on a fairly consistent basis. This article is in response to you folks out there who either need to get this done or just want to tweak your existing setup. The job goes faster than the following text might suggest. It's a very gratifying project.

For starters, we'll assume that all windows have been removed from the car as well as the rubber seals and side-window felt. Start by giving all of your glass a thorough cleaning. You may want to soak them in warm, soapy water for a while to loosen up those years of crud that has settled on them. Pay particular attention to the front edge of the fixed side windows. Many windows have a layer of residue there from the edge trim that's accumulated water and dirt over the years. You may need something on the order of ammonia or vinegar to cut through the haze. Be sure to use a good glass cleaner, wrap them in bubble wrap (no pun intended) or protective covering and set them aside in a safe place.

If you're doing a complete restoration, you should have the following items in your possession and ready to install. The numbered items are all available from your Isetta parts suppliers; some can be sourced through professional auto glass distributors as well:

- Complete, clean set of glass
- Side window aluminum trim strips
- Interior window sill trim (K-89)
- Windshield rubber seal (K-76b)
- Windshield lock strip, chrome (K-76c)
- Rear window rubber seal (K-96b)
- Rear window lock strip, chrome (K-96c)
- Fixed window rubber seals (K-91)
- Fixed window locking strip (K-92)
- Fixed window front trim (K-93)
- Fixed window gasket (K-94)
- Fixed window stop strip (K-90)
- Upper and lower felt channel (K-88)
- Sliding window latch assemblies
- Good quality weather strip adhesive
- Pop rivet gun
- Case cutter or knife with new blades

Install your side windows first. Why? Unless you're an auto glass specialist and have the tools and experience required to do this, you're going to have a professional auto glass installer put your windshield and rear window in for you. If your side windows are already in, he can put that side fixed window locking strip in for you during the same visit. By having this all done in one fell swoop, you just saved paying for a second service call.

Start by putting a strip of masking tape over your aluminum trim strips and riveting them only the *back three* holes! You'll need to pull the front of this strip slightly out and down to get your sliding window in when the time comes. Next, slip your plastic inside lower window sill trim on. Once that rear window is in place, the back half of this trim is difficult to slip on because of the tight fit of the window seal.

Now you can trim your rear side window rubber seals. Make careful note that the V-grooved part of the seal is to the outside. That groove is where your locking strip fits. The rectangular groove is to the inside. This is where your window glass fits. Start with the lower seals by cutting a slight angle at the back end to conform to the rear roofline seam. Next, you'll need to cut a 45-degree angle for a neat, tight fit with the top seal which will get the same treatment.



*Here's a cross section of that fixed window seal. Make sure the V-groove is to the outside when you make your cuts and install on your car. Don't fret, this pup will straighten out once your glass and locking strip are in.*

Lay those rubber seals in their respective upper and lower channels and measure the bottom seal length. It should be approximately 15 1/2" long. The upper rear window rubber seal should be around 21" long. The front of the rear rubber seals also doubles as the stop point for the sliding window when pushed all the way to the rear. The front edge of these seals should be in a

vertical line with each other once in place. The acid test is to pop your sliding window in and move it back as far as it will go. The rear of your sliding window should simultaneously touch the front edge of those seals at both the top and bottom if you did your homework right.



*This shot shows how the rear window seal and locking strip acts as a stop for the slider. Once everything's in place, that rear window ain't going anywhere. Neither is anything else for that matter.*

At this point, take a pencil and mark the side of the seals through the aluminum trim base where you'll need to make drain cutouts. Pull the seals out, take an Exacto knife with a new blade and remove enough rubber so there's an elongated slot just slightly longer than the drain hole openings in the aluminum trim. That will make for a nice, neat look.

It's not mandatory but you might want to use a dab of that glue at the back joint to make a good tight, leak-free joint. The fit of the fixed window is very snug and the seals don't require any glue with the exception of that rear joint, should you choose to use it.

Now you can put your rear fixed windows in. Be sure and use plenty of dishwashing liquid in the rectangular groove of the seals and around the top and bottom edges of the window glass. *Put on a pair of leather gloves*, lift the window into its channel and carefully slide your glass in from the front. It is recommended that you have an associate pull that aluminum trim strip slightly out and down to get the glass in the channel first. Those rear windows should go in pretty easily. They'll start to tighten up a bit as they reach the back of the seal. Give the window a few extra pushes until it seats all the way back into your new seal. There should be no gap at the bottom rear for wind or water to leak into. If there is, pull the window forward and slide it back and forth a bit until it seats snugly. That dishwashing liquid is your secret weapon here!

You can now put your plastic edge trim on the leading edge of your fixed windows. Although the factory just put trim on the rear window, we put black (to match the rubber parts on the car) flexible trim on both the sliding and rear windows and excluded the vertical rubber seals that attach to the fixed window. If you're going with the factory vertical seals that prevent air from coming in/out between the front and rear side windows, now is the time to put them on. This is a tricky little guy, being so flexible and narrow.

It has been suggested that the easiest way to get this piece installed is to glue it on the outside edge of the rear side window, let it set up and dry and then place the U-shaped trim over it to hold it in place. You might also consider heating up your trim with a blow dryer so it's more pliable and easier to spread apart. The bottom line here is to create a top-to-bottom seal between the rear window and sliding window; a wiper blade, if you will.

Next, locate your sliding window channel felt strips. You'll see that it has two identical rectangular grooves. Unlike the rear seals, it doesn't matter which side is out. Cut your top piece first. Make an angled cut on the front end to conform to the angle where it meets the window sill. Feed the felt up into the top window channel and make your second cut at the point where it butts up against the top fixed window seal. Make sure it's a snug fit with no sags before you pull the trigger on your knife.

Now you can cut the bottom felt. At the front end, cut a slight angle so it fits against the top felt nice and neat. Your final cut will be at the point it butts up against the lower fixed window seal. Repeat for the other side and you're done.

Once you have your two top and two bottom felt channel pieces cut to length, you can conduct a 'dry fit' on your windows to make sure everything fits properly prior to gluing your new felt down.

For this simple procedure, remove all felt channel from your car. Enlisting your associate's help once again, slightly pull that aluminum trim piece slightly out and down again, put your sliding window in and shove it to the rear stop position. You'll want to angle your window to the inside at the top into the upper window channel and then slip the bottom of the glass over that trim strip. The masking tape you put on the trim will prevent scratching during this procedure! Once in place, raise the glass up slightly in the front and run your bottom felt strip under it. With the window resting in your new, lower channel, you can run the top channel in over the window. You should then be able to slide your window as it was intended.

Right here, you'll want to repeat the same process for cutting the drain holes that you used for your rear rubber seals. A new blade here will really help since you're cutting through not only rubber, but the felt covering.

Go ahead and install your sliding window locks and we'll discuss some fine-tuning. You just finished slidin' the slider back and forth to check the fit on your new felt channel. Next, you'll want to move the window up and down. It's a pretty good bet that there's some play in it. The number one thing your looking for is to have that window lock when it's all the way forward. If there's a lot of top-to-bottom play, someone could conceivably push your window up and slide it open from the outside. You don't want it bouncing around while you driving down a bumpy road either.

Along with the felt channel we received from Hans Rothkegel, two strips of neoprene rubber were also included, one smaller in width than the other. These strips act as shims to take the play out of the windows. Just place the wider of the strips under your bottom felt channel to raise the window a bit or above the top felt channel to snug up the window's fit in the lower track.

The next tweak is to make sure that the small handle of the window lock isn't scraping your paint job along the inside of the window sill. If it is, or is super-close, you can take that narrower piece of neoprene and place it between the outside of the bottom felt channel and your aluminum trim piece, pushing the window to the inside slightly. If the window is already pretty tight, you can put a second black gasket (K-82) between the window latch and the glass to move that latch about 1/32 of an inch further to the inside, away from the window sill.



*Here's the sliding window latch in the closed position. You can see the stop slightly descended just above the front side of the latch plate. As Firemarshal Bill suggested, you can double up on that black gasket to push the latch towards the*

*inside of the car and give your latch handle a little extra clearance from the inside window sill.*

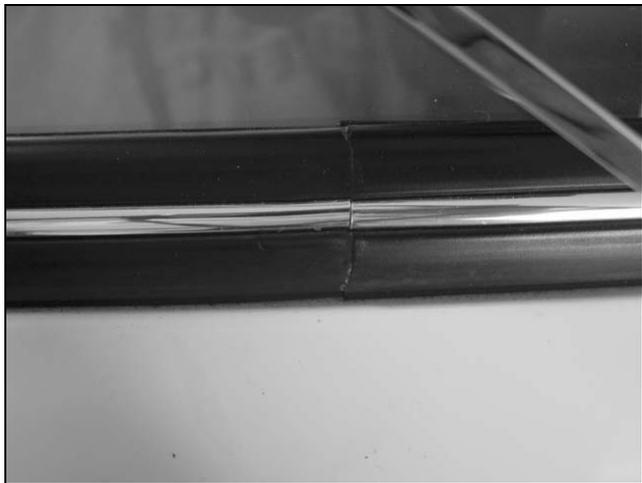
One final goober you may have to deal with is the top felt channel where it curves downward at the top of the sliding windows. It may have a tendency to pooch up a bit where it curves. Using a new blade, make note of those pooched areas with some white chalk, remove the channel from the car and make a series of very small V-cuts where the affected areas are, probably no more than three per side. That should make for a much smoother contour. This is one more small task that a new blade in your knife will make a lot easier and neater.

Now that you've gotten everything fine-tuned, you can push the sliding window to the rear, pull the bottom felt strip out, install the rest of the rivets in the aluminum trim strip and glue your felt channel/neoprene shims in place. Once that glue is on and the channel is in installed, push your sliding window forward until it locks in order to hold everything in place. One final detail you might want to do is place a pop rivet, just like the factory did, through the upper felt channel where it makes its downward curve at the front. You'll see the hole the factory drilled in the upper sill. Should your glue ever give way on you, this rivet will hold things in place. As a finishing touch, you can now pop that black rubber rear window stop in the inside channel of the bottom felt channel. That stop is more cosmetic than functional and just basically sits there for the rest of its life. That's all there is to it!

Pick up the phone and contact a competent mobile glass installation company. Make sure that you *specifically* make it known that the job entails installing vintage auto glass in a car that uses the old-style rubber seal and locking strip type setup. You don't want some punk in a black Megadeath T-shirt showing up to "work" on your car. Anyone that has expertise with earlier VW's can do this one in their sleep. Rates in Texas run about \$50 per window, which includes cleaning, cutting and installing the rubber seal, gluing it together, installing the window and locking strip and clean up.

If you get charged extra for the fixed window locking strip, it shouldn't be much. It will certainly be less that having to get them back out to your place to do it later. That's why we did the side windows first, remember? By the way, make sure your glass installer uses a good rubber cleaner on your seals *before* they are installed. It's much easier than doing it in once they're on the car and a lot less messy. There's an incredible amount of ugly stuff that's on a new seal as a result of the molding process.

Firemarshal Bill Waite sends a reminder to make sure that when they install the rubber seal around the rear window and windshield that the seam where the two ends meet is on the bottom and directly in the center of the car. The ends of the locking strip should also be centered and on the bottom. These seals provide a very tight fit and require no glue or sealant to do their job.



*Make sure your front and rear window seal seams and locking strips are on the bottom and center of the windows.*

By the way, hang around and watch your guy put that rear side window locking strip in. It's a bear! You'll be glad you didn't attempt it yourself.

One other detail you might find useful is to apply silicone spray to your felt channel, particularly the one on the bottom. It doesn't take much and can make the travel of the window smooth as silk. Just having the new channel makes all the difference in the world though and the silicone is merely a suggestion.



*You haven't had fun until you see the effort that goes into getting that locking strip installed in the rear window seals.*

If you know of another Isetta owner that is nearing this same point of the restoration process, consider teaming up and ordering the front and rear rubber seals and locking strip from a glass distributor and saving some bux. One place that has what you need is Sommer & Maca. Their Web site is [www.somaca.com](http://www.somaca.com). You can ring 'em up at 800-323-9200. The rubber seals for your windshield and rear window are their part number 101-2206. This is the same stuff that VW used and, ironically, is very common on heavy machinery and buses(!). The chrome locking strip is part number 101-2254. They both come in 50-foot rolls, plenty to do almost three Isettas. Dollarwise, it should come in better than half-price considering the going rate through suppliers assuming that you're splitting the cost up. If you just need enough for one car, this is overkill.

Finally, we used chrome locking strip on our car. BMW-Munich installed the silver/gray variety. If you're doing a factory job, please make sure you order part number K-92d instead.

Hope this wasn't a.) too wordy and, b.) makes sense. Good luck on your installation. You'll be surprised how easy it is if you just take your time, take things in the proper sequence and use a little patience. Please feel free to email me if you have any questions or need any of this article translated into modern-day English ... BF

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*Pix by Bruce Fullerton*