

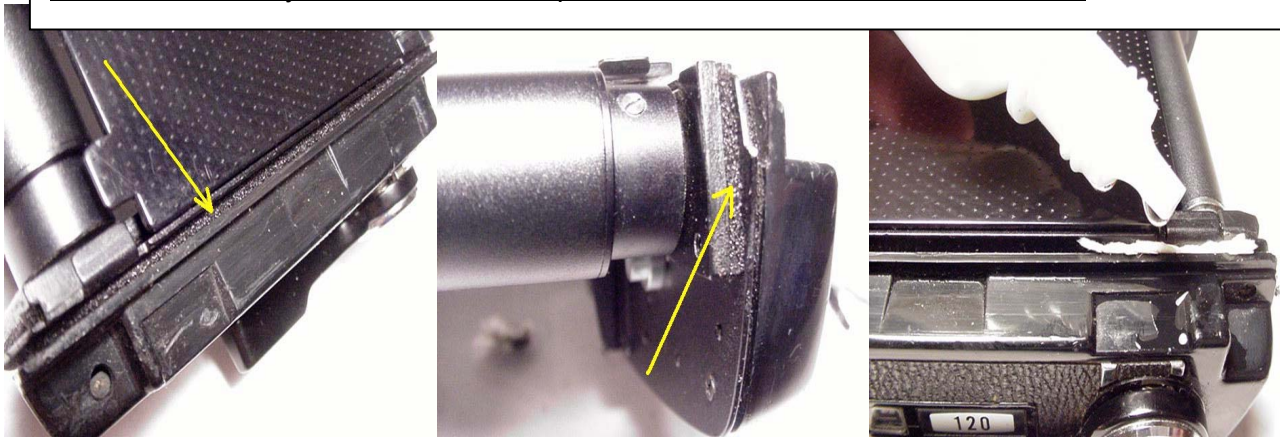
## ProSeal Instructions for RB67 film back and camera body

Please read these instructions completely before you start. Knowledge strengthens confidence, and like most jobs, this is better done right the first time. I think you'll find it rewarding and fun, and I've tried to keep things as easy and logical as possible in the hopes that anybody with reasonable dexterity and ability will be able to re-seal their film back and camera body very well. I'm assuming you are familiar with basics of re-sealing, and that you have read my online basic instructions. If not, please contact me for a web link to them.

Here are some things you may need: (1) a safe surface to work on—I like to use a piece of cardboard about 1.5' by 1.5', but you can work on fiberboard, newspaper or anything else handy—the important thing is to protect the surface beneath you. (2) Solvent--Naphtha (cigarette lighter fluid is the same thing) or denatured alcohol are what I would use. Because the RB67 is constructed with plastic components, please avoid acetone, mek, toluol, fingernail polish remover or any other solvent which might damage or destroy plastic or paint. (3) 2 or 3 paper towels. (4) some toothpicks or your bamboo tool—if you have access to a wooden cuticle stick, this is a handy tool. (5) a safety razor blade, hobby knife, or small scissors and a metal straightedge (to cut foam / fabric pieces). (6) a small screwdriver (7) a pair of tweezers, possibly. Now, let's take a look inside your camera:



The first three seals we'll observe are the fabric pads (one is at each inner corner of the cradle), the hinge end seal and door edge seals (upper middle), and the latch end seal (upper right). Below, we turn our attention to the film carrier. Please note there is a slot with foam in it running along the side with the film pressure plate (left frame below) and also there is a short piece in slots on the side facing the hinge end (as shown in the middle frame below). **NOTE:** Your film back may not have the fabric pads. Some backs didn't, and some did.



Use your small screwdriver as a dropper (or an old dropper bottle) to carefully drop denatured alcohol or naphtha on some paper napkin stuffed into the slot on the film carrier—as in the frame to the right above. I normally use enough to saturate it, but not to the point of dripping. You can also drip solvent into the rest of the slot. Let it sit a minute or so and then begin scraping it off. You may use a

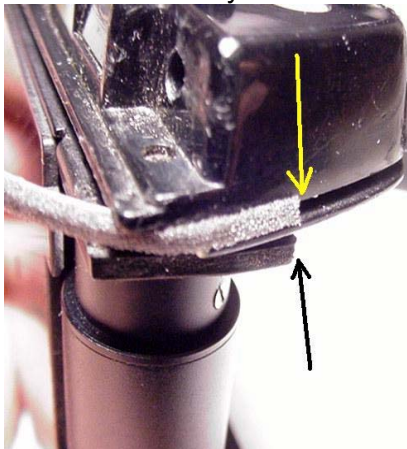
toothpick with the end broken off, the wide end of your bamboo tool, a wooden cuticle stick, or anything that will not damage the paint. When finished, wipe with a paper towel and solvent. Your work will go better if you are patient and give the solvent time to dissolve and loosen the old adhesive. IMPORTANT NOTE: Observe the precautions on the solvent can. Work in a well-ventilated area and avoid too much skin contact or contact with eyes, and don't drink it. You will probably see black seal residue on the film door edges—you may wipe that off at any time with solvent on a bit of paper towel.



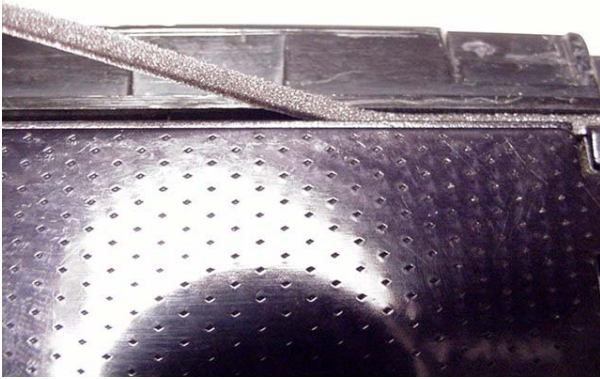
Left: With my bamboo tool or a blunt toothpick, I'll push a bit of paper napkin or towel soaked with solvent through the slots. You can see the old foam coming out of the slot to your left. You may need to do this several times to get the slot really clean. Don't worry if this takes a while. Please be patient and work to get the slot nice and clean. Repeat for all parts of the top and bottom slots (the ones on the pressure plate side) and do the same for the small seals on the side which faces the hinge side.



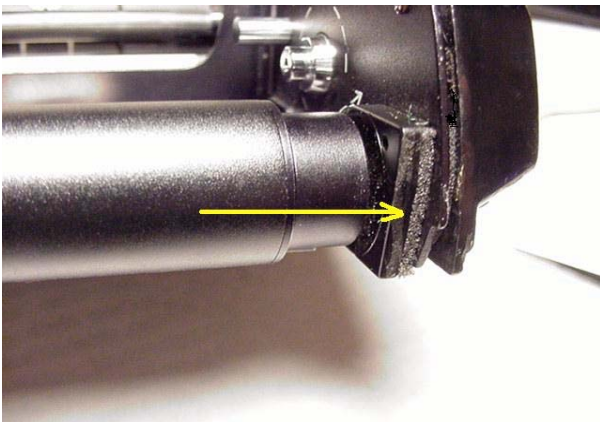
There are two methods to re-seal these slots. Both are basically the same procedure, but one method uses a non-adhesive seal I invented (the "Seal Strip"). The other method uses a strip of adhesive foam—just like the original seal design. I will show you both. First, the "Seal Strip" method. In the first frame above, I start a "Seal Strip" into the slot. That seal begins about  $\frac{3}{4}$  inch around the corner (as shown below). I push it into place with the thin end of the bamboo tool. The slick side of the foam must face outward. In the middle frame above, I continue around the curve, and in the final frame above, you can see where I have trimmed the strip so that it will end at the right spot. In this camera, you may need a bit of adhesive on the first and last inch of the "Seal Strip". Which method would I use? Maybe I would choose the self-adhesive foam in this application. Please see below...



Left: I have placed a very light colored piece of foam to show you where the foam should begin in the slot. Cut a piece of 1.5mm thick self-adhesive open-celled foam 1.5mm wide. This strip should be about 150mm long (to allow for trimming). Many people are hesitant to try to install a self-adhesive strip into a channel like this. Please let me give you a professional tip...after you have removed the backing paper from the strip, carefully put the strip in your mouth and make it wet. Or, you could use water, but I normally put it in my mouth. You will find installing a wet piece is easier. Use the same sequence of installation as above, being very careful to keep the adhesive side facing downward. Once installed and trimmed, set this aside for about an hour to dry. Then press the foam down gently with your bamboo tool.

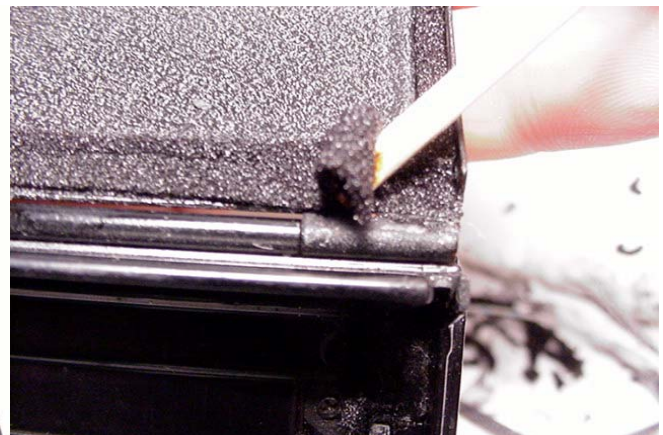


Either the “Seal Strip” method or the self-adhesive foam strip method uses the same installation procedure. To the left, I am guiding the wet adhesive foam strip into the slot. I will use the bamboo tool to help guide it in (the same as I did above), and I want it to be as wet as possible. Once it is dry, the adhesive will stick perfectly.



Install the small pieces on the hinge end side of the film carrier. For these, we’ll use a 2mm thick piece of open-celled self-adhesive foam cut 1.5mm wide and 17.5mm long. We want it to protrude just a bit over the edge of the metal slot it sits in (as shown). Get this seal piece wet before you install it. The adhesive will not stick to the sides when it is wet, but it will stick fine when it is dry.

**NOTE:** Some people have asked me why I suggest licking the adhesive rather than using alcohol to moisten it. The honest and correct answer to that question is to look at things from the foam and adhesive point of view...Your saliva will not weaken the adhesive at all, and your saliva will evaporate more slowly, allowing you more assembly time. Your camera and I want you to work like a pro.



In the upper left frame above, you can see I’m dropping some solvent on the film door hinge seal. I’ll let this sit and soak a while and then I’ll use the wide end of my bamboo tool to remove the old tired foam. I’ll repeat this procedure for the foam on the film door sides and the latch end trough, and I’ll take as much time as I need to clean the old foam off really well. If you want to stop here and enjoy a nice glass of iced tea or water, that would be a good idea.

Okay...break time is over. Let’s take a look at the fabric seals in the carriage (**if present**). Drop some solvent on each of these and let this sit and soak in a while. You can see below how I do this...



To the left, soak the fabric pads. In the middle, I've used my bamboo tool to clean the area well. When all four corners are clean, I'll cut and install four replacement pads, as you see in the right frame. They are 1.6mm thick fabric seal, and they measure 7mm x 9mm. Remember to lick them before you install them to make it easier to slide them right up into the corner.

### ~~The Film Door Seals~~

After the film door has been cleaned of old seal material, it is time to replace the seals on it. Start with the hinge end seal (as shown below):



The hinge end seal is a 1.5mm thick self-adhesive open-celled foam, and it measures 5mm wide x 73mm long. Lick the seal piece before installing it to allow yourself the ability to position it exactly as you want it...as I've done. Remember, after this piece has rested for 20 or 30 minutes, your saliva will be dry, and the piece can be pressed down for the final fit. Nice careful work and the proper material will always produce lasting professional results to be admired by others.



The side pieces of the film door are exactly as you would expect. Actually, you will install them the same way you did the hinge end piece. Cut from the 1.5mm open-celled foam 2 strips which are 2mm x about 150mm (to allow for trimming). Lick them well and install carefully. I start installing them by butting up to the hinge end and trimming at the latch end seal (on the other end).

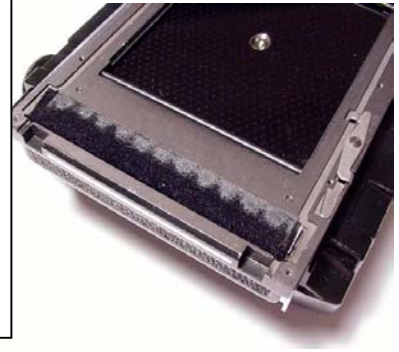


At the latch end, you can see where I stopped the side piece (just at the edge of the trough which holds the latch end seal). For that latch end seal, please cut a piece of 1.5mm open-celled foam 2mm x 70mm, lick it and install it into the trough neatly. Be sure to keep it straight and with the adhesive side facing downward.

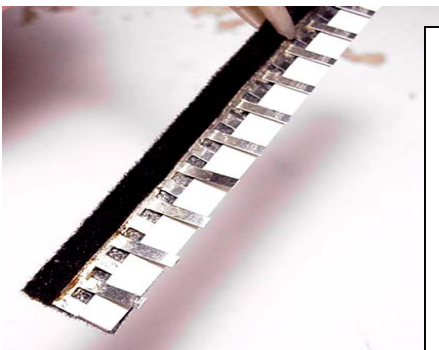
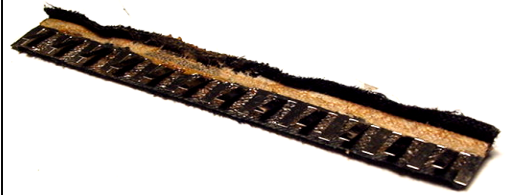
## ~~The Dark Slide Lip Seal~~



Left: remove the 11 small screws holding the plastic back on and set them in a safe place. Lift off the back and you will see the dark slide lip seal piece as shown in the image to your right. It is common for it to be worn in a cupped fashion.



Left, you see this is a V-shaped spring with opposing fingers. Right, soak with solvent and carefully remove old fabric.



From the 1mm thick self-adhesive velvet seal, cut a piece 12mm x 70mm. Remove the backing paper and lick the adhesive side well. Line this piece up with the tips of the spring fingers on one side of the V shape and fold over at the bottom (as you see I have done to the left). How to keep the adhesive from sticking to the other side? Cut a thin piece of the backing paper you removed and slip it between the two sets of spring fingers as you see (slick side facing up). Then carefully press it into the exposed self-adhesive film.



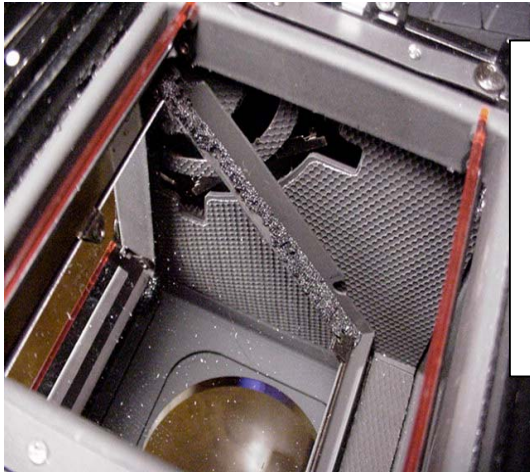
When you have completed the velvet seal work, let this piece dry for about 30 minutes and press the backing paper once again into the exposed self-adhesive on what will be the upper side of the assembly. Then check to be sure all the spring "fingers" are aligned properly (you can bend them gently to adjust them if needed), and then set the finished seal assembly back into place as shown to the left. Then replace the plastic back and reinstall all 11 screws.

Let all this rest until it is completely dry. You might leave it overnight, if you wish. Then return to press the pieces into place, using your bamboo tool. Once this is done, you may re-assemble the film back, as it is ready to enjoy again.

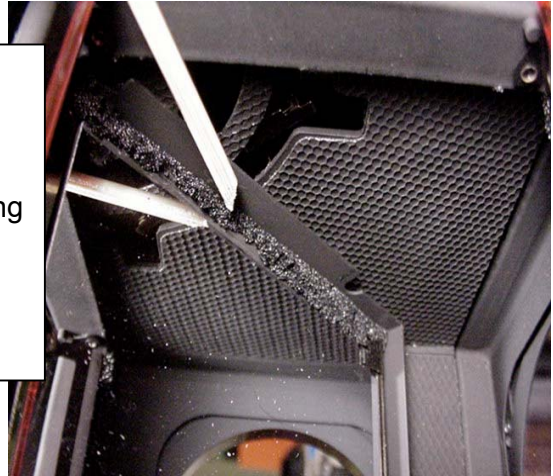
## ~~The Camera Body~~

The mirror damper is a good starting point. You will notice the damper pads are located on the sides of the mirror frame. These are irregularly shaped and in thickness were originally between 2mm and 2.5mm. The original foam was made with a very loose composition, and as such required greater

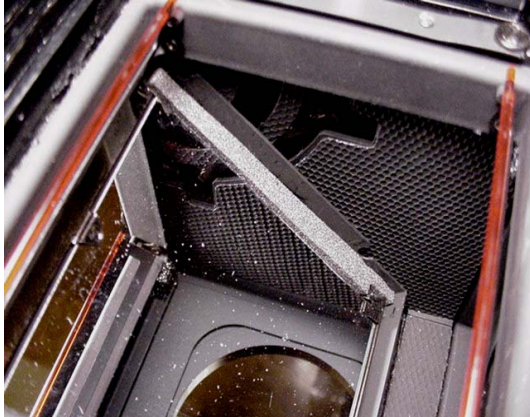
thickness to damp the mirror's action. We won't need that thickness now, however, and we will use 1.5mm or 2mm at the greatest. Let's take a look:



Left: you can see the original foam in a deteriorated condition.  
Right: I am removing the old foam with a bamboo tool.  
Please don't use any solvent here.



The new pieces will be cut 75mm long and tapered from 6mm to 3.5mm. As I said, I use 1.5mm or at the most 2 mm thick foam. There is a cutout at the bottom of the mirror to allow the pad to miss the mirror securing clip. Use small scissors to trim this. New foam will look like:



You'll see the small cutout at the bottom of the damper pad in the image to the left. **Note:** There are two bumper pads which sit at the top of the mirror on the inside of the camera body. These should be left alone. They are very difficult to remove and replace without disassembling the camera. Yes, this camera does have a dusty mirror. Thanks for noticing that. I'll use a fine soft brush to clean it later. One other thing: you will notice your mirror does not sit straight when it is in the up position. This is because it has linkage only on 1 side. Not a good design for a mirror this wide, but nothing to worry about.



Between the mirror frame and the flap below it, you will find another strip of foam. This piece is 3mm thick and about 3mm wide. It is about 68mm in length. I started with a piece about 70mm in length and trimmed it down until it fit as it should (don't remove the adhesive backing paper as you are trimming). You can work best if you will cock the shutter halfway and work through the lens opening, as I've done to the left. Again, please don't use solvent to remove the old foam...just use your bamboo tool and possibly some tweezers. Remember to lick the adhesive side before you install this piece to allow time to position it.

The rotating back uses two seals on each side of it...the camera side and the film back side. Let's look:



The yellow arrow points to the perimeter seal. Originally this was die-cut from a piece of foam, but we're not going to worry about that. There is an easy way to re-seal this piece, and here is how: Cut a piece of 1.5mm thick foam square...that is to say cut the 1.5mm foam 1.5mm wide. Then simply guide it carefully through the slot and around the corners. If you will take your time, you can make it follow the path just as it should. Please watch me...



To the left, I am using my bamboo tool to remove the old foam. I'll wet this with a solvent like denatured alcohol first to loosen the old adhesive. To the right, I am installing the new foam strip. You can see how I have carefully bent it through the curve of the slot. I will use 2 strips, and I will butt the ends together.



The other side of the rotating back:



The other side is designed just like the first side, but the dimensions of the seal foam are different. For this side, please use 2mm thick foam, and cut it square...that is, cut it 2mm x 2mm. You'll need 2 pieces about 8 inches long, just like the first side, and you'll butt the ends together. If you remember geometry or any of those other courses from your long ago, you'll remember it is easier to bend a square shape than a rectangular one, and here is a secret about foam: Never cut a piece less wide than its height (thickness). Instability will follow if you do. You can see how I've guided the new foam through the slot and the curve. Work carefully.



Finally, under the focus screen cover you will see four small fabric pads. Two are shown to the left. These don't seal light leaks, but when they become worn and old, they'll allow the cover to fit in a sloppy and loose fashion. You can replace them using either the 1.6mm thick felt seal in your kit or you can laminate 3 layers of the thin velvet seal material in your kit. I prefer the 3 layers of the thin material. Cut the pieces 6mm tall x 5.5mm and 10mm (you will note they are different widths).

~~NOTES~~

These instructions were given to you as an accompaniment to a general seal kit, or for any of several reasons. You should be able to easily cut your own seal pieces from my seal material, and you should **never** use inferior materials as a substitute. Using the best costs no more, and it will be much better for your camera.

Jon Goodman --- 2006, 2008