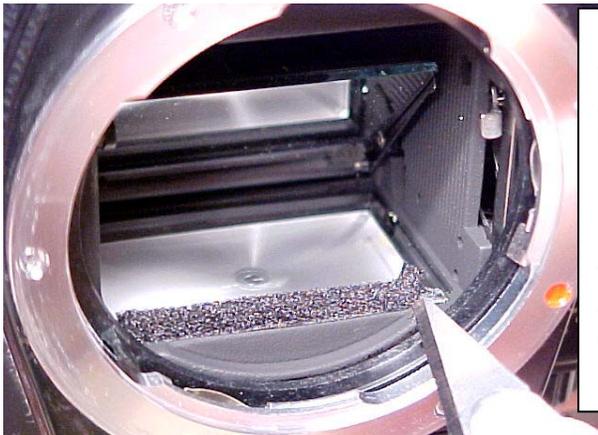


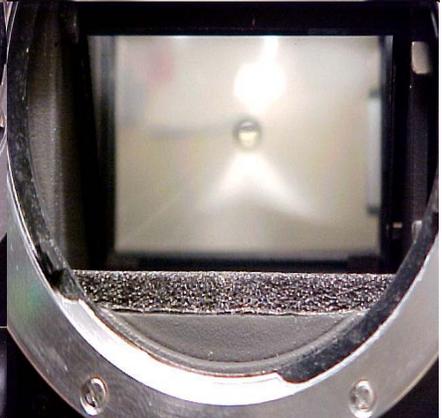
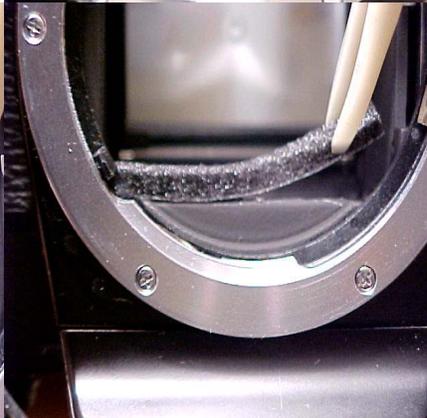
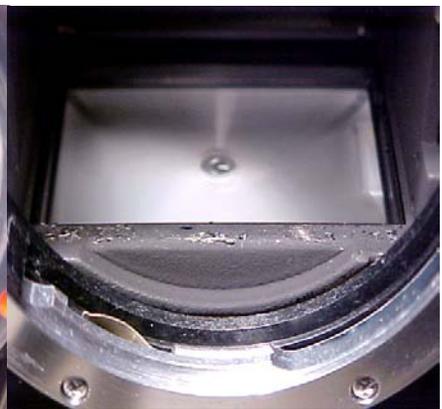
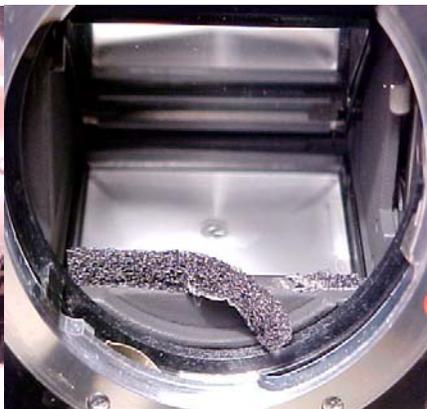
~~MIRROR DAMPER REPLACEMENT~~

Please read these instructions completely before you start. Knowledge strengthens confidence, and like most jobs, your work will be better if you study and think about it a bit. This paper was written to help take the mystery out of replacing mirror damper pads and increase the reader's comfort level.

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) Naphtha (cigarette lighter fluid is the same thing) or denatured alcohol for a solvent. (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. (6) a small screwdriver (7) a pair of tweezers. Now, let's look at some damper pads, and see how to deal with their replacement:



To the left you'll see a typical mirror damper pad...the same style used in thousands of SLR cameras. Using an X-Acto style hobby knife, I slice the old pad off, keeping the camera tilted toward me so that any foam I remove falls out the lens opening and not back on the focus screen. I have seen people put paper and tissue on the focus screen to protect it, but I suggest you **do not** do this. It is usually an amateur's mistake, and it will almost always cause you trouble. It is too easy to trap bits of foam underneath and smudge them on your screen.



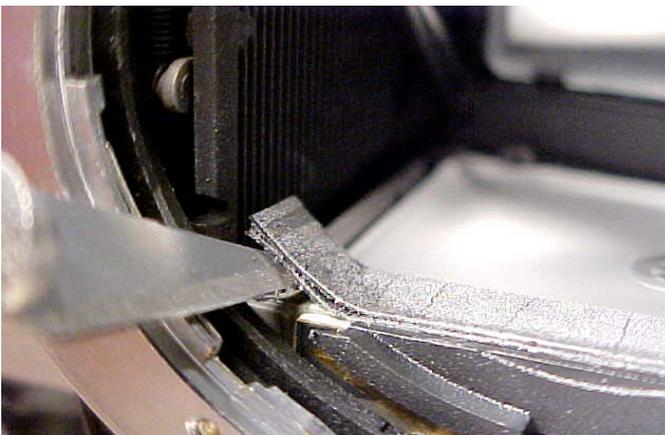
In the 6 frames above, you can see just how I will deal with this damper pad. In the first frame, I continue to remove it with the knife. In the next frame, you can see I let it fall toward the lens opening to keep the focus screen safe. In the final frame on the top row, you can see that I have removed the old pad completely and I have gone back to clean off remaining bits of adhesive and foam to get this area as clean as possible. Tweezers are also helpful here, but **please do not use any solvent around your damper pad.** It is too easy to make a mess, and too difficult to correct that mess.

In the bottom row of frames, you can see I have measured and cut a new damper pad, and I am using my tweezers to set it in place. An easy way to be sure your new pad is the right size is to first cut a piece of stiff paper to fit (like a business card). When your piece of paper fits the damper pad area, you will have the measurements for your new pad. After you remove the backing paper from the foam, **lick** the adhesive side to delay adhesion and give you time to adjust the damper pad. In the center frame, I set it down a little more, and in the final frame, the installation is complete, and I will make any adjustments that are needed before the piece dries. Hint: You can view the damper by looking in your camera's mirror. Once your saliva has dried (20 minutes or so), you can press the piece down well. There are two ways to do this safely: One, you can lift the mirror up and use it to press on the foam. Two, if your mirror resists coming up, set your camera to the "B" shutter speed, fire the shutter and hold it down. This will bring the mirror up to the foam for you, and you can use your fingertip to press on the bottom of the mirror. Here's how that looks:



In this Pentax ME, you can see a little cutout for the focus screen adjustment screw. I've done this to make sure the damper pad sits straight across the top...otherwise, it would be like a rock under your mattress. To make such a cut, simply use a small pair of scissors and nick a "V" into the center of the pad.

~~But some damper pads are different...~~

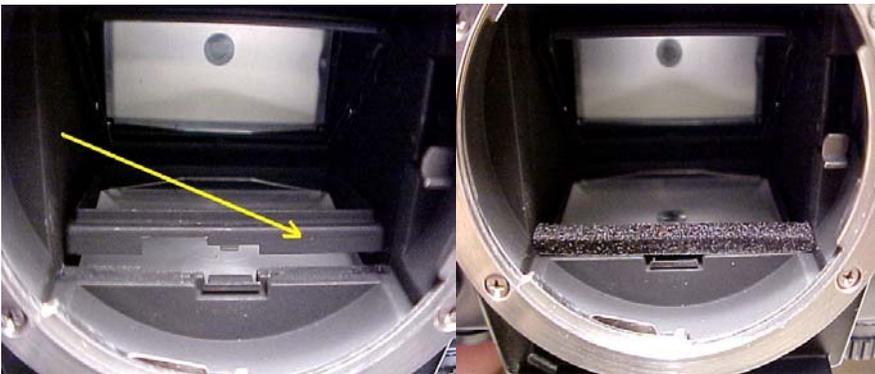


Above, you see the damper pad in an Olympus OM-10. Please note it is different. The original pad was a 1.5mm "sandwich" pad, but it isn't available any longer. The best thing we can do is to carefully remove it and replace with a 1.5mm self-adhesive open celled pad, as I've done in the frame to the right.

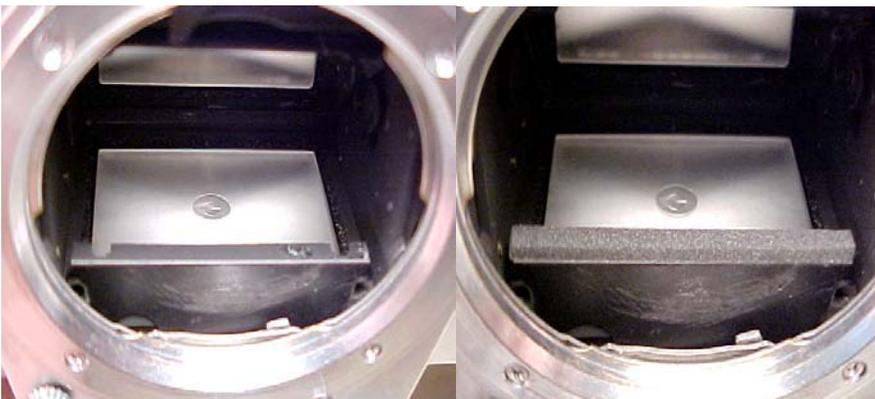


Left: the damper pad in an Olympus OM-1. It is an "L" shaped pad of 1.5mm foam. I carefully remove with the knife blade.

Center: you can see I have cut two replacement "L" pieces, and I've set them into place where I will adjust them before I press them down.



Nikon FM2. To the left, you will see the frame which holds the focus screen and the clip (middle) which releases that frame. In the center, you will see how I have replaced the damper pad so that the clip and frame will still work as designed.



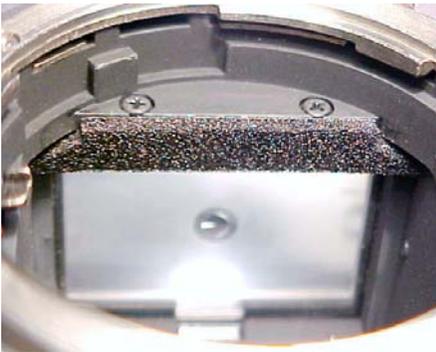
Minolta SRT. In this model, a floating damper absorber was used...a great design, by the way. All you must do is replace the 1.5mm thick pad on top of it. Left, I have removed the old pad carefully and center I have replaced it with a nice new one. Don't let the pad extend past the end of the moving piece.



Yashica FR II. Left, I remove the old pad. Notice the ledge behind it. Center, I replace with a new 1.5mm open-celled pad. Right, the job is finished, and the camera is like new again.



Above the Nikon EM (and all similar like FG, etc). Left, you will see the finished and replaced damper pad. The old one was almost completely gone. There is a single small screw which holds the focus screen retaining frame in place, and this may be removed to make your work easier. You will also notice there are two pieces of damper foam running down the sides of the frame. You may replace them easily with the frame removed. Also, while the frame is out, the focus screen may be cleaned in warm soapy water if needed. Please remember to replace with the matte side of the screen facing the pentaprism and not the mirror. When you replace this frame, set it back in place and fire the camera with the shutter set on the "B" setting. With the shutter held open on the "B" setting, replace the screw and test to be sure the mirror is seating correctly after your work is done.



Sometimes the basic principle will be no different, but you will have a damper with a different shape. Such is the case in this Nikkormat (left). You can use a piece of stiff paper (a business card or something like that) to make a template for use in the one you need. Here, you can see I have replaced it to look like the original damper pad. In this camera, the pad is cut from a foam which is 2mm thick.

~~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 cut your own seal pieces from my seal material, using the instructions in your seal kit, and more detailed instructions on the re-sealing of the cameras represented in this paper are available in pdf files. You should **never** use inferior materials in your camera. Using the best costs no more, and using the proper materials will not harm your camera, as some of the inferior materials may. If you have any questions, please contact me via e:mail at jgood21967@aol.com or Jon_Goodman@yahoo.com.