

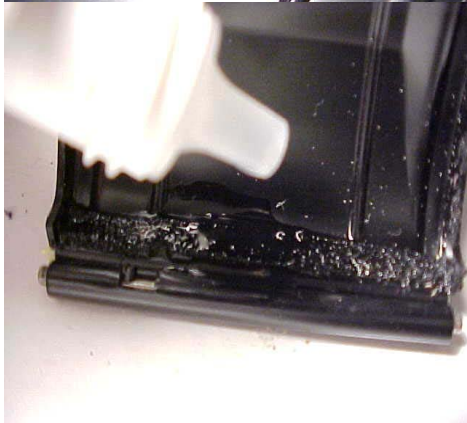
## ProSeal Instructions for Canon AE-1 style SLR and similar Canon styles

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. This is a very well-designed SLR, and the job you're doing now is very important in repairing one of its most common problems.

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. (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 take a look inside your camera:



Removing your film door will make it much easier to clean and replace the old seal material. Look at the picture to your left. Slide this little screw downward, and you can easily remove the door. As you observe, please notice there is seal material on the door as well as the camera body. We're going to replace this in the same manner, however we're going to use a seal material that will never turn to a gummy mess. Now, get ready to turn an ugly duckling into a beauty again...



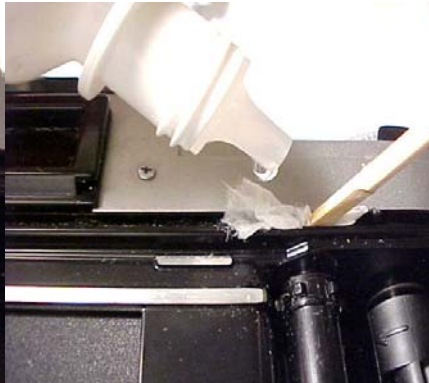
Use your small screwdriver as a dropper (or an old dropper bottle) to carefully drop naphtha (lighter fluid) or denatured alcohol on the hinge end seal. I normally use enough to saturate it, but not to the point of dripping. Let it sit a minute or so and then begin scraping it off. You may use a toothpick 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. In the final frame above, you can see I have cleaned the old seal material off this film door perfectly. The pictures makes this door look bent, but trust me...that is an illusion of light, shadows and angles.



Left: You see the old seal residue. Using solvent and my wooden (bamboo) scraper, I carefully clean this off, and wipe with a paper towel moistened with solvent. You can see the result in the picture on the right. Looks like new again, doesn't it?



Carefully cut from 1/32" (1mm) thick fabric seal two pieces for your hinge end seal. The measurement for both is 1 3/4" long by 1/8" wide. We're not going to install those right now, so just set them aside.



Slide your bamboo tool (or a blunted toothpick), through the film door slots to remove larger remnants of old seal material. Then, push a bit of paper towel into the slot, drop a little solvent on it, and slide this through the slot to completely clean it. You will need to do this a few times, and be careful to avoid the film frame counter reset lever. It is in the top slot, about an inch or two from the hinge end. When both the top and bottom slot are clean, install the fabric seal to the body as shown in the final frame.



In the first frame above, I start a "Seal Strip" into the slot at the end. I push it into place with the thin end of the bamboo tool. In the second frame, I continue around the curve, and in the final frame, you can see where I have trimmed the strip so that it will end just at the film frame counter lever. I will continue the strip on the other side of the film frame counter, all the way to the latch end. There are two "S" curves you'll encounter near the latch end...simply go through them with your "Seal Strip," bending as needed.





In the first frame above, you can see I've installed the hinge end seal on the film door. You can go ahead and do this. **Licking** the adhesive side of the seal piece will make it easier to install...doing this temporarily de-activates the "stickiness," and gives you time to position the piece. It also keeps it from sticking to your fingers. If you happen to get this crooked, simply moisten with solvent and let it sit for a minute or two. This will release the adhesive, and allow you to re-position the seal. When the solvent is dry, you can press the piece into place effectively. In the second frame above, you can see I have begun removal of the fabric seal at the latch end. The procedure is the same...apply some solvent, let it sit a minute or so and remove. NOTE: There are two specially shaped rubber seals beneath this fabric seal. Do not remove these. They will generally not need replacing, and should be left alone. In the earliest AE-1 models, these may be made of fabric seal. If so, you can remove and re-create them with the fabric seal in your kit. In the final frame on the right, you can see I have carefully removed all of the old fabric seal from the latch end. Now, cut two seal pieces from 1mm fabric seal. One is 1/8" wide x 1/2" long, and the other is 1/8" wide by 7/8" long. There is a slot these seals should fit inside of...you will see it at the ledge of the area you just cleaned off. Remember to lick the adhesive side before you install them—it gives you time to position them perfectly. Below is what this area should look like when you are finished:



Above, you can see I've replaced the fabric seal at the latch end, preserving the little rubber seals that run down the curved area. In the middle, we turn our attention to the mirror damper. Most of your original mirror damper foam may be gone. Some may be stuck to your mirror. You can clean this off using denatured alcohol and a Q-Tip, but be careful and use only as much pressure as you would use if you were touching your bare eyeball with your fingertip. An X-Acto (or other hobby type) knife is the best thing to use for removing the old seal. Work **very carefully and slowly** and pick the old material off with tweezers or your knife's tip. I will spend as much time as necessary on this area. I have seen people try to place bits of paper and things on the focus screen, but this is an amateur's mistake, and I do not suggest doing it. It is far too easy to catch a bit of old foam beneath a piece of paper and smear it on the screen. Besides, I do not like things that give a false sense of security. In the final frame, you can see I've removed most of the old junk. Do not use solvent near your focus screen...again, it is too easy to slip and make a mess. Now, from 2.5mm thick open-celled foam, cut a piece 1/8" wide by 1 1/2" long. Below, I'll install it:



There really is no mystery here. First: Lick the adhesive side...it will give you time to position the piece. I use tweezers to gently pick up the seal piece and guide it into place. I never press it down until I have it where I want it to be. Here is an inside secret or two: (1) you can use the mirror to look at the seal and make sure it is straight. (2) to press the seal down, you can lift the mirror up and move it until it meets the seal piece. You can use the mirror to press uniformly against the foam. The finished product is shown below.

Looks like new again, doesn't it? The mirror damper is primarily a sound deadener, and secondarily a light seal. In the AE-1, you'll notice the areas on either side of the mirror can let light into the chamber. This is not normally a problem. Please do not attempt to re-engineer the camera by adding foam on the sides of the focus screen. Nothing good can come of this. First, you will restrict the viewing area of your screen. Second, you may not be able to see your meter results any longer. Third, the foam you add may hamper normal mirror action.

Guess what? You're finished, and your camera is back to "like new" condition and ready to enjoy again.

#### ~~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. On the hinge end and the latch end, I use 1mm self-adhesive fabric seal. You could use 1mm foam seal at the hinge end, however I prefer the fabric in this instance—when two seals come together in this fashion, I think two pieces of fabric have a lower coefficient of friction than two pieces of foam. For the long thin door slots, use a "Seal Strip"—a 2mm non-adhesive strip cut from a foam product I had made especially for this purpose. For the mirror damper, use 2.5mm" self-adhesive open-celled foam.

About licking the self-adhesive side: You'll be working with small pieces of foam with one sticky side, and you'll be working in close quarters. Make it easy on yourself by licking the adhesive side before you install the pieces. This will de-activate the adhesive temporarily, and keep the material from sticking to your fingers or tweezers as badly, too. After 15 minutes or so, your saliva will have dried, and you can press the piece down for a final seal.