

ProSeal Instructions for Minolta Hi-Matic F Rangefinder

Please read these instructions completely before you start. Knowledge builds 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. You're working on one of Minolta's finest small rangefinders, and the job you're doing now is very important in repairing one of its most common problems. You have been given these instructions as a free gift from one of my light seal kits, or for some other reason, and for that reason I think you already have studied my basic light seal replacement instructions.

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 my favorites. (3) a paper towel or two. (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:



Beneath the top plate, you will see a long thin rail slot. There is a corresponding slot at the bottom. In the top slot, you will see the frame counter reset lever about 1 inch from the right side. There will be a seal at the hinge end, too. It may be on the door or on the camera body. We'll replace it on the film door. On the top side of the film door, there is a small seal leading from the hinge edge past the film frame reset lever on the bottom side of the flange. There is no latch end seal.

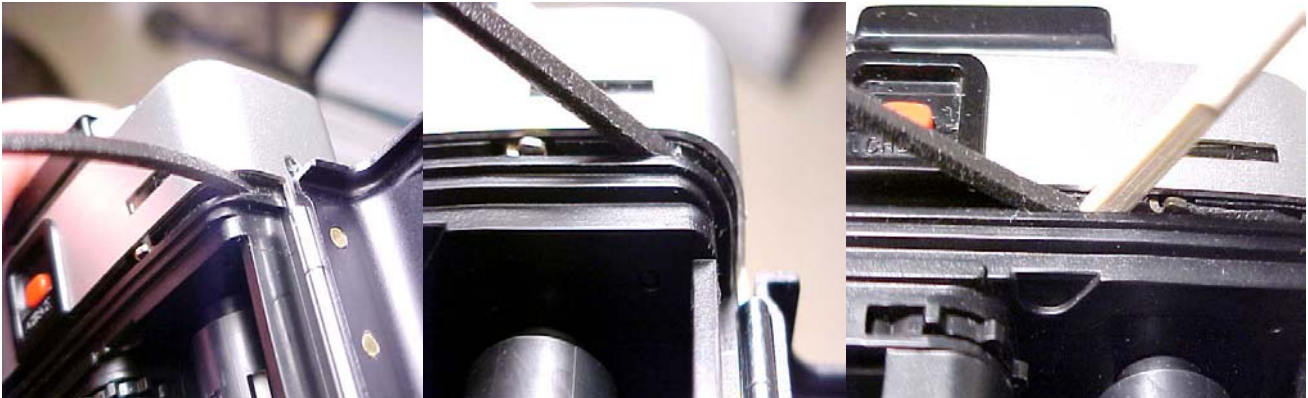
You may see black residue on the camera body and the film door edges. Use your small screwdriver as a dropper to carefully drop solvent where you need it. I normally use enough to saturate it, but not to the point of dripping. An old plastic bottle (like a contact lens cleaner bottle) makes a good solvent dropper, too. The procedure is to let it sit a few minutes, and then begin scraping it off. You may use a toothpick with the end broken off, your bamboo tool, a wooden cuticle stick, or you may use the tip of your small screwdriver. Work carefully and try not to scratch the painted surface. Your work will go better if you are patient and give the naphtha 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. SECONDARY IMPORTANT NOTE: This camera uses some internal plastic pieces. DO NOT use any solvent such as Acetone or MEK (Methyl Ethyl Ketone) to clean up your old seal material. These are NOT safe on plastics.**

Now we're going to clean out the rail slots on the camera body and replace those seals. Here's how:



First, run a toothpick with the end broken off or the narrow end of your bamboo tool through the slot to remove the gunk. Repeat if needed, working away from the frame counter reset lever (as shown). Don't push old seal material into the frame counter reset area. Then run a small piece of paper towel with a little naphtha on it through the slot to finish cleaning it.

When you have the slots clean, take a long 2mm piece of seal material from your kit and press it into the slot using your fingertip. Start at the hinge end and work toward the frame counter reset lever (but don't cover it or go underneath it). Don't let the seal material turn or twist and press it into the slot with the thin end of the little bamboo tool, as below.



Don't worry that there is no adhesive. With this seal you don't need it. I designed it so the pressure of the seal material against the channel walls will keep it in place perfectly and provide a full-channel and completely effective light baffle. When you reach the end, use a razor blade, small knife or tiny scissors to trim the excess so the strip will finish at end of the rail slot. Repeat this procedure for the part of the slot starting at the film frame reset and extending to the hinge end—use the piece of 2mm material you just trimmed off for this. Repeat for the lower slot. Now, with a blunted toothpick or the thin tip of your bamboo tool, trace the seal's length, pressing it gently down into its slot to seat it. Don't poke into it or damage it. Then, close your door. It is normal to feel resistance from your new seal material. Don't worry unless the resistance seems excessive. If you encounter too much resistance, make sure you got your seal material neatly tucked into the ends at both rail slot end. Now, let's remove and clean the hinge end seal.



Left: drop some solvent on the old seal. Let it soak a minute or so—don't forget the seal piece at the top of the door.
Right: scrape the old seal off as shown. Finish cleaning with paper towel & solvent.



Cut a piece of 1mm fabric seal or 1mm open-celled foam material to fit and remove the paper backing. In these instructions, I've chosen the fabric seal. Please note this seal does not reach from end to end on your film door. Here is a view:



The seal material starts and stops at the place where the door "breaks" into the trough on both ends. You can see this clearly in the picture to the left. **Lick** the adhesive side of the piece before you install it...this will de-activate the adhesive, allowing you time to position it correctly. After about 15 minutes, you can press it down for the final installation. If you happen to install your seal piece crooked, simply drop some solvent on it and let it soak a minute or so. This will free the adhesive, allowing you to re-locate the piece where it should be. Next, we will replace the little strip at the top of the camera's film door.

As mentioned earlier, there is a small piece of seal material at the top of the film door. You should have already removed and cleaned the area using either the narrow end of your bamboo tool or a blunt toothpick and some naphtha on a small piece of paper towel. Replace it, using the small thin self-adhesive piece in your kit. Cut the new piece from 1.5mm open-celled foam or 1.5mm self-adhesive foam, and position it at the edge of the film door. Carefully follow down the contour of the film door as shown. When you have it positioned correctly, press into place using a blunted toothpick or your bamboo tool to gently press it down. Here's a picture of how it should look:



Please remember, you can make installing a seal like this much easier if you remember to lick the adhesive side first. This will allow you time to position it properly, and when your saliva has dried (about 15 minutes), you can press the seal down again. When all is finished, be sure to clean the edges of the film door with a piece of paper towel and solvent. There may be old seal residue left on them, and you don't want this to foul your new seals.

Now, close your film door and let your camera sit a few hours or overnight to allow the new seals to get happy with their new surroundings. Your work is finished, and your camera will have a very effective light seal for years to come.

Jon Goodman --- 2002

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