



# SMC Pentax-M 120mm f 1:2.8

*Disassembly procedure.  
To re-assemble, read backwards ;-)*

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## 1. My lens

I love this 120mm for its sharpness, colour rendition and, being quite fast, perfectly usable at f 2.8. But it had mushrooms both in the front group and in the back group of lenses. It is time for some search and disassembly.

## 2. Before you start

The lens is made out of 3 groups. The front one (2 lenses) and middle one (1 lens) being very close at the front. The back group is made out of 2 lenses and moving to allow focus.

There is no need to dismount the K mount ring at the bottom. Everything can stay in place. Of course, there is no little spring and contact, starting with the KA mounts. There is so much fun having these little things wheezing around close to your ears.

## 3. Front disassembly.

### 3.1. Naming plate

Start with the same old thing: unscrew the naming circle plate at front: Use either a special tool ([microtools.com](http://microtools.com)) or a homemade one. You can start with a shaving foam spray cover, add some rubber from rubber gloves, etc... I personally use heavily modified rubber corks.

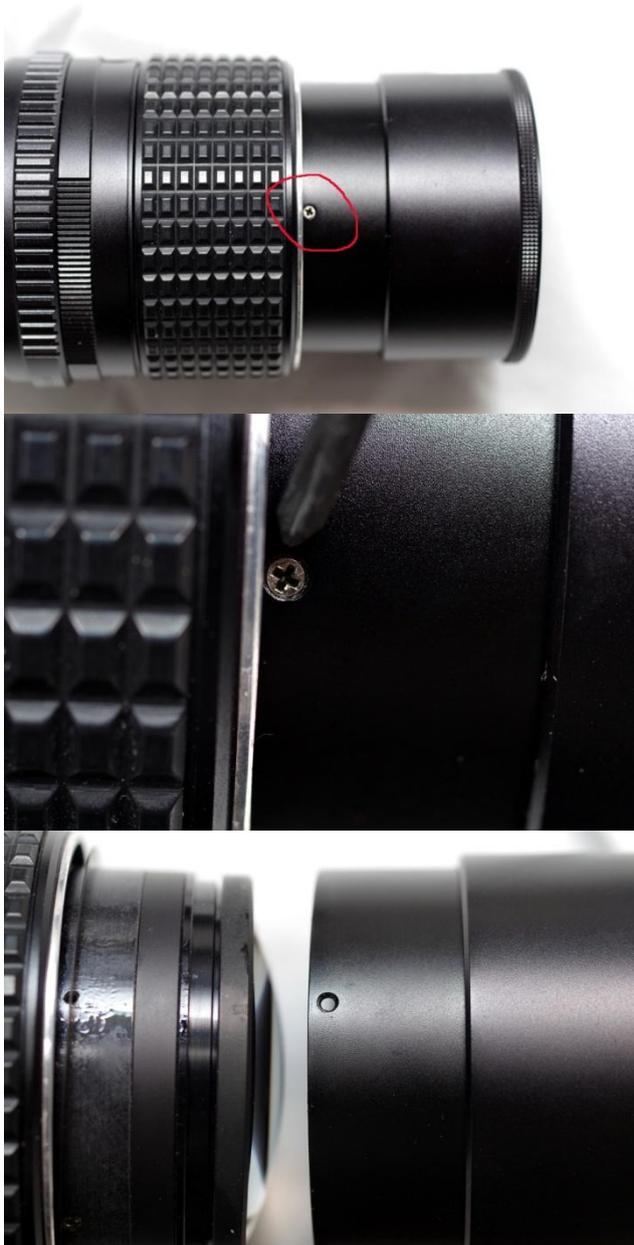




### 3.2. Little screws

They are 3 of them around the barrel. To get access, you must set the focus ring to the closest distance (hence 1.2 meter) and extend the shade. Be extra careful with them screws. They are tiny...

Oh... They are two black (short) screws and one silver (longer screw). I have no idea why. Just took note which slot was the silver, then let's go. It might have been a replacement screw on my very lens.





### 3.3. Now the glass

#### 3.3.1. Front blocks

The two front blocks (one 2-lens and one 1-lens) are screwed together. Dismount them one by one, making sure you note the exact order and side. It seems it would be impossible to revert any, but just in case, take pictures or draw a quick sketch.



All 3 lenses come out in one block



Remove first black ring to remove first front lens (part of the 2-lens front block)



Disassembled...



Disassemble the 2<sup>nd</sup> lens belonging to the first front block from the single lens of the middle block.



All front parts, totalling 3 lenses (screws are put apart)

#### 4. Rear disassembly

We will remove only one lens: the outer one. The last one being alone, it is possible to get easy access of both sides, using the focusing ring to bring it to front or rear. Then clean it *in situ*.



Remove the retaining ring using a spanner wrench or similar tool.



Finally remove the outer lens of the rear block. Note its convex side faces outside.

## 5. Time for cleaning

I made the error in the beginning. If you use water or whatever liquid to clean your lenses, always **wait** at least 48hours before reassembly. If you do not let it dry, you will see condensation building up inside and showing loads of little imperfections. Only remedy: disassemble everything, clean again, **let it dry** in a dust-proof container, which is **not** airtight. Moisture needs a way out. Place it in a warm room. Take care not to have too much sudden temperature change. Make sure **all** parts are at the same temperature. You would be surprised how difficult it is to assemble a cold front part with a warm rear part.

### 5.1. What to use

After many trials and errors, I found the best (to me) is still

- If you got fungi first clean with isopropyl alcohol. This **will** leave stains if left alone.
- Then use warm running water and good old dishes cleaning product. Citrus is my favourite.
- Rinse well. More. Better. Dishes cleaning product leaves a shiny film. We do not want it.
- Dry as much as you can, using a cloth leaving no bits.
- Finally leave it in a dust-proof container, but not air-tight. Moisture needs to find a way out.

**Grégoire Hostettler**  
*Chief cruncher at Caracal's*