

## A complete guide to the Mamiya RZ67 Pro: part one – deep system overview

The Mamiya RZ67 is very interesting and in many ways, an unusual camera. It's not very easy to operate and a little bit slow if you're not used to it, so it's maybe not a camera for everybody. It's also huge *and* a bit heavy and was primarily created for studio work and landscapes for those calm and robust enough to carry the weight of this camera.

That may sound like a less than ideal introduction for an in-depth six-part guide into this amazing camera system but as "they" say, "get the bad stuff out first".

Let me start again, I am a big fan of the Mamiya RZ67 and lenses of the Mamiya brand as a whole. I do not work for this brand, unfortunately gone today, having been entirely bought out by Phase One (and I do not work for them either!) I've been a photographer for 40 years. As a former chemist, and currently working in the hydrographic field and topography, I'm not a professional photographer but I have some experience with the RZ67 which I feel could be valuable for other film shooters like me.

The result is this guide. Split into five parts, it comes in at around 40,000 words. Here's what I cover in this, part one:

### Table of contents

- [1 What is the Mamiya RZ67?](#)
- [2 Choosing between the Mamiya RB and RZ systems](#)
- [3 Choosing the right RZ version for you](#)
  - [3.1 Mamiya RZ67 Professional](#)
  - [3.2 Mamiya RZ67 Professional II](#)
  - [3.3 Mamiya RZ67 Professional IID](#)
- [4 The Mamiya RZ67 Professional in pictures](#)
  - [4.1 \(My\) typical use](#)
- [5 Taking your first photograph with a Mamiya RZ67](#)
- [6 Shutter release options](#)
  - [6.1 Traditional single cable release](#)
  - [6.2 Mamiya dual cable release](#)
    - [6.2.1 The mirror release cable \(on the lens\)](#)
    - [6.2.2 The shutter release cable \(on the body\)](#)
- [7 Focusing the RZ67 + the "bellows factor"](#)

- [7.1 The focusing knob](#)
- [7.2 Focus screen warning signals](#)
- [8 Focusing options: screens and viewfinders](#)
  - [8.1 Focus screens](#)
    - [8.1.1 Type A Matte](#)
    - [8.1.2 Type A1](#)
    - [8.1.3 Type A3 Matte](#)
    - [8.1.4 Type A4 Checked](#)
    - [8.1.5 Type B Rangefinder Spot](#)
    - [8.1.6 Type C Microprism](#)
    - [8.1.7 Type D Crosshair](#)
    - [8.1.8 Type E Rangefinder Spot / Microprism](#)
- [9 Mamiya RZ67 viewfinders](#)
  - [9.1 AE prism finder FE701](#)
  - [9.2 Magnifier FD701 for FE701 and “Model 2” prism finders](#)
  - [9.3 Mamiya RZ67 AE Magnifying Hood](#)
  - [9.4 Using AE light measurement with the FE701 and magnifying hood](#)
  - [9.5 Using prisms or other viewfinders made for the RB camera.](#)
- [10 RZ internal battery](#)
- [11 Closing thoughts and what’s next](#)
  - [11.1 Pros and cons](#)
  - [11.2 On to part two](#)

Parts two to five respectively cover the following:

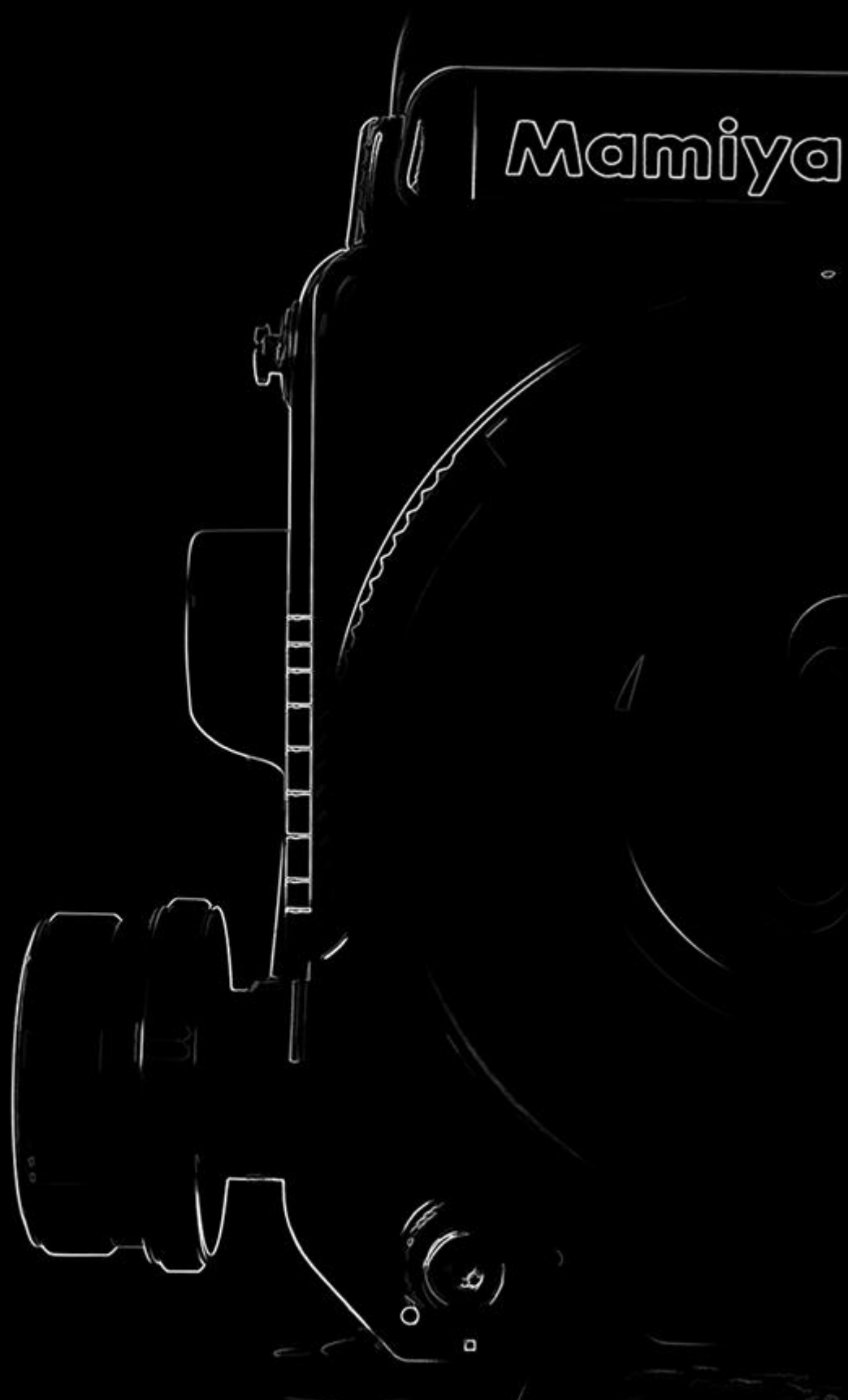
- Part two: The RZ film holder system
- Part three: The RZ lens system and related accessories
- Part four: Miscellaneous accessories (winders, grips) and maintaining your RZ67
- Part five: Personal stories and conclusion

There is a lot to cover here: three camera models, eight focusing screens, three viewfinders, 27 lenses (!!!) and dozens of miscellaneous accessories and related equipment.

If you are thinking about making an investment in the RZ67, or are already an avid fan, I hope you'll be able to use this as a definitive guide for the system.

Let's begin with my answer to a very simple question...

**What is the Mamiya RZ67?**





## Mamiya RZ67 Professional II

The Mamiya RZ67 is a professional medium format SLR (Single Lens Reflex) system camera produced by Mamiya between 1982 and 2014. As a “system camera”, the RZ67 is modular, meaning lenses, viewfinders, film backs and other components are all interchangeable.

The camera’s native picture format is 6×7 using 120 or 220 medium format film but it is also able to create 6×6 and 6×4.5 images, as well as use Polaroid, Quadra and other film formats.



## Mamiya RZ67 Professional II

The RZ67 shares some same features as its predecessor (the RB67), but in many ways RZ67 is a complete upgrade. Even though it's not produced anymore, it's still widely used and probably (along with the RB), the most affordable medium format system in terms of quality, versatility, and availability.

The naming of the RZ67 is a bit weird. It means "Revolving Back" and was intended to be the successor of the RB series. As the RB was still a very strong seller at the time of the RZ's release, they invented the name RZ to help differentiate between the two.

The RZ67's native 6×7 format produces a negative with an image size of 56x69mm – what Mamiya called the "ideal format" since it is proportionally equivalent to 8×10 large format:

The 6×7 negative is about 5x times larger than a standard 36x24mm 35mm frame. It's also a slightly different aspect ratio – 35mm is much broader, closer to 6×9. I must admit I much more prefer the 6×7 aspect ratio in print. 35mm is too wide for my taste, but because of this, fits better on computer screens.



35MM FULL FRAME (20)

One iconic image seen by billions of people was taken on a Mamiya RZ67. You may know it as “Bliss”. It was taken by Charles O’Rear and was the emblematic default wallpaper of Microsoft Windows XP. I really hated this photo, mainly because it was highly pixelated and of low jpeg quality.



“Bliss” Credit: Charles O’Rear

### **Choosing between the Mamiya RB and RZ systems**

For those confused about what to choose: an older RB67 or the “newer” RZ67? It really comes down to one question: do you want a completely mechanical camera or not?

If the answer is yes, choose the RB67, it doesn’t need any batteries.

For any other answer, choose the RZ67. Why? The RZ67 can use all RB67 lenses but the RB67 cannot use *any* lenses made for the RZ67. In addition, the RZ has more accessories.

It's also worth saying that there are some incompatibilities *within* the RB system. Notably that newer L-series can only be used with the latest RB67 Pro-SD.

In terms of "RZ67 exclusives", the 110mm f/2.8 lens is exceptional and has the shallowest depth of field of any lens in the system. It is also the lightest of all Mamiya RB or RZ lenses.

Because of these reasons, I've found the RZ67 better for me but I dare to admit that it would be ideal to have them both

**Choosing the right RZ version for you**



## Mamiya RZ67 Professional II

There were three RZ67 versions made, RZ67 Professional, RZ67 Professional II, and RZ67 Professional IID.

If you try to buy one of the three RZ versions on the second-hand market today, the main thing to try and understand — and always complicated to find — is the usage history of the camera. Some photographers used it intensively, and you may encounter malfunctions or other problems because of that. That said, the RZ (all versions) is a very robust and reliable camera.

Here are the three RZ67 variations with their main differentiators:

### **Mamiya RZ67 Professional**

- First-generation camera. It was introduced in 1982.

### **Mamiya RZ67 Professional II**

- Introduced in 1995.
- Adds a fine-tune focusing knob.
- Adds 0.5-stop steps to the shutter speed selector.
- Electronic system improvements.
- You can shoot in AE semi-auto mode with the prism.

### **Mamiya RZ67 Professional IID**

- Introduced in 2004.
- Introduced an integrated interface for communicating with digital backs.

The Mamiya RZ67 Pro IID was discontinued in 2014 and it seems that the production of the previous RZ versions stopped around 2010/2011.

The first generation is usually cheaper but older. It was probably used more than more recent models, doesn't have the fine focusing knob and has only full stop shutter speed steps.

The Pro II is the clear winner for me. It has the fine focusing knob and 0.5-stop steps for shutter speeds for only a fraction of more money than the first generation Pro. These additions make the Pro II the best option in my opinion.

The Pro IID is for those who want a “new” RZ camera. As the most recent version made, it is more expensive but it's still possible to find a brand new one! And if needed, it's perfect for digital backs....but it's worth remembering that the Pro or the Pro II can have digital backs attached too, but with an extra expensive electrical contact interface plate, and some annoying wiring.

### **The Mamiya RZ67 Professional in pictures**



The Mamiya RZ67 is a versatile camera, with a lot of options and accessories. You can shoot in manual, using the waist viewfinder or in Automatic Exposure (AE) with the prism FE701. You also have a large range of lenses to choose from, all of excellent quality.



## Mamiya RZ67 Professional II System

Here you can see the camera with the waist level viewfinder, the automatic winder, a film back, and a lens. You can also see different other lenses behind. It's the Pro II version, the one I own and love.

[Click to expand the annotated pictures below.](#)

**Mamiya**

**Fine Focusing  
knob (Proll & D)**

**Focusing knob**

**Shutter release button**



**Viewfinder**

**Sh**



**ac**

**Lock f**

**Mono focusing knob**



**RM lever: M for « Multiexposure », R for  
back. The normal position is in the**

**Dark slide**



**Back**

**Cocking lever**



**Electronic contacts for  
the back (transmit the ISO)**

**Camera speed dial**

**Film holder mount pins**





This image shows a close-up of the rear of a camera, focusing on the electronic contacts and the shutter speed dial. A vertical strip of 11 gold-colored contacts is visible, with an orange arrow pointing to the top one. To the left, a portion of the shutter speed dial is shown, with a yellow arrow pointing to the '25' mark. The camera body is black, and a small silver screw is visible at the top right.

**Electronic contacts for the pris**

**Camera shutter**



**Back  
locking lever**



004463

Mamiya  
003098  
JAPAN

**(My) typical use**

I normally use my RZ67 to take portraits but I also bring it with me for shooting landscapes. I don't carry away a tripod each time, and my RZ is always used with the prism and often with a big telephoto lens.

Most of the time when I hike in the mountains, I will bring my 500mm. In this case, yeah, it's cumbersome!

















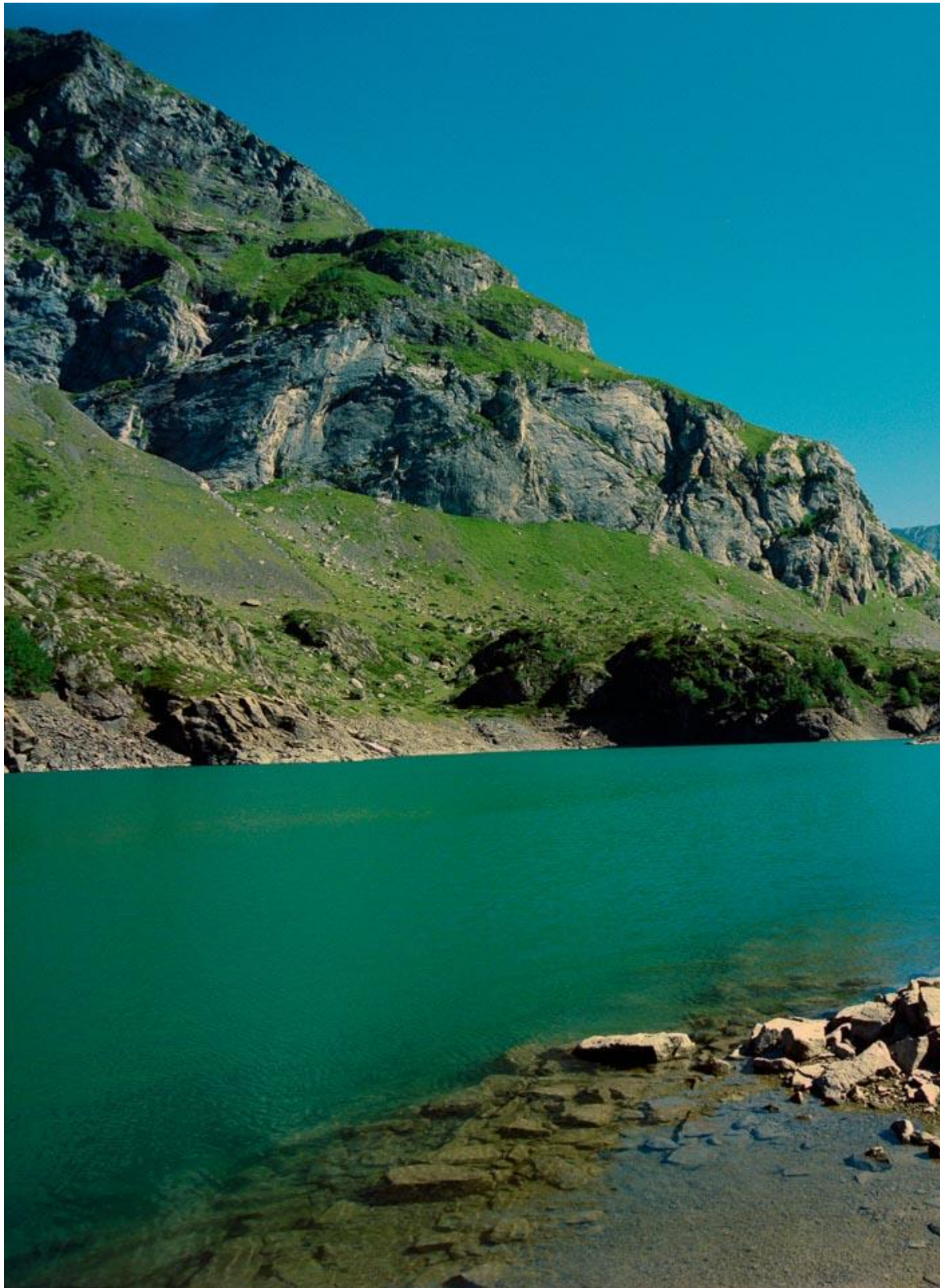










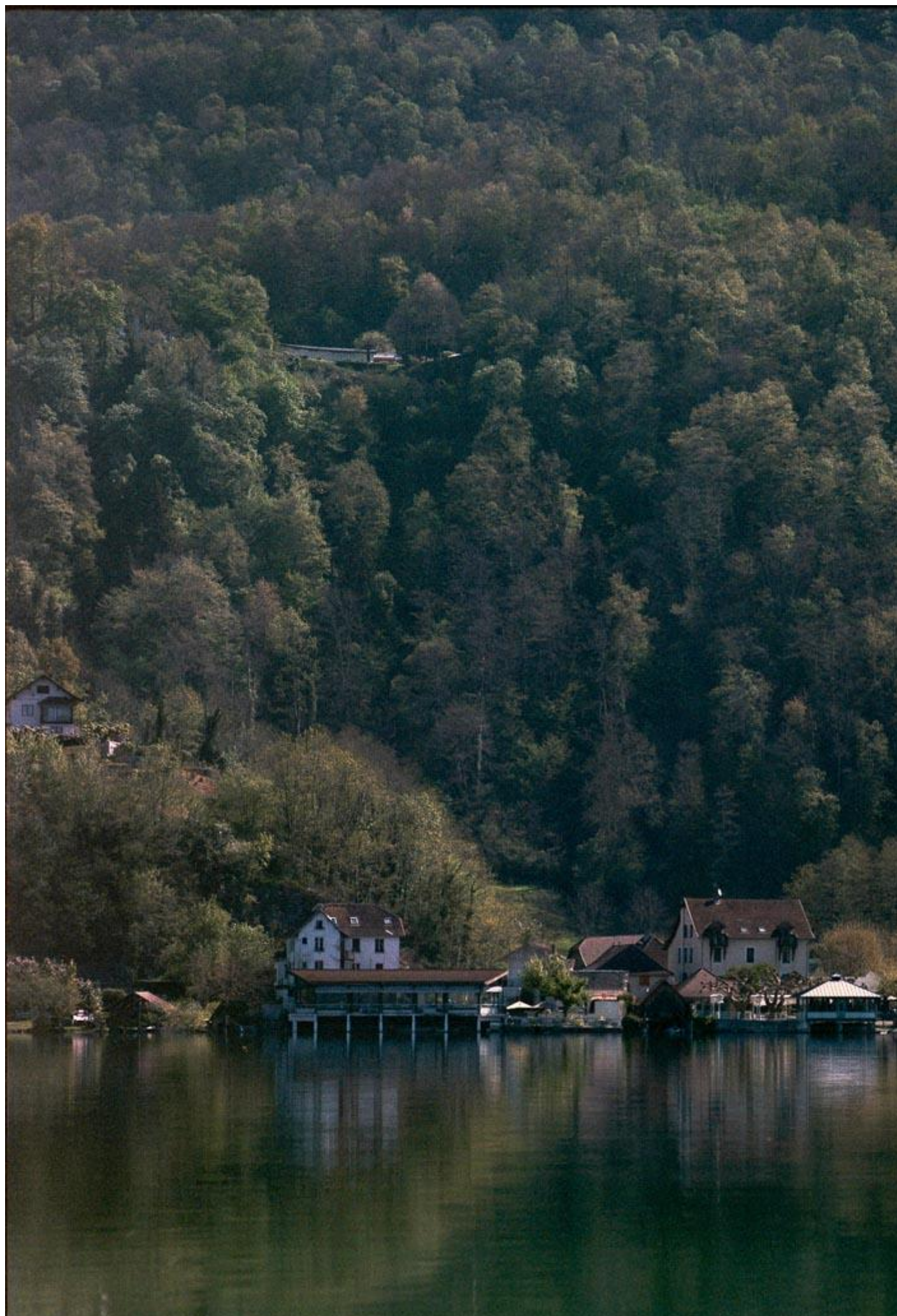




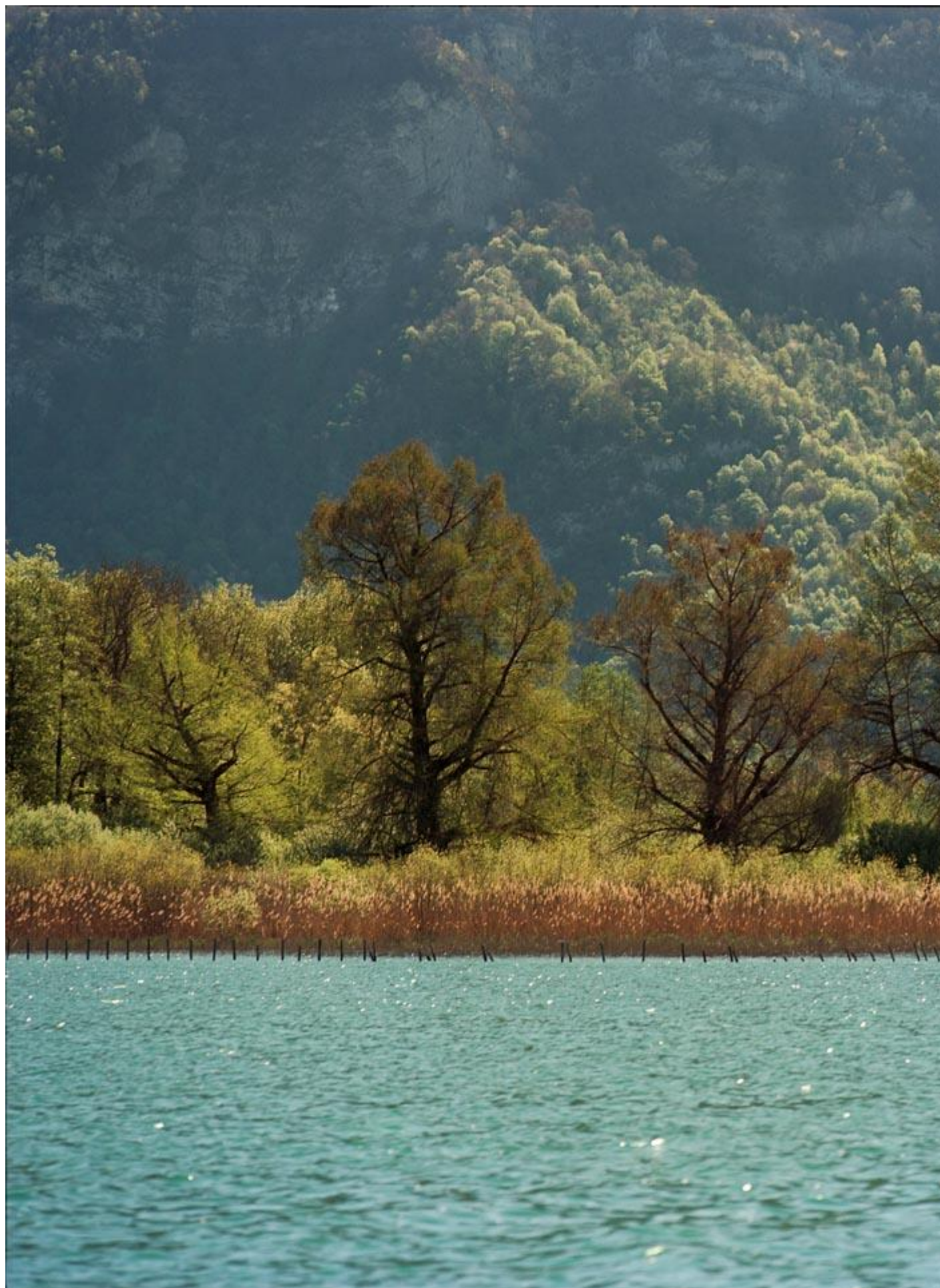












Most people think it's too large of a camera, and it was nicknamed (like the RB before) as an "anchor", an "elephant", a "workhorse" or other curious, weird names. It could be funny sometimes, but after using my RZ for a long time, I don't think it's so heavy. The main problem I have found is its ergonomics.

It's a cube and not always very easy to hold in the hand but with a little practice and some accessories, I can shoot very comfortably with this camera.

Contrary to what some people may believe, I think it's also pretty perfect for street photography but I must point out that I do not go unnoticed when I shoot with it! With only its lightest lens (the 110mm), sometimes the prism (more comfortable to shoot with) and the neck strap, it's perfectly usable.

And many people I meet when I shoot with my RZ tell me: *"Oh! I know your camera! My father had the same one! It's a Hasselblad!"* Err, no, it is not one... But if you really want to compare and if you think there is a similarity, here is what these two cameras look like next to each other:





Mamiya RZ67 Professional II

When I say it's a cube, it's because you can disassemble (and change) quite all parts and that makes this camera an incredibly versatile system.



## Mamiya RZ67 Professional II

### **Taking your first photograph with a Mamiya RZ67**

OK, you have the RZ in hands for the first time and you want to shoot your first image with it. It seems complicated, but it's not. Not really.

The size of this camera could frighten you a bit, so, here's a very quick guide on how to shoot your first image, assuming you have received your new camera with a back, a lens, and the waist viewfinder installed.

First, the steps in brief:

1. Remove the lens cap.
2. Open the waist level finder.
3. Unlock the shutter.
4. Look through the finder.
5. Focus.
6. Remove the dark slide.
7. Take a light reading.
8. Set the shutter speed.
9. Set the aperture.
10. Half-press the shutter button.
11. Check the finder's LEDs.
12. Fully press the shutter button to shoot.
13. Recock the shutter/mirror
14. Repeat!

...and in more detail:





## Mamiya RZ67 Professional II

Check if you have a battery in your camera (on the bottom). If not, or if you're not sure, please jump to the chapter, "[RZ internal battery](#)".

Load a film into the film back. If you don't know how to do that, please read refer to the section "**Loading film**" in **part three**.

Remove the lens cap and store it in a pocket or in your photo bag.







Mamiya RZ67 – remove the lens cap

Open the waist level viewfinder...





Turn the little knob on the bottom of the front side bottom in the “shoot position”. If you don’t know what I’m talking about, please read the chapter below, “[shutter release options](#)”.





Mamiya RZ67 – unlock the shutter

Point at and frame your subject. Focus by looking through the viewfinder, using the big knobs on each side of the RZ. Note: you can use a magnifying lens to help. To learn more, please read the chapter "[Mamiya RZ67 viewfinders](#)".







**Mamiya RZ67**  
PROFESSIONAL II

30  
16  
10  
6.6  
5  
4  
ft



Remove the dark slide from the front of the film back.



Mamiya RZ67 – remove the dark slide

Find the correct exposure using an external light meter. With the waist level viewfinder, you have to shoot the camera with no metering assistance. If you don't have a light meter yet, try the "Sunny 16" rule.







Mamiya RZ67 – take a light reading

Set the shutter speed of your exposure with the knob on the left side. As you can see, I use the RZ Pro II version and for this example, I set the half-value between 1/125 and 1/250, and it's 1/180.



Mamiya RZ67 – Set the shutter speed

Set your f/stop with the aperture ring on the lens. The lens used is a W model that has half-stop values engraved but for now, the example below uses a whole value: f/8.



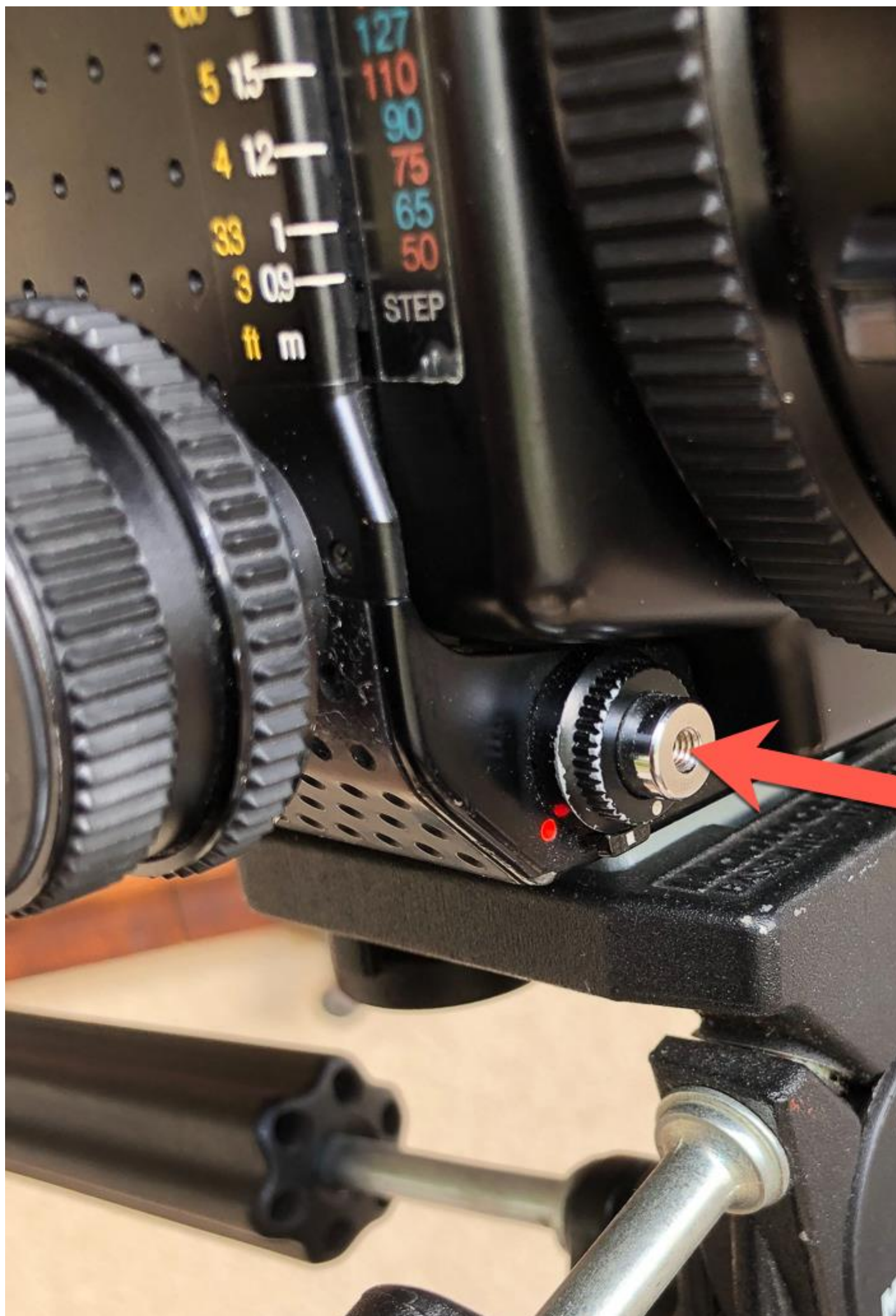


## Mamiya RZ67 – Set the aperture

You're ready to shoot but before you commit, half-press the shutter release button on the front of the camera lightly. At the same time, take a look in the viewfinder to see if you have any LED lights showing.

**Note:** If you see one of the LED Lights, please read the chapter about "[focus screen warning signals](#)" or "**Troubleshooting**" to see what they mean.

No lit LEDs in the viewfinder? Perfect! You can take your shot. Press the shutter release button all the way. You will hear a click (the mirror and the shutter) and you have just made your first exposure. Congratulations!



Mamiya RZ67 – full press the shutter button

After your first exposure, if you want to make another, you will need to cock the camera first using the big lever on the right of the camera (this is the “cocking lever”)







Your camera is now cocked and ready to take the next shot. After any shot, it's the same process: cock your camera after each shot for the next.

All of this seems to be complicated or takes a lot of time to do, but it's not. You will learn to load a 120 film roll very quickly, the alarms in the viewfinder will warn you if you forget to remove the dark slide, or load a film, or if you need to put a new battery.

The handling of this device quickly becomes a reflex, and you will promptly do all this out of habit.

### **Shutter release options**

The shutter release button is (as expected) on the front of the camera:

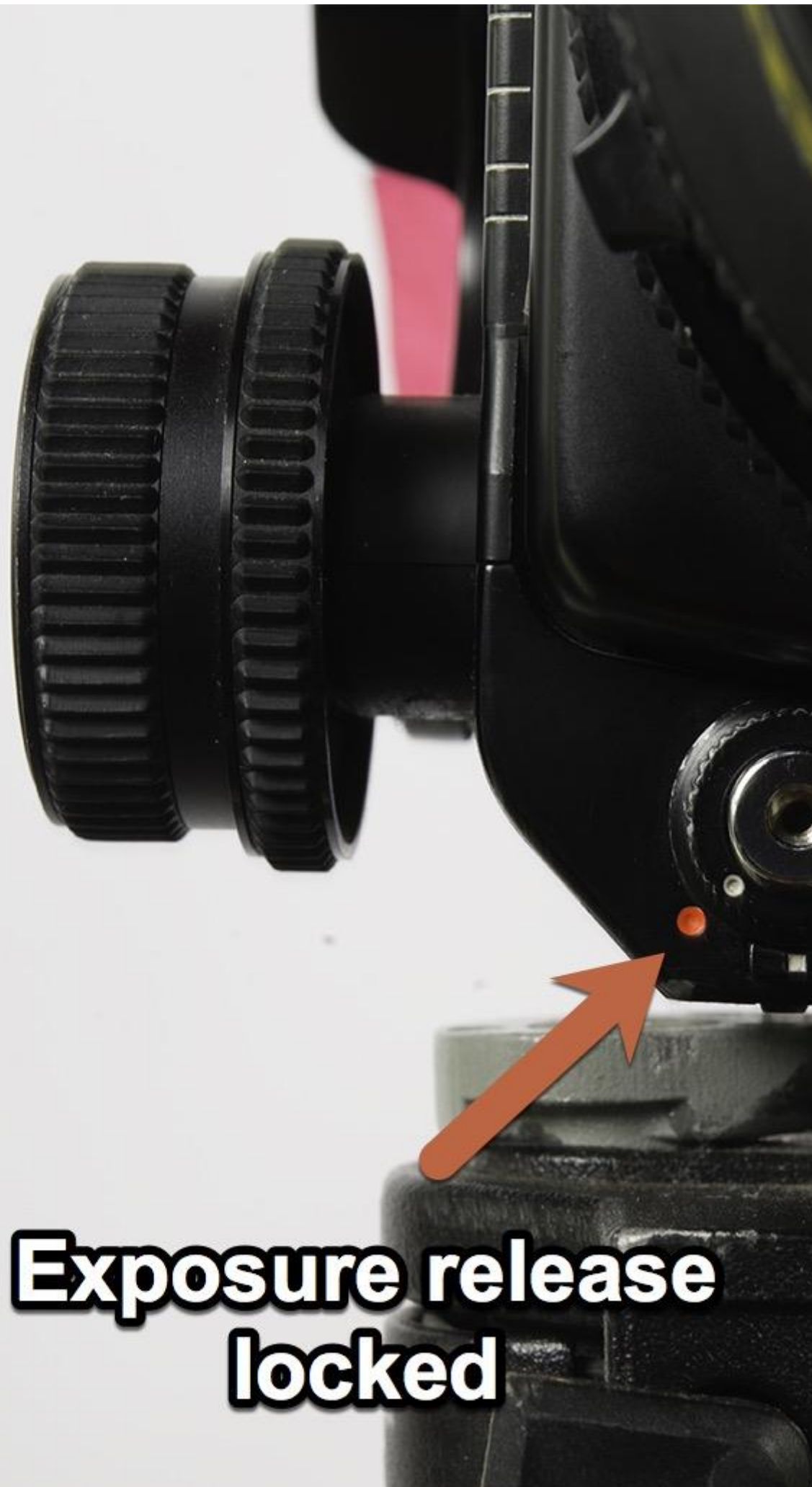


## Mamiya RZ67 – shutter button

The shutter button has three positions: lock, shoot and mechanical operation mode.

The lock setting physically stops the shutter from being triggered. It is not an electrical on/off switch. It is set by turning the shutter button dial's white dot to face the red dot on the camera body as above.





**Exposure release  
locked**

Mamiya RZ67 – shutter release locked

The shooting position: Turn the white dot to face the body's white square dot:



**Stop  
position**

Mamiya RZ67 – shutter set to “shoot” position

The mechanical operation mode: when your battery is out, and you can't replace it, the RZ can shoot manually but only at 1/400 sec. It can be helpful sometimes:





Mamiya RZ67 – shutter set to “mechanical” position

To access in this mode, you need to push the collar stop lever (which has a white square dot) a little before turning the release button collar. Then, turn so that the white dot faces the orange dot.

Sometimes, if your RZ is a little old, or has been used a lot, the collar stop can be a little loose and will not stop the round collar in the shoot position when you turn it.

If you don't take care, and for example, turn it without seeing it, you can put it in the mechanical mode position instead of the shoot position. Take care because in this case, you will shoot in manual and only at 1/400 sec where you might think you're shooting in AE mode!

Always be mindful of putting the collar in its lock position when you are not using your camera. In a bag, for example, if the release shutter button is a little depressed by something, that can quickly discharge the battery.

### **Traditional single cable release**

You can also use a single cable release to avoid blur if you have enough light and can use a high enough shutter speed.

You maybe know this guide used for 35mm photography: your lowest handheld speed should be a “number” higher than the focal length. For example, if you use a 110mm lens, to be sure to not have any blur in your image, you have to set your shutter to at least 1/125. For the 50mm it's 1/60s. For the 500mm, it's 1/400s (the max allowed by the RZ shutter).

This is for 35mm film, and as the size of the image is quite the double for the 6×7 format, some say that you could divide by two the max speed usable. Like 1/200s instead of 1/400s for the 500mm or 1/30s instead of 1/60s for the 50mm.

That works, I have already shot at 1/30 with this lens with no blur on my image. But it does not work every time (It depends on me, not the camera). You should make tests. For further warranty, use a release cable.

So a simple release cable can be used and simply needs to be screwed into the port at the center of the shutter button. It does the same job as if you pressed the shutter button with your finger.







Both types work very well. The long one is a pump version I use with one of my feet. But for long exposures (only in "B" mode), you have to press it for the entire duration of the exposure. Otherwise, the shutter closes as soon as you stop squeezing the pump! The short one has a lock to block the release button during the desired exposure. Mamiya also sold an electromagnetic version (I don't have yet).

### **Mamiya dual cable release**

The RZ is a reflex camera, which means that there is a mirror inside which allows you to see your composition in the viewfinder. The mirror moves up and out of the way when you push the shutter button to expose the film.

As it needs to be large enough to allow you to view the full 6×7 frame, the RZ67's mirror is huge. It can cause vibrations and blur your images when you shoot using slow speeds (<1/60s). When you need a very stable camera to shoot at slow speed, you can use a tripod, but at speeds slower than 1/60s, it might be not enough, because of the vibrations caused by the mirror when it's raised.

The RZ has the option to lift the mirror up independently, just before the release. For this, you can use the mirror up cable release from Mamiya. It's like a double release cable:



Mamiya RZ67 – Mamiya dual release cable

One cable is to lift the mirror, and the second is to trip the shutter. You have two different colors at each end, one silver, and one black.

**The mirror release cable (on the lens)**

The black cable goes on the lens and it is used to lift the mirror. Note the red ring that pokes out when the cable is screwed-in correctly.





## Mamiya RZ67 – mirror-side cable

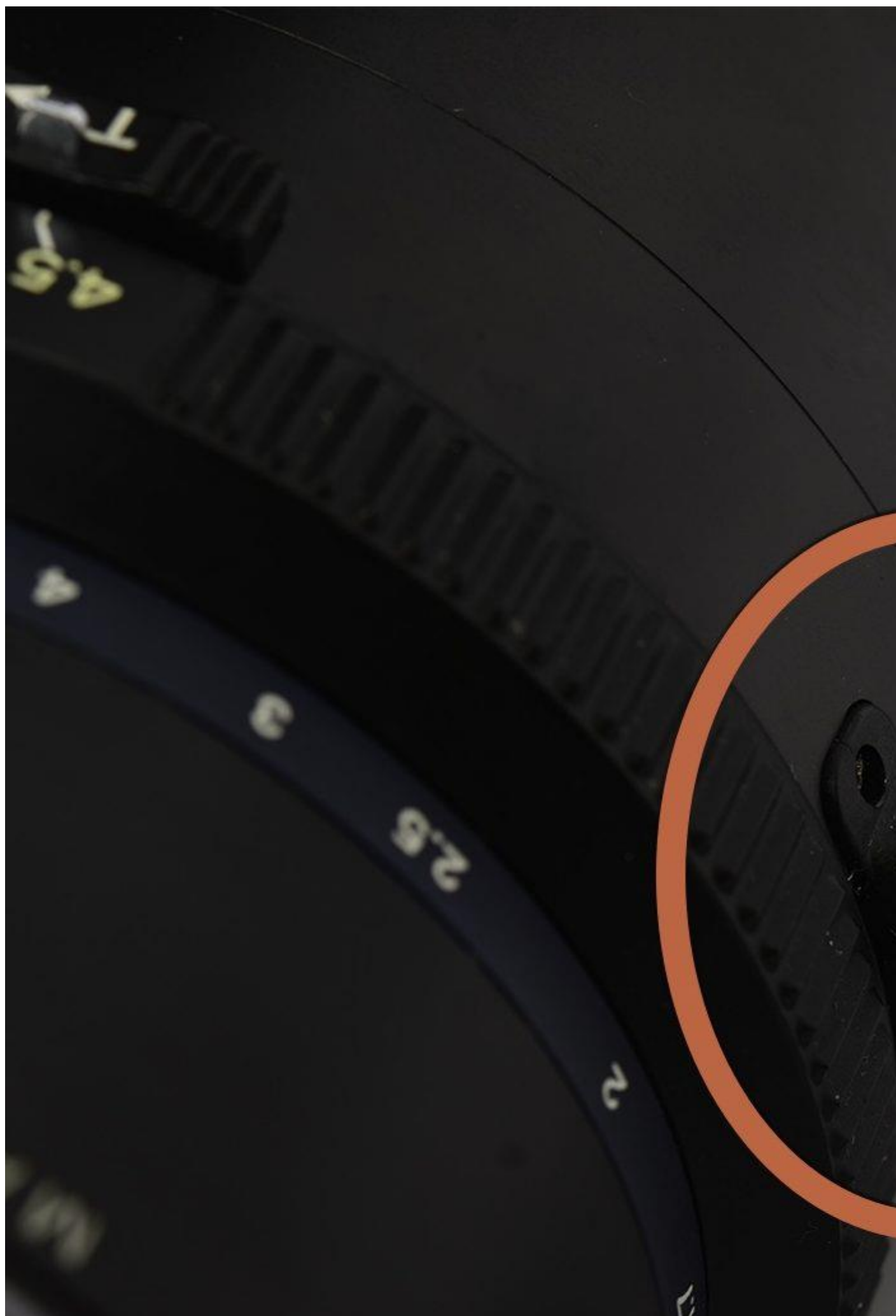
After making an exposure and BEFORE removing this cable, make sure you cock your camera. This is because if the red ring is showing — even without the cable screwed-in — the mirror cannot be lowered using the cocking lever. So when you remove the mirror cable, be careful that this little tube fits entirely in the lens, (you must not see the red circle), otherwise, your Mamiya will be blocked, and you will not be able to make new photos.

If the mirror is in the up position (if the tube stays out after a release, even though you removed the trigger cable), you will not be able to remove the film back, and you will not be able to use the cocking lever neither remove your lens. It's a protection to avoid fogging your film.

To solve this problem, you need to screw the cable in again, then unscrew it, making sure the tube recesses itself back into the lens barrel.

**So, Important reminder:** when you screw in a cable on the lens plug, you can see a little tube coming out with a red ring around it. It's a mark to tell you that the camera is settled to lift the mirror only when you push the release on this cable. When you remove the cable from the lens plug, take care that the tube is totally retracted until you no longer see the red ring. Instead, you will no be able to shoot with your RZ!

After removing the cable, the plug must be on this position only:



Mamiya RZ67 – mirror-side cable correctly removed

**The shutter release cable (on the body)**

The silver one goes there:



**Silver for release  
on the camera front**



Mamiya RZ67 – both cables attached

Yes, the positions are not logical, because the shutter is on the lens and the mirror on the camera, but it's what the Mamiya documentation said! And it works like that.

When you push the release button on the cable, it first lifts the mirror up, then shortly after, trips the shutter. It's very convenient, and it does not take up too much space in your bag.

As the big mirror can produce vibrations that blur your images at low speeds, this double cable is a perfect solution, especially for long time exposures. And if you can't find one, you can easily replace it with two separate cables. But remember: you have to lift up the mirror first using the cable screwed onto the lens!

Note: Obviously, while the mirror is lifted up, you can't see anything in the viewfinder.

### **Focusing the RZ67 + the “bellows factor”**

To address the elephant in the room, let's talk a little about the focusing principles of the Mamiya RZ67. Many photographers find the focusing system on RZ67 different and quite awkward to their usual cameras. The RZ67 uses bellows focusing with a rack and pinion drive, much like a large format view camera, but without ground glass (nevertheless, there is an option available for the RZ!).

When the bellows is deployed, the camera shows a diagram on the right side of the camera body with a lot of information. It's a kind of a calculator. This diagram is to help you find the right depth of field (DoF) and set the best diaphragm to get what you want in focus. You also use the blue ring on your lens that tells you what the real DoF obtained with your diaphragm setting is.



**Mamiya RZ67**  
PROFESSIONAL II

## Mamiya RZ67 – the distance scale

On the left of the diagram, you have the focusing distances in meters (white) and feet (yellow). On the right, you have a list of lenses ranging from 50mm to 360mm (not the complete system). In between these, there is a diagram for each lens, for the corresponding focusing distance.

**You might be interested in...**



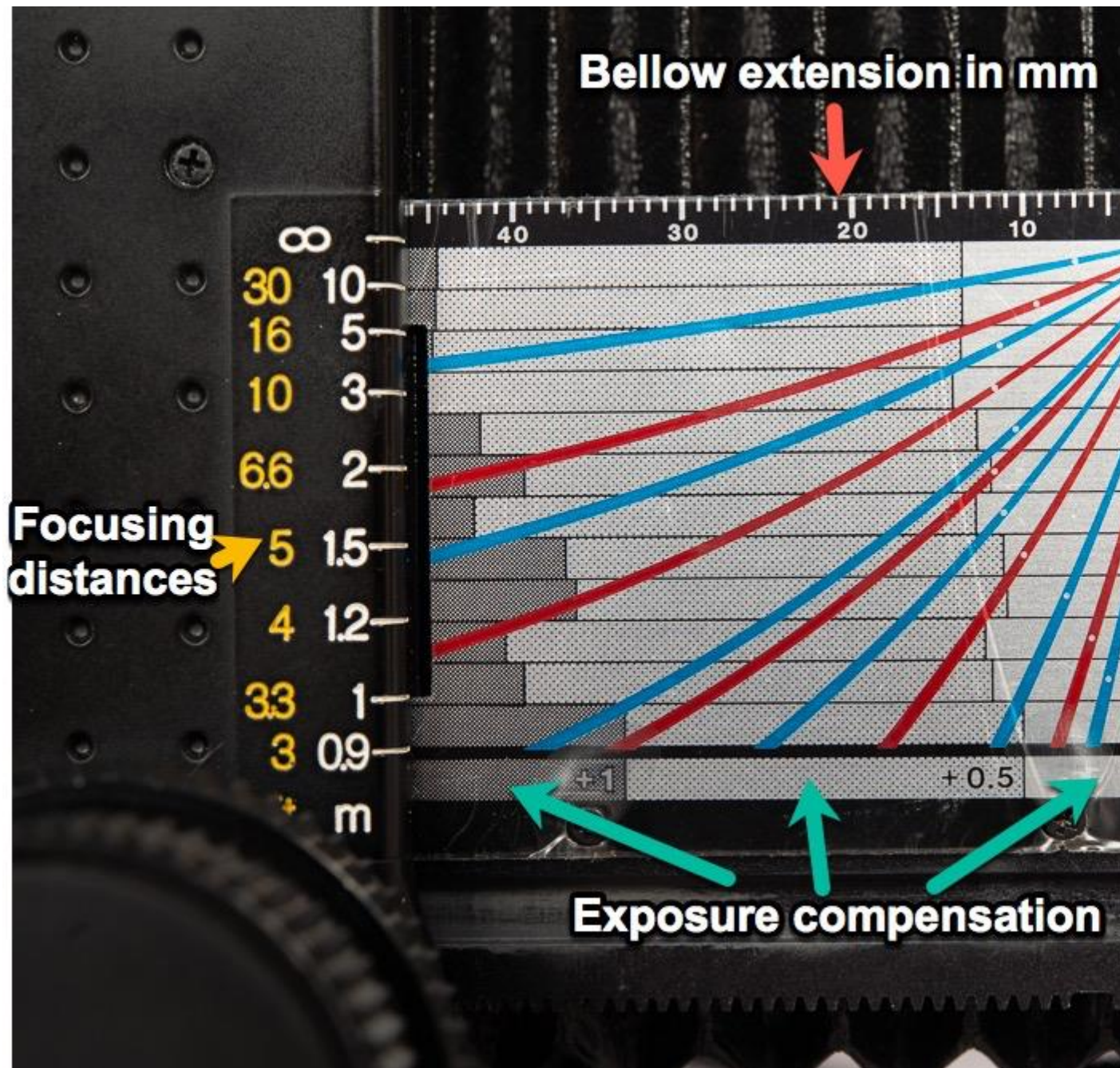
A complete guide to the Mamiya RZ67, part five: conclusion and personal stories



A complete guide to the Mamiya RZ67, part four: maintenance and miscellaneous accessories

The diagram is also useful to find exposure compensation values when the bellows is deployed. Like a large format camera, the further the RZ67's lenses move from infinity, the more light needs to be “let in” in order to factor for bellows extension.

You can see from the diagram below that the 90mm lens only needs a small amount of compensation to be added. The picture below shows the bellows extended fully. In normal use, you will only see a part of the lines that represent each lens' distance/exposure curve. Check for the white dot to see which curve represents which lens. From the right to left: 50mm, 65mm, 75mm, 90mm, 110mm, etc.



Mamiya RZ67 – the distance scale

Fully collapsed bellows will give you infinite focus for all lenses. Fully extended, it depends on the lens, but you can focus as close as 0.2 meters. The distances on the camera go from infinity to 0.9m (3ft).

With the bellows fully extended, the 50mm to 150mm lens' closest focusing distance can be much shorter than what you read on the scale. For example, the minimum focusing distance from the front of the 50mm is 45mm. (With the 37mm it's only 6mm!)

As you rack the bellows out to focus, the diagram shows you the amount of exposure compensation you will need to apply to your meter reading based on the distance to your subject.

- If you fall into the light gray zone, you have to add +0.5 stops.



- If you fall into the dark gray zone, you have to add +1 stop of compensation.

As I mentioned above, this is because the further the bellows is extended, the less light will hit the film, and the film needs more light to make a correct exposure. If you use the RZ in manual mode with a light meter, don't forget to use this compensation!

It's easy: use the compensation dial on your light meter and set it to +0,5 or +1, or figure it out in your head. There is no need to do this if you use the FE701 prism in semi-automatic (AE) mode.

The top scale is the extension of the bellows in mm, depending on the lens used and the distance of your subject, but you can read it immediately. It will also be necessary to set the floating lens elements (if you use a lens with floating elements) depending on the lens you are using. There is more on that in part three.

RZ lenses have Depth of Field scale accompanied by a blue rotating lens distance scale (in meter and feet) used to inspect the depth of field for particular aperture. After checking the depth of field, it is wise to set focusing for lens and distance by rotating the bellows focusing knob (on the camera).



Mamiya RZ67 – the depth of field scale

This blue rotating ring is purely informative, it is only a calculator, it really does nothing to the lens. To perfectly manage your depth of field with these two elements, you first need to determine the distance of your subject by using the scale on the right of the camera, which depends on the lens used and the deployment of the bellows to calculate the DOF. A detailed explanation will guide you in the lens chapter.

### **The focusing knob**

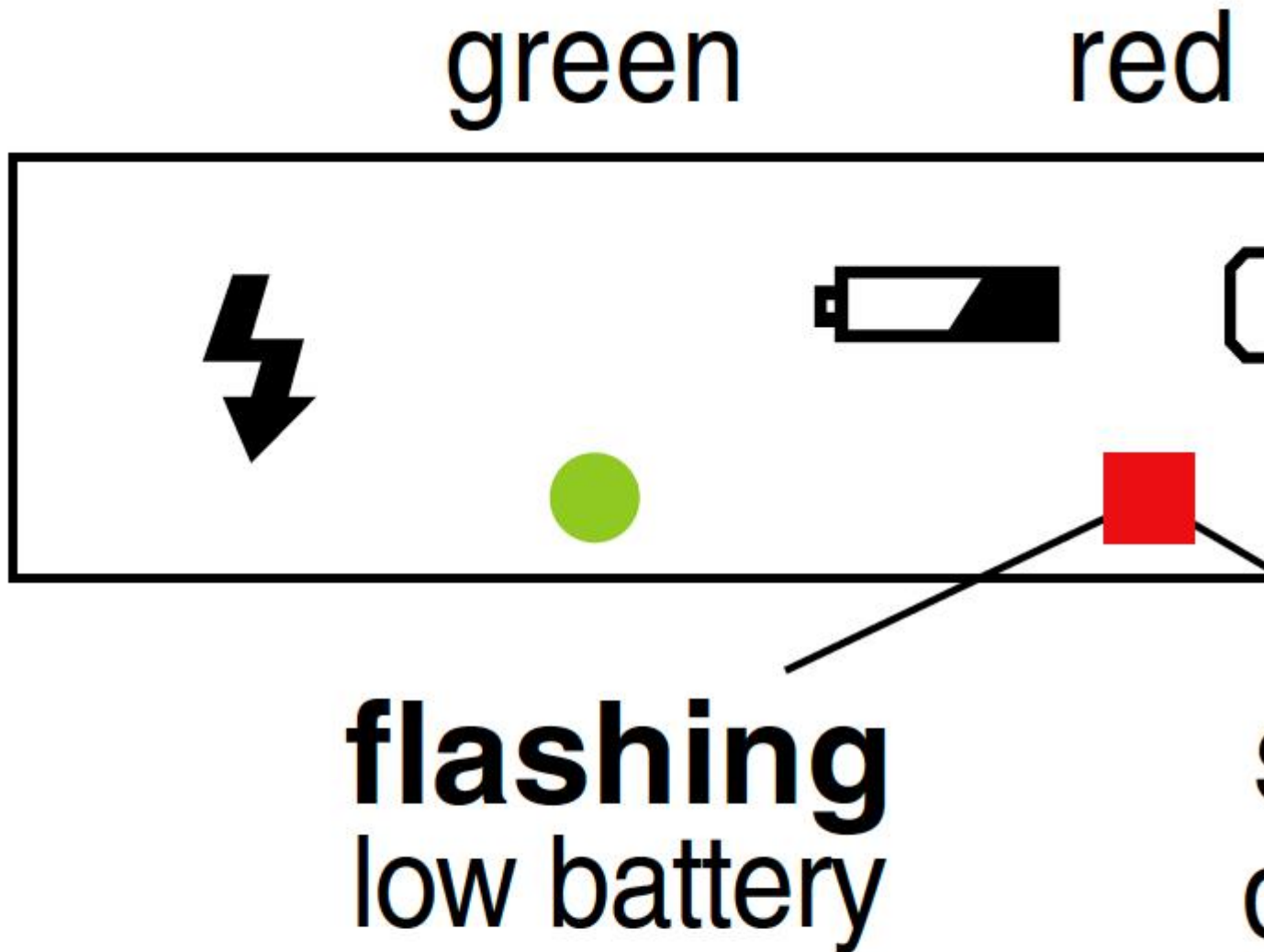


## Mamiya RZ67 – focusing

I think that the focusing knob of the RB and first-generation RZ has too fast development, meaning a very small change on the knob can radically alter the focus point. The RZ Pro II and Pro IID also have a fine focusing knob that helps a lot for precise focusing (on the right side only).

### Focus screen warning signals

The details of this display are valid for all types of viewfinders, including the WLF.





- **Green:** This LED is only used when you work with the Metz/Mamiya flash interface module SCA395 or the MZ36R. Forget it, because it's quite impossible to find one today that works. Anyway, if you have (or find) a working one, this green LED glows to indicate when the flash unit is ready.
- **Red:** If it blinks, you need to change the battery (quickly). If it glows continuously, you need to remove the dark slide from the front of the back.
- **Orange:** It glows continuously when you forget to push the cocking lever on the RZ for the next shot or if the RM lever is still in the R position. So you need to push the cocking lever! If you use some old Polaroid backs, this LED glows and the camera doesn't let you shoot. The only way is then to put the RM lever on the M position. The orange LED also light when you try to shoot without film in the camera, when you have installed a roll film but not wind it to the using position (number one in the counter view of the back), or when you try to shoot with a finished roll.

### **Focusing options: screens and viewfinders**

The Mamiya RZ67 system offers 8 focus screen and three viewfinder options – all user interchangeable. The breadth of options allows the RZ67 system to be truly configurable to the photographer's needs.

#### **Focus screens**

Case in point, to replace the focus screen, one simply removes the viewfinder (taking care, especially if it's a prism). If you do not know how, it's explained in the next chapter. There are three points surrounded by a red circle in the image below. This is where the focusing screen is fixed on the top of the camera:



Mamiya RZ67 – focus screen mount

To remove it, press slightly on the right side like this:









It's a fragile part, so take your time. Another thing: after removing the focusing screen, the mirror in the camera is no longer protected! Never touch the mirror in any way.

I received my Mamiya RZ67 Pro II with the classic "kit" focusing screen: the Type A. It's all-matte with a fresnel circle in the center. I found out this focusing screen not very practical to make a precise focus. To be clear: I don't like it.

So I tried to find a better one, and the problem has begun: some focusing screens are easy to find, some others are incredibly rare and very requested. My choice went to the Type E (rangefinder spot/micro prisms/ Matte screen), that is the best of all focusing screens, and the hardest to find. After one year of research, yes, one year, I finally found one (a miracle!), and it's a fantastic improvement, a real evolution for me. With the FE701 and its magnifier, I do not shoot any unfocused images anymore...

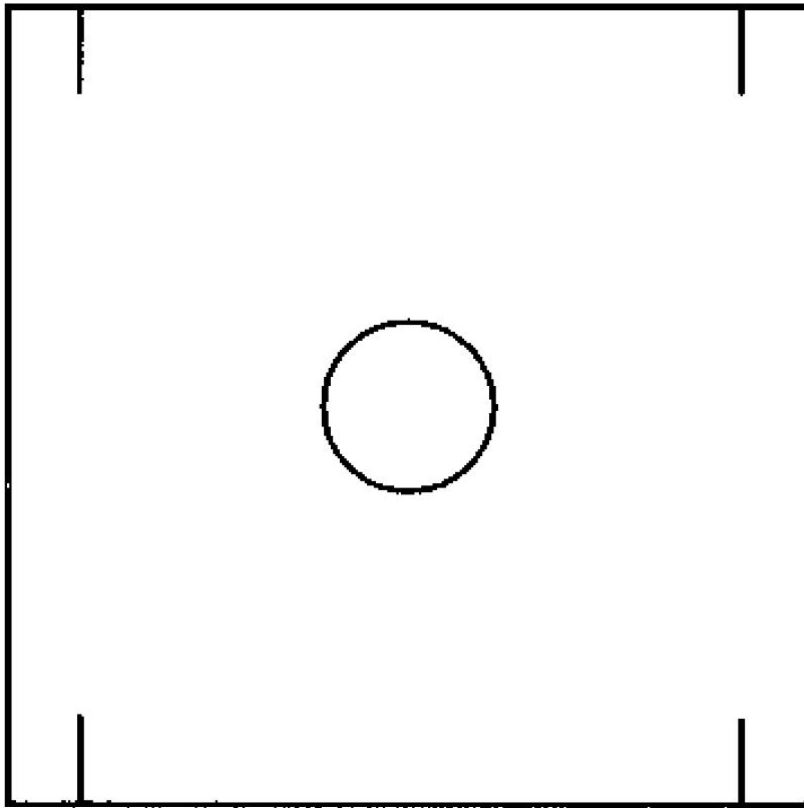
The screens are as follows:

1. Type A Matte screen.
2. Type A1 screen.
3. Type A3 Matte screen.
4. Type A4 Checker screen.
5. Type B Rangefinder Spot screen.
6. Type C Microprism screen.
7. Type D Cross Hair screen.
8. Type E Rangefinder Spot / Micro prisms screen.

In further detail:

### **Type A Matte**

All-matte with Fresnel lens, suited for general purpose photography.



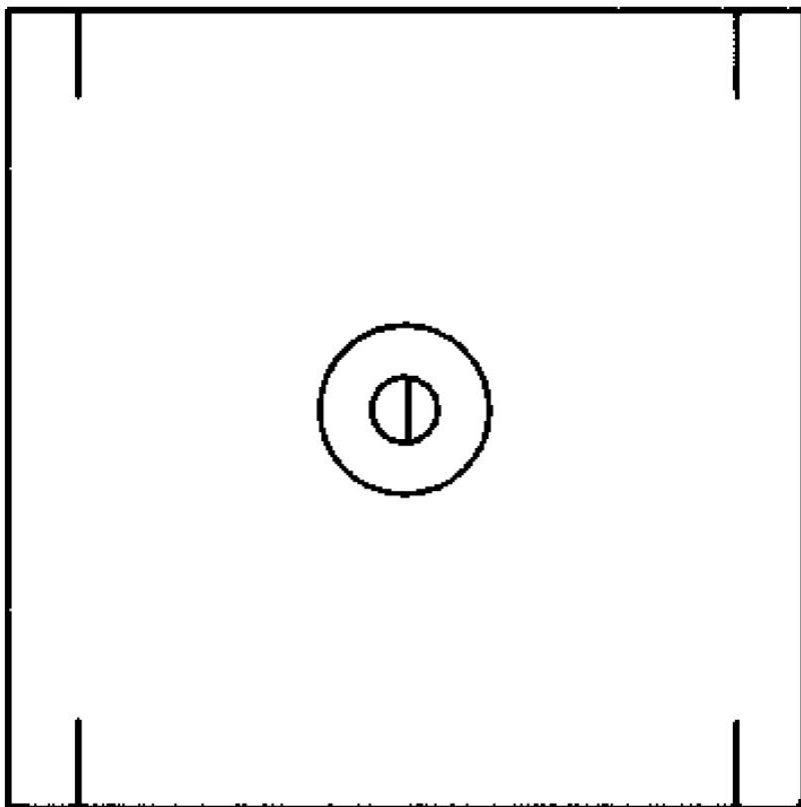
Mamiya RZ67 – Type A Matte

focus screen

### **Type A1**

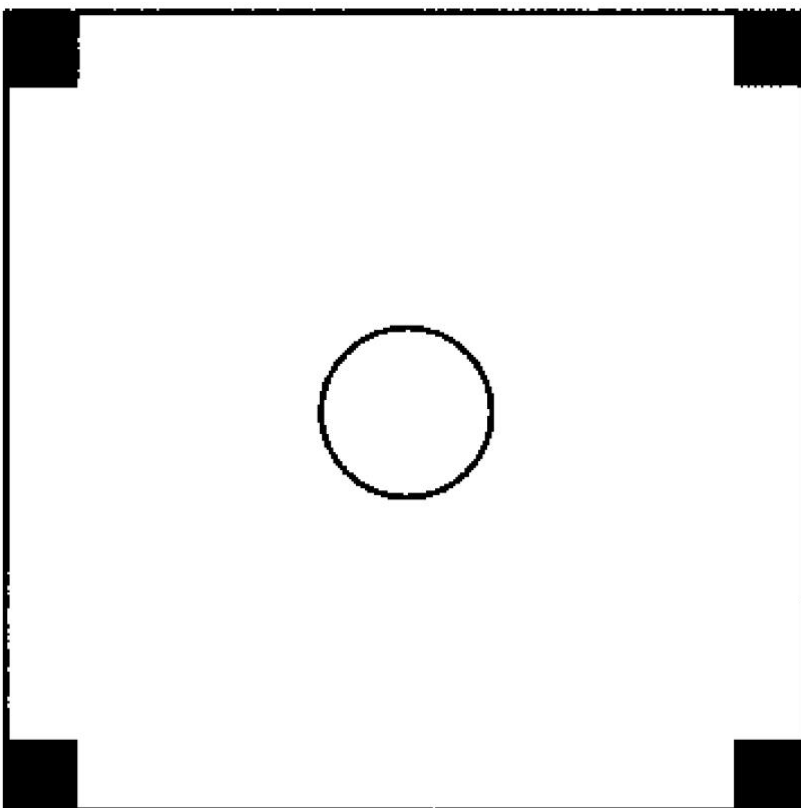
Same as Type A but with a vertical central split-image rangefinder.





Mamiya RZ67 – Type A1

**Type A3 Matte**

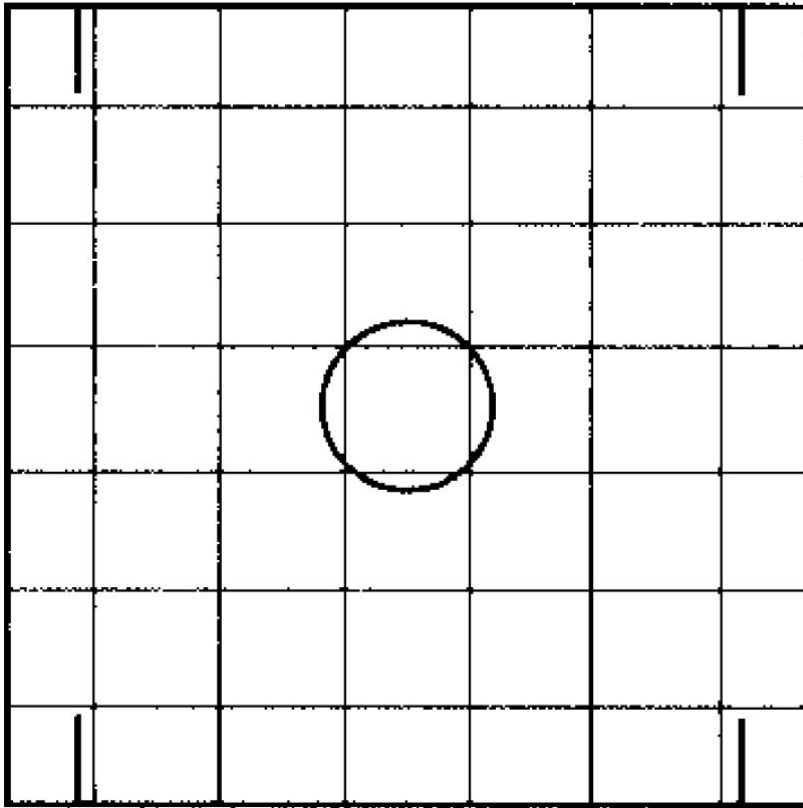


Mamiya RZ67 – Type A3

Same as Type A with black corners, for general purpose photography.

### **Type A4 Checked**

Same as Type A, but with a grid for composition or multi-exposures.

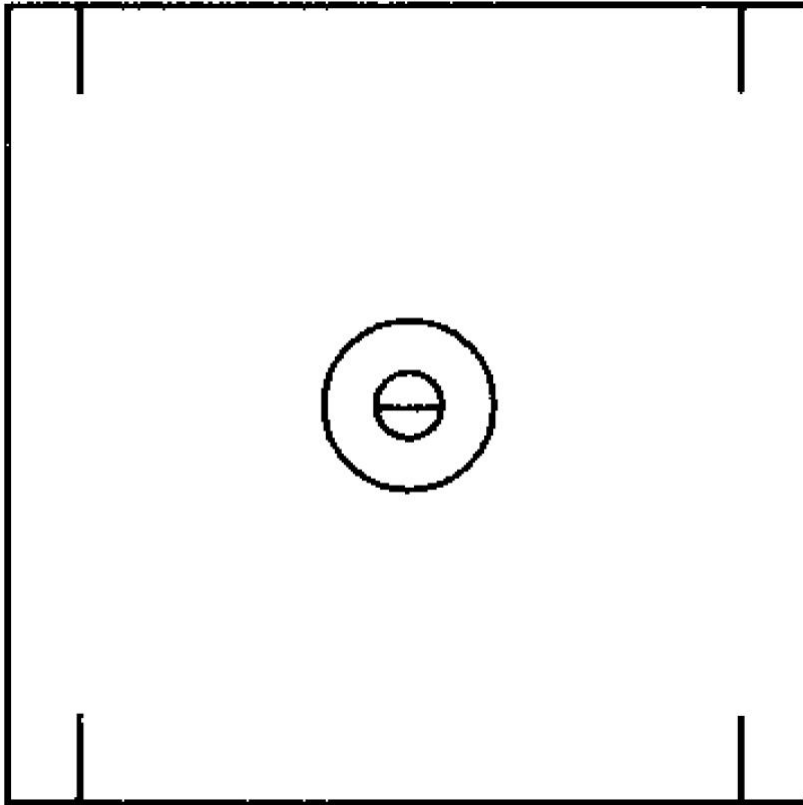


Mamiya RZ67 – Type A4

Checked

### **Type B Rangefinder Spot**

With a central split-image rangefinder that helps with focusing.

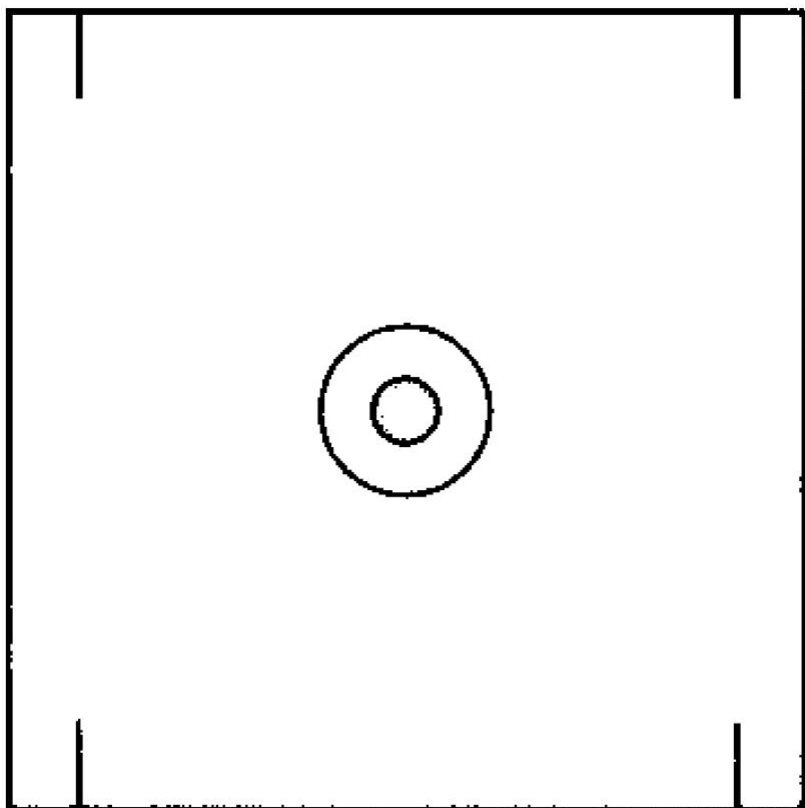


Mamiya RZ67 – Type B

Rangefinder Spot

### **Type C Microprism**

Microprism spot added in the center of the screen to help focusing.

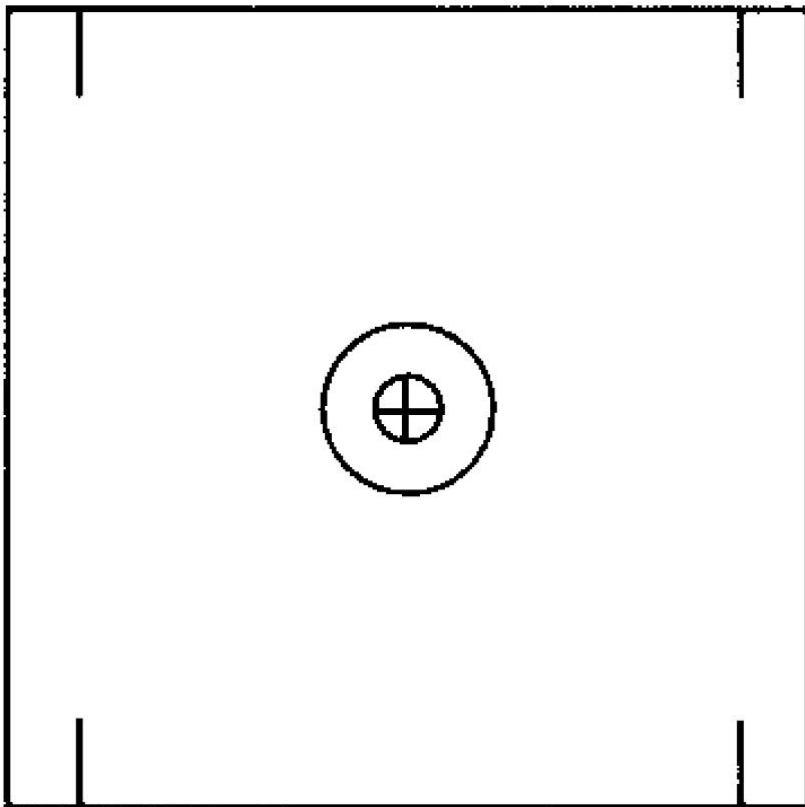


Mamiya RZ67 – Type C

Microprism

**Type D Crosshair**

Center crosshair. Used for parallax focusing, great for macro.

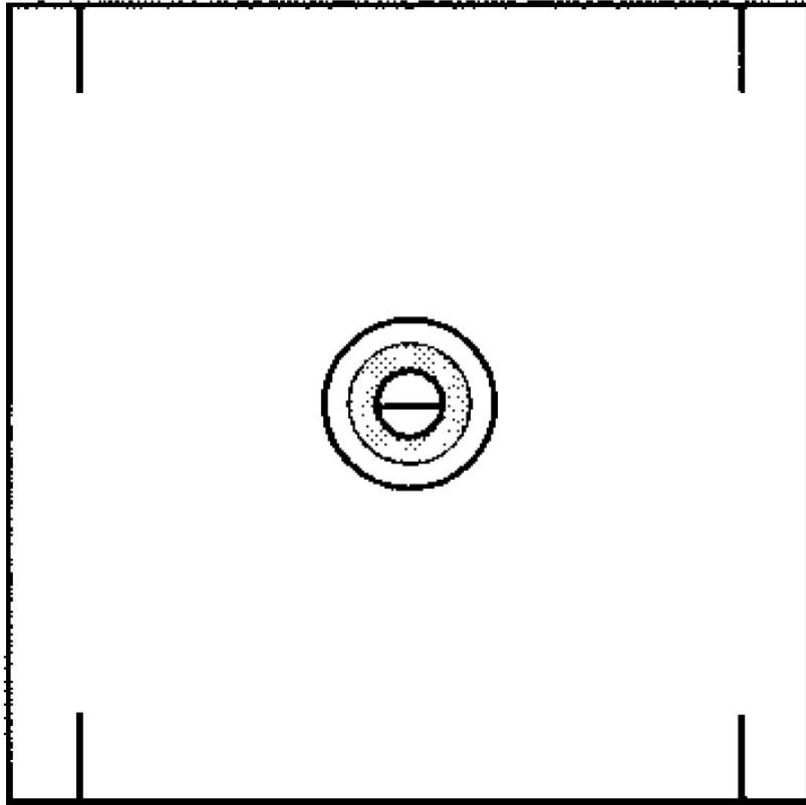


Mamiya RZ67 – Type D Crosshair



### **Type E Rangefinder Spot / Microprism**

Same as Type A, but with a central split-image rangefinder wedge, surrounded by a microprism collar. Highly versatile 3-way focusing (rangefinder, micro prisms, matte screen). Ideal for general purpose photography.



Mamiya RZ67 – Type E

Rangefinder spot and Microprism

According to the Mamiya catalogs and the documentation you can find online, this listing may be mixed. Some other type may exist, and I don't have all the Mamiya documentation. I already found online focusing screens for the RZ with weird references, I have never seen in any Mamiya official manuals.

### **Mamiya RZ67 viewfinders**

Mamiya made a lot of different versions of viewfinders. And you can also use older ones from the RB (with a little accessory). Some are fully manual, and some are semi-automatic (providing AE). Some reverse the image right to left, and some show you the exact image you see with your eyes. This is a presentation of the main viewfinder types you can use with an RZ camera.

Let's first see how to change the viewfinder:

To remove, install or replace the viewfinder (same for all models):



## Mamiya RZ67 – Remove and replace viewfinder (step 1)

You have two blue buttons on each side of the front of all viewfinders, push them simultaneously like shown in this image, following the arrows.



Mamiya RZ67 – Remove and replace viewfinder (step 2)

Then pull up the viewfinder to remove it. To install another one (Prism or Chimney), it's the exact contrary, including pushing the blue buttons and following the arrows at the end. Not complicated. Just a thing: the prism is big, heavy and very fragile. Take care when you install or remove it.

For the RZ, you have 3 main different viewfinders.

The WLF – waist level viewfinder





### Mamiya RZ67 – standard waist level finder

It's a traditional type of finder for this kind of medium format camera. This viewfinder is manual (no automatic exposure) and it is the lightest of all Mamiya viewfinders. It's also the easiest to use. To work with it, you need an external light meter, or if you are used to it, the sunny 16 rule.

With a 110mm lens, you have the lightest configuration available with an RZ. But you have to take into account all the required compensations to set your exposures: filters and bellows extension.

Looking top-down into the camera, the image is reversed from right to left and it can be a problem if you are not used to it but I think this viewfinder is better for composition. As you need to look from above, it could be problematic if you install the camera on a tall tripod — you'll then need a stool to be above this viewfinder to make focus and compose your image (Personal experience...).

The RZ was sold with this viewfinder system by default, and it is often found with it when you seek to buy one on the second-hand market.



Mamiya RZ67 – through the standard waist level finder

This waist viewfinder includes a magnifier. To access it, move the lock a little to the left per the first photo below. The magnifier lifts and you can use it for precise focusing.







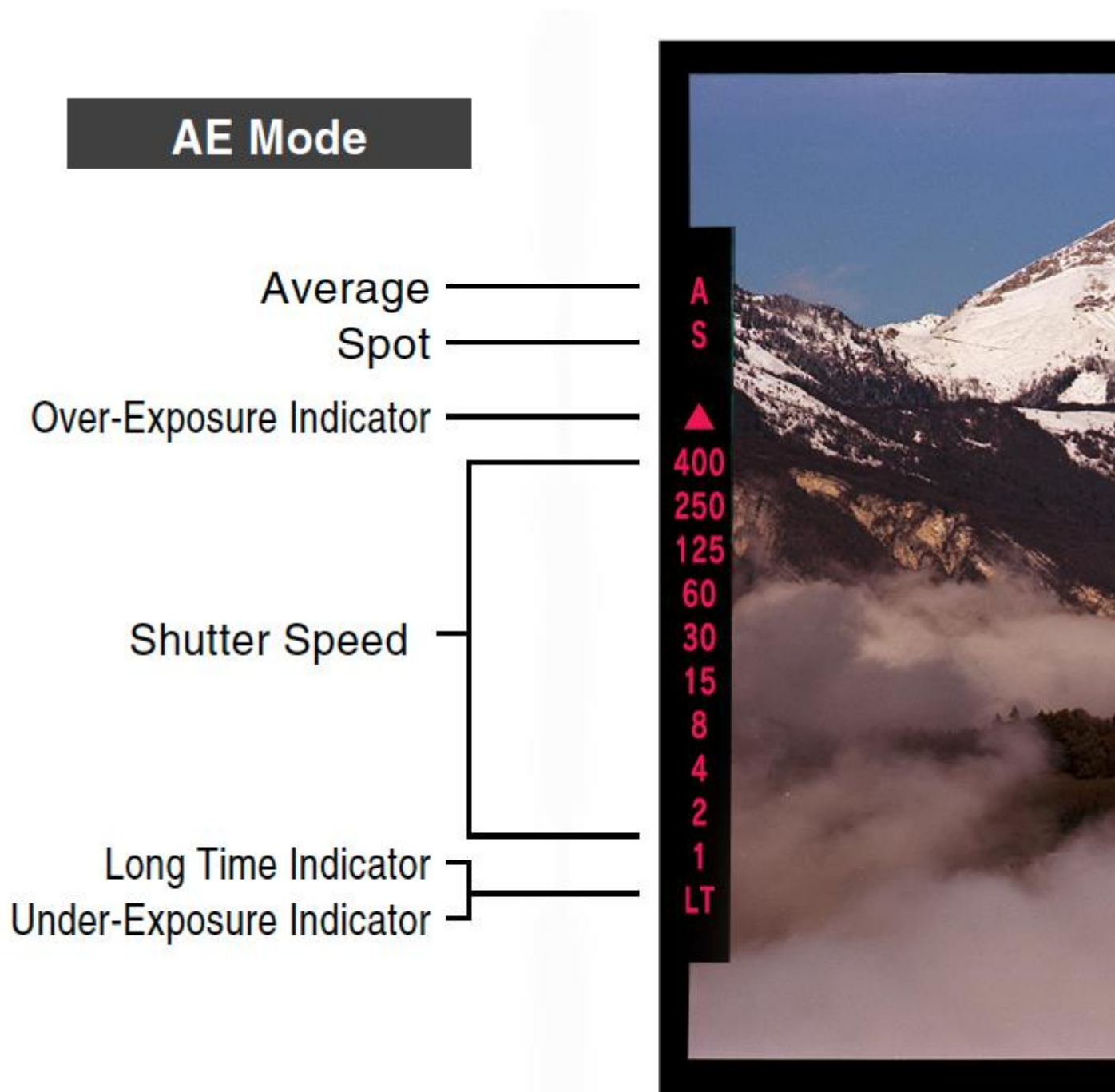
If you need better correction (or to help your eyes) you can change the default magnifier with others you can find online. With an example on hand, you can also commission your local optician to make a replacement lens for you.

**AE prism finder FE701**



Mamiya RZ67 – with AE Prism finder FE701 installed

This viewfinder is like that of any 35mm SLR, the image is oriented correctly and it's the same of what your eyes see. It also includes a light meter with a semi-automatic exposure system (AE), which allows you to shoot semi-automatically. It's an aperture priority system: you set the aperture, the RZ set the speed automatically (AE priority System).



Mamiya RZ67 – through the FE701 finder

The image above shows you what you actually see in the viewfinder when you work with the FE701 prism.

In automatic (AE) mode, at the left side of the view in the viewfinder, you can see the shutter speed, that the RZ automatically adjusts according to your choice of diaphragm and ISO values, and if your image will be over or underexposed.

On the right, you have help displays for manual exposure. The green point is the “perfect” exposure, the orange triangles or the + and – indicate over or under exposure. These indications follow the measurement made by the included light cell, depending on your choice of type (Spot or Average). These are just indications, which do not make any adjustments.

To set the FE701 in automatic mode, you need to set the shutter speed dial (at the left side of the RZ) to “AEF” and the one on the top of the FE701 on “A,” like this:





**RZ67 AE PRISM FINDER**

**Mamiya**



Note: AEL on the prism speed dial is for memorizing the exposure, all others are manual exposures. RBL on the camera speed dial (RZ Pro II & Pro II D only) is when you use an RB lens with an RZ camera: in this case, there is no mechanical transmission, and you need to set speed and aperture directly on the lens, in manual mode (no AE).

All the red indications on both speed dials are locked, to release the speed dial (to set a manual speed), you need to first press the button in the middle before turning it.

Above the prism, on the left side, you have the compensating dial you can set from +3EV to -3EV. To turn it and change the value, press the middle button.

RZ67 A

M



Mam

7

## Mamiya RZ67 – FE701 EV compensation dial

The little switch in the middle is the Eyepiece Blind Lever, and it can be helpful in many cases, macro, portraits: to avoid light to come from the viewfinder and fog your film. It's also interesting in case of long exposures.

With the FE701, you can still shoot in manual anyway: For this, use the speed dial on top of the FE701, instead of the one at the left side of the RZ (that must be set on AEF then). In this case, there is a help in the viewfinder (LEDs at the right side of the viewfinder view) that tells you if your exposition is OK (green dot) or not, with orange arrows for over or under exposures.

When you use the FE701 in AE mode, you have three metering modes: Average (AV), spot (SP), and an automatic selection according to the lighting conditions (Auto A-S). Besides, you can set the prism on AEL (using the speed dial above the prism) when you use the Spot mode, to memorize the lighting conditions of a particular zone.



Mamiya RZ67 – FE701 metering mode



An important thing to set before shooting in AE mode is the ISO of the film used. This setting is on the film back:



## Mamiya RZ67 – set the ISO

This knob goes from 25 ISO to 6400 ISO. This setting is useless if you shoot in manual, but it's vital in AE. Anyway, it's also a good reminder, even if you shoot in manual. And remember you can use the metering system of the FE701 in manual, to help to find to compensate your exposure when you use filters or because of the bellows extension.

As I have tested, this automatic exposition system is rather good, much more than one might think. And I love seeing my image in the camera the same way I see it with my eyes! So I love this AE prism finder, although it adds weight (+940g), it allows me to shoot using my hands just about anywhere, especially outdoors.

Note: The FE701 doesn't need any batteries; it uses the one that's powering the RZ.

Mamiya made another prism: the Prism Finder Model 2, which is quite identical to the FE701 but without any AE possibilities. It's a prism finder like the FE701, but let you shoot only in manual. I never use it, so sorry, I can't tell you details about it.

When you don't use the FE701 (same for model 2), you have a cap to protect the bottom glass and a pouch to protect all the prism and avoid damage:









These two accessories come from Mamiya and are essentials if you work with the prism! The cap is generally provided with the prism, but you have to buy the pouch separately.

I don't advise carrying your camera with the prism installed, even in a photo bag, for example when you don't use the camera. In case of shock or accident, the prism could be ejected from the camera, and some attach parts will be damaged. The prism could break the focusing screen glass too. I had this problem once as the result of a car accident. My prism and focusing screen were damaged and broken. However, my camera with the prism installed was sealed in a Pelicase.

Because of this, I always uninstall the prism from the camera during transport, or every time I am not using the camera. I install the waist level finder in its place and put the prism in the Mamiya pouch (or in a safe and secure place).

### **Magnifier FD701 for FE701 and “Model 2” prism finders**

For focusing problems, Mamiya sold separately a magnifier (FD701) that fits the FE701 (& the model 2) prism perfectly. This magnifier has a diopter adjustment ring (-6 to +4), and it's great if you have like me, some myopia problems. It also magnifies the view by x2,4, that is very practical for precise focusing, and have a round eyecup that helps in a lot of situations.



Mamiya RZ67 – magnifier FD701 for FE 701 and “Model 2” prisms

The view with this accessory reduces a lot the aiming in the viewfinder, but once the focus is completed, it can be raised, and let you finish the composition of your image.





Mamiya RZ67 – magnifier FD701 for FE 701 and “Model 2” prisms (flipped up)

The RZ has many accessories for all situations, some helps me a lot to resolve my little viewing problems. If you take a look on Youtube about the RZ, you probably found a lot of videos made by Julio Ryuuzaki, a big fan of the RZ system. He has made a tremendous number of video manuals for the Mamiya RZ67, and his camera is entirely DIY, especially on the side of the viewfinder.

Like portraits, I mostly shoot myself, the usual is to make the focus on the eyes of the model. With a very shallow DoF, it's a thing that can be complicated to get, and you need to be very precise. The focusing is always very thin with an RZ, as many other systems anyway.

But you have another assistant waiting: knowledge about depth of field. For this, I use mostly apps on my smartphone. It's not the subject for detailed discussion here, but you can find many Apps to help managing DoF and consequently the focus in your images. The one I use is [“DOF Table” by Suguru Yamamoto \(available on IOS\)](#) because you can create your own system, add your own equipment, lenses, etc. And it shows you the complete table of DOF for each configuration.

There is a free version to try it, and the pay version is not expensive.

### **Mamiya RZ67 AE Magnifying Hood**

This is the third viewfinder for the RZ, I don't have one, but I think it may be interesting to talk a little about. It's like a “chimney”. According to Mamiya's documentation, It has an aperture priority exposure (AE) like the FE701, and a diopter adjustment ring (-1.8 to 0.4). The image is reversed from right to left, like the waist viewfinder. This accessory is known to be very useful if you shoot macro, it is a little hard to find and usually costs quite a lot. It increases magnification to 2.5x, and I think you can see the entire image in the viewfinder (reversed right-left). Mamiya also said that it must be modified before used with the RZ Pro II. But some users wrote that it works well without modifications anyway.





- |                              |  |
|------------------------------|--|
| ① Shutter Speed Dial         | ⑥ Diopter Scale Index                            |
| ② Exposure Compensation Dial | ⑦ Exposure Compensation Dial Lock Release Button |
| ③ Setting Index              | ⑧ Auto Lock "A" Release Button                   |
| ④ Eyecup                     | ⑨ Mounting Lock/Release Button                   |
| ⑤ Diopter Adjustment Ring    |  |

Mamiya has made other models of viewfinders, less technical and more straightforward, I do not know them much, so I prefer not to talk too much about them because many were made in the early days of RZ version I.

#### **Using AE light measurement with the FE701 and magnifying hood**

Because exposure measurement is made through the camera lens (TTL), you don't need to use any compensations when you shoot macro, with bellow extension, some filters, the extension tubes, or the teleconverter (except for the 360 and the 500mm), if you use the prism AE in AE mode.

Even if you work in manual, you can use the AE mode to find the real compensation needed in case of using any accessories which modify exposure (like a filter, or bellow extension...) and apply the exact compensation value on your light meter.

### **Using prisms or other viewfinders made for the RB camera.**

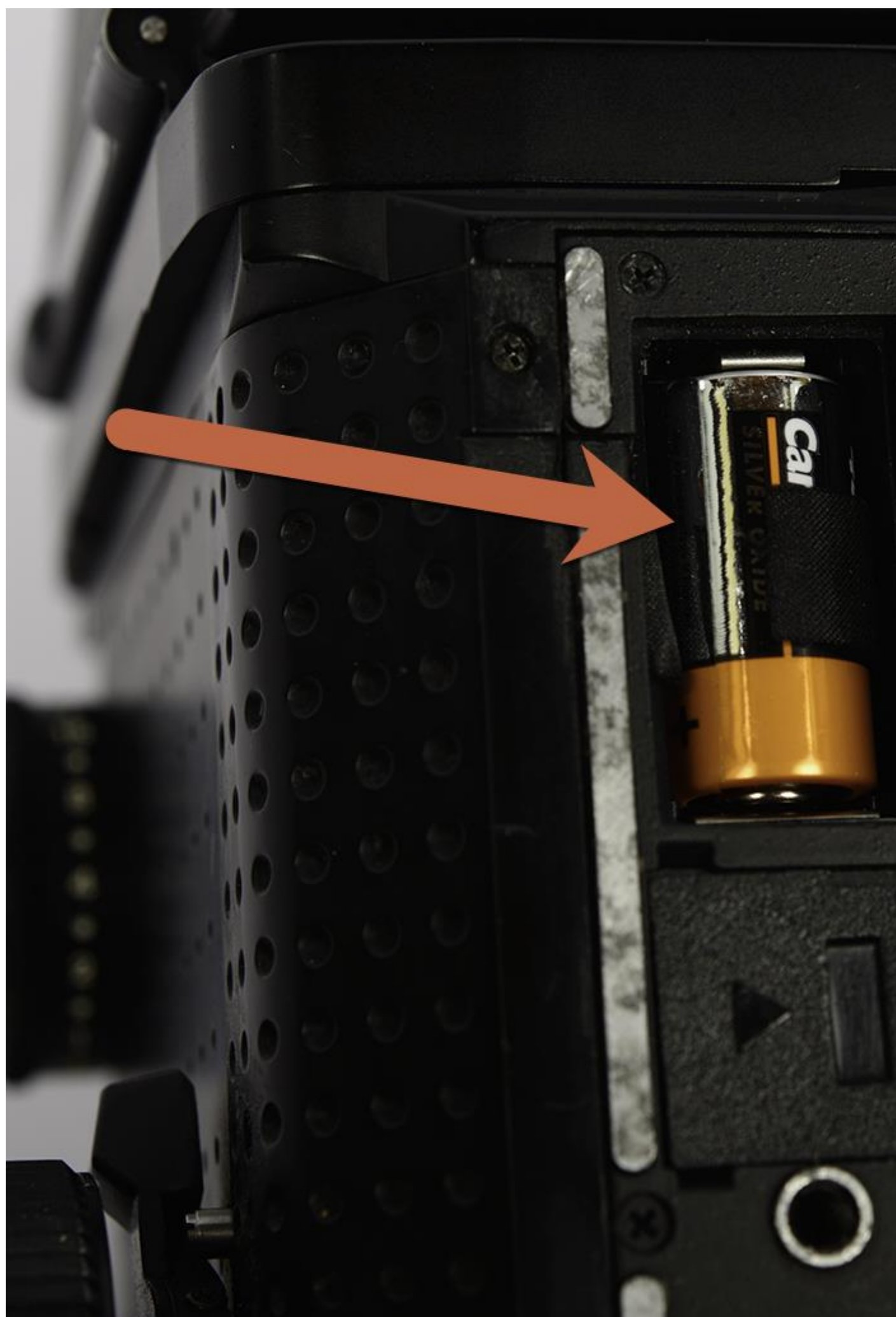
You can also use an RB67 PD prism with the RZ, but in this case, you need the Electrical Contact Cover accessory to protect the electrical contacts on the top of your RZ and avoid electric short circuits which can damage the electronics of the RZ.

### **RZ internal battery**

The internal battery for the RZ series is easy to find and of a current type. I usually find mine online. You have different kinds of batteries and brands use different names for them. The most usuals are the alkaline type (4LR44), the Silver Type (4SR44), and the Lithium type, but you also find other references: V28PX, 4028, KS28, PX28, A544, S1325, 1406SOP-S, depends on the different manufacturers. All are 6V batteries.

I only use known brands (Energizer, Varta, Panasonic...), because they provide batteries that have the most extended time life. I have done more than 60 rolls with the same battery from one of these brands! I also tested other brands, much less known, and I made less than ten rolls with them. Silver ones have a longer time life than the alkaline ones (and are a little bit more expensive too), but I didn't see a real difference between silver and lithium, and their price does not differ much now. For me, Silver ones are the best.







## Mamiya RZ67 internal battery

**Tip:** Always carry one or two new batteries just in case. They are small and do not take a lot of space in your bag. It's because there is no indication of the battery state in the RZ until it's quite totally dead: a red led will flash in the viewfinder, and you might hear a "beep" but that's it.

You can also find an external battery case from Mamiya with a part that replaces the battery in its compartment on the bottom of the RZ, with a wire and a little box for the same type of battery than the RZ, (4LR44 or 4SR44). This external battery case purpose is to maintain battery performance when you shoot in cold conditions. And for that, you have to put it warm in a pocket on you ... I don't have one, and I have to say that I have already shot with my RZ at minus 10°C, without problems.

## Closing thoughts and what's next



APR 1-6  
1  
APR 1-6

Mamiya RZ67  
PROFESSIONAL II

∞ 10 360  
30 10 250  
16 5 210  
10 3 180  
66 2 150  
5 15 140  
4 12 127  
33 1 110  
3 09 90  
ft m 75  
STEP 65  
50

## Mamiya RZ67 Professional II with Winder II

This camera is fantastic! If you have a doubt: test it. In any case, I hope that I will have given you the desire to try it by reading this review... It is a good camera, a great camera but how it suits you will very much depend on what you need the camera to do. Perhaps you prefer the methodical approach to setting up the camera to shoot – it's not really a point and shoot camera.

To help summarize, I have put together a quick pro/con list for you to consider:

### **Pros and cons**

The main advantage of this system is obviously the quality of the lenses. Maybe not as good as the latest Hasselblad lenses, or some known German lenses, but incredibly fantastic anyway. Add to this that you shoot in 6×7, and the results are really awesome.

Another thing I really love is its versatile side and all the possibility offered by the Mamiya system. It's a kit!

If you print your own images on paper, it's always a wonder. You can enlarge more, and using the same size of paper, you see less grain of the film than printing from a 35mm negative. The equipment to develop is quite easy to find and even always manufactured and available (Paterson, Jobo ...), and the enlargers are also quite easy to find used. You can set up like me, a laboratory or a dark room to process and print your images yourself.

The 6×7 format is almost like large format (LF), because you get larger negatives than the 35mm, even if it does not reach of course the very high quality you can get with the LF, MF is still a little more practical in use. If you're only used to 35mm, the Mamiya RZ67 system will give you a taste of the LF.

Camera side, you have the choice of many models and brands, I chose Mamiya, because I think it's the best choice in terms of quality and price.

Of course, you can choose another brand, some are actually overpriced even in the second-hand market (Hasselblad, Rollei, Contax...), these are always "luxury systems". And next to that, you have other brands and other fabulous cameras that are a little more accessible (Mamiya, Zenza-Bronica, Pentax...).

The weight is not a real problem. With the waist viewfinder and a 110mm, its weight is very supportable. The RZ is lighter than the RB, and if you use a neck strap, it's easy to carry.

One of the problems I found, is the grip of this camera. It's a little complicated to get used to at the beginning, especially if you are only familiar with 35mm. Its size and volume are more problematic than its weight. That's why I advise using a neck strap.

The battery is not a problem. You can find one everywhere. Most of the time, I get mine online.

### **On to part two**

That's the end of part one. at ~8,000 words, I applaud you for getting this far. There are at least another 30,000 to come as we move to part two and beyond. For the next three parts I will be diving

into detail to cover the film back/holder system, the lens system (a complete listing of lenses, macro accessories, teleconverters, hoods and more), and as the last article for the “technical” aspect, maintenance, upkeep and miscellaneous accessories that don’t really fit into the previous sections.

The final part will be covering my personal story with the RZ67 system – more “years in the life...” than “a day in the life...” This part is especially important to me, as I believe in having a strong bond with my photographic tools is an important factor in the photography I produce.

Until next time,

~ **Pierre-Gilles**

### **Share your knowledge, story or project**

The transfer of knowledge across the film photography community is the heart of EMULSIVE. You can add your support by contributing your thoughts, work, experiences and ideas to inspire the hundreds of thousands of people who read these pages each month. [Check out the submission guide here](#).

If you like what you're reading you can also help this passion project by heading over to the [EMULSIVE Patreon page](#) and contributing as little as a dollar a month. There's also [print and apparel over at Society 6](#), currently showcasing over two dozen t-shirt designs and over a dozen unique photographs available for purchase.