

# TLRgraphy

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## Repair Mamiya TLR Lenses

By TLRgraphy on November 8, 2012

Recently my [mamiya](http://www.mamiya.co.jp/) (http://www.mamiya.co.jp/). tlr 65mm lens got problem – the shutter blade won't open at whatever speeds. I did some internet search and found some very useful information regarding repairing or fixing mamiya tlr lenses.

below is a summary of these information from various sources:

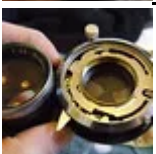
the first set of pictures are from flickr: [Jones Industries](http://www.flickr.com/photos/jones-ben/) (http://www.flickr.com/photos/jones-ben/).



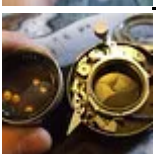
(<http://www.flickr.com/photos/jones-ben/3156444887/in/set-72157612018312116>)



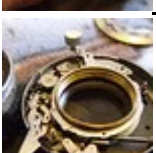
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(<http://www.flickr.com/photos/jones-ben/3157285030/in/set-72157612018312116>)



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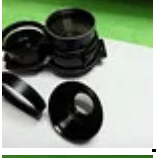


(<http://www.flickr.com/photos/jones-ben/3157295158/in/set-72157612018312116>).

The second set of pictures are from **soundsk** (<http://www.flickr.com/photos/soundsk/>).



(<http://www.flickr.com/photos/soundsk/8033524009/in/set-72157631644580668>).



(<http://www.flickr.com/photos/soundsk/8033523415/in/set-72157631644580668>).



(<http://www.flickr.com/photos/soundsk/8033523336/in/set-72157631644580668>).



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(<http://www.flickr.com/photos/soundsk/8039172590/in/set-72157631644580668>).



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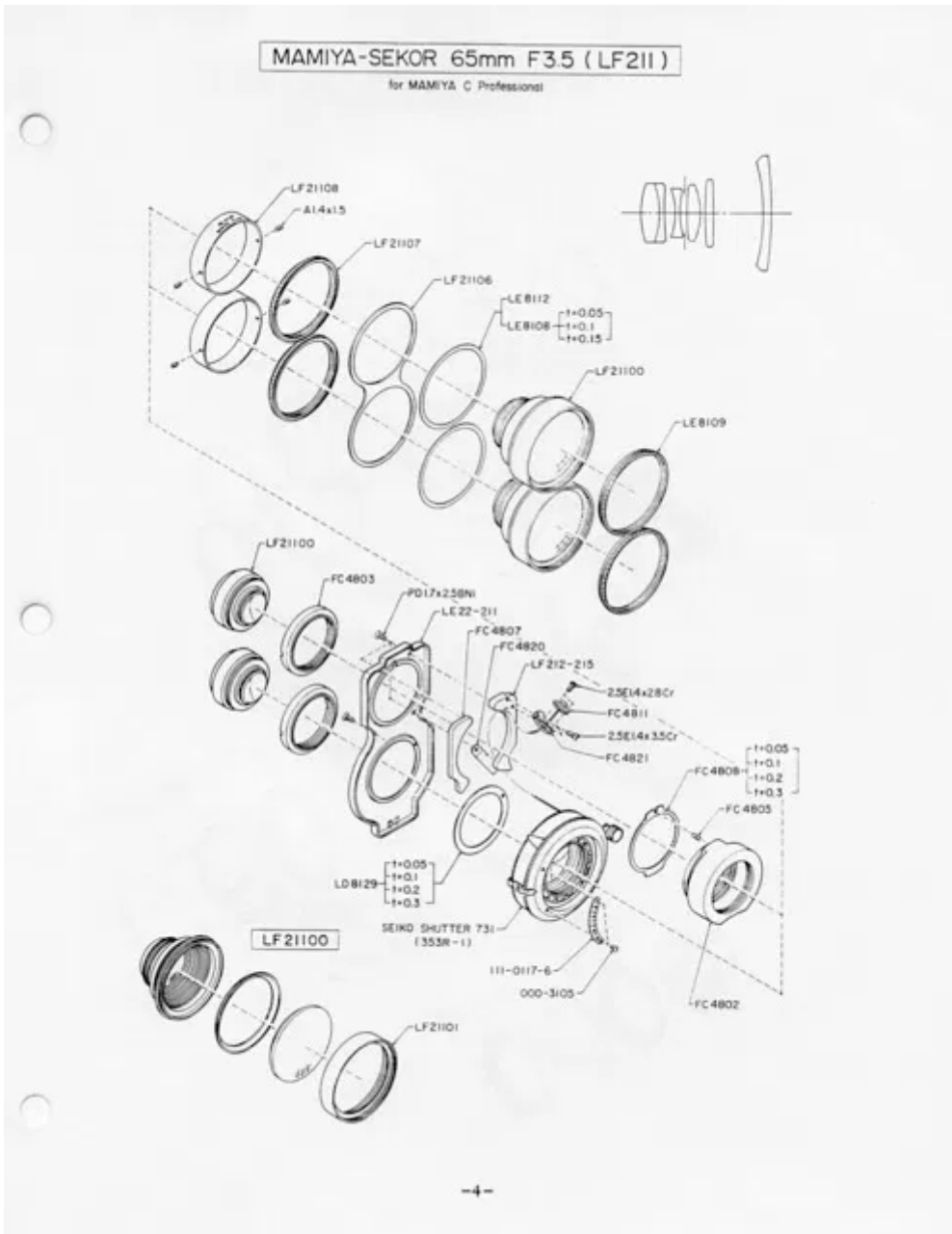
(<http://www.flickr.com/photos/soundsk/8039782994/in/set-72157631644580668>).

Most thankfully, **soundsk** (<http://www.flickr.com/photos/soundsk/>) also provided two exploded view of the lens, as below



## Mamiya Service Manual 65mm Lenses

Scans from the Mamiya Service Manual, courtesy of the very kind Jack Fisher from photo.net



## Mamiya 65mm f/3.5 exploded view

Scans from the Mamiya Service Manual, courtesy of the very kind Jack Fisher from photo.net

some detailed information regarding how to service / repair mamiya tlr or lenses can be found in a french blog site: <http://tlr-mamiya-c.blogspot.sg/> (<http://tlr-mamiya-c.blogspot.sg/>).

of course, you can use google translate to make it to english

and lastly, an enlightening post on dpreview: <http://forums.dpreview.com/forums/thread/2944339> (<http://forums.dpreview.com/forums/thread/2944339>).

# **Lessons learned from restoring old Mamiya TLR lenses**

## **Jan 23, 2011**

**For the older photographers in our forum, that use or plan to use Mamiya TLR cameras and lenses. Here are my lessons learned from repairing a couple of used "chrome" Mamiya TLR lenses. The usual disclaimer, use the lessons learned at your own risk.**

**Zero, before you start handling the lenses wash your hands. Use a clean white towel on a well lighted table as your work area. Should a part or screw fall out it will not go far and can be seen.**

**First, do not remove the lens from the back plane frame, there is no need to access the lens from that side. Front and rear optical assemblies unscrew. There is no need to use a spanner wrench on the retaining clamps that secure the lens to the supporting frame.**

**Second, if the shutter will not cock the chances are a single screw has come loose within the shutter assembly that can be restored. This screw is located at the two O'clock position viewing the exposed taking lens shutter assembly straight on with upper rings and cam plate removed, viewing lens at 12 o'clock.**

**Third, if the shutter cocks but does not operate the blades when released a different screw is loose or has fallen out, that can be restored. This is located just south of the release lever mechanism. Check all screws for tightness.**

**Fourth, never use oil on any part of the shutter mechanism or ring assemblies or aperture assemblies.**

**Fifth, if the aperture blades mechanism is stuck or sticky, this can be cured using small amounts of 91% isopropyl rubbing alcohol applied with a damp Q-tip. To access the aperture internal assembly, This will require unscrewing the rear optical assembly. Work the mechanism manually using the aperture selector arm, do not touch the blades with your fingers and use another Q-tip to remove excess and any grime. Do not use oil. Be sure to remove any lint left behind by the Q-tips prior to reassembly.**

**Sixth, if the shutter ring is sticky or the clicks indents are not "sharp", disassemble the two rings and clean them with isopropyl alcohol. Slightly bend the metal finger on the cam plate that engages the indents on the shutter selection ring.**

**Seventh, screws are tiny, and can be lost in a flash. For most repairs I have done only one screw has to be removed.**

**Eighth, acquire the proper tools, i.e. jewelers screwdrivers, needle nose tweezers, etc. A spanner wrench designed for lenses is required (see lesson 10) to remove the optical retaining rings that hold the individual elements. If you do this be sure to note on paper which side is up, in or out facing. Do not rely on your memory.**

**Ninth, use ROR per the instructions to clean the optics, and do not use canned air.**

**Tenth, use rubbing alcohol mentioned above with your finger tips (no fingernails, just skin) in a circular motion to remove fungus clouds from optical surfaces. It may require several times to completely remove the fungus. Do not allow excess to drip anywhere. Clean with a lint free, chemical free (no anti static chemicals used in the dryer), white cotton t-shirt. Then use ROR with a t-shirt to remove any residues.**

**So far, I have restored two Mamiya TLR chrome shutter lenses and both are working fine now. They were a lost cause when I started. They are simple in design and easy to restore.**

**If you have any second thoughts I recommend taking your lens to a repair facility. But if you are a risk taker and have some common mechanical sense, my lessons learned may prove useful. Search the web for other information sources, and photographs of the lens assembly.**

**Good luck,**

**d2f**

Posted in: Mamiya | Tagged: 135mm, 180mm, 180mm super, 250mm, 65mm, 80mm, business, camera, CLA, Consumer Goods and Services, DIY, exploded view, Eyewear, guide, Instant film, instruction manual, Lens, Mamiya, Medium Format, repair, service, Twin-lens reflex camera, unscrew

## 3 responses

**Kristen Watters** November 14, 2012 at 8:02 am | **Reply**

Thank you so much for sharing this. Though, I am afraid of fixing my own lenses but so far, I haven't encountered any problems with it. Its good that you take the risk of fixing it yourself. -C-ClearAntiFog.com

**tlrgraphy** November 14, 2012 at 8:07 am | **Reply**

I found that mamiya tlr lenses are almost the easiest one to fix. It is easy I dismantle and clean up. I could fix majority of my TLRs with some reference from the website 😊

**How to eliminate static cling** January 11, 2013 at 5:41 am | **Reply**

Hi there! This blog post couldn't be written much better! Reading through this post reminds me of my previous roommate! He constantly kept preaching about this. I most certainly will send this article to him. Pretty sure he will have a great read. Many thanks for sharing!

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