

Non-Exaktas with Exakta Mount Part 3: Topcon 1

by Hugo Ruys

Topcon history

In 1932 the company Tokyo Kogaku Kikai Kabushiki-Kaisha was founded. The name was later simplified into Topcon Optical Co.

It was owned by a powerful Japanese family with strong connections with the Japanese military leaders. So it produced precision optical instruments and mechanisms for the Japanese armed forces. Its first lens was introduced in 1933 and its first photo camera, the Lord, in 1936. The design of the camera was quite original, but its quality was not impressive. Before WWII several other cameras were made, for example the Minion, Primoflex, Laurelflex and Topcon 35A. The last one was clearly a 35mm photo camera.

Topcon and Exakta camera mounts

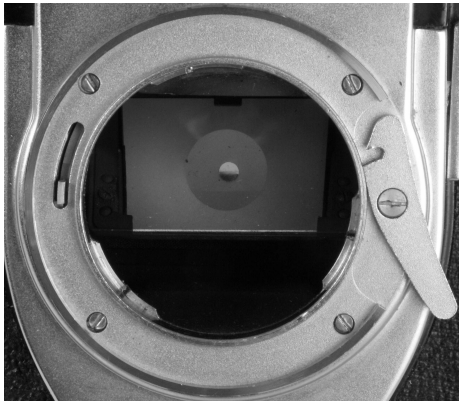
Our interest in Topcon products starts in 1957 with the SLR Topcon R, because it has the Exakta mount. To be more precise, all Topcon models of interest to us have the inner Exakta bayonet; no Topcons ever had the Exakta outer bayonet. The Topcon bayonet is fixed to the camera with four little screws, just as the Exakta mount, but their positions are different. No interchange is possible. There are six different versions of the Topcon/Exakta mount. All versions are shown below, with their camera model(s).

Mount 1 and camera



Mount one is simple. It looks slightly different but is nearly identical to the original Exakta mount. The only Topcon that has this mount is the Topcon R from 1957. This model is called Topcon R (for Reflex), but the R (and later the R2 and R3) don't appear on the camera. It has interchangeable viewfinders, but no light meter and no self-timer. The standard and wide-angle lenses - named Auto-Topcor - are semi-automatic and have a diaphragm closing system just like the Exakta. The shutter release button of the Topcons however is situated on the right side of the body, so the two lens systems are incompatible. Semi-automatic Topcon lenses can be used on Exakta and vice versa, but in a clumsy way only. The longer focus Topcon lenses available at the time were pre-set and easily usable on an Exakta.

Mount 2 and cameras



Mount two is only slightly different in appearance, but the main improvement is the internal diaphragm closing system. This means that the new lenses are automatic without the Exakta-like external button. The diaphragm can be closed manually with a button on the left side. The Topcon R2 has no light metering system or self-timer. The Topcon R3 Automatic (the word “Automatic” actually appears on the prism viewfinder, but the later R2 also had this viewfinder) has a shoe for a light meter connected to the time setting knob. It is the first model with a self-timer.

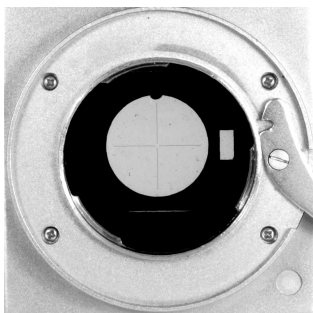
Mount 3 and cameras



Mount three at first sight looks the same as the 2, but its outer diameter is 0.5mm smaller, and on top of the mount ring it has the connector to the lens diaphragm. This allows automatic open lens light metering with the camera with this mount: the Topcon RE-2 from 1965, called Beseler Topcon D-1 in the USA and Hanimex Topcon RE-2 in GB. This camera has a fixed prism viewfinder; it has TTL metering, introduced in 1963 on the RE-super; see below. The lenses belonging to this camera model are called f.Auto-Topcor, the f. an abbreviation of *fully*.



Mount 4



Mount 4 looks much larger than the previous ones, but it is as simple as mount one. As far as I know, it was used only on the special medical Topcons, described below.

Mount 5 and rare camera



Mount five is different from mount 4 as mount 2 is different from mount one: the main difference is the internal diaphragm closing system. Only the very rare Topcon RS has this mount. This camera from 1962 has no TTL system. It precedes the RE-super by only a year. I have never seen this model but I got a picture! In the book *Topcon Story* I found: *The Topcon RS has been forgotten, its traces, until today [1997 HR] almost completely lost.*



Mount 6 and many cameras



The next step is no surprise. Mount six also has the connector to the lens diaphragm, just like mount three, but now inside the mount ring, because the ring is much larger than mount 3. This allowed the automatic TTL light



metering of the camera for the first time in history. The first camera with this function was the Topcon RE-super from 1963. The metering CdS resistors are fixed to the rear side of the mirror. This special mirror has a pattern of grooves that transmit part of the light to the resistors. It's nice to see that the TTL function was introduced to the world on a camera with Exakta mount. The RE super, Super D in the USA, has a chrome plate under the shutter release and the self-timer, but also exists in black. Several small changes were made during the production period. The last model in this line is the Topcon super DM from 1974. It has a button to move the mirror up. This model was only made in black.



RS200 as *the new RE-2*.

In 1977 and 1978 Topcon produced a set of somewhat simpler and cheaper cameras: the RE 200 and RE 300 (with winder connection), both with mount six. Interesting for us is that at this point Topcon and Exakta converge even more. The RE 200 was also sold as Exakta EDX2, the RE 300 as Exakta EDX3. Both models have a fixed prism viewfinder. *Topcon Story* describes the



Camera mount overview

The mounts 1-3 clearly show a development from manual to automatic. The mounts 4-6 show the same development. The two lines overlap in time. It is suggested that the second line was made for more professional cameras. All mounts only have the inner Exakta bayonet.

Lens mounts on lenses from Topcon

Topcon Story lists dozens of lenses. Topcon is a sideline for us Exakta collectors, so I won't describe them all (You can always buy the book). For collectors it is probably of more interest to know that not only the cameras, but also the lenses have many different lens mounts or rear ends. The different lens mounts are shown here. You will recognise them when you actually buy a lens. I found seven lens mounts. (See below.) The rear ends of lenses from other manufacturers than Topcon look different again, but I consider those too far away from our subject of interest.

The differences in lens mounts correspond more or less to the differences in camera mounts, going from manual to semi to fully automatic. The only remarkable exception is lens mount 4. It looks just like the semi-automatic lens mount 1 but is in fact fully automatic. So it is from the automatic period but can be used on the early non-automatic Topcon R.

The older semi-automatic lenses can be used on the later cameras, but the user then needs a shutter button extension rod, not unlike the one used on the Exakta RTL1000 for older lenses.

Special cameras

Topcon has produced cameras with the inscription “U.S. Navy” or “U.S. Force”, in particular the Super D and the Super DM. They were not different from the normal cameras. More interesting are the cameras for scientific purposes. *Topcon Story* lists seven medical Topcons, of which at least two had an Exakta mount. I have only seen (and own) the FP-M with mount 4. Its properties indicate that scientists, at least medics, were considered to be simple people, because the camera is



basically as simple as a box. No (semi)automatic exposure or diaphragm coupling, not even a shutter time setting. The images are circular. The viewfinder image is upside-down because the special viewfinder *looks* like a prism viewfinder but contains only one flat mirror. With the camera I bought a special teleconverter. It looks like a normal one, but is in fact a combination of teleconverter and extension ring: only close-up focusing is possible.

Accessories

Here again I don't want to copy the whole *Topcon Story* book. Here I want to mention the following items.

- Three types of bellows units
- Bulk film magazine for up to 250 images
- Special teleconverter/extension ring for the FP-M
- Winder for RS300/EDX3 (several different winders exist)
- Motor drive (3 images/sec) for the FP-M (several different motor drives exist)

If you really start hunting for Topcons, you will find a few more accessories.

Viewfinders and focusing screens

The differences between the various viewfinders aren't very interesting. You will see them when you find them. Screens are another matter. They are interchangeable, but not as easy as in the Exakta system. In the early Topcon models you must remove (and replace) four little screws to interchange screens. In later models they can be removed by just pushing a spring. All screens are fixed in the camera bodies, not in the viewfinders.

End of story (for us)

The Topcon RE300/Exakta EDX3 in 1978 was the last Topcon with Exakta mount. Two other Topcons were made, carrying the name Exakta, but they didn't have an Exakta mount, so I have to treat them in another article.

More information about Topcon

The (as far as I know) only book fully dedicated to Topcon cameras, “*Topcon Story*”, is regrettably out of sale. I can’t find anything about it on internet any more: the link in the earlier version of this article in 1978 doesn’t work any more. It is a nice book but contains too many errors. The most obvious error is that a lot of later/smaller/cheaper Topcons are described as having the Exakta mount. But they don’t!!

On the internet I found only one site dedicated to Topcon cameras. It is “*The Topcon Collection*” by Leon Schoenfeld. On the home page Schoenfeld announces a new revision with a new provider and a new e-mail address. This “new” revision however is dated May 12, 2005. Now (November 2012) I found a message from him that he sold his collection. The site is gone.

Finally you may find the Topcons in the collection of Captain Jack (EC member John Dugrew) shown and briefly described.

This is disappointing and not enough. So the Dutch Topcon collector, who helped me with this article and lent me his cameras to make photos of them, and I once considered to add a Topcon Division to my site www.ihagee.org. This didn’t happen because my friend Bert Vrijer died.

Most of the historical data were found in “Topcon Story” by Marco Antonetto and Claudio Russo. Objects shown are mostly from Bert Vrijer, a now deceased knowledgeable Dutch Topcon collector. One photo is from Don Baldwin. The set-up of this article is my own.

See also Non-Exaktas with Exakta Mount Part 4: Topcon 2