

# **Olympus Auto Eye II**

From the website <http://www.thermojetstove.com/Autoeye/>

In 1958 Olympus introduced the Olympus Auto. With a coupled rangefinder, a fixed 42mm, f 1.8 lens, a Copal shutter, and a built-in selenium cell meter, the Auto was at the high end of 35mm cameras available at that time. But the Auto had one feature that would distinguish it in the history of camera design. The meter was fully coupled for Automatic Exposure, and the camera could be set to either Aperture Priority or Shutter Priority mode.

The Auto series produced four cameras from 1958 to 1962. The last in the series was the Auto Eye II, a fully modern 35mm rangefinder. Featuring a 43mm, f 2.5 lens, the camera can be set to either Shutter Priority or full Manual mode. The viewfinder is large with a bright frame and parallax markings, and there is a Judas window at the bottom center that shows the aperture setting for both manual and auto mode. This displays a letter "A" to indicate that the camera is set to auto exposure mode, and numbers for each full stop from f2.8 to f22, with dots at the half stop. A red flag below the f2.8 marking indicates that there is not enough light for the meter to register. As is typical for cameras of this type, the meter reading is displayed only in auto exposure mode. The rangefinder patch is relatively large and has a magenta caste. The lens accepts standard, 43mm diameter threaded filters. This was a popular size for Olympus and they still make a branded lens cap this size, P/N LC-43. This is a nice plus, since cameras this old have usually lost their lens caps.

There is a single stroke film advance, with a 25 degree "rapid wind" preset, and 120 degrees travel. This advances the film, cocks the shutter, and advances the film counter. The center of the film advance level has a film reminder window that can be manually set to the type of film that is loaded. EMP indicates empty, PAN indicates B&W film (panchromatic), \* COL indicates indoor color film, and last indicator is \* COL for outdoor color film. There is a double exposure interlock, but this can be deactivated for the current frame by pushing in the film rewind button on the bottom of the camera. Hold the film rewind crank and then cock the film advance lever. This is very handy given tendency to forget to remove the lens cap on a rangefinder. The four element Zuiko lens is very sharp, contrasty, and has good color rendition. These are all fairly typical characteristics of just about any Zuiko lens. This is definitely not a "pocket" camera, being slightly larger and heavier than the Olympus 35SP.

The top of the camera has the typical arrangement of selenium cell - rangefinder - viewfinder for that '60's look. Next to the viewfinder is a stylized "EE", that stands for Electric Eye. This whole assembly is surrounded by a thick plastic frame, reminiscent of the horn-rimmed glasses popular at the time. Instead of the typical black leatherette, the Auto Eye II sports a grey cover with grey trim. All in all, it has a wonderfully classic "space age" look.



The camera has a number of interesting idiosyncrasies. Some of these are intended to make it more "user friendly", in keeping with the Automatic Exposure capability. The lens has four rings. The first is the focus ring, which is marked from 3.5 ft to infinity. It also has three zone settings for "close", "group", and "scene". The second ring is the shutter speed, which is marked from B to 500. It also has a red "A" to the left of 500, which is used to set the

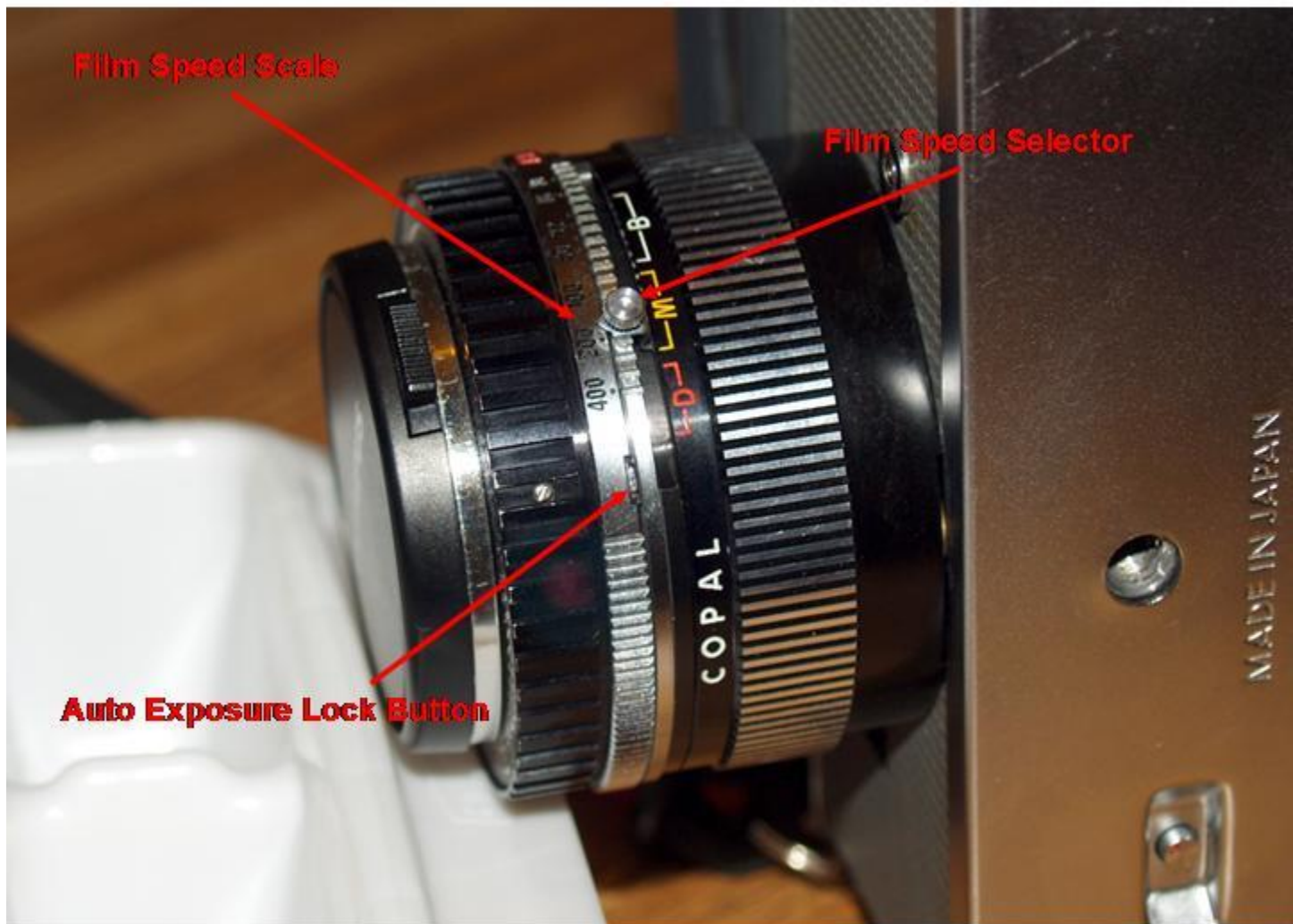
Auto Exposure mode. On the left side of the ring there is a film speed scale marked from 10ASA to 400ASA (yes, films were slower back then). There is an auto exposure lock button on the lower left side of the lens.



The next ring is for setting the film speed. To select the film speed the red "A" on the shutter speed ring must be aligned with the red mark on the film speed ring. This locks the two rings together so they rotate as one, and the detents on the film speed ring are aligned with the film speed scale. The film speed selector can then be lifted up and moved to the proper setting. This is actually a little tougher than it sounds since there is a very strong spring on the film speed selector that holds the selector securely in the detents. In addition to setting the film speed, the selector acts as a physical stop to limit



the range of the shutter speed selection. This prevents the selection of a shutter speed that would overexpose or underexpose the selected speed of film. There is a scale marked "D", "M", and "B" next to the film speed selector. These stand for Dim light, Medium light, and Bright light. So if the user didn't know the appropriate shutter speed, these zones would be a guide.



The fourth ring is for setting the aperture for either auto exposure or manual aperture. To set the auto exposure mode the orange "A" on the aperture ring is aligned with the orange mark. Rotating the ring to the left manually opens the aperture, as is indicated by the number "2.5" at the end of the ring.

travel. The function of this ring is really pretty cryptic, since there is only an arrow between the "A" at one end of the ring travel and the "2.5" at the other end. The absence of aperture markings is in keeping with the "simple to use" philosophy, just like the zone markings for the focus and shutter speed.

So with both "A"s aligned with their respective marks, all the user has to do was select the shutter speed. The film speed selector will prevent a shutter speed selection that is too slow or too fast for the film speed and the meter range. Looking thru the viewfinder, the Judas window shows an "A" to indicate that the camera is set to Auto Exposure mode. As the shutter release is pressed, the aperture numbers flip by, starting with 22. The aperture reading will stop at the value being read by the meter.

To set the aperture manually (e.g. for exposure compensation), the aperture ring is rotated to the left. The manually selected aperture is shown in the Judas window. By depressing the auto exposure lock button the shutter speed ring can be unlocked from the film speed ring, allowing the shutter speed ring to turn freely so any shutter speed can be selected. This would normally only be required for flash photography, as the selenium meter is limited to the "natural light" range. This allows any combination of shutter speed and aperture.

The Auto Eye II uses a variation of the "trapped needle" metering mechanism. This is typical in selenium metered cameras, and can be identified by the long travel of the shutter release button. This is because the shutter release has to perform several functions. First, the meter needle is trapped against a solid support to lock its position. As the shutter button is pressed further, the aperture is opened against a spring until a cam mechanism is stopped by the trapped meter needle. This takes about the half the travel of the shutter release. This allows for some manual control of the exposure even when the camera is in AE mode, just by aiming the camera at the area to be metered and pressing the shutter release half way. By holding the shutter release the picture can then be recomposed without changing the exposure. Pressing the shutter release the full way trips the shutter.

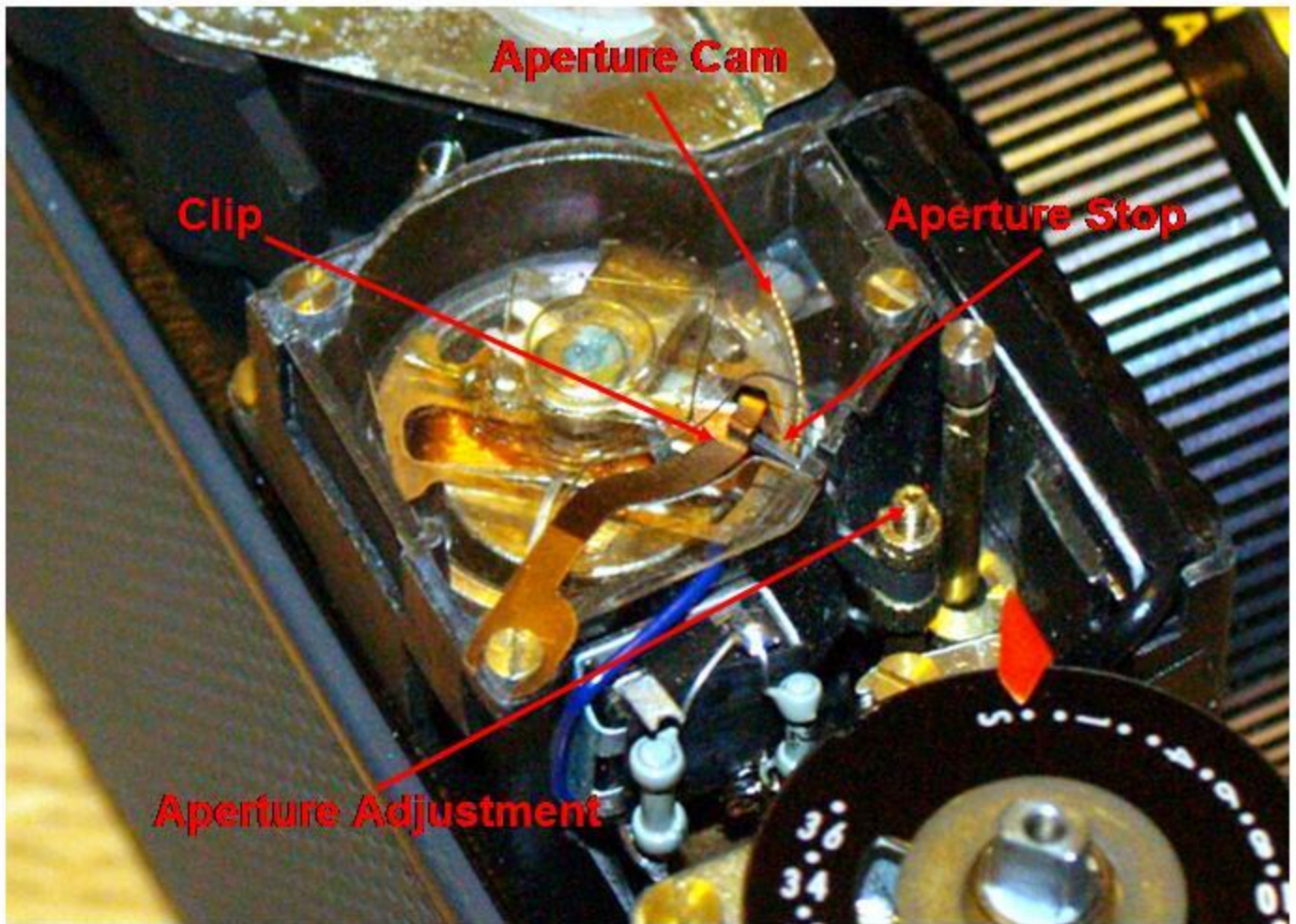
But on the Auto Eye II the meter does not have an actual needle. Instead of a needle, the meter armature carries the entire cam mechanism. This causes a couple of problems. The meter movement has a lot of inertia, so it takes a while to "settle down" when the camera is moved. Also, the needle trap is not separate from the aperture stop, they are the same piece. So the aperture stop can slip down 1/3 stop before it actually locks in place. This can be seen both by observing the repeatability of the meter readings, as well as a slight

overexposure to a few shots. This would not be noticeable on print film, but can be seen on slides. This problem can be minimized by waiting a few seconds before checking the exposure after bringing the camera up to the eye. Then depress the shutter release in a one smooth motion - don't jerk it or hesitate.

Below, the camera is shown with the top cover removed, showing the meter assembly in the middle.







There is one more interesting quirk to this camera. Just to the right of the lens there is a "Pre-Vu" button. This is one of those features that comes out on a product that introduces a new technology, with the intent to make it less intimidating to use. The "Pre-Vu" button engages the meter mechanism, but not the shutter mechanism. This to prevent the shutter from being accidentally released while checking the exposure. Given the extremely long travel of the shutter release, and that you can directly see the point when the aperture is set, this doesn't seem very likely. In fact, even the instruction manual says, "Actually the Pre-Vu button is simply an extra precaution".

On this particular camera the meter was not working. Instructions for troubleshooting and repairing the meter assembly can be found [here](#).

## SPECIFICATIONS

Lens	43mm, f2.5, D Zuiko (4 element)
Distance Scale	3.5, 4, 5, 7, 10, 15, 30 Inf. (ft)
Shutter 1/500 sec.	Copal X type synchronization, self timer, B -
Exposure Range	10ASA - 400ASA, 7-17EV at 100ASA
Focusing rangefinder	Combined viewfinder and fully coupled
Finder	"Golden Luminous Frame Finder" with automatic parallax correction, .7X magnification
Dimensions	5-1/4" x 3 -1/8" x 2-7/8"
Weight	24 oz (yep, that's a pound and a half!)