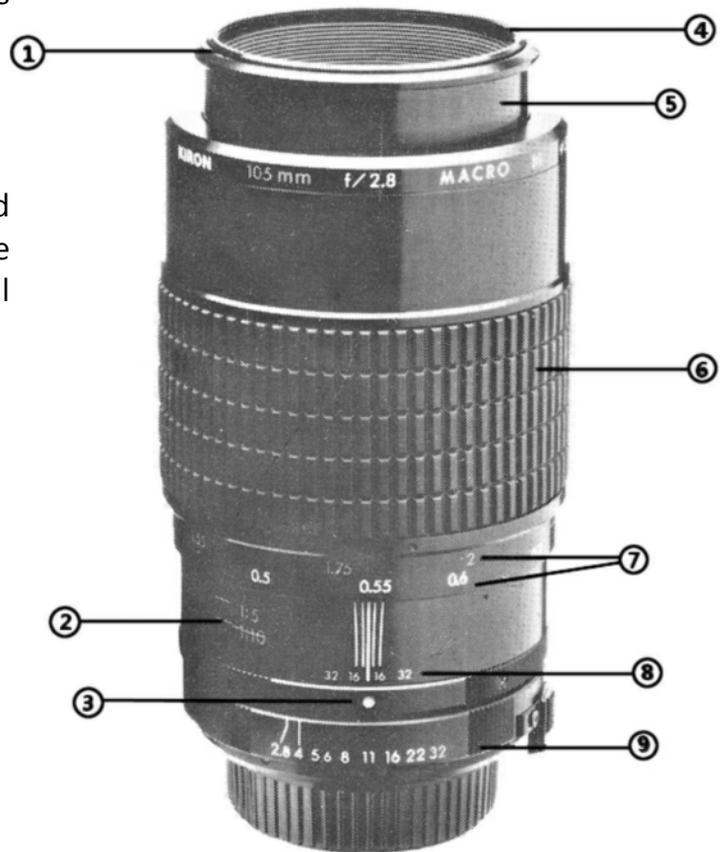


KIRON 105mm f2.8 Macro Lens Instructions

Your new Kiron 105mm f2.8 Macro lens is the product of advanced optical design and precision mechanical engineering. It's also easy to use. Simply take a few minutes to familiarize yourself with the features and general instructions. With proper use and care, your Kiron 105mm f2.8 will provide you with years of outstanding service.

Features

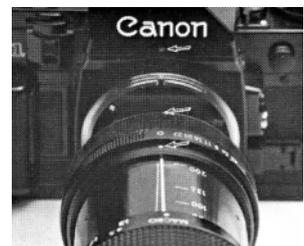
1. 52mm filter threads
2. Reproduction ratio marks
3. Aperture index mark
4. Non-rotating front barrel
5. Built-in retractable lens hood
6. Focusing ring
7. Distance scales
8. Depth-of-field scale
9. Aperture ring



Mounting the Lens

Nikon, Pentax, Minolta, Olympus, Konica, Yashica/Contax mounts — Use the standard procedure for mounting your camera brand lenses.

Canon mount — Canon mount Kiron lenses have a black mounting ring. Mount the lens as shown in the photo, with all index marks aligned. Turn the mounting ring clockwise to lock the lens onto your camera.



Exposure Settings

All mounts — Use the same metering procedures you would use with your camera brand lenses.

Note to Nikon owners — The Kiron 105mm f2.8 is fully compatible with all Nikon A1 and A1-S mounts. Since there is no external meter coupling device on this lens, however, it is not compatible with earlier Nikon F mounts.

Focusing

The Kiron 105mm f2.8 focuses continuously from infinity to 0.35 meters (13.8 inches), where the reproduction ratio is 1:1 (life-size). To focus, look through the viewfinder of your camera, and turn the focusing ring until the subject appears sharp and clear.

The distance scale is marked in both meters (white) and feet (blue). These figures indicate the distance from the subject to the film plane of the camera.

Reproduction Ratios

The reproduction ratio is the relationship between the size of the image *on the film* and the actual size of the subject. For example, if the image on the film is one-half the size of the actual subject, then it is said to have been reproduced at 1:2, or 1/2 life-size.

The reproduction ratios from 1:10 to 1:1 are indicated on the lens barrel in gold. To photograph an object at a predetermined reproduction ratio of, for example, 1:2, turn the focusing ring until it lines up with the mark opposite 1:2 on the lens barrel. Then move the lens closer to, or farther from the subject, until it appears sharp and clear in the camera's viewfinder. Or, if the reproduction ratio is not known in advance, focus until you have the desired image in the viewfinder. Then look at the lens barrel to see what reproduction ratio will be achieved.

Since there are no click-stops involved, reproduction ratios between those marked on the barrel, e.g. 1:6, 1:4, are easily achieved.

Greater than 1:1 reproduction ratios can be achieved with the addition of a Kiron 2X MC7 teleconverter. This is a seven-element, multicoated teleconverter that doubles the focal length of the lens, as well as doubles the reproduction capabilities.

Depth of field

Depth of field refers to the area of acceptable focus in front of, and behind the plane of sharpest focus. There is a depth of field scale marked in white on the lens barrel.

However, since depth of field is so small at high reproduction ratios, a lens opening of no larger than f/16 is recommended. If your camera has the capability, it is desirable to preview the depth of field prior to taking the photograph, so you can see the area which will be in focus.

For the sharpest photographs, precise depth of field information is essential. Please use the depth of field tables provided on page 4, rather than simply reading from lens barrel.

Camera and Lens Steadiness

Again, because of the small depth of field during close up work, even slight movement can cause your subject to be out of focus. A steady camera and lens are required for the best results. The use of a tripod, as well as a cable release to activate the camera's shutter, are recommended for all close up work.

Other Features

Non-rotating Front Barrel. Your Kiron 105mm f2.8 lens is equipped with a non-rotating front barrel, which means that the front barrel of the lens does not rotate as the lens is focused. Position-sensitive filters, such as polarizers, and special effects filters, or filter masks retain their orientation as the lens is focused.

Built-in Lens Hood. The Kiron 105mm f2.8 has a built-in, retractable lens hood which, when extended, will help to control stray light. All Kiron lenses feature full multicoating, with lens element edges that are hand-blackened to prevent lens flare, and assure high contrast and excellent colour rendition.

General Information

Choose optical accessories, such as filters, with the same regard to quality you used when buying this lens. Low quality accessories will compromise the high quality results you expect from your Kiron lens.

Take normal care to protect your lens from fingerprints, dirt, sand, and water. Remove dust with a soft lens brush, or gentle puff of compressed air. Remove fingerprints or other marks with photographic lens tissue moistened with photographic lens cleaner. Never rub the lens with dry tissue or any other material, since this can scratch the coatings.

When your lens is being stored, keep it in a cool, dry place with front and rear caps attached.

NOTE: If you live in a humid climate, it is important that your lens be stored with a small package of silica gel (such as the one supplied) at all times. This will help to prevent fungus, a result of high humidity, from forming in the lens.

Specifications

Aperture range: f2.8-f32

Angle of Acceptance: 23.3 degrees

Optical construction: 6 elements, 6 groups

Maximum reproduction ratio: 1:1

Minimum focusing distance (from film plane): 0.347 m (1.14 ft.)

Overall length: 102.5 mm (4.04 in.)

Maximum barrel diameter: 72 mm (2.8 in.)

Accessory size: 52mm

Weight: 650 g (22.75 oz.)

Weight and length may vary according to lens mount.

Specifications subject to change without notice.

Depth of Field Tables

Imperial

DIST (FT)	F/NUMBER								MAG RATIO
	2.8	4.0	5.6	8.0	11.0	16.0	22.0	32.0	
I	414.65 - I	294.67 - I	210.12 - I	147.05 - I	106.53 - I	73.07 - I	52.99 - I	36.29 - I	1/I
23	21.79-24.28	21.33-24.87	20.74-25.72	19.92-27.13	18.96-29.10	17.59-33.14	16.18-39.80	14.27-59.85	1/65.5
9.8	9.65-10.07	9.55-10.17	9.42-10.30	9.25-10.50	9.06-10.76	8.76-11.25	8.40-11.91	7.87-13.16	1/27.1
6.5	6.46-6.66	6.43-6.69	6.40-6.76	6.30-6.82	6.23-6.96	6.07-7.12	5.91-7.38	5.68-7.81	1/12.5
4.9	4.90-4.95	4.86-4.99	4.82-5.02	4.79-5.05	4.76-5.12	4.69-5.18	4.59-5.32	4.46-5.51	1/11.6
3.9	3.90-3.97	3.90-3.97	3.87-4.00	3.87-4.04	3.84-4.07	3.77-4.13	3.71-4.20	3.64-4.33	1/9.8
3.3	3.261-3.301	3.255-3.311	3.241-3.320	3.225-3.337	3.206-3.360	3.173-3.399	3.133-3.445	3.071-3.521	1/9.6
2.6	2.615-2.638	2.608-2.641	2.602-2.648	2.592-2.658	2.579-2.671	2.559-2.694	2.536-2.720	2.500-2.763	1/5.9
2.3	2.287-2.307	2.283-2.310	2.280-2.313	2.274-2.320	2.264-2.330	2.251-2.346	2.234-2.362	2.208-2.395	1/4.9
1.97	1.962-1.975	1.962-1.975	1.965-1.978	1.952-1.985	1.949-1.992	1.939-2.001	1.926-2.011	1.910-2.034	1/3.9
1.8	1.801-1.808	1.798-1.811	1.795-1.814	1.791-1.818	1.788-1.821	1.782-1.831	1.772-1.837	1.759-1.854	1/3.4
1.6	1.637-1.644	1.637-1.644	1.634-1.647	1.631-1.650	1.627-1.654	1.621-1.660	1.614-1.667	1.604-1.680	1/2.9
1.48	1.473-1.480	1.473-1.480	1.473-1.480	1.470-1.483	1.467-1.486	1.463-1.490	1.460-1.496	1.450-1.503	1/2.4
1.3	1.309-1.312	1.309-1.312	1.309-1.316	1.309-1.316	1.306-1.319	1.306-1.319	1.303-1.326	1.306-1.329	1/1.8
1.14	1.145-1.148	1.145-1.148	1.145-1.148	1.145-1.148	1.145-1.152	1.145-1.152	1.142-1.155	1.142-1.155	1/1

Metric

DIST (M)	F/NUMBER								MAG RATIO
	2.8	4.0	5.6	8.0	11.0	16.0	22.0	32.0	
I	126.38 - I	89.81 - I	64.04 - I	44.82 - I	32.47 - I	22.27 - I	16.15 - I	11.06 - I	1/I
7.0	6.64-7.40	6.50-7.58	6.32-7.84	6.07-8.27	5.78-8.87	5.36-10.10	4.93-12.13	4.35-18.24	1/65.5
3.0	2.94-3.07	2.91-3.10	2.87-3.14	2.82-3.20	2.76-3.28	2.67-3.43	2.56-3.63	2.40-4.01	1/27.1
2.0	1.97-2.03	1.96-2.04	1.95-2.06	1.92-2.08	1.90-2.12	1.85-2.17	1.80-2.25	1.73-2.38	1/12.5
1.5	1.49-1.51	1.48-1.52	1.47-1.53	1.46-1.54	1.45-1.56	1.43-1.58	1.40-1.62	1.36-1.68	1/11.6
1.2	1.19-1.21	1.19-1.21	1.18-1.22	1.18-1.23	1.17-1.24	1.15-1.26	1.13-1.28	1.11-1.32	1/9.8
1.0	0.994-1.006	0.992-1.009	0.988-1.012	0.983-1.017	0.977-1.024	0.967-1.036	0.955-1.050	0.936-1.073	1/9.6
0.8	0.797-0.804	0.795-0.805	0.793-0.807	0.790-0.810	0.786-0.814	0.780-0.821	0.773-0.829	0.762-0.842	1/5.9
0.7	0.697-0.703	0.696-0.704	0.695-0.705	0.693-0.707	0.690-0.710	0.686-0.715	0.681-0.720	0.673-0.730	1/4.9
0.6	0.598-0.602	0.598-0.602	0.597-0.603	0.595-0.605	0.594-0.607	0.591-0.610	0.587-0.613	0.582-0.620	1/3.9
0.55	0.549-0.551	0.548-0.552	0.547-0.553	0.546-0.554	0.545-0.555	0.543-0.558	0.540-0.560	0.536-0.565	1/3.4
0.5	0.499-0.501	0.499-0.501	0.498-0.502	0.497-0.503	0.496-0.504	0.494-0.506	0.492-0.508	0.489-0.512	1/2.9
0.45	0.449-0.451	0.449-0.451	0.449-0.451	0.448-0.452	0.447-0.453	0.446-0.454	0.445-0.456	0.442-0.458	1/2.4
0.4	0.399-0.400	0.399-0.401	0.399-0.401	0.399-0.401	0.398-0.402	0.398-0.402	0.397-0.404	0.395-0.405	1/1.8
0.35	0.349-0.350	0.349-0.350	0.349-0.350	0.349-0.350	0.349-0.351	0.349-0.351	0.348-0.352	0.348-0.352	1/1

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