

SUPER PERFORMANCE RANGE

TAMRON SPModel **55B****TELE-MACRO CATADIOPTRIC 500mm F8**

Actual Size



THE WORLD'S LIGHTEST AND SMALLEST 500mm FEATURING A TELE-MACRO CAPABILITY OF 1:3 AT 1.7 METERS (66.9 in.)

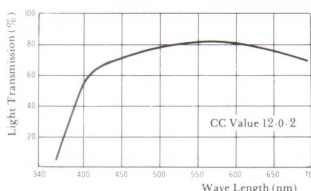
500mm Ultra-Telephoto yielding sharp images from infinity to the really close minimum object distance of 1.7 meters (66.9 in.) through the use of newly developed special silver-coated rear reflex mirrors

Due to the fact that conventional mirror lenses incorporate, for their main and auxiliary mirrors, surface reflex mirrors whose surfaces are coated with aluminium, they have been unable to compensate for changes in aberration caused when focusing. One of the characteristics of the new optical system of the Tamron SP 500mm F/8 lens is that it employs rear reflex mirrors for its main and auxiliary mirrors: since each rear surface mirror is composed of a mirror and a lens in a monoblock, the spherical aberration caused on the mirror surface is compensated for at each of the reflex mirror surfaces, and changes in aberration caused when focusing are kept to the absolute minimum. Thanks to this innovative optical configuration, in spite of the fact that it is a 500mm ultra telephoto, it has outstanding performance throughout its entire focusing range from infinity to the amazing

minimum object distance of 1.7 meters (66.9 in.). Also, the combined effect of providing a main reflex mirror with strong condensing power and the auxiliary reflex mirror with sufficient diverging power only extends the lens barrel a mere 7mm for focusing, resulting in an ultra-small 500mm lens which measures only 87mm (3.4 in.) in overall length.

Silver-Coated Reflex Mirrors incorporated in the SP 500mm F/8 have a reflection value of 95% or more, comparable to a lens in a dioptric system. This is a significant increase over conventional mirror lenses whose surfaces are coated with aluminium.

The spherical surfaces of the mirrors maintain an accuracy of curvature as high as $\lambda/4$ per one colour. The SP 500mm



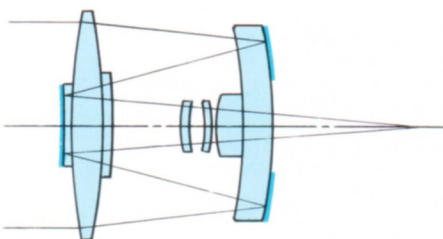
lens also features high durability of the silver coating applied on the reflex mirrors; the durability exceeds the requirements contained in the American military standards thanks to the combined effect of Tamron's original silver-sputtering coating technique and a combination of a single layer of metallic coating and two layers of high molecular films. This results in achieving the most ideal colour contribution value of 12-0-2 and providing the lens with good colour balance and highly accurate colour rendition.

Ultra-Compact, Lightweight Mirror Lens measuring only 87mm (3.4 in.) in overall length and weighing only 575 grams (20.3 oz.)—Handheld photography is possible.

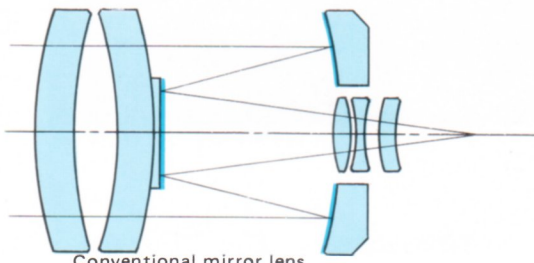
The combination of a wide range focusing capability permitting focusing as close as 1.7 meters (66.9 in.) while maintaining outstanding image quality, an auto flash and 400 ASA film make handheld photos a possibility with a 500mm telephoto lens.

Constant F-Number—There is no change in the f-number due to focusing.

Since there is no change in the f-number irrespective of whether the lens is focused at infinity or at the minimum object distance of 1.7 meters, troublesome calculations of exposure multiples has been eliminated. The optimum exposure time can be obtained without any correction in auto flash photography, which previously required obtaining a corrected value by means of the actual effective f-value.



Tamron SP 500mm F/8



Conventional mirror lens

Tamron Adaptall Interchangeable Mount System Each Tamron lens may be selected by owners of more than 250 individual SLR models. Each mount provides full cross-coupling with each camera's automatic diaphragm controls as well as complete TTL light metering, including open-aperture and AE-metering systems and ensures compatibility with most popular 35mm SLR cameras.

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TAMRON



The Tamron SP 500mm F/8 lens is an ultra long telephoto which incorporates a new optical system comprising of 7 lens elements in 4 groups and 2 special silver coated mirrors. One of the characteristics of the new optical system is that rear reflex mirrors are used for its main and auxiliary mirrors: the spherical aberration caused on the mirror surfaces are compensated for at each of the mirror surfaces and the changes in aberration caused when focusing from infinity to macro range are minimized. Image distortion is corrected by the use of a series of concave elements which are arranged between the two reflex mirrors, therefore, a flat, high contrast image can be obtained over the entire image field. Tamron's engineers have designed a new method of constructing, in a compact design, an optical system giving high performance: by providing the auxiliary reflex mirror with sufficient diverging power, focusing from infinity to the minimum object distance of 1.7 meters only extends the lens barrel a mere 7mm, and by providing the main reflex mirror with strong condensing power a telephoto type lens which measures only 87mm (3.4 in.) has been achieved.

TAMRON'S STATE-OF-THE-ART INNOVATIONS FOR THE SP SERIES

Tele Macro

Tele-Macro Capability

The SP 500mm lens features a "tele-macro" capability which permits photographing an object in a 1:3 magnification ratio at a minimum object distance (MOD) of 1.7 meters (66.9 in.), while maintaining a working distance as long as 1.56 meters (61.4 in.). The lens has opened up new vistas of macro photography which have been almost impossible in the past; you can photograph objects which are restricted distance-wise such as insects, timid animals, etc. Since an auto flash can be used with ease, photos of such high speed phenomena as the exact moment a balloon bursts can be taken without any special complicated technique.



f = 500mm F/8, 1/60 sec. strobo

SP 2X Flat-Field Tele-Converter

With the SP Flat-Field 2X Tele-Converter, the SP 500mm lens becomes a 1000mm ultra-long telephoto, and the macro magnification can be extended to 1:1.5 while maintaining a working distance of 1.56 meters (61.4 in.).



f=500mm, w/2X tele-converter, F/16, 1/125 sec

Exclusive Filter Set

Specially made filters are supplied with the lens to enhance your photography; Normal, ND4X, Y-52, O-56 and R-60. These 30.5mm size filters screw onto the rear element thread.



f=500mm, F/8, 1/250 sec.



Tripod Mounting Ring

The detachable tripod mounting ring is a convenient way to give the SP 500mm added stability when shooting. It attaches directly onto a 360° rotating ring which is provided with locking screws.

SP 500mm F/8 SPECIFICATIONS

Focal Length	: 500mm
Aperture Range	: 8
Angle of View	: 5°
Construction	: 7 Elements/4 Groups
Coating	: BBAR multiple layer coating
Minimum Focus	: from Film Plane : 1.7 meters (5 1/2 ft)
Max. Magnification	: 1:3 (1:1.5 w/2X Tele-converter)
Focusing Ring	: 327° 35'
Rotation	: (Inf. to 4m—126° 22')
Lens Accessory Size	: 30.5mm rear filter mount
Length (at Inf.)	: 87mm (3.4 inches)
Diameter	: 84mm (3.3 inches)
Weight	: 575 grams (20.2 oz) w/o tripod mount ring and hood
Lens Hood	: Screw-in type, detachable lens hood
Accessory	: Detachable tripod mount ring
Opt. Accessories	: Exclusive filter set (5 pcs) Flat-field 2X Tele-Converter

Exclusive Adaptall Mount

The Tamron precision mount is available for almost any popular SLR camera. It provides full meter and aperture coupling to faithfully reproduce all of the functions of the lens. Only one mount is necessary for each camera type regardless of lens design.

ADAPTALL/ADAPTALL-2 MOUNTS AVAILABLE

Canon FD Series
Canon FT Series
Contax/Yashica Series
Fujica ST Series
Konica Autoreflex Series
Mamiya SX Series
Minolta MD Series
Minolta SR Series
Nikon F/AI Series
Olympus OM Series
Pentax ES/Spotmatic F Series
Pentax SMC Series (Bayonet Series)
Rollei SL/Voigtlander VSL Series
Topcon RE Series
Universal (Praktica 42mm Mount)
"C" mount for CCTV/VTR cameras and 16mm movie cameras
"MS" mount for CCTV/VTR cameras

Note: The SP Flat-Field 2X Tele-Converter is compatible with all Adaptall 2 mounts but is not suitable for use with Tamron wide angle lenses or Adaptall Canon FD, Konica AR, Topcon RE, Minolta SRT, early Nikon AI and Minolta Super-X mounts.