

TAMRON

Lenses

Super Performance
Series **SP**

ADAPTALL-
Series **2**



(SP 90mm F/2.5) F/8, synchronized w/strobo.



Tamron lenses offer new opportunities

SP (Super Performance) Series

A new era in lens design and optical expertise sees fruition with the creation of the Tamron SP (Super Performance) series of lenses. Tamron lenses have been selected by critical photographers throughout the world for almost three decades and are manufactured by a company which specializes in precision optics for widely differing uses in photographic, industrial, laboratory, video and scientific applications. Unlike many others Tamron do not stamp their name on a lens made by somebody else. In designing the SP lenses Tamron's optical and mechanical experts reverted to the basic principles of optics by asking "what is a really good lens?"

They tackled the problem which previously had appeared insurmountable in order to develop lenses which have outstanding features not only in optical performance such as contrast, aberration-correction and colour rendition but also having compactness and maximum handling convenience. The result is the SP lens series which has been developed by the employment of a number of entirely new optical theories and engineering techniques. It is certain to satisfy the requirements of the most demanding and discerning professional photographers.

The SP series feature a number of epoch-making features such as continuous focusing (CF) capability which allows uninterrupted focusing from infinity to macro, "tele-macro" ability which allows macro photography without having to approach too near to the subject and "full zoom function" by which the photographer can enter the macro range at any focal length, with in addition the creative macro zooming possibilities that this allows. The SP series are lenses which enable the photographer to expand his photographic horizons to an unprecedented degree.



ities for the creative photographer.

ADAPTALL-2 Series

Since the Tamron Adaptall series was first developed at the beginning of the 1970's they have been universally acclaimed as fine quality optics. The Tamron Adaptall-2 series will consolidate this reputation as the basic features of the Adaptall series such as compactness, lightweight and outstanding cost-performance are retained. The most important improvements incorporated in the Adaptall-2 series are based on the revolutionary and highly scientific optical and engineering knowhow acquired through the development of the SP series. These are introduced in abundance on the Adaptall-2 lenses.

In designing each lens, special emphasis was placed not only on the improvement of definition and contrast performance but also on the reduction of aberrations to the absolute minimum. This has ensured optimum characteristics resulting in sharp and crisp images without faults. The Adaptall-2 lenses thus developed record the details of highlight and shadow areas reproducing the dimensional feel of the subject even under the most adverse photographic conditions.

Furthermore some of the Adaptall-2 lenses feature the remarkable functions developed for the SP series such as continuous focusing (CF) "tele-macro" and "full zoom function" and a minimum aperture of $f/32$ for increased depth of field ($f/64$ with the SP 2X flat-field tele-converter). The cost-performance ratio is thereby enhanced by incorporating these features with high performance. The Adaptall-2 lenses will satisfy the most critical photographer. They open up new vistas for all who wish to record their chosen subject. They make fine photography a joy.

A New World of Creative Photography with Tamron Lenses

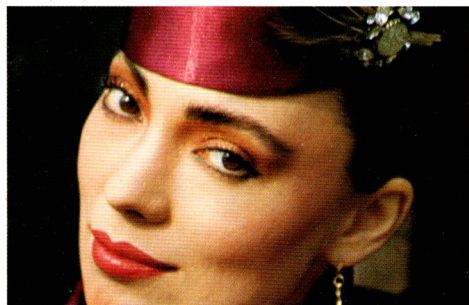
CF



At 10m, f/11, 1/60 sec. (SP 70-210mm f/3.5-4)



At 7m, f/11, 1/60 sec.



At 2m, f/11, 1/60 sec.



At 0.75m, f/11, 1/60 sec. Mag. ratio 1:2



At 0.75m, tele-macro 1:1 (SP 70-210mm w/2X tele-converter)

CF (Continuous Focusing)

This feature allows focusing in one continuous movement from infinity to macro. The traditional macro button has been completely eliminated. This ensures that the photographer can frame his subject just how he wants without having to remove his eye from the viewfinder to change from normal range focusing to macro mode as the subject gets closer and closer. All the SP zoom and telephoto lenses and some of the Adaptall-2 series feature continuous focusing capability. This is a concept that Tamron has pioneered worldwide in respect of zoom lenses.

Tele-Macro



f/16, 1/60 sec., synchronized with strobo. f=180mm tele-macro 1:1 at 0.39m (SP 90mm w/2X tele-converter)

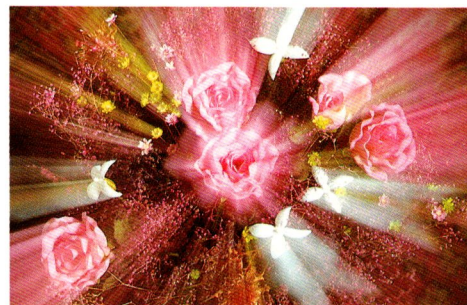


f/8, 1/250 sec. Macro mag. ratio 1:3 at 1.7m (SP 500mm f/8)

Tele-Macro

One of the major problems in macro photography with conventional lenses was that the lenses did not allow sufficient camera-to-subject distance. Tamron has completely overcome this problem with the lenses featuring "tele-macro" as they permit a sufficient working distance even in macro photography. This refinement has opened up new vistas as subjects which were previously difficult to photograph, such as insects and birds in a cage can now be tackled with ease and can be adequately lit. There is no need to have to get very close as before.

Full Zoom Function



Macro zooming during exposure. At 1.2m, f/16, 1 sec. [Adaptall-2 75-250mm f/3.8-4.5]



At 0.75m, f=70mm, tele-macro 1:6 f/8, 1/125sec.



At 0.75m, f=210mm, tele-macro 1:2 f/8, 1/125 sec.

Full Zoom Function

With lenses having "full zoom function" the photographer can enter into the macro mode at any focal length setting unlike many lenses where a particular focal length must first be selected. Like the "tele-macro" feature this gives the photographer a new freedom opening up a dazzling new world. For example creative macro photographs can be taken in the course of zooming.

Tamron, specialists in the design and manufacture of high quality precision optics, have developed the SP (Super Performance) and Adaptall-2 series with features and performance which previously were unobtainable. These features make photography a more rewarding and exciting experience thereby utilizing to the full the creative potential of the photographer.

Constant F-Number



$f = 500\text{mm}$, $f/8$, $1/60\text{sec.}$, synchronized w/strobo [SP 500mm $f/8$]

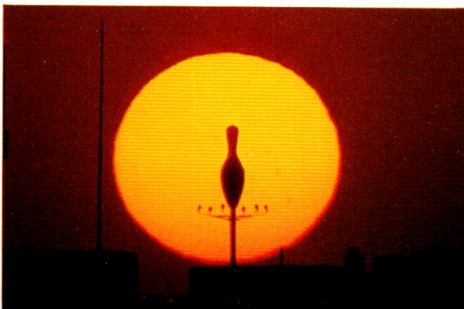


At 0.75m, $f = 210\text{mm}$, $f/16$, $1/60\text{sec.}$ w/strobo. Mag. ratio 1:2 [SP 70-210mm $f/3.5-4$]

Constant F-Number

With conventional lenses there are changes in the f-number or light transmission in macro photography because of the increased barrel extension. It was necessary to work out the increased exposure required by calculation or factors. With the Tamron SP and Adaptall-2 zoom lenses and most of the SP telephoto lenses this is no longer necessary. The constant f-number feature ensures that there is no change in the f-number irrespective of whether the lens is focused on infinity or macro.

Flat-Field SP 2X Tele-Converter



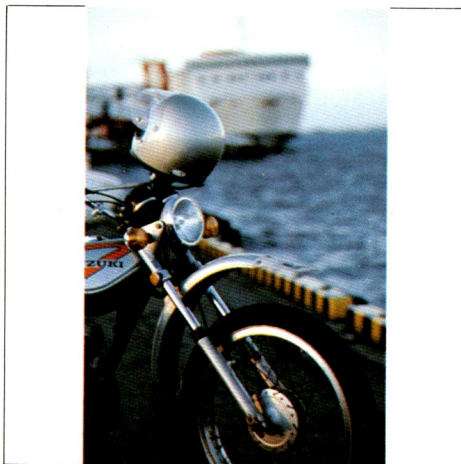
$f = 1000\text{mm}$ (SP 500mm + 2X tele-converter)
 $f/16$, $1/125\text{sec.}$

(Trimmed)

Flat-Field SP 2X Tele-Converter

A good tele-converter doubles not only the optical capabilities of the original lens but also your photographic creativity. For example, when coupled with the Tamron SP 500mm $f/8$ lens, the tele-converter makes a very compact 1,000mm ultra telephoto, retaining the outstanding performance of the original lens as a result of its flat-field characteristics.

Minimum Aperture of F/32 for Increased Depth of Field



$f = 140\text{mm}$, $f/3.5$, $1/1000\text{sec.}$, [SP 70-210mm $f/3.5-4$]



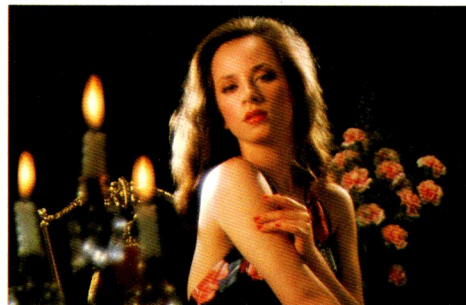
$f = 70\text{mm}$ + SP 2X tele-converter = $f = 140\text{mm}$,
 $f/64$, $1/8\text{sec.}$ [SP 70-210mm $f/3.5-4$]

As the Tamron SP and Adaptall-2 zoom and telephoto lenses have a minimum aperture of $f/32$, increased depth of field for added sharpness equivalent to $f/64$ can be obtained with the tele-converter. This is also particularly useful with today's high-speed colour films of 400 ASA which can be used even under extremely bright illumination conditions.

Soft Focus



Normal $f/2.8$ $f = 150\text{mm}$ [SP 70-150mm $f/2.8$]

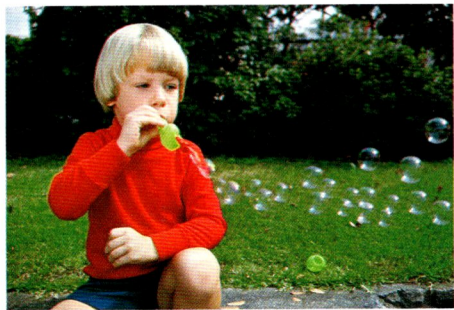


Soft-focus effect $f/2.8$, $f = 150\text{mm}$

Soft-Focus

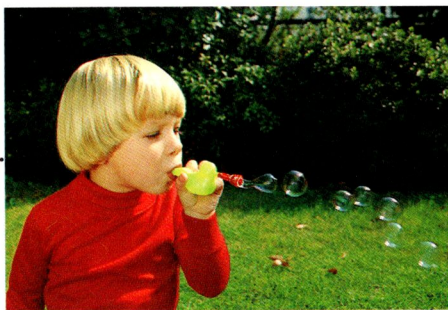
The Tamron SP 70-150mm $f/2.8$ is the first compact zoom in the world to incorporate a variable soft focus feature. In normal usage the lens yields sharp, high contrast images. However by simply rotating the infinitely variable soft control ring it's possible to obtain different degrees of softness. Although the lens has this unique "soft" feature the resolving power is very high. The SP 70-150mm has a specially computed optical system which is designed to provide high-order spherical aberration. This gives a very attractive diffused focus effect but with a sharp core to the image. Such is the design of the lens that aberrations such as astigmatism, curvature of image field and chromatic aberration are compensated for even when the lens is used in the soft mode. This prevents colour blur and gives fault-free high quality results.

1m 35mm



$f = 35\text{mm } 1\text{m}$

50mm



$f = 50\text{mm } 1\text{m}$

80mm



$f = 80\text{mm } 1\text{m}$

M.O.D.

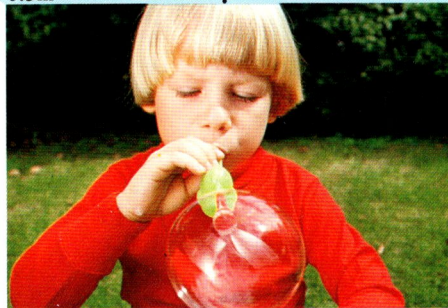
MOD Selector System

The world's first "MOD (Minimum Object Distance) Selector System" enhances close focusing capability for every focal length.

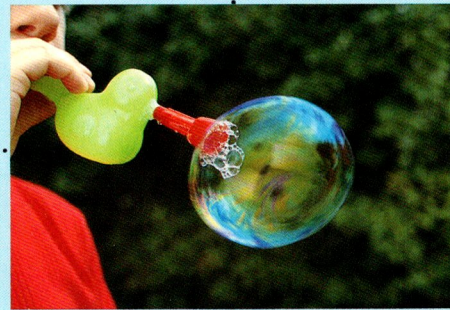
There are a number of other short zoom lenses with the combined functions of several prime lenses, but most of them have one inherent drawback: the minimum object distance is limited to their wide angle position. In other words, they have the capability of one prime lens as far as close focusing capability is concerned. With zoom lenses it has been commonly accepted that the close focusing capability should be usually limited to that of the wide angle range of the lens, which can be far from convenient.

The MOD Selector System incorporated in some of the Tamron short zoom lenses is a world's first opto-mechanical system which provides different minimum object distances at various focal lengths to enhance their close focusing capability. The SP 35-80mm zoom lens with the MOD Selector System, for example, enables you to focus from infinity to the minimum object distance of 0.27 meters (10.6 in.) in the macro range without a break, opening up new photographic possibilities difficult to achieve with conventional short zoom lenses. For example with the SP 35-80mm $f/2.8-3.8$ zoom the minimum object distance is 1 meter (3.3 feet) at the 35mm focal length. When the focusing ring is moved to a closer distance as you get nearer to the subject, the zoom ring starts to move automatically towards a longer focal length range, thus increasing magnification ratios without causing any vignetting.

0.3m

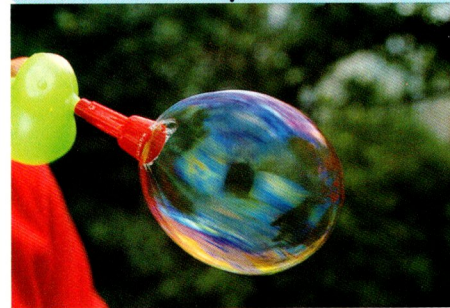


$f = 50\text{mm } 0.3\text{m}$



$f = 80\text{mm } 0.3\text{m}$

0.27m

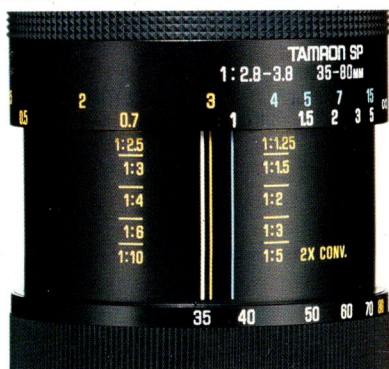


Macro magnification ratio 1:2.5 $f = 80\text{mm } 0.27\text{m}$

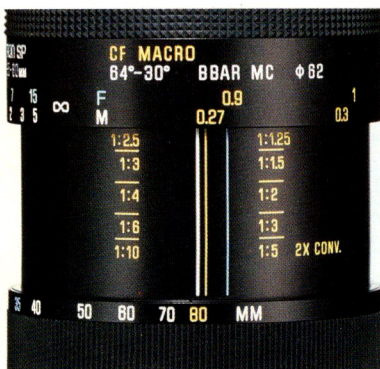
As you focus closer, the zoom ring coupled with the focusing ring continues to move towards a longer focal length range. When the lens is focused down to 0.27 meters (10.6 in.), the zoom ring automatically adjusts to the 80mm position enabling you to get close-ups with a maximum magnification ratio of 1:2.5. The MOD Selector System is a real boon in picture-taking giving the photographer much greater freedom to express his creativity.

Continuous focusing (CF) range impossible with conventional lenses

- Easily-read scales show the maximum magnification ratios changing with variations in object distance.

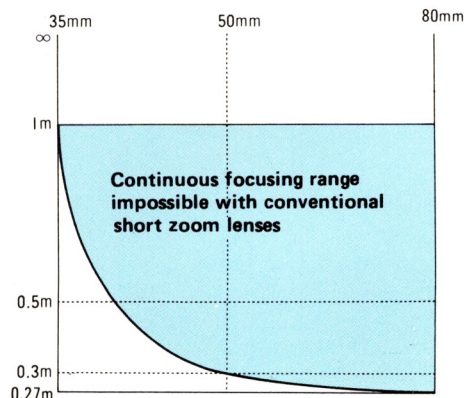


Minimum Object Distance 1m at $f = 35\text{mm}$



Minimum Object Distance of 0.27m at $f = 80\text{mm}$

MOD Selector System

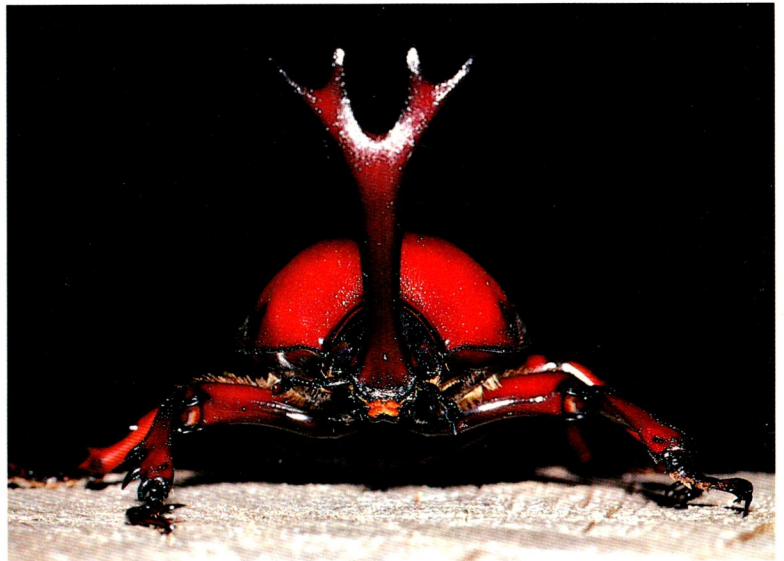




f = 24mm, f/8, 1/250 sec. [SP 24-48mm f/3.5-3.8]



f/11, 1/250 sec. [SP 17mm f/3.5]



At 0.39m, f/16, 1/16, 1/60 sec. w/strobo [SP 90mm f/2.5]



F = 210mm, f/5.6, 1/250 sec. [Adaptall-2 80-210mm f/3.8-4]

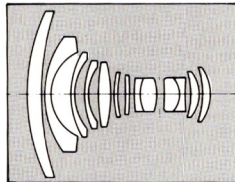
Tamron SP Series Lenses for the Professional and Serious Amateur

Model 51B

High Speed
Ultra-Wide
Angle

17mm F3.5

High speed ultra-wide angle



An Extra-Compact Lens with Built-in Filters

This ultra-wide angle lens has a large 104° angle of view and four built-in filters. Very interesting effects can be obtained utilizing the wide angle perspective. It is a high performance, low distortion lens whose design ensures corner-to-corner sharpness in confined spaces.

Outstanding Design Giving Maximum Handling Convenience

Key Features

Wide Angle of View

The fast maximum aperture of f/3.5 covers a super wide 104 degrees.



Built-in Filters

Even though four (1A, 81B, 80B and Y2) filters are incorporated the lens is only 43 mm (1.7 in.) long.

Distortion-Free

Distortion is minimized and focus-dependent aberration changes are compensated for resulting in optimum optical performance and flatness-of-field.

Optimum Colour Rendition

With the exclusive BBAR (Broad-Band, Anti-Reflection) multiple layer coating and the special selection of glass having a high light transmission ratio colour rendition is outstanding.

No Circumferential Light Loss

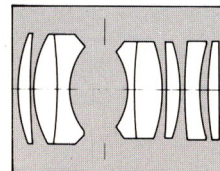
An even, high contrast image with no fall-off towards the periphery of the field.

Model 52B

Tele-Macro
Super
Portrait

90mm F2.5

Tele-macro super portrait



Super Portrait Lens with Outstanding Macro Performance

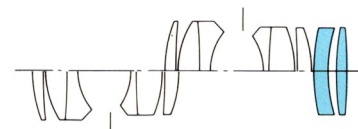
The features of both a macro lens and medium telephoto are combined in an ultra-compact package. This lens exhibits outstanding performance over the entire image field for tele-macro photography and when used as a high speed portrait or sports lens.

Numerous Features with Super Performance

Key Features

Newly Developed Optical Configuration

By the employment of Tamron's exclusive "OAC" (Optical Aberration Compensator) system there is automatic compensation for aberrations at all focus settings including macro.



Tele-Macro

It is possible with one continuous focusing movement from infinity to obtain a magnification ratio of 1:2 at the minimum object distance of 0.39 meters (15.3 inches).

World's Smallest and Lightest 90mm Portrait Lens in Its Class

It measures only 66mm (2.6 in.) in length with a diameter of 64.5mm (2.5 in.) and weighs 420 grams (14.8 oz.).

Custom Matched SP Flat-Field 2X Tele-Converter

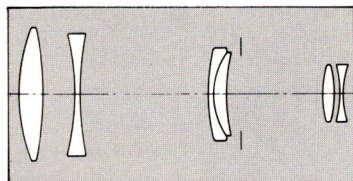
Doubles the focal length to 180mm and increases the magnification ratio to 1:1.

Model 54B

Flat-Field
Tele-Macro

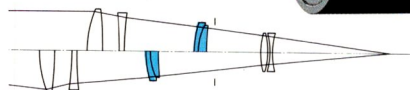
300mm F5.6

Flat-field tele-macro



A Flat-Field Tele-Macro Lens Capable of Achieving 1:3.3 Magnification at 1.4 Meters (55.1 in.) for The First Time in The World

Previously it was thought that focusing by extending the front elements could not suppress focus-dependent aberration changes. Lenses of 300mm focal length that focused in this manner always had an inherent problem in that the spherical aberration caused tended to be considerably under-corrected. However Tamron has successfully found a solution to this problem by employing an additional group of cemented compensator elements placed in front of the diaphragm. As these elements are specially computed to be over-corrected for spherical aberration the under-cor-



rection caused when focusing by extending the front elements is automatically absorbed.

Tele-Macro Lens with Unique Qualities

Key Features

1.4 Meters (55.1 in.) Minimum Object Distance

As the result of a new optical system designed to automatically compensate for focus-dependent aberration changes, flat-field, corner-to-corner sharp images can be obtained at all focus settings from infinity to the minimum object distance of 1.4 meters (55.1 in.).

Continuous Focusing (CF)

Enables you to focus from infinity to the MOD (Minimum Object Distance).



Constant F-Number

The f-number remains the same from infinity to the MOD. Combined with the tele-macro capability use with automatic flash becomes very easy.

Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

BBAR Multiple Layer Coating

Provides an ideal colour contribution (CC) value of 11-0-1 resulting in optimum colour balance and rendition

Custom Matched SP Flat-Field 2X Tele-Converter

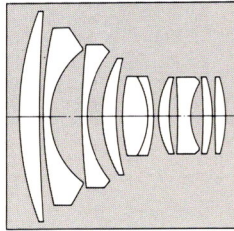
Doubles the focal length to 600mm and increases the magnification ratio to 1:1.6.

Model 13A

Compact
Super-Wide
Zoom

24-48mm F/3.5-3.8

Compact Super-Wide Zoom



A Fantastically Compact Super-Wide Zoom Reproducing The World of The Super-Wide 84° Angle of View While Covering The Standard Focal Length

The SP 24-48mm is a remarkable compact super-wide zoom which lets you shoot in four ranges: 24mm super-wide angle, 28mm and 35mm wide angle and 48mm standard. The large 84 degree taking angle can give interesting perspective effects only available with super-wide angle lenses. As the lens incorporates a new type of optical system de-

signed to minimize flare which is likely to occur at a wide angle position with conventional super-wide zooms, it provides high contrast images throughout the zooming range.

A Versatile Zoom Lens Yielding Outstanding Descriptive Performance

Key Features

Superior Optical Quality Giving High Contrast Images

By the employment of a new optical system designed to compensate for distortion found with conventional super-wide angle lenses and for flare

caused by off-axis comatic aberration, the lens provides outstanding optical quality throughout the focusing range.

Four Lenses in One

This remarkable zoom lens combines the functions of four lenses in a compact package: a 24mm super-wide angle which can give exaggerated perspective effects, 28mm and 35mm wide angle lenses popular for wide angle photography and a 48mm standard lightweight, compact design for real handling ease.

Lightweight, Compact Design for Excellent Portability

Weighs a mere 346 grams (12.2 oz.) and measuring a mere 65.5mm (2.6



in.) the lens provides excellent portability comparable to a standard lens.

Large, Perfect Hood (optional extra)

A large petal-shaped hood which will accept a filter minimizes any unwanted reflections.

Constant F-Number

F-values are identical at any focal length including the macro range.

Minimum Aperture of F/32

The greater depth of field means more flexibility in picture taking.

Half-stop Exposure Control

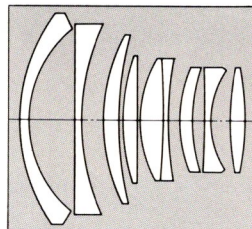
Precise exposure settings are possible with the half-stop exposure feature.

Model 01A

High Speed
CF Macro
Compact
Zoom

35-80mm F/2.8-3.8

High Speed CF Macro Compact Zoom



A Versatile Short Zoom with An Expanded Zooming Range And A Fast Maximum Aperture of f/2.8

The SP 35-80mm short zoom expands your photographic horizons to an unprecedented degree with its extended focal length range covering a 35mm wide angle to a 80mm medium telephoto in addition to the macro capability. For added ease the fast f/2.8 maximum aperture gives a viewfinder image approximately 50% brighter than that of the conventional f/3.5 more usually found in this class. By the employment of a new 9-ele-

ment 8-group optical configuration in a two-group zooming system such aberrations as astigmatism and comatic aberration have been reduced to the absolute minimum, resulting in sharp, high contrast images, and the newly developed MOD Selector System enhances the close focusing capability of the lens, providing a maximum magnification ratio of 1:2.5 at a distance of 0.27 meters (10.6 in.) from the subject at the 80mm position.

Versatile Short Zoom with High Optical Quality

Key Features

MOD Selector System

Provides different minimum object distances at various focal lengths.

Continuous Focusing (CF)

Enables you to focus from infinity to the minimum object distance of 0.27 meters (10.6 in.) in the macro range without a break.

Macro Capability

The MOD Selector System allows macro photography with a maximum magnification ratio of 1:2.5 at the

80mm position.

Constant F-Number

The f-number remains the same throughout the focusing range.

Minimum Aperture of F/32

Provides greater depth of field. This is useful also with fast 400 ASA colour films.

Custom Matched SP Flat-Field 2X Tele-Converter

Doubles the focal length to 70-160mm and increases the maximum magnification ratio to 1:1.25 whilst maintaining the minimum object distance.



Model 51A

Fast Portrait

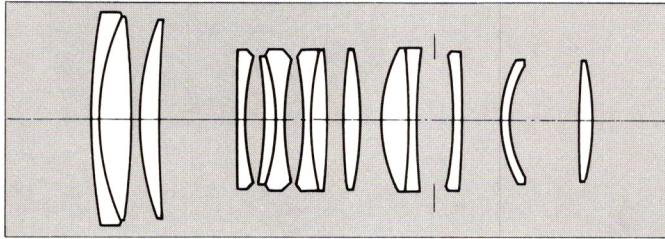
Zoom with

Soft-Focus

Feature

70-150mm F2.8

Fast portrait zoom with soft-focus feature



The World's First High-Speed Portrait Zoom with Exclusive Soft-Focus Control

With a maximum aperture of f/2.8 this is the fastest zoom of its type made and the world's first compact zoom to incorporate a soft-focus feature. The lens is fantastically useful in portraiture or low light conditions.

Remarkable Design Concept Resulting in Optical Innovation

Key Features

Zoom Lens with Built-in Soft Focus Control

By simply rotating the vari-soft control ring it's possible to obtain different degrees of softness. The high-order spherical aberration yields a very attractive diffused focus effect but with a sharp core preventing colour blur.

Innovative Optical System

The soft focus effect is created by shifting the relay lens. In normal usage the performance of the lens is extremely high. Astigmatism has been minimized over the entire field and sagittal flare is reduced to the utmost giving an image which is sharp and in high contrast.

A Remarkable 5-Element Variator Group Design (conventional lenses have only 3)

Reduces aberration changes in focusing and zooming to the absolute minimum for outstanding results from 70 to 150mm.

Fast Maximum Aperture of F/2.8

Allows the use of high shutter speeds and provides bright viewfinder images eliminating split image blackout for easier focusing.

Tele-Macro

Allows macro photography to a maximum of 1:4.6 at the minimum object distance of 0.98 meters (38.6 in.).



Model 52A

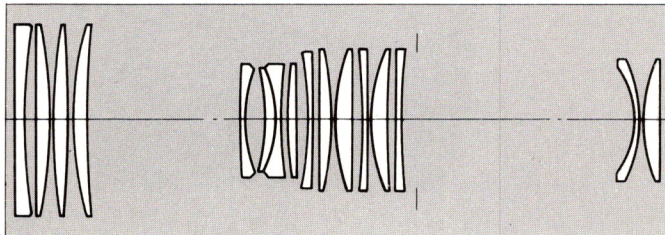
CF

Tele-Macro

Super Zoom

70-210mm F3.5

CF tele-macro super zoom



A Breakthrough in Zoom Lenses

A high performance compact lens incorporating an innovative optical system which is designed to improve OTF characteristics giving high contrast. The lens features tele-macro and CF (Continuous Focusing) capability which allows for the first time in a 3X zoom focusing with one continuous movement from infinity to 1:2 macro at 0.75 meters (29.5 in.) without a macro button.

Tele-Zoom Giving Exceptionally High Performance

Key Features

Outstanding Optical Quality

The new innovative optical system puts special design emphasis on improving OTF (Optical Transfer Function) particularly in the important low fre-

quency response range and records fine details of highlight areas as well as shadows even under adverse photographic conditions without causing flare. Astigmatism and curvature of field is maintained to a level actually superior to that of a standard lens, yielding uniform and sharp images without circular out-of-focus phenomenon. As a result of the new optical system using 4 elements for both the variator and focusing groups aberration changes due to focusing and zooming are eliminated.

Tele-Macro

Allows macro photography to 1:2 at the long working distance of 0.51 meters (20 in.) from the subject.

Continuous Focusing (CF)

Enables you to focus from infinity to the MOD (Minimum Object Distance) without interruption.

Full Zoom Function

Macro photography is possible at every focal length.

Constant F-Number

The f-number remains the same from infinity to the M.O.D. Combined with the tele-macro capability use with automatic flash becomes very simple.

Lightweight and Compact

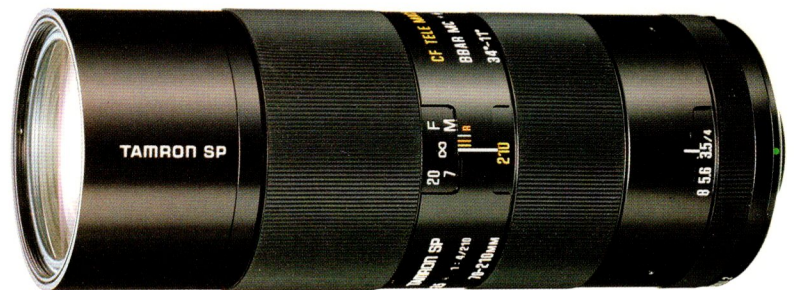
Although the lens has a 3X zooming ratio with a f/3.5 maximum aperture and takes a 58mm filter it is one of the most compact in its class.

Quick Focus

A mere 72 degree rotation of the focusing ring covers the most used range from infinity to 2 meters.

Custom Matched SP Flat-Field 2X Tele-Converter

Doubles the focal length to 140-420mm and increases the magnification ratio to 1:1.

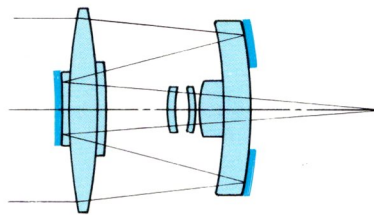
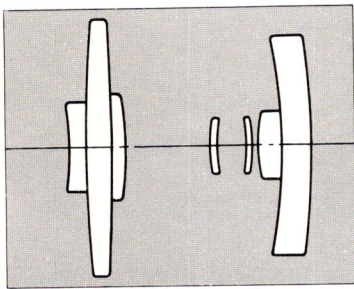


Model 55B

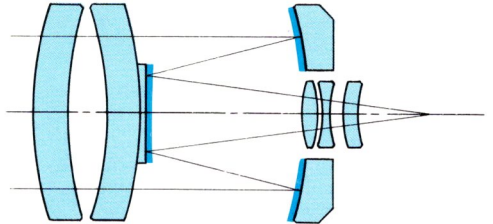
Tele-Macro

Catadioptric

500mm F8 Tele-macro catadioptric



Tamron SP 500mm f/8



Conventional mirror lens

Tele-Macro Catadioptric Capable of Achieving 1:3 Magnification Ratio at 1.7 Meters

The newly developed design incorporates special rear reflex mirrors for its main and auxiliary mirrors. Focus-dependent aberration changes are thereby reduced to the absolute minimum giving superlative performance from infinity to the MOD of 1.7 meters (66.9 in.).

Exceptionally High Performance and Abundant Features Packed in A Compact Design

Key Features

Tele-Macro

Gives a magnification ratio of 1:3 at 1.7 meters (66.9 in.).

Continuous Focusing (CF)

Enables you to focus from infinity to the MOD (Minimum Object Distance).

Lightweight and Compact

The SP 500mm f/8 weighing only 575 grams (20.3 oz.), measuring 87mm (3.4 in.) in overall length and 84mm (3.3 in.) in diameter with a macro

capability of 1:3 at 1.7 meters (66.9 in.) MOD is the smallest and lightest 500mm lens in its class. Hand-held photography is now possible with today's high-speed colour films.

Silver-Spattered Mirrors for Greater Light Transmission

Special silver-coated Mangin (rear reflection) mirrors whose durability far surpasses the American military standards for tough environmental protection enable a high light transmission ratio of 95% or more.

Constant F-Number

The f-number remains the same from infinity to the MOD. Combined with the tele-macro capability use with automatic flash becomes very easy.

Supplied with retractable lens hood, and tripod mounting ring.

Exclusive Filter Set

Specially made filters are supplied with the lens to enhance your photography; Normal, ND4X, Y-52, 0-56 and R-60. These 30.5mm size filters screw onto the rear element thread. Two other 30.5mm rear filters of ND2X and 81B and a special 82mm normal front filter are available as optional extras.

Custom Matched SP Flat-Field 2X Tele-Converter

Doubles the focal length to 1000 mm and increases the magnification ratio to 1:1.5.

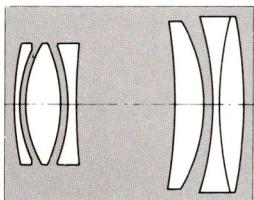
Model O1F

Flat-Field

2X

Tele-Converter

2X Tele-Converter Flat-Field



2X tele-converter



Tamron lens

custom mount

Doubles Not Only The Focal Length of The Original Lens But Also The Macro Magnification Ratio

The SP 2X flat-field tele-converter consisting of 6 elements in 5 groups and custom matched to Tamron's zoom and telephoto lenses with a focal length of over 90mm breaks-through the traditional concept of tele-converters.

Special Lens Computation Yielding Flat and Sharp Reproduction from Edge to Edge

Key Features

Outstanding Performance

The special optical configuration enables curvature of field to be reduced to the absolute minimum. Circumferential light loss is also reduced and the high quality of the original lens is continued.

Compatible with Large Aperture Fast Lenses

A large aperture fast lens can be used at its maximum aperture without introducing fall-off.

Doubles the focal length

and the magnification ratio broadening your photographic horizons. The maximum magnification ratio of the original lens can be doubled while retaining the long working distance.

Greater Depth-of-Field

The combination of the tele-converter and a SP lens having a minimum aperture of f/32 gives increased depth-of-field equivalent to f/64 for added sharpness.

Couples with All Lenses from F/2.5 to F/32

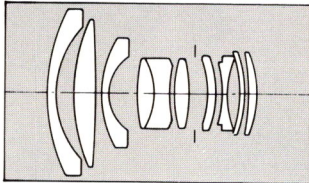
The effective aperture in use from f/5 to f/64 is indicated on the tele-converter.

Tamron Adaptall-2 Series Lenses Offering Outstanding Performance and Features at Remarkable Value

Model 01B
Compact
Super Wide
Angle



24mm F2.5
Compact super
wide angle



Distortion-Free High-Performance Super Wide Angle Lens

Consisting of 10 elements in 9 groups in which the shape and configuration are optimized to reduce astigmatism and curvature of image field to the absolute minimum, it provides a wide angle of view of 84° and consequently increased depth of field. Combined with the effect of greater perspective it's possible to obtain distortion-free, corner-to-corner sharp images. This is a versatile lens for sports, landscape and reportage photography.

Super Wide Angle Lens Having Easy-to-Use Characteristics

Key Features

Fast Aperture of F/2.5

Provides a viewfinder image 25% brighter than that of a f/2.8 lens for easier and quicker focusing.

Lightweight and Compact

Weighing only 230 grams (8.1 oz.) and measuring 64.5mm (2.5 in.) in spite of the fast f/2.5 aperture.

Minimum Object Distance of 0.25 Meters (9.8 in.)

Focus-dependent aberration changes are minimized from infinity to the minimum object distance of 0.25 meters (9.8 in.).

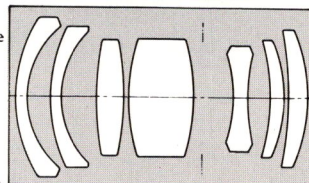
Unique and Convenient Outer Design

Shows all the operating information where it can be most conveniently read.

Model 02B
Compact
Wide Angle



28mm F2.5
Compact wide angle



Lightweight, Compact and Fast Wide Angle Lens Designed for Maximum Handling Convenience

The optical configuration which is designed for compactness employs for its front group two concave and two convex lens elements designed in an ideal arrangement, thus reducing flare to the absolute minimum and solving the problem of comatic aberration which is likely to occur in compact lenses. The lens gives sharp, high contrast results and with its compact and lightweight design measuring 33 mm (1.3 in.) in overall length and weighing only 180 grams (6.3 oz.) is very convenient in general or in indoor photography.

Wide Angle Lens Having Easy-to-Use Characteristics

Key Features

Fast Aperture of F/2.5

Provides a viewfinder image 25% brighter than that of a f/2.8 lens for quicker focusing.

Lightweight and Compact

Measures 33mm (1.3 in.) in overall length and weighs 180 grams (6.3 oz.) only, giving excellent portability.

Minimum Object Distance of 0.25 Meters (9.8 in.)

Giving remarkable definition and accurate reproduction from infinity to the minimum object distance of 0.25 meters (9.8 in.).

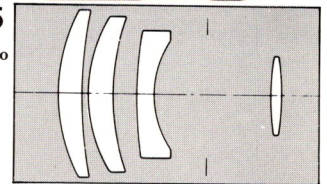
Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

Model 03B Compact Close Focusing Telephoto



135mm F2.5
Compact close
focusing telephoto



High Speed Telephoto Designed to Give Outstanding Performance

The Adaptall-2 135mm f/2.5 incorporates two thick convex elements for its front group to make the lens as compact as possible. Comatic aberration which is likely to occur at the edge is minimized to the smallest possible degree by the use of an optical glass having a high refractive index. As the optical system of the lens is constructed as symmetrically as possible, focus-dependent aberration changes are diminished, resulting in high contrast, corner-to-corner sharp images throughout the focusing range.

Key Features

Fast Aperture of F/2.5

Provides a viewfinder image 25% brighter than that of a f/2.8 lens for quicker focusing.

Lightweight and Compact for Maximum Portability

Exceptionally compact measuring only 79.5mm (3.1 in.) in overall length and 64.5mm (2.5 in.) in diameter.

Close-Focusing Capability

Allows close-ups at the minimum object distance of 1.2 meters (3.9 feet).

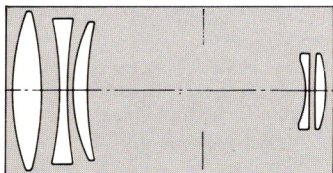
Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

Model 04B
Compact
Close Focusing
Telephoto

200mm F3.5

Compact close focusing telephoto



Compact Telephoto Featuring Maximum Portability and Close-

Focusing Capability Down to 1.7 Meters

The Adaptall-2 200mm f/3.5 telephoto incorporates a new optical sys-

tem designed to realize a compact lens with a very small telephoto ratio



of 0.78 by reducing the distance between the front and rear groups. It uses optical glass materials having low refractive indices and low dispersion factors in order to maintain the required value of the Petzval sum, the index of curvature of image field, thus enhancing the image characteristics. Besides the Adaptall-2 200mm lens incorporates a new optical system in which the power of the front

convex, concave and convex elements is arranged in the optimum configuration to minimize focus-dependent aberration changes, yielding sharp images from infinity to the minimum object distance of 1.7 meters (5.6 feet).

Outstanding Operational Ease Combined with High Performance

Key Features

Compact and Lightweight

With a telephoto ratio of 0.78, this lens measuring only 108mm (4.3 in.) and weighing 540 grams (19 oz.) is the most compact of 200mm f/3.5 lenses in its class.

Minimum Object Distance of 1.7 Meters

Features close-focusing capability which allows close-ups at the mini-

mum object distance of 1.7 meters (5.6 feet).

Minimum Aperture of F/32

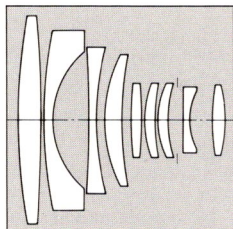
Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

Unique and Convenient Outer Design

Shows all the operating information where it can be most conveniently read.

Model 07A
Ultra-Compact
CF
Standard
Zoom

28-50mm F/3.5-4.5
Ultra-Compact CF Standard Zoom



A Remarkable Compact, New "Standard" Zoom with The Functions of Two Wide Angle Lenses (28mm, 35mm) and A Standard Lens

This unusually compact lens measuring a mere 50.7mm (2 in.) in overall length can be kept on the camera and in many cases will fit the camera's case. With this lens it is possible to focus continuously from infinity to the closest focusing distance and the Minimum Object Distance (MOD) Selector System extends focusing to 0.25 meters (9.8 in.) in the macro range at the 50mm setting.

New Optical System Minimizes Wide Angle Distortion

Key Features

Innovative Optical System

Tamron's new optical system features a convex element in the front of the foremost group. This element minimizes the distortion that usually occurs at the wide angle position with lenses of this type where distortion is a mere 3 percent whilst at the standard setting is virtually zero. Astigmatism and off-axis comatic aberration have also been compensated for throughout the zoom range.

All of this means natural portrayal of your subjects.

Four Lenses in One

Enables picture-taking in four different ranges: 28mm wide angle, 35mm wide angle, standard and macro.

Continuous Focusing (CF)

It is possible to focus continuously from infinity to the macro range of the lens allowing you to concentrate on your subject, regardless of the distance.

Constant F-Number

The constant f-number feature maintains the same f-number throughout the focusing range.



Minimum Aperture of F/32

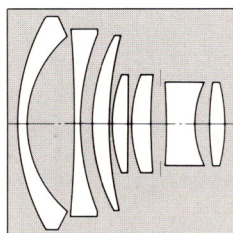
Means greater depth of field in normal and macro photography.

Lightweight, Compact Design

Weighs only 297 grams (10.5 oz.) and measures a mere 50.7mm (2 in.). Ideal for use as a standard lens.

Model 09A
Compact
CF Macro
Zoom

35-70mm F/3.5-4.5
Compact CF Macro Zoom



A Versatile Four-in-One Zoom Lens; The Most Compact Among Short Zoom Lenses in This Class

Tamron's Adaptall-2 35-70mm f/3.5-4.5 is a versatile, very compact lens compared to other short zoom lenses in this class. It combines the functions of four different lenses: wide angle, standard, medium telephoto and macro. The optical system in this Tamron lens features a new type two-group zooming system which gives outstanding image quality comparable to that of lenses with fixed focal lengths. Tamron's newly developed MOD Selector System, the world's first, lets you focus as close as 0.25 meters (9.8 in.) in the macro range at the 70mm position.

Sharp, High Contrast Images, Thanks to A New Optical Design

Key Features

Superb Optical Design

The optical system of this Tamron lens enhances power in the front and rear groups, making the extremely compact design possible. Astigmatism and off-axis comatic aberration that normally occur in such a configuration have been compensated for. Tamron used a new type concave element in the front group and a convex element made of glass materials with a high refractive index in the rear group. Sagittal flare, frequently seen around point light sources at night with other lenses, is virtually eliminated. Tamron's Adaptall-2 35-

70mm Compact CF Macro Zoom: A remarkably compact lens with high performance.

Four Lenses in One

A versatile lens that lets you shoot four different kinds of pictures: wide angle, standard, medium telephoto and macro.

Continuous Focusing (CF)

With Tamron's CF, you can focus from infinity to macro without switching on a macro button. No more time loss due to refocusing and reframing your subjects. Tamron's unique MOD Selector System lets you concentrate on picture-taking.

Macro Magnification Scales

Easy-to-read scales on the lens barrel



show magnification ratios as they change with object distance. (When Tamron SP flat-field 2X tele-converter is used, magnification ratios are also clearly shown.)

Constant F-Number

F-values are identical throughout the entire focusing range.

Lightweight, Compact Design

Weighs a mere 322 grams (11.4 oz.) and measures only 61mm (2.4 in.) in length.

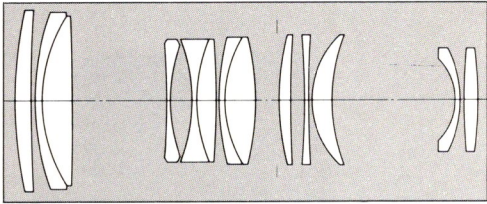
Custom Matched SP Flat-Field 2X Tele-Converter

Doubles the focal length to 70-140mm and increases the maximum magnification ratio to 1:1.4.

Model 20A
 Ultra-Compact
 One-Touch
 Three-Action
 CF Tele-Macro
 Zoom

70-150mm F3.5

Ultra-Compact One-Touch Three-Action CF Tele-Macro Zoom



An Ultra-Compact Zoom That Offers Outstanding Manoeuvrability and Many Great Features

Tamron's Adaptall-2 70-150mm f/3.5 is a versatile zoom lens that covers these popular focal lengths—85mm, 100mm and 135mm—and lets you take macro pictures with a magnification ratio of 1:3. This lens's new optical system results in its extremely compact size. It measures only 103.5mm (4.1 in.) in total length and weighs a mere 459 grams (16.2 oz.). With Tamron's one-touch three-action control ring, you can focus, zoom or shoot in macro. This outstanding feature increases handling ease, especially in action photography.

Remarkable Portability for A Zoom Lens in This Class. Only 103.5mm Long!

Key Features

Ultra-Compact Design with Brand-New Optical Configuration

Tamron designed this Adaptall-2 zoom lens using an innovative optical system. One convex element of the relay group and a concave element in the rear work together to give more outstanding performance. This design reduces aberrations to a minimum yet keeps this lens very compact.

One-Touch Three-Action Control Assures Quick, Easy Operation

Tamron's one-touch three-action control lets you focus, zoom and shoot in macro with a single control ring. This



handy feature makes handling more convenient, especially when you shoot fast-moving subjects or action shots.

Continuous Focusing (CF)

Enables you to focus continuously from infinity to as close as 0.7 meters (27.5 in.) in the macro range. With Tamron's CF, simply rotate the focusing ring.

Constant F-number

No matter what your focusing range, the f-number stays the same, thanks to Tamron's constant f-number feature.

Tele-Macro

For shooting macro photography, this Tamron lens magnifies your subjects up to one-third its life size (at 150mm) at a distance of 0.7 meters (27.5 in.).

Full Zoom Function

With this Adaptall-2 lens, you can enter the macro mode at any focal length setting. Unlike many other zoom lenses, you don't have to pre-determine your focal length first. Macro range zooming during a time exposure is just one creative photographic technique possible with this Tamron lens.

F/32 Minimum Aperture

With this minimum aperture, you get greater depth-of-field for normal and macro photography.

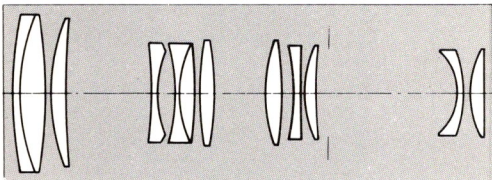
Custom Matched SP Flat-Field 2X Tele-Converter

Attach Tamron's 2X tele-converter to double your focal length to 150-300mm or increase the maximum magnification ratio to 1:1.5.

Model 03A
 CF
 Tele-Macro
 Compact Zoom

80-210mm F3.8^{1/4}

CF tele-macro compact zoom



Versatile Compact Zoom in The Most Popular Focal Length Range with Motion-Freezing Capability

The Adaptall-2 80-210mm f/3.8-4 is a CF Tele-Macro Zoom Lens with a single action focusing and zooming feature. In spite of the fast maximum aperture of f/3.8 changes in aberration due to focusing have been reduced to approximately one third of that of conventional zoom lenses of this class. Distortion and chromatic aberrations are also reduced to the absolute minimum through the

special improvement of the relay lens resulting in uniform and sharp images in high contrast from the centre to the periphery.

Efficient Zoom Lens Complements Photographer's Equipment.

Key Features

Continuous Focusing (CF)

Allows continuous focusing from infinity to the closest focusing distance (macro range).

Tele-Macro

Macro photography up to 1:2.8 magnification ratio is possible at a

distance of 0.9 meters (35.4 in.) from the subject. Automatic flash can be used at this distance with ease thanks to the long working distance of 0.68 meters (26.8 in.).

Fast Maximum Aperture of F/3.8

Allows the use of high shutter speeds and provides bright viewfinder images eliminating split image blackout for easier focusing

Full Zoom Function

Allows zooming in macro as it is possible to enter macro at any focal length and at any focus setting from infinity to the closest distance.

Constant F-Number

Maintains a constant f-number throughout the focusing range.

Compact and Lightweight

Measures only 146.5mm (5.8 in.) in overall length and weighs only 610 grams (21.5 oz.).

Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.



Model 04A

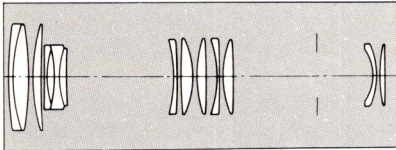
CF

Tele-Macro

Zoom

75-250mm F3.8/4.5

CF tele-macro zoom



Continuous Focusing Zoom with A High Zoom Ratio of 3.33X Providing A Wide Choice for Subject Composition in Action Photography

The Adaptall-2 75-250mm f/3.8-4.5 is a versatile zoom lens having outstanding manoeuvrability which allows focusing and zooming operations with one single control. Spherical aberration and curvature of field are compensated for to the absolute minimum. Therefore sharp high contrast results can be obtained over all

the image area and throughout the focal length range. With the employment of Tamron's original BBAR multiple layer coating and the use of selected glass optimum colour reproduction can be obtained.

Outstanding Operational Ease and Manoeuvrability Expands Your Photographic Creativity.

Key Features Fast Aperture of F/3.8

Permits you to use high shutter speeds, and provides bright viewfinder images for easier focusing.

Continuous Focusing (CF)

Capable of focusing continuously from infinity to the minimum object distance of 1.2 meters or 47 inches (macro range)

Tele-Macro

Provides macro magnifications up to 1:3.5 at the minimum object distance of 1.2 meters (47.2 in.). Auto-flash photography becomes very easy thanks to the long working distance of 0.96 meters (38 in.)

Full Zoom Function

It's possible to enter into the macro mode at any focal length from 75mm

to 250mm. It's very convenient too, to switch from normal to macro or vice versa.

Constant F-Number

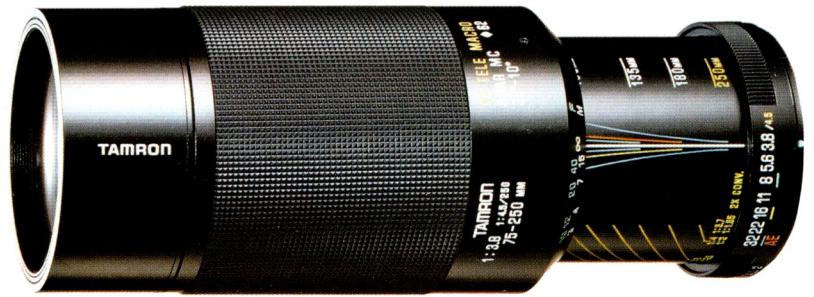
Maintains a constant f-number throughout the focusing range.

Compact and Lightweight

Measures only 178.5mm (7 in.) in overall length and weighs only 870 grams (30.7 oz.).

Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.



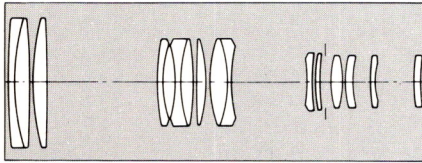
Model 05A

5X

Tele Zoom

70-350mm F4.5

5X tele-zoom



Powerful 5X Tele-Zoom Yet Featuring Maximum Aperture of F/4.5

This is a tele-zoom having an impressive high zoom ratio of 5X the medium focal length of 70mm to the ultra-long 350mm. It provides a wide choice of possibilities for close-ups in reportage photography and in sports

and aviation work. The 6-element master lens compensates for unwanted distortion and the use of optical glass materials having a high refractive index for the variator and compensator groups has resulted in sharp images over all the field.

The Lens Features A Very Attractive Specification.

Key Features

5X Zoom Ratio

A 5X zoom ratio yet it has a compact design measuring only 274mm (10.8 in.) in overall length and weighing 2170 grams (76.5 oz.).

Sufficiently Fast Aperture of F/4.5

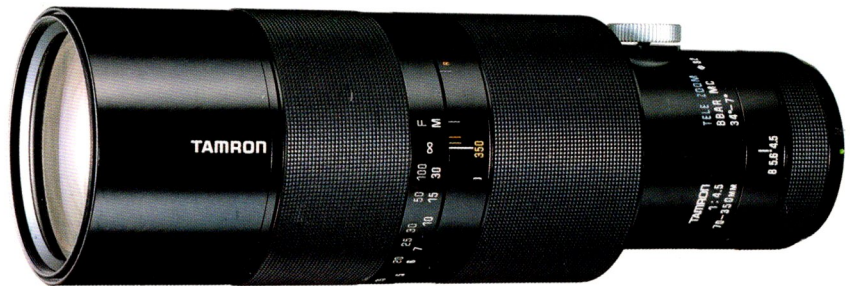
An aperture of f/4.5 is fast for such a lens with a 5X zooming ratio.

Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

Tripod Mounting Ring

The lens can be rotated through 360 degrees for added versatility and convenience.



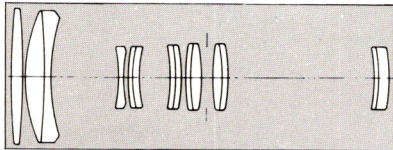
Model 06A

Ultra-Tele

Zoom

200-500mm F6.9

Ultra-tele zoom



An Ultra-Tele Zoom with A Fast Maximum Aperture of F/6.9

This lens covers the focal length of 200-500mm with a maximum aperture of f/6.9 yet it features a compact design measuring only 370mm (14.6 in.) long. It is ideal for sports or other distant photography such as wildlife, aviation and surveillance applica-

tions.

Remarkable Convenience for A Long Tele-Zoom

Key Features High Optical Performance

The 14-element 8-group construction provides high contrast. Image distortion is compensated to provide a lens with really good performance from

the centre to the periphery.

Minimum Aperture of F/32

Provides greater depth-of-field. This is particularly useful with today's fast 400 ASA colour films.

Tripod Mounting Ring

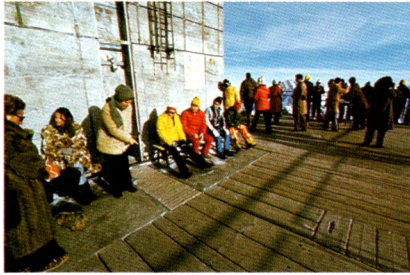
The lens can be rotated through 360 degrees for added versatility and convenience.

Custom Matched SP Flat-Field 2X Tele-Converter

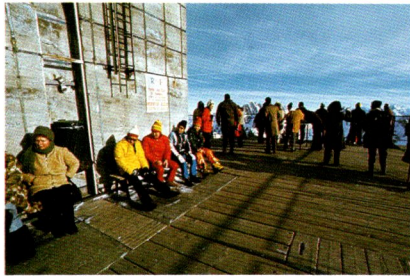
Doubles the focal length of the lens to make a 400-1000 mm ultra-tele, zoom lens.



Different Angles of View with Different Lenses



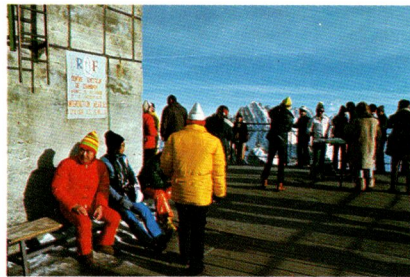
$f = 17\text{mm}$



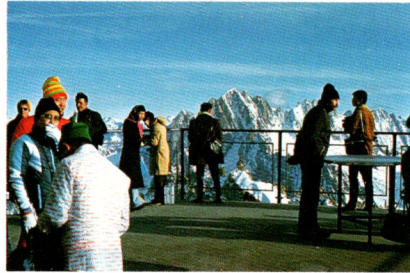
$f = 24\text{mm}$



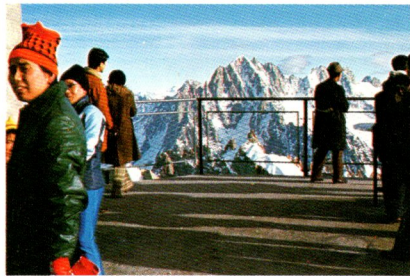
$f = 50\text{mm standard}$



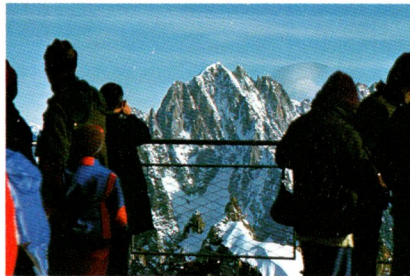
$f = 90\text{mm}$



$f = 135\text{mm}$



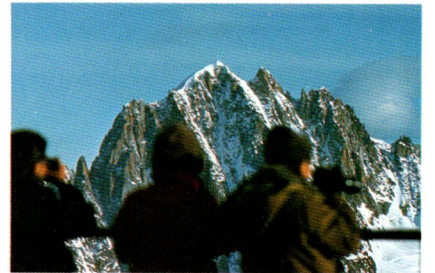
$f = 150\text{mm}$



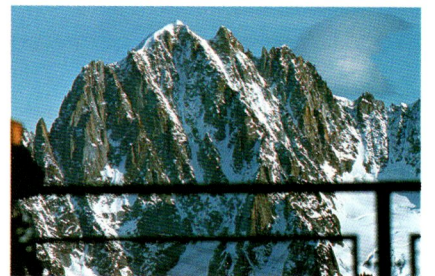
$f = 210\text{mm}$



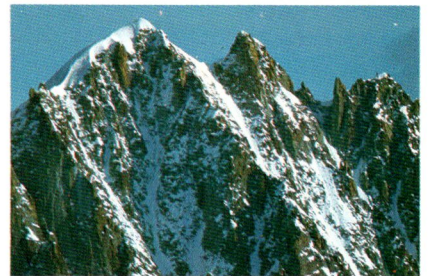
$f = 250\text{mm}$



$f = 350\text{mm}$



$f = 500\text{mm}$



$f = 1000\text{mm}$

BBAR Multi-Layer Coating

Conventional single-layer lens coatings, developed in the 1930's, effectively prevent flare and internal reflections only in the simplest lens designs. Through Tamron's unique Broad-Band Anti-Reflection coating, as many as 7 coating layers are deposited on each glass-to-air surface. The result: significantly increased light transmission, virtual elimination of flare and internal reflections, and a beautifully crisp and accurate rendition of even the most subtle colours in your pictures. This superior coating technology is but another reason for the continuing acceptance of Tamron lenses by photographers throughout the world.



Tamron Lens w/multi-layer BBAR coating



Lens w/conventional single-layer coating

Adaptall/Adaptall-2 Interchangeable Mount System

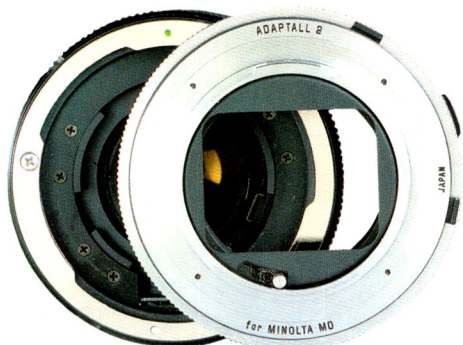
Since its introduction five years ago, the Tamron Adaptall Interchangeable Mount System has been extremely successful because it has been able to keep pace with the constantly changing metering and mounting methods on today's 35mm SLR's.

Now Tamron Adaptall is offering another significant improvement: the Adaptall-2 Interchangeable Mount System. Previously, shutter preferred cameras required a separate mount for each lens with a different maximum aperture. With the new Adaptall-2 System, one mount fits all lenses, regardless of maximum aperture. The new Olympus and Contax/Yashica Adaptall-2 mounts have also been updated for more convenient and functional operation.

The new Adaptall-2 Interchangeable Mount System is an extension of the same high quality mount concept incorporated in the Adaptall series lenses. It simply provides updated performance and features with certain SLR camera mount systems.

Adaptall/Adaptall-2 Mounts Available

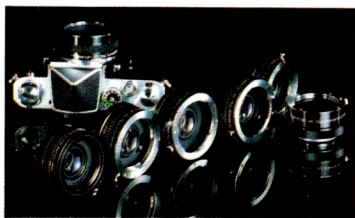
For Canon FD Series
 Canon FT Series
 Contax/Yashica Series
 Fujica ST Series
 Konica Autoreflex Series
 Mamiya SX Series
 Minolta MD Series
 Minolta SR Series
 Nikon F/AI Series
 Olympus OM Series
 Pentax ES/Spotmatic F Series
 Pentax SMC Series (Bayonet series)
 Rollei SL/Voightlander VSL Series
 Topcon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



TAMRON Photographic Accessories

A comprehensive range of Tamron photographic accessories bring new standards of excellence to owners of all popular 35mm SLR cameras.

2X Tele-Converters



For Pentax/Praktica threaded mount, Pentax K, Nikon AI, Minolta SRT, Minolta MD, Canon FD, Olympus OM, Contax/Yashica, Konica and Fujica ST.

Tripod Mount Ring



A separate tripod mount ring is available as an optional accessory for the SP 300mm F/5.6 and 70-210mm F/3.5-4 lenses.

Wide-Field Tele-View Adaptor



As an optional accessory, the unique Tamron wide-field tele-view adaptor is available for use with Tamron's 35mm photographic lenses. For example, a

compact, wide-field 25X telescope can be made by attaching the adaptor to the Tamron SP 500mm F/8 lens.

SP Series Lenses

Technical

Model	Focal Length	Aperture Range	Angle of View	Lens Construction (Groups /Elements)	Min. Focus from Film Plane in. (m)	Macro Mag. Ratio (W/ Converter)	Focus Ring Rotation
51B	17mm	f/3.5—22,AE	104°	10/12	9.8 (0.25m)	—	107°16' (9°41' from ∞ to 2m)
52B	90mm	f/2.5—32,AE	27°	6/8	15.3 (0.39m)	1:2 (1:1)	338°02' (44°56' from ∞ to 1.5m)
54B	300mm	f/5.6—32,AE	8°	5/6	55.1 (1.4m)	1:3.3 (1:1.6)	278°44' (129°51' from ∞ to 2.5m)
55B	500mm	f/8	5°	4/7	66.9 (1.7m)	1:3 (1:1.5)	327°35' (126°22' from ∞ to 4m)
13A	24—48mm	f/3.5~3.8—32,AE	84°~48°	9/10	23.6 (0.6m) (f=48mm)	—	178°40'
01A	35—80mm	f/2.8~3.8—32,AE	64°—30°	8/9	10.6 (0.27m) (f=80mm)	1:2.5 (1:1.25) (f=80mm)	67°52' at f=35mm 324°56' at f=80mm
51A	70—150mm	f/2.8—32,AE	34°~16°	10/14	38.6 (0.98m)	1:4.6 (1:2.3)	194° (76°55' from ∞ to 2m)
52A	70—210mm	f/3.5~4—32,AE	34°~11°	15/16	29.5 (0.75m)	1:2 (1:1)	297°16' (72°44' from ∞ to 2m)
01F	2X the focal length of original lens	f/5—64,AE (Original lens F × 2)	—	5/6	Retains the min. focus of original lens	2X the mag. ratio of original lens	—

Adaptall-2 Series Lenses

Model	Focal Length	Aperture Range	Angle of View	Lens Construction (Groups /Elements)	Min. Focus from Film Plane	Macro Mag. Ratio (W/ Converter)	Focus Ring Rotation
01B	24mm	f/2.5—22,AE	84°	9/10	9.8 (0.25m)	—	116°
02B	28mm	f/2.5—32,AE	75°	7/7	9.8 (0.25m)	1:5.8	126°15'
03B	135mm	f/2.5—32,AE	18°	4/4	47.2 (1.2m)	1:7.0 (1:3.5)	139°42' (105°07' from ∞ to 1.5m)
04B	200mm	f/3.5—32,AE	12°	5/5	66.9 (1.7m)	1:5.9 (1:3)	165°42' (97°21' from ∞ to 2.5m)
07A	28—50mm	f/3.5~4.5—32,AE	75°—47°	9/9	9.8 (0.25m) (f=50mm)	1:4 (1:2) (f=50mm)	132°25' at f=28mm 309°05' at f=50mm
09A	35—70mm	f/3.5~4.5—32,AE	64°—34°	7/7	9.8 (0.25m) (f=70mm)	1:2.8 (1:1.4) (f=70mm)	65°38' at f=35mm 320°09' at f=70mm
20A	70—150mm	f/3.5—32,AE	34°~16°	10/13	27.5 (0.7m)	1:3 (1:1.5)	300°36'
03A	80—210mm	f/3.8~4—32,AE	30°~11.3°	10/12	35.4 (0.9m)	1:2.8 (1:1.4)	168°40' (58°07' from ∞ to 2m)
04A	75—250mm	f/3.8~4.5—32,AE	32°~10°	11/13	47.2 (1.2m)	1:3.5 (1:1.8)	130°21' (66°27' from ∞ to 2m)
05A	70—350mm	f/4.5—32,AE	34°~7°	13/15	98.4 (2.5m)	—	149°54'
06A	200—500mm	f/6.9—32	12°~5°	8/14	118 (3.0m)	—	267°40'

Specifications

Filter Size (mm)	Diameter in. (mm)	Length at ∞ in. (mm) () w/Nikon mount	Weight oz. (gm)	Lens Hood	Accessory
Built-in	2.8 (70)	1.7 (43) 1.9 (47.5)	9.5 (270)	Push-on type (optional extra)	w/built-in 4-piece filters (1A, 81B, 80B, Y2)
49	2.5 (64.5)	2.6 (66) 2.8 (70.5)	14.8 (420)	Screw-in type (optional extra)	Accepts SP 2X tele-converter.
58	2.5 (64.5)	6.4 (163.5) 6.6 (168)	21.5 (610)	Built-in type, retractable	Accepts SP 2X tele-converter. Tripod mount ring available as optional extra.
30.5 rear (82 front-special)	3.3 (84)	3.4 (87) 3.6 (91.5)	20.3 (575)	Screw-in type.	Accepts SP 2X tele-converter. Supplied w/tripod mount ring, lens hood and 5- piece filter set.
77	2.5 (64.5)	2.4 (61.0) 2.6 (65.5)	12.2 (346)	Bayonet type (optional extra)	
62	2.5 (64.5)	2.8 (72.0) 3.0 (76.5)	13.6 (386)	Push-on type (optional extra)	Accepts SP 2X tele-converter.
62	2.7 (67.5)	5.8 (147) 6.0 (151.5)	26.8 (760)	Built-in type, retractable	Accepts SP 2X tele-converter.
58	2.5 (64.5)	6.5 (165) 6.7 (169.5)	26.5 (750)	Built-in type, retractable	Accepts SP 2X tele-converter. Tripod mount ring available as optional extra.
—	2.5 (64.5)	1.7 (42.5) 1.8 (47)	8.8 (250)		

Filter Size (mm)	Diameter in. (mm)	Length at ∞ in. (mm) () w/Nikon mount	Weight oz. (gm)	Lens Hood	Accessory
55	2.5 (64.5)	1.5 (38) 1.7 (42.5)	8.1 (230)	Screw-in type, (optional extra)	
49	2.5 (64.5)	1.3 (33) 1.5 (37.5)	6.3 (180)	Screw-in type, (optional extra)	
58	2.5 (64.5)	3.1 (79.5) 3.3 (84)	14.5 (410)	Built-in type, retractable	Accepts SP 2X tele-converter.
58	2.7 (68)	4.3 (108) 4.4 (112.5)	19.0 (540)	Built-in type, retractable	Accepts SP 2X tele-converter.
58	2.5 (64.7)	1.8 (46.2) 2.0 (50.7)	10.5 (297)	Push-on type (optional extra)	
58	2.5 (64.5)	2.2 (56.5) 2.4 (61)	11.4 (322)	Push-on type (optional extra)	Accepts SP 2X tele-converter.
49	2.5 (64.5)	3.9 (99) 4.1 (103.5)	16.2 (459)	Built-in type, retractable	Accepts SP 2X tele-converter.
58	2.5 (64.5)	5.8 (146.5) 5.9 (151)	21.5 (610)	Built-in type, retractable	Accepts SP 2X tele-converter.
62	2.8 (72)	7.0 (178.5) 7.2 (183)	30.7 (870)	Built-in type, retractable	Accepts SP 2X tele-converter.
82	3.5 (90)	10.8 (274) 11.0 (278.5)	76.5 (2170)	Built-in type, retractable	Accepts SP 2X tele-converter. Supplied w/exclusive tripod mount ring
82	3.5 (90)	14.6 (370) 14.7 (374.5)	97.7 (2770)	Built-in type, retractable	Accepts SP 2X tele-converter. Supplied w/exclusive tripod mount ring

Specifications and availability are subject to change without notice.

TAMRON International Service

Should any TAMRON product require service, TAMRON'S international service is available in over 48 nations world-wide.

TAMRON CO., LTD.

Manufacturers of lenses for photographic, industrial, laboratory, video, and scientific applications.

Tokyo Main Office
Tamron Bldg., 17-11, 7-chome, Takinogawa,
Kita-ku, Tokyo, Japan
Tel: (03)916-0131
Telex: J23977, 272-2220 TAMRON
Cable: "TAMRONTAISEI TOKYO"

TAMRON INDUSTRIES, INC.

24 Valley Road, Port Washington, N.Y. 11050 TEL: 516-883-8800
TWX 510-223-0499 TAMRON USA PTW
