tamron F-SYSTEM

LIGHTER!
SMALLER!
SHARPER!

AUTOMATIC SLR LENSES FOR
* CANON * KONICA * MINOLTA
* NIKON * OLYMPUS * PENTAX

tamron F-SYSTEM
CUSTOM-ENGINEERED FOR THESE FINE CAMERAS:

Canon FD/EE.

For Canon EF, F-1, F-1/EE, FT, FTB, FTB-N, TLB, TX, and similar models.

Open-aperture metering and automatic exposure control on each Canon model so designed.

Minolta SRT/X.

For all Minolta SR, SRT, and X-series Cameras.

Open-aperture metering, aperture readout, and automatic exposure control on each Minolta model so designed.

Pentax Thread Mounts.

For Cosmorex SE, Fujica, GAF, Mamiya/Sekor, Pentax Spotmatic and ES, Praktica, Ricoh, Yashica, Zeiss Ikon, and similar Thread Mount models.

Automatic diaphragm coupling and taking-aperture metering on all cameras so designed.

Konica Autoreflex.

For Konica Auto-Reflex, T, T2, T3, and similar models.

Fully automatic EE operation with all Konica Autoreflex cameras.

Nikon/Nikkormat.

For Nikon F, F2, F2S, F2S-EE, Nikkormat EL, FS, FT, FTN, FT-2, and similar models.

Open-aperture metering and automatic exposure control on each Nikon/Nikkormat model so designed.

Olympus OM Series

For OLYMPUS M-1, OM-1, OM-2 and similar models'.

Open-aperture metering and automatic exposure control on all OLYMPUS OM-series camera so designed.

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LIGHTER, SMALLER, SHARPER .....

Perhaps the greatest single advantage of single-lens reflex photography is the ability it gives you to use *interchangeable lenses* easily and accurately . . . for better pictures.

Wide-Angle lenses, for panoramic landscape and interior shots, too... *Telephoto lenses,* to bring faraway subjects closer and give you beautifully-natural 'candid' shots again and again. And *Zoom lenses,* offering the creative freedom of more than a hundred individual focal lengths at your command.....

Tamron F-System Automatic SLR lenses are crafted with one overriding purpose in mind; *better pictures* through superior optical *and* mechanical design. The moment you hold the lens in your hand, you'll be pleasantly amazed at the compact, streamlined construction and remarkably light weight...features you'll welcome when your camera's at your eye, trained on your subject. The lens is factory-mounted for your individual SLR model and attaches to your camera exactly like your 'normal' lens, with full cross-coupling to all your camera's automatic controls. Look through your viewfinder, and.....

Frame. The image you see is brilliant from edge-to-edge. Reason: innovative Tamron optical designs based on extensive computer-analysis technology and new rare-earth optical glass types.

Focus. You'll find it fast and easy. Reason: Tamron's oversize, heavily-textured Focusing Ring and the brilliant, crystal-clear image possible only through superior optical design.

Select Aperture. The control ring's next to your camera; easy to find and operate because of its' slip-proof design. Choose full or intermediate apertures; Tamron's positive click stops make it a snap.

Shoot! The instant you press the shutter release, your Tamron lens automatically closes down to the selected aperture, and the picture is taken... then, the lens automatically re-opens to the widest aperture for brightest viewing and focusing.

Tamron F-System lenses incorporate many important 'extra' features for faster, more accurate use. Focusing and Aperture Rings are *clad in slip-proof rubber material* - easy to find, yet nearly impossible to confuse even when your camera's at eye-level! Each telephoto and zoom lens incorporates a *built-in lens* hood that's loss-proof and always ready to help prevent image-degrading flare. A convenient *depth-of-field* scale shows you the exact range of sharp focus at every aperture - without time-consuming calculations. You'll find that each Tamron lens offers *extra-close focusing* without cumbersome accessories or attachments. Even the distinctive styling of each lens (created by the noted U.S. industrial designer, Paul R. Maguire) makes it a welcome addition to your SLR system from the first.....

Yet the most important advantage of Tamron F-System lenses is — *better pictures.* Each Tamron lens is precision-coated to optimize image contrast and light transmission at every aperture. And each lens type is subjected to rigid laboratory tests applying the four basic parameters of photographic optics: resolution, modulation transfer function analysis (MTF), evenness of illumination, and actual light transmission, with stringent quality controls throughout every stage of the manufacturing process. Result: beautifully-sharp pictures again and again...the hallmark of every Tamron lens.

Welcome...to the *Tamron* world of single-lens reflex photography.

ANATOMY OF A LENS . . . . .

Filter Mounting Ring.
The size is marked, so you don't have to guess.

Focusing Ring.
Textured, non-slip finish makes fast focusing easy.

Distance Scales (Feet/Meters).
Handy aid for flash photography or depth-of-field control.

Distance/Aperture Indicator
Shows exact camera-to-subject distance.

Depth-of-Field Scale*.
Far and near sharpness zone is shown by matching f/stops.

Depth-of-Field Preview*.
'M' position closes down lens to taking aperture; leave in 'A' position for normal use.

Zoom Ring*.
Turn to frame subject exactly as desired.

Lens Hood*.
Pull out to shield lens from extraneous light.

Focusing Ring.
Textured, non-slip finish makes fast focusing easy.

Infra-Red Index.*
With Infra-Red films, re-set distance scale to this position after focusing.

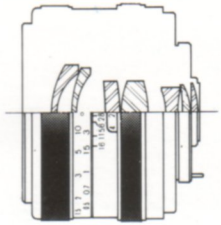
Aperture Indicator.
Shows exact f/stop (lens opening) in use.

Aperture Ring.
Turn to select lens opening.

Lensmount.
Expressly designed for your single-lens reflex camera.

* Not on all lenses.

tamron F-SYSTEM 28mm f/2.8
AUTOMATIC WIDE ANGLE LENS



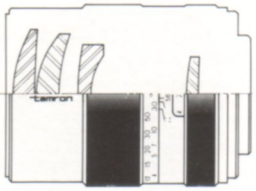
SPECIFICATIONS:

Focal Length 28mm
Aperture Range . . . . . f/2.8 - f/16
Construction . . . . . 7 elements in 7 groups
Angle of View . . . . . 75°
Min. Focus from Film Plane . . 10.0" (0.25m)
Filter/Accessory Size 52mm
Length . . . . . 1.9" (47.5mm)
Maximum Diameter . . . . . 2.5" (64mm)
Weight . . . . . 8.1 oz. (230g)
Other Features . . Depth-of-field scale; infra-red index

KEY FEATURES:

Extra coverage — takes in a full 63% greater area than normal 50mm lens.
Extended depth-of-field — at f/16, everything's in focus from 3 feet (0.9m) to infinity!
Lightweight — weights just 8.1 oz. (230g).
Versatile — a superb instrument for landscape, interior, and architectural photography.

tamron F-SYSTEM 135mm f/2.8
AUTOMATIC TELEPHOTO LENS



SPECIFICATIONS:

Focal Length 135mm
Aperture Range . f/2.8 - f/22 (f/16 on EE lenses)
Construction. . . . . 4 elements in 4 groups
Angle of View. . . . . 18°
Min. Focus from Film Plane . . . . 58" (1.47m)
Filter/Accessory Size 55mm
Length . . . . . 2.9" (72.5mm)
Maximum Diameter . . . . . 2.5" (64.4mm)
Weight . . . . . 12.7 oz. (360g)
Other Features . . Depth-of-field scale; infra-red index; built-in lens hood

KEY FEATURES:

Powerful – brings distant objects nearly three times closer.
Practical – focuses to a frame-filling 58 inches (1.47m) without accessories.
Convenient – amazingly lightweight 12.7 oz. (360g), easy to hand-hold.
Invaluable – for sports, nature, portrait, and action photography.

tamron F-SYSTEM 200mm f/3.5
AUTOMATIC TELEPHOTO LENS

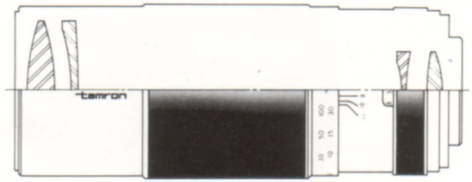
SPECIFICATIONS:

Focal Length 200mm
Aperture Range . f/3.5 - f/22 (f/16 on EE lenses)
Construction. . . . . 4 elements in 3 groups
Angle of View. . . . . 12°
Min. Focus from Film Plane . . 94.5" (2.4m)
Filter/Accessory Size 62mm
Length . . . . . 4.8" (121mm)
Maximum Diameter . . . . . 2.7" (69.4mm)
Weight . . . . . 17.6 oz. (500g)
Other Features . . Depth-of-field scale; infra-red index; built-in lens hood

KEY FEATURES:

Exceptional magnification — brings your world a full four times closer.
Extra speed — fast f/3.5 maximum aperture lets you shoot at fastest shutter speeds.
Portable — only 4.8" (121mm) long, it's easy to hand-hold.
Versatile — gives you stunningly attractive close-up shots of far-off subjects in sports, theater, wildlife, and nature photography.

tamron F-SYSTEM 300mm f/5.6
AUTOMATIC TELEPHOTO LENS



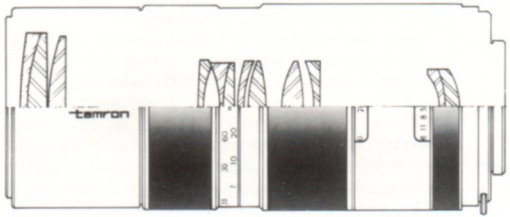
SPECIFICATIONS:

Focal Length 300mm
Aperture Range. f/5.6 - f/22 (f/16 on EE lenses)
Construction . . . . . 4 elements in 4 groups
Angle of View . . . . . 8°
Min. Focus from Film Plane . . 96.0" (2.44m)
Filter/Accessory Size 58mm
Length . . . . . 6.6" (167mm)
Maximum Diameter . . . . . 2.7" (67.4mm)
Weight . . . . . 20.5 oz. (580g)
Other Features . . Depth-of-field scale; infra-red index; built-in lens hood

KEY FEATURES:

Cuts Distance – by 6 times, focuses to 96" (2.44m).
Ultra-Lightweight – easily hand-held, only 20.5 oz. (580g).
Superb Resolution – computer-derived 4-element optical system gives excellent sharpness at every aperture.
Invaluable – for sports, nature, wildlife, surveillance, all applications where greater distance is required.

tamron F-SYSTEM 85-210mm f/4.5
AUTOMATIC ZOOM LENS



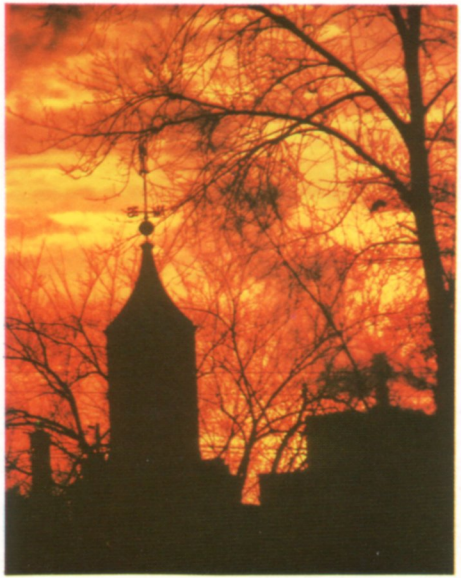
SPECIFICATIONS:

Focal Length 85-210mm
Aperture Range . f/4.5 - f/22 (f/16 on EE lenses)
Construction . . . . . .12 elements in 10 groups
Angle of View . . . . . 28° 5′ - 11° 50′
Min. Focus from Film Plane. . . . 70.5″ (1.79m)
Filter/Accessory Size 55mm
Length . . . . . 5.9″ (151mm)
Maximum Diameter . . . . . 2.6″ (65.3mm)
Weight . . . . . 24.7 oz. (700g)
Other Features. . Infra-red index index; built-in lens hood

KEY FEATURES:

Versatile – select from 126 individual focal lengths at the flick of a wrist.
Compact – only 5.9″ (151mm) long; accepts standard 55mm filters.
Lightweight – a hand-holdable 24.7 oz. (700g); balances beautifully on your SLR.
Creative – lets you frame every picture exactly as you want.

tamron F-SYSTEM
FOR BETTER PICTURES.....



Your Tamron automatic lens gives you many new and exciting picture taking possibilities. In practical use, your new lens works in the same way as your camera's "normal" lens; you simply focus, adjust camera's meter for existing light.... and shoot. Here are some general hints for better pictures with your Tamron.

Move In Close. A tremendous advantage of single-lens reflex photography is the ability it gives you to move in close to your subject, without the risk of framing error. Your Tamron lens focuses extra-close; use this important feature for better pictures. (To get as close as possible, turn the Focusing Ring to its' closest position, then look through your viewfinder and – *without* turning the focusing ring – move in towards your subject until the image 'snaps' into focus.) Benefit to you: better, more interesting pictures because *the frame is filled with the subject.*

Focus Carefully. With *zoom* lenses, you'll gain an extra measure of sharpness by setting the Zoom Ring to 210mm (most powerful) position, focusing, *then* zooming to get the framing that you want.

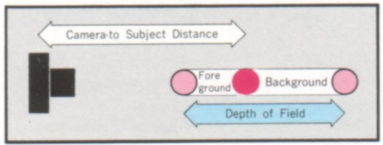
With *wide-angle* lenses, the depth-of-field (zone of extra sharpness in front of, and in back of, the subject) is so great that focusing may at first seem difficult with SLR 'microprism' focusing spots.

Solution: turn the Focusing Ring to its' *closest* position, then raise the camera to your eye and turn the Focusing Ring *rapidly* until the subject is sharpest. By *starting* with an 'out-of-focus' image, your eye will find it easier to determine the point of optimum sharpness quickly and accurately.

Use Faster Shutter Speeds with Zoom and Telephoto Lenses. With a 135mm lens (or zoom lens in 135mm position) magnification is nearly three times compared to your 'normal' lens; thus, your lens magnifies any camera or subject movement equally! Wherever possible, try to shoot at shutter speeds of 1/250th second or

faster with zoom and telephoto lenses. Additionally, try to 'brace' your camera (by resting your elbows on a nearby table, for example) so that the camera is held very steady when you take the picture.

Depth-of-Field Control. At every lens opening, same objects in front of, and in back of, the subject are recorded sharply. This zone of sharpness is called *depth-of-field.* Your depth-of-field is greatest (more things in focus) at smallest lens openings (f/8, f/11, f/16); conversely, the depth-of-field is smallest (fewer things in focus) at *widest* lens openings (f/2.8, f/4, f/5.6). In normal picture taking, the depth-of-field is of relatively little importance as the subject will be equally sharp in most instances. However, when you do – or do not – want background and foreground recorded sharply, your Tamron lens makes it easy:



Using Depth-of-Field Scale on Wide-Angle and Telephoto Lenses. Example: Shooting at f/11, all objects within the minimum and maximum distance indicated by the Depth-of-Field Scale markers for f/11 will be sharply recorded on the film. If shooting at f/5.6, all objects within the minimum and maximum distances indicated by the 5.6 marks will be sharp...and so on.

Using Depth-of-Field Preview (not on all lenses). Move the Preview Lever to 'M' position, and the lens closes down to the opening at which the picture will actually be exposed. Will that telephone pole in the background (or fence in the foreground) be clearly visible? At the 'taking' (closed-down) aperture, you can see just by looking through the viewfinder. Naturally, the viewfinder darkens when the lens is closed down; thus, this technique is most useful in brightly-lit scenes. Remember that, by selecting a *smaller* lens opening, *more* depth-of-field will result; with a *larger* lens opening, *less* depth-of-field will exist.

Use your wide-angle, telephoto, and zoom lenses creatively. Try a series of shots of one scene or subject, each made with a different lens. This series of pictures will present the subject in varying perspective and from different viewpoints, and will definitely prove more interesting than a succession of pictures taken with the same lens.

Shoot from higher or lower viewpoints. When taking pictures of children, get down to their level – literally! Kneel down, so your camera's at eye-level with the subject. Result: a more interesting, natural-looking photograph.

Try to get people in your pictures. A picture of a winding country road will be good; a picture of someone walking down that same road may well be – great! In all kinds of pictures, *people* add interest and impact...

Every time you raise your camera – and Tamron lens – to your eye, you have the potential of creating a genuinely great photograph. Subjects? The world is full of them.

The rest is up to you.....

ABOUT THE MANUFACTURER .....

For more than a quarter-century, discriminating professional photographers throughout the world have acclaimed the superb quality of TAMRON lenses. TAMRON was the first independent lensmaker in Japan to employ computers in optical design; the first to engineer an interchangeable-mount system; the first to produce an entire system of interchangeable-mount automatic lenses for today's advanced SLR cameras.

Beyond this, TAMRON lenses see daily use, under the most demanding conditions, in scientific and industrial applications; in Laboratory and hospital, office copier and microfilm-recording instruments; in television cameras, and other highly specialized professional applications.

Today, TAMRON is one of the largest independent lensmakers in Japan, and in the world. And today, blending space-age computer technology with traditional Japanese craftsmanship, TAMRON automatic lenses bring new standards of excellence to owners of all fine 35mm SLR cameras, with the most advanced system of SLR lenses ever created.

tamron

TAMRON CO., LTD.

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TOKYO, JAPAN

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