Challenging the Future

KYOCERA

YASHICA 230-AF

35mm Autofocus SLR Camera with Flash





The new Yashica 230-AF, a superior product incorporating today's most advanced technologies, represents the ultimate in autofocus SLR cameras. And its innovative features are the reason why. Three AF modes (Standard AF, Continuous AF, Trap Focus) plus manual focus. A unique integrated AF autoflash unit under CPU control. Automatic metering-mode function (center-weighted to spot in backlit conditions). Interchangeability with Contax/Yashica mount lenses using the AF (autofocusing) converter 1.6x. Auto-loading and auto-wind/rewind. Plus much more, all designed with one theme: great shots are now within your reach.

The SLR that the world has been waiting for

With the added feature of autofocus, a new generation of SLRs has emerged to expand the world of photography, enabling b the snap shooter and pro to enjoy virtually fault-free photography at the highest level. Yashica, however, desired to go a step further. That is why Yashica was determined to create an autofocus SLR only if it possessed optimal precision, and only if it

230-AF

A Spark of Hi-Tech

offered to expand, not restrict, man's potential for visual expression. This meant developing a more versatile autofocus (AF) system, and also an autoflash unit that could be always ready for unexpected opportunities. Yashica solved both of the challenges: the first with 3-mode autofocus (in addition to manual focus)—including Trap Focus, a unique concept whereby the shutter is automatically released when the subject enters a prefocused zone; Continuous AF, which allows "follow-focus" on whatever moving subject is within the focus frame; and Standard AF, a mode ideal for general purpose "point-and-shoot" photography—the second with a CPU (central processing unit) controlled AF autoflash unit that is integrated and blends in with the body of the camera without adding significantly to its size or weight.

Other features that make Yashica's 230-AF the ultimate in autofocus SLR cameras include an automatic metering-mode function (center-weighted to spot in backlit conditions), a hybrid body construction that combines high-grade materials for light weight and durability, an AF (autofocusing) converter 1.6x which allows interchangeability with Contax/Yashica mount lenses of f/3.5 or faster, a built-in motor drive, a full-auto film load/wind/rewind system, and a long-eyepoint viewfinder (for those who wear glasses). From macro to flash AF photography, the Yashica 230-AF is an exceptional product in numerous ways, but above all it is a camera that enables the photographer to make each shot count.

The Evolution of Autofocus: Three Modes to Select

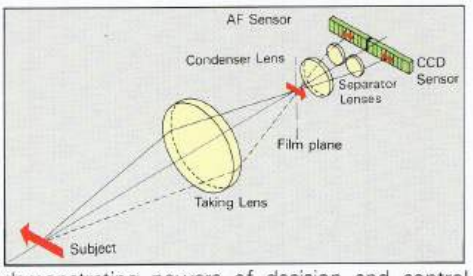
Autofocus is no longer just a convenience designed to save time and trouble. The Yashica 230-AF offers 3 different AF modes (plus manual focus) to provide new opportunities for photographers of all levels — even for those who found focusing SLRs difficult in the past.

Boasting the unique Trap Focus, in addition to AF and CAF modes, the Yashica 230-AF represents a landmark in autofocus technology.

The autofocus system on the Yashica 230-AF incorporates not 2 but 3 different modes. Standard AF mode is ideal for general-purpose "point-and-shoot" photography. CAF mode offers "follow-focus", whereby the subject is kept in focus continuously, even if it is moving. And the newly developed Trap Focus system ensures that the shutter will be released at the precise instant when a subject enters the pre-focused zone. Thanks to these three AF modes, autofocus photography takes a quantum leap forward. And, of course, manual focus is available when the situation calls for it.

TTL phase detection assures an AF system of awesome speed and accuracy.

The autofocusing module on the Yashica 230-AF employs TTL (through-the-lens) phase detection. In principle, this means that the images received through the left and right halves of the taking lens are compared for phase difference. The two images are passed through twin separator lenses onto a CCD sensor array which feeds signal data to the camera's CPU (central processing unit). Only if the two signals are in phase is the subject in correct focus. The microprocessor instantly determines the out-of-focus amount and direction (front focus or rear focus), relaying the appropriate commands to the AF motor. This autofocus system is extremely fast and precise,



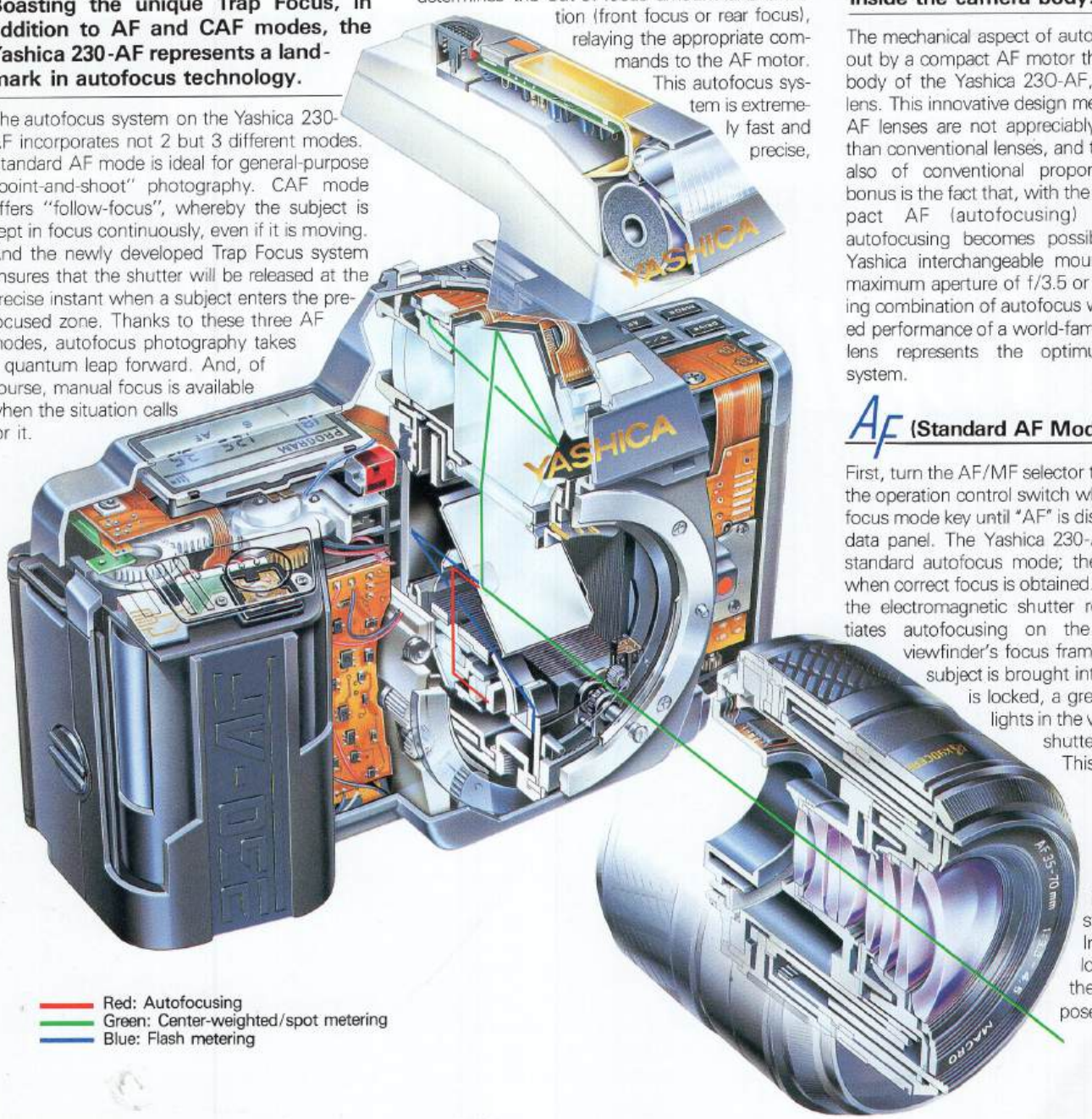
demonstrating powers of decision and control beyond that of any human being.

Autofocusing is executed by a motor inside the camera body.

The mechanical aspect of autofocusing is carried out by a compact AF motor that is built into the body of the Yashica 230-AF, and not into the lens. This innovative design means that Yashica's AF lenses are not appreciably larger or heavier than conventional lenses, and the camera body is also of conventional proportions. An added bonus is the fact that, with the addition of a compact AF (autofocusing) converter 1.6x, autofocusing becomes possible with Con[illegible] Yashica interchangeable mount lenses (wi[illegible] maximum aperture of f/3.5 or faster). The exciting combination of autofocus with the unparalleled performance of a world-famous Carl Zeiss T* lens represents the optimum picture-taking system.

AF (Standard AF Mode)

First, turn the AF/MF selector to "AF". Then slide the operation control switch while depressing the focus mode key until "AF" is displayed in the LCD data panel. The Yashica 230-AF is now set for standard autofocus mode; the shutter will lock when correct focus is obtained. Light pressure on the electromagnetic shutter release button initiates autofocusing on the subject in the viewfinder's focus frame. As soon as the subject is brought into focus, the focus is locked, a green "in-focus" LED lights in the viewfinder, and the shutter can be released. This AF mode is very handy for a wide range of photographs such as portraits, scenery and other shots involving relatively stationary subje[illegible] In addition, an[illegible] lock button allows the user to recompose the shot.



Red: Autofocusing
Green: Center-weighted/spot metering
Blue: Flash metering

AF MODES

Standard AF/Continuous AF/Trap Focus

Don't let those precious moments slip away.
Be prepared for the unexpected with the AF mode.



CAF (Continuous AF Mode)

Ensure that the AF/MF selector is set to "AF". Then press the focus mode key together with the operation control switch to display "CAF" in the data panel. Light pressure on the shutter release button engages the AF system and allows the lens to focus continuously (follow-focus) on whatever moving subject is within the focus frame. This makes the CAF mode perfect for moving subjects, such as children at play, sports or wildlife. And, the AF-lock button can also be utilized for extra creativity.

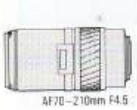
TRAP (Trap Focus Mode)

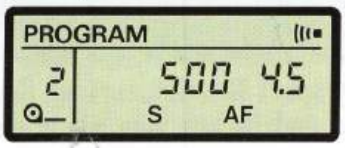
In this mode, the camera waits until the subject comes into a pre-focused zone before releasing the shutter. Manually focus to the desired spot where the subject is expected to appear. Then, either raise or lower the focusing spot from the point of focus, turn on the cable switch and wait. As soon as the subject comes into the frame at the preset distance, the shutter release will be triggered. This is ideal for photographing various sporting events in which the subject follows a predictable course. It also enables remote photography of wild animals and hand-held macro applications in which the focusing is very delicate. This unique focusing mode offers unlimited opportunities for the innovative photographer.

MF (Manual Focus Mode)

Ensure that the AF/MF selector is set to "MF". Then operate the focus mode key and operation control switch until "MF" is displayed in the LCD panel. You are now able to conduct conventional manual focusing, with the added benefit of focus assistance in the viewfinder: arrows indicate whether to turn the focusing ring to left (front focus) or right (rear focus), and a green LED lights when correct focus is obtained. Thanks to this viewfinder display, manual focusing may be accomplished much faster than previously possible.

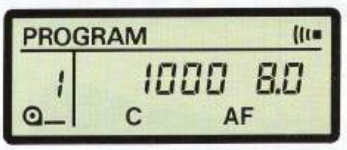
For the most creative compositions, good timing is the key. When you see a great shot, just point and shoot. AF mode lets you capture the moment perfectly.





AF Standard AF

Shooting in the AF mode lets you capture every detail with the sharpest clarity. And, by setting exposure to the "PROGRAM" mode, you can concentrate on creativity without having to worry about camera operation.





For picture-perfect photography in a snap, set to the AF mode. Just target the subject in the focus frame and press the shutter.



CAF *Continuous AF*



AF35–70mm F3.3–4.5 MACRO

The action won't stop just because you're busy trying to focus the camera. So always be ready with the CAF mode. It lets you shoot at 1.8 frames per second thanks to a built-in motor drive.



The chance you've been waiting will only come once. So choose CAF mode to keep moving subjects in focus.

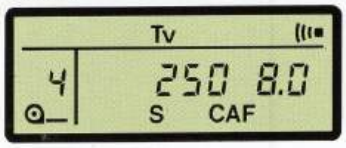






AF70–210mm F4.5

A windsurfer swings his board to the left and right while performing spectacular waterborne feats. Mount the Yashica 230-AF with the AF 70-210mm zoom lens, set to the CAF mode, and you're ready to "follow" the windsurfer – waiting for that right moment.



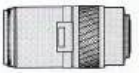


To capture the breathtaking drama of a fast-moving sport like windsurfing, CAF mode is your answer. It keeps you flowing with the action and makes your shots exhilarating.

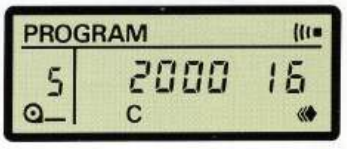
Select Trap Focus mode, focus to the desired distance, and then wait. The Yashica 230-AF will know when to act.



TRAP
Trap Focus



You're intrigued by the idea of "stopping" the dolphins in mid-jump. But how do you do it without rushing and risking out-of-focus shots? The Yashica 230-AF has the answer — just set it to the Trap Focus mode, focus to the desired spot, and wait. As soon as the subject enters into the focus frame, it will be captured in all of its splendor and beauty.

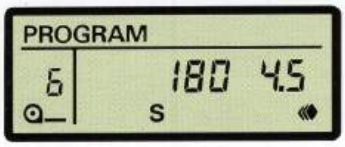


There's no time to wait but there's no need to worry. Trap Focus even lets you move forward and "pursue" the subject.





Aside from its other applications, Trap Focus is also ideal for closing in on stationary subjects. Simply set the focus to a predetermined distance — for example, a butterfly settled on a flower — and move in while pressing the shutter release button. As soon as you're "in-focus", the shutter will release automatically for sensational results all the time.



The New Convenience of Electronic Flash

Yashica's CS-110 AF is an integrated autoflash unit that transcends the bounds of conventional flash photography. Light and compact enough to travel anywhere, it's always on the camera, ready to illuminate the scene — indoors or outdoors, day or night.

Ultra-compact, ultra-light. The dedicated CS-110 AF autoflash unit is supplied with the Yashica 230-AF.

Have flash, will travel — with the CS-110 AF, you can be sure to have flash illumination whenever and wherever you need it. The uniquely compact shape of this AF autoflash unit blends naturally with the design and becomes one with the camera. Furthermore, it weighs in at a mere 50 grams (1.7 oz). And flash power is supplied by the camera's long-life lithium battery. With this integrated autoflash unit, there won't be any missed opportunities for the active photographer.

CPU control — making the most of guide number 11.

The CS-110 AF has a guide number of 11 (ISO 100 in meters). In order to make full use of its illumination, Yashica has adopted the CPU control method. The distance to subject data from the lens ROM is processed by the CPU in the camera body, which then adjusts lens aperture for correct flash exposures. Thanks to CPU control, the combination of the CS-110 AF and the AF 50mm f/1.8 lens assures illumination that is effective over a distance of approximately 0.7m to 6m (2.2ft to 19.6ft). With the AF 35-70mm f/3.3-4.5 lens, the effective distance is 0.7m to 3.5m (2.2ft to 11.4ft). The flash coverage angle is sufficient to cover the field of view of a 35mm wide-angle lens. In spite of its small size, the CS-110 AF is reliable and more versatile than conventional autoflash units, providing compatibility with numerous types of interchangeable lenses, such as the new Yashica AF lenses.

The secret lies in the lens: autoflash aperture adjustment is based on AF ranging data.

When using the CS-110 AF autoflash unit in the auto-exposure mode, sync shutter speed is set to 1/90 sec. (manual exposure mode shutter speed is 1/90 sec. or slower) and the camera itself instantly calculates the appropriate aperture, adjusting the lens accordingly. The input for this calculation consists of ambient light data supplied by the TTL metering system and distance data supplied via the lens ROM located inside the AF lens. The distance measurement system was especially developed by Yashica for autofocus SLR applications; as well as enhancing the accuracy of autoflash operation, CPU control makes a significant contribution to reducing the dimensions of the autoflash unit.



Small-aperture priority facilitates fill-in flash photography.

For daytime fill-in flash applications, it is possible to use the autoflash unit with all apertures that match the distance to subject at 1/90 sec. shutter speed. The CS-110 AF will operate under almost all conditions requiring synchronized flash — including even difficult backlit situations. Furthermore, the Yashica 230-AF automatically compares the strength of the flash against ambient illumination, giving priority to the brighter of the two. This small-aperture priority function greatly simplifies fill-in flash shots in which the background is exceptionally bright. So, night or day, you can enjoy error-free flash photography without worrying about aperture settings.

With flash power supplied by the main lithium battery, recycling time is approximately 2.5 seconds.

The CS-110 AF autoflash unit requires no separate power supply. Power is supplied from the Yashica 230-AF's own high-performance lithium battery. As a result, recycling time is a mere 2.5 seconds, cutting your waiting time to nothing — just fire away, frame after frame. The lithium battery was chosen for its resistance to low-temperatures and minimal natural discharge characteristics. Naturally it has a long life, sufficient for 25 rolls of 24 exp. film*, assuming autofocus and 50% flash operation.



* Based on testing undertaken at Kyocera Corporation.



Unique distance data input via lens ROM enhances AF autoflash performance.
Generally speaking, a TTL AF system focuses only on the subject and does not have the capability to provide the distance information between the lens and subject. However, with Yashica's AF system, the body of the AF lens contains sensors that detect the amount of rotation of the zoom and focusing rings. When correct focus is obtained, these sensors in effect provide the Yashica 230-AF with an accurate measurement of the distance between camera and subject. This allows the camera's CPU to control aperture for accurate autoflash exposure in program or shutter priority modes, even if the flash unit is as compact as the CS-110 AF.

It is the system that enables the dedicated CS-110 AF autoflash to be operated in Flashmatic mode. But, with innovative Yashica CS-250 AF autoflash, dual control of exposure is possible. In addition to correct aperture adjustment based on the data provided by the AF lens, flash output is also adjusted by the CPU (in accordance with the aperture). This dual-control system serves to boost precision and thus substantially reduce the chance of improper exposure.

AF AUTOFLASH

CS-110 AF Integrated Autoflash+CPU Control/
CS-250 AF Zoom Autoflash+TTL Direct Metering

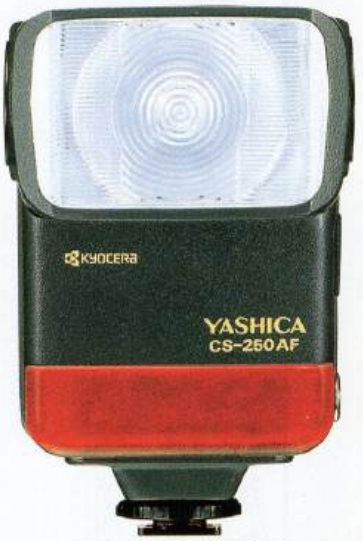
Extending the scope of flash photography with TTL direct metering and the new CS-250 AF zoom autoflash with near-infrared beam.

The newly developed Yashica CS-250 AF autoflash enables the autofocusing system in the Yashica 230-AF to function even in ultra low-light situations (EV3 or below.)

The innovative Yashica CS-250 AF autoflash unit, developed solely for the Yashica 230-AF, features a near-infrared beam which enables autofocusing in very low-light conditions (effective focusing range: 1~5m or 3.2~16.4ft). In addition, the CS-250 AF offers conventional automatic control of flash output via TTL direct metering, but it also responds to distance data (under EV3) supplied by the AF lens ROM. This dual-control system enhances the synchronization range and reliability of flash photography. Plus, the zoom flash head – equipped with a unique U-shaped xenon tube – allows four-way coverage according to lens picture angle: 28mm, 35mm, 50mm and 85mm. When using telephoto coverage, the powerful flash output of the CS-250 AF is equivalent to that of a large flash unit. Besides the CS-250 AF, there's a wide choice of other optional flash units to choose from: TLA Multi-Flash Extension System (allows professional-level capability in multiple-flash, off-camera use), TLA-20 and TLA-30 TTL autoflash units.

Direct TTL metering facilitates automatic output control with Contax TLA-20, TLA-30, and Yashica TTL flash units.

In order to accommodate Contax/Yashica automatic flash units other than the CS-110 AF, the SPD photosensor has been placed in the lower portion of the mirror box. This means that the actual amount of light reflected from the film surface can be measured for accurate control of flash output. When metering data indicates that the exposure is complete, the camera commands the flash unit to terminate flash output.



Yashica CS-250AF

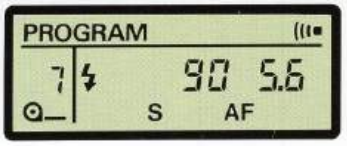
Autoflash range for the standard 50mm lens is approximately 0.7 to 6 meters (2.2 to 19.6ft). It is ideal for indoor shots and fill-in flash.



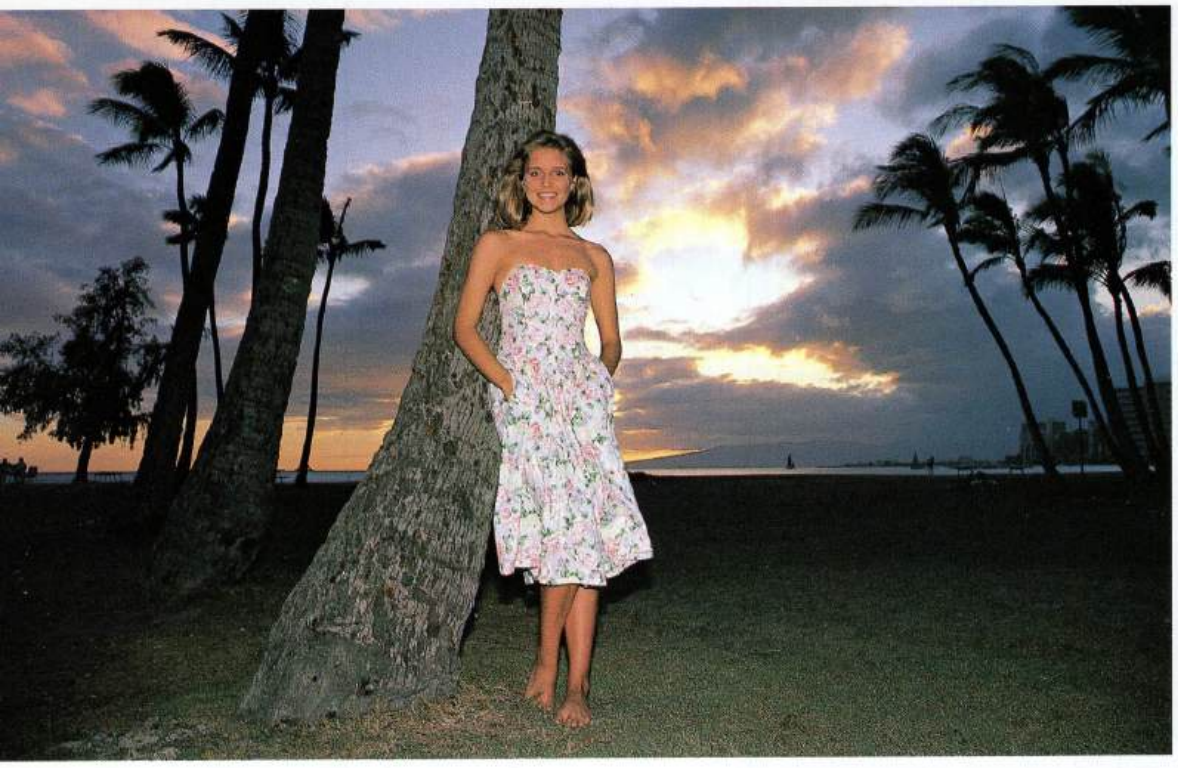


AF50mm F1.8

A mother and child having breakfast in the patio. You feel that it's an enchanting scene and unconsciously reach for your camera. No need to worry about any settings; just press the shutter release. The autoflash is ideal for such fill-in flash photography.

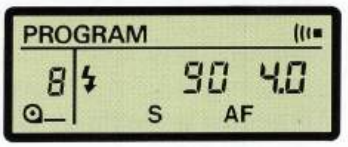


The expression is perfect! And the CS-110 AF flash unit makes sure that you won't miss it because flash recycling takes only 2.5 seconds.



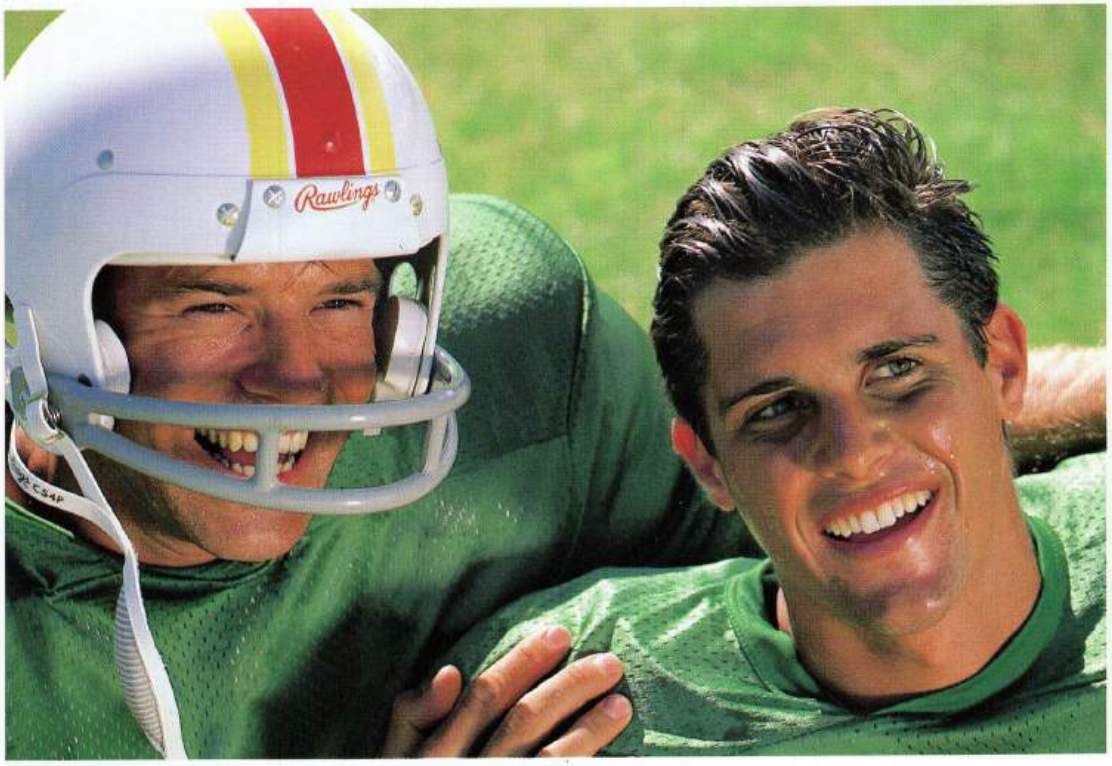


AF28–85mm F3.5–4.5 MACRO

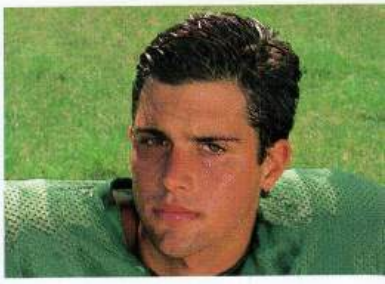


There won't be any missed opportunities with the Yashica 230-AF, thanks to its dedicated CS-110 AF flash unit. Sleek, lightweight, and with a flash recycling time of only 2.5 seconds, it's the action flash unit for the active photographer. No fuss, no worry and since it's always on the camera, the CS-110 AF is ready whenever you are.





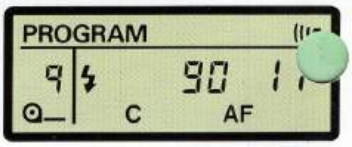
The sunlight is dazzling. So, to capture the moment, automatic fill-in flash is the answer.





AF50mm F1.8

You're shooting in dazzling sunlight, and faced with a problem. There are strong contrasts and your subject's rugged features are hidden by the helmet's shadow. The solution? Shoot with fill-in flash for remarkable results.

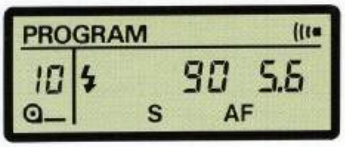


AF AUTOFLASH

CS-110 AF Integrated Autoflash + CPU Control/
CS-250 AF Zoom Autoflash + TTL Direct metering

Expand your creative potential with the CS-250 AF zoom autoflash with near-infrared beam.





An indoor wedding, for all of its elegance and splendor, is far from the ideal situation for a photographer. Dim lighting conditions require one to possess a precise camera and flash units capable of accurate reproduction. The Yashica 230-AF with AF 28-85mm zoom lens and CS-250 AF zoom autoflash units offer a superlative response.



AF28–85mm F3.5–4.5 MACRO



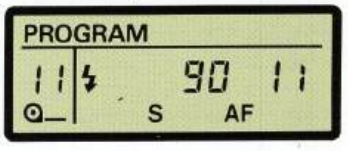
For even more imaginative compositions, combine fill-in flash with macro photography.



AF35–70mm F3.3–4.5 MACRO



With an AF zoom lens and fill-in flash, the Yashica 230-AF becomes your tool for exploring a new photographic world. Macro photography enables you to shoot marine life up close, while fill-in flash makes the picture perfect even in moonlit surf. And, thanks to small-aperture priority, you don't have to worry about proper exposure — the camera does it all for you, automatically.



Four Basic Exposure Modes Plus Five for More Freedom and Creativity

A total of nine exposure modes are available to suit any subject, situation and mood.

Automatic modes make for perfect exposures.

Featured on the Yashica 230-AF are both automatic exposure (AE) and manual exposure modes. Choose from such automatic modes as programmed AE, shutter-priority AE, and aperture-priority AE, all with AE-lock and shutter speed range of 16 to 1/2000 sec. You are free to choose any one of these modes, and always be sure that exposure will be just right. But that's not all. The Yashica 230-AF is programmed to decide automatically on the best combination of shutter speed and aperture for the lens in use. This, plus manual capability gives you a total selection of nine exposure modes: four standard, three auto-flash, one CPU system, and one manual flash.

PROGRAM (Programmed AE Mode)

Select "PROGRAM" by operating the operation control switch while depressing the exposure mode key. This mode enables programmed automatic exposure photography in which the camera decides on both shutter speed and aperture. The CPU automatically selects one of three built-in programs — Wide (lenses with a focal length shorter than 34mm), Normal (35mm-85mm), and Tele (86mm or longer) — to match the focal length of the lens in use. In this way, the Yashica 230-AF is able to exploit the characteristics of each lens, while avoiding such problems as camera shake. It is possible to manually select any one of these programs using the operation control switch. For example, in a situation that calls for a shutter speed of 1/125 sec. and an aperture of f/4, shifting programs in order to set the shutter speed to 1/60 sec. would automatically set lens aperture to f/5.6. This manual program shift offers cross-coupled exposure control for three stops up or down, allowing you to concentrate more on composition. It boosts both ease and confidence, without hampering the creative photographer. Programmed AE combines both intelligence and flexibility.

Tv (Shutter-Priority AE Mode)

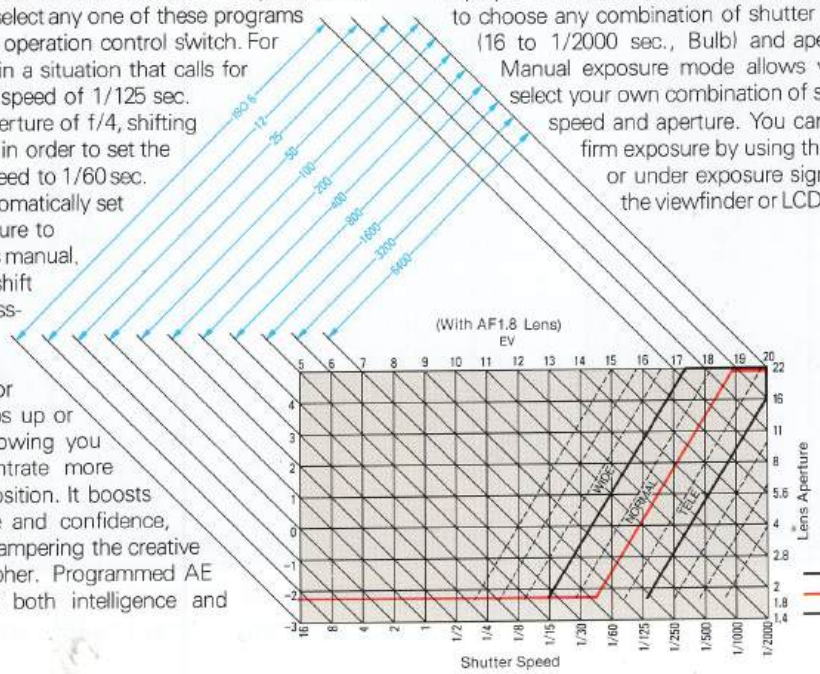
Set to "Tv" by sliding the operation control switch and exposure mode key. Once you have selected a desired shutter speed (16 to 1/2000 sec.) with the operation control switch, the camera will always choose the ideal aperture to match that speed. If conditions are such that the set shutter speed is beyond the aperture control range for correct exposure, Yashica's 230-AF responds by automatically selecting a shutter speed to the correct exposure value. At times, you may wish to capture a fast-moving subject with a higher shutter speed, or you may wish to indicate motion by choosing a slow shutter speed — "Tv" mode lets you do either. Shutter-priority AE mode assures correct exposure.

Av (Aperture-Priority AE Mode)

While depressing the exposure mode key, set to "Av" using the operation control switch. Once set, you can select any desired aperture using the operation control switch alone. Aperture-priority ensures that the Yashica 230-AF will automatically select the shutter speed to match that aperture. Even if conditions are such that the set aperture is beyond the shutter speed control range for correct exposure, Yashica's 230-AF will respond by automatically selecting the correct aperture for proper exposure.

M (Manual Exposure Mode)

Depress the exposure mode key and slide the operation control switch until the "M" symbol is displayed in the data panel. You are now free to choose any combination of shutter speed (16 to 1/2000 sec., Bulb) and aperture. Manual exposure mode allows you to select your own combination of shutter speed and aperture. You can confirm exposure by using the over or under exposure signals in the viewfinder or LCD panel.



WIDE Program Line (Lens with focal length less than 34mm)
NORMAL Program Line (Lens with focal length between 35mm and 85mm)
TELE Program Line (Lens with focal length longer than 86mm)

Yashica's 230-AF lets you shoot like shift automatically when you switch



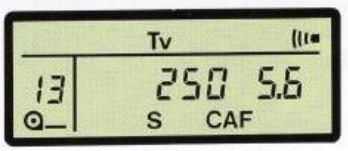
PROGRAM

Catch the to a fast

Tv Shutter-Priority



The powerful serve, smooth forehand stroke, and winning volley, all captured beautifully thanks to the Tv shutter-priority mode with 1/250 sec. shutter speed. Tv shutter-priority is your assurance that, whatever the game may be, you will obtain correct exposures all the time.





More

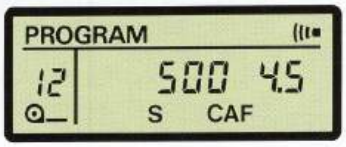
4 BASIC EXPOSURE MODES

Program / Shutter-Priority / Aperture-Priority / Manual

the pros because AE calculations lenses in PROGRAM mode.



For example, change the zoom lens from AF 35-70mm to AF 70-210mm with the exposure mode in PROGRAM. The Yashica 230-AF will automatically respond by shifting the program line from normal to tele.

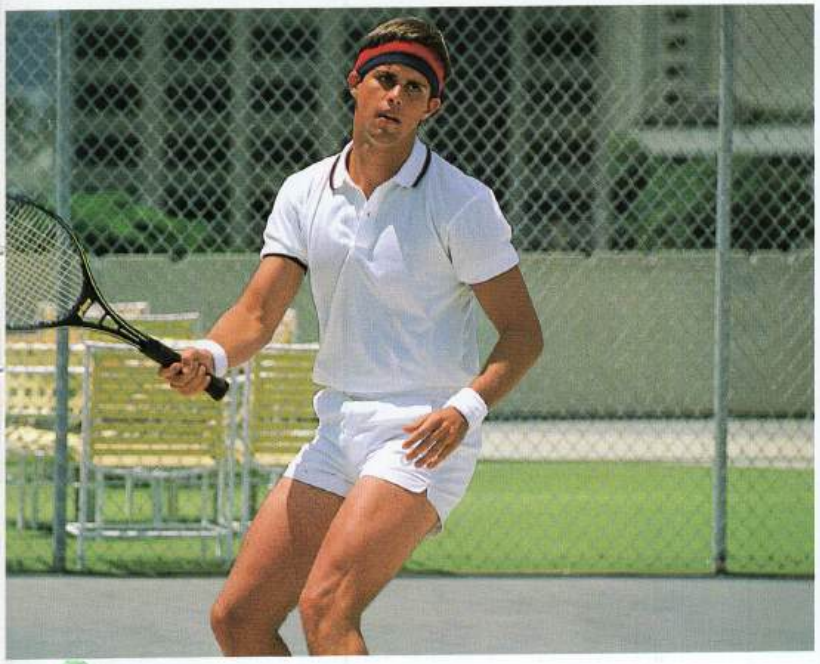




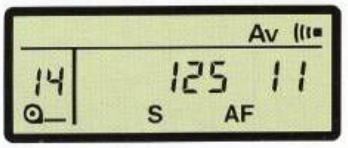
Emphasize interesting angles with a pan-focus shot in the Av aperture-priority mode.



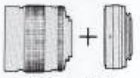
action as it happens. Set the Yashica 230-AF shutter speed (1/250 sec.) with Tv shutter-priority mode.



Av Aperture-Priority



A vividly colored row of racing canoes lined up next to each other makes for a handsome shot. Ensure that your photograph accurately reproduces the original scene by closing up the aperture to widen the depth and setting the Yashica 230-AF to Av aperture-priority mode.



Carl Zeiss Planar T✳85mm F1.4 + AF converter 1.6X

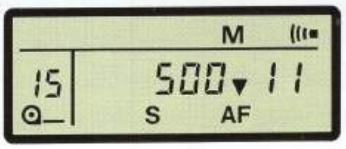
M Manual

Creative photography sometimes demands the sort of creative exposure that "M" mode makes possible.



Light reflecting off an ultra-modern building makes for a exceptional shot. And by using the "M" mode, a low-angle shot can be made even better by adding more emphasis to the building's shadowed area.





Metering to Match the Moment

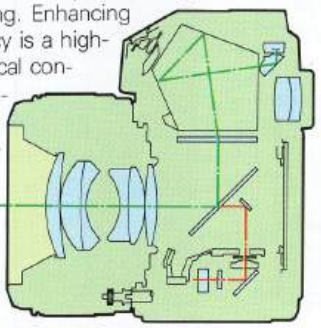
The Yashica 230-AF boasts a metering system that allows you to switch freely between spot metering and center-weighted metering, plus it provides the added benefit of a unique automatic metering-mode function to compensate for backlighting.

Dual metering modes plus automatic metering-mode function equip the Yashica 230-AF for each and every situation.

With the Yashica 230-AF you are free to choose between two distinct metering systems and thus suit the particular subject and situation. Spot metering concentrates on the subject in the center of the viewfinder, calculating proper exposure regardless of the background. Center-weighted metering, as the name implies, gives weight to the center of the picture during normal conditions. If the camera encounters a backlit subject when set in this mode, it automatically selects spot metering to compensate. As a result, you can ignore lighting variations and be sure that the Yashica 230-AF will look after exposure while you concentrate on composition.

TTL metering system features a complex SPD photosensor.

The metering system features a complex photosensitive cell whose surface is divided into two receptive zones: one central, the other peripheral. This design means that the Yashica 230-AF can offer both spot metering and center-weighted metering. Enhancing metering accuracy is a high-precision aspherical condenser lens located just above the silicon photodiode (SPD) sensor; both are housed in a single sensor module for greater reliability.



Red: Autofocusing light path
Green: Center weighted/spot metering light path

Spot Metering and AE Lock:

Set the main switch to "AE-L" (for AE lock). The Yashica 230-AF is now primed for spot metering, and light pressure on the shutter button will engage the AE lock. AF function will also be initiated. This mode is perfect for backlit scenes, spotlit stage scenes, and portraits. Other applications include the photographing of a moving subject, and situations in which special exposure control is desired. Spot metering is one of the SLR photographer's most powerful tools.

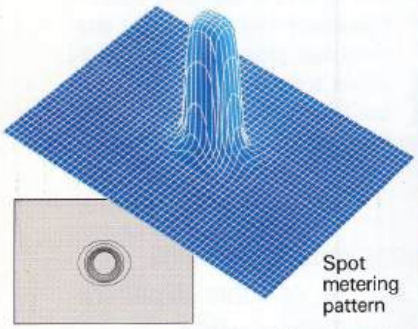
Center-Weighted Metering:

Setting the main switch to "ON" engages center-weighted metering. This provides correct exposures and is ideal for a wide range of photographic applications.

Automatic Metering-Mode Function:

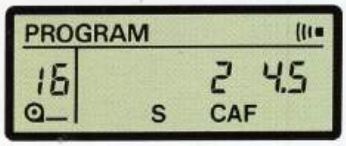
If the camera encounters a backlit subject when using center-weighted metering, the exposure control system automatically switches to spot metering. This function is a world's first. It works by comparing the amounts of light falling on the central and peripheral zones of the complex photosensor; if the peripheral lighting is stronger than the center, the AE system employs center (spot) measurement. This innovation ensures everyone can enjoy beautiful photographs, even in difficult lighting conditions.

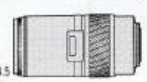
SPOT METERING & AE LOCK



Spot metering pattern

For more creative compositions, experiment with spot metering instead of using the flash. The proper combination of AF zoom lens and spot metering will produce superb results.





Special thanks to the management of the Hawaiian Hut in Honolulu, Hawaii.



Faced with difficult lighting conditions, switch to spot metering to capture the delicate flesh tones of the subject(s).

METERING SYSTEM

Spot Metering/Center-Weighted Metering+ Automatic Metering-Mode Function



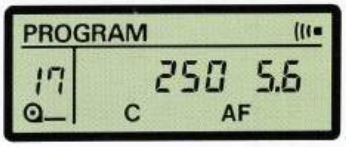


The sun comes out suddenly, creating unexpected backlighting, but the Yashica 230-AF automatically adjusts to correct the exposure.

AUTOMATIC METERING-MODE FUNCTION

(for backlit conditions)

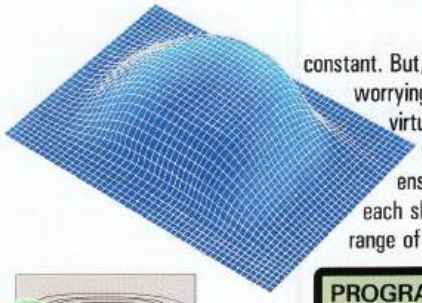
Imagine shooting a series of photographs under soft lighting conditions with the camera set to center-weighted metering. Then, all of a sudden the sun appears from behind the clouds — with other cameras this could be a problem but not with the Yashica 230-AF. Even in backlit conditions it reacts instantaneously to the situation by automatically adjusting to the correct exposure.



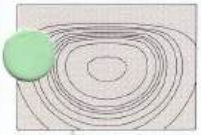


AF35–70mm F3.3–4.5 MACRO

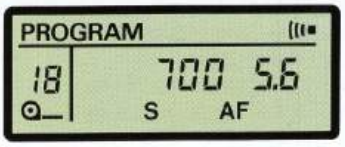
CENTER-WEIGHTED METERING



Outdoor lighting is never constant. But, with the Yashica 230-AF, worrying about proper exposure is virtually eliminated. Its center-weighted metering system ensures correct exposures on each shot and is ideal for a wide range of photographic applications.



Center-weighted metering pattern





AF28–85mm F3.5–4.5 MACRO



If the time is right, shoot. Don't worry about changing light conditions — let the camera do the work.

High-Tech Creates Elegance in Form

Motor Drive

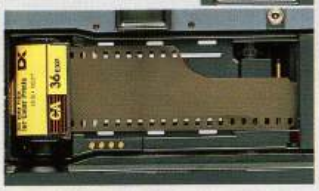
The Yashica 230-AF has an integrated motor drive for automatic film advance. With the drive mode set to "S", the motor advances the film to the next frame and cocks the shutter. Set to "C", the Yashica 230-AF fires off a sequence of exposures at approximately 1.8 frames per second for as long as the shutter button is held down. This means that you can keep your eye to the viewfinder while chasing a moving subject.



Auto-load/wind/rewind

Loading film into the Yashica 230-AF is simplicity itself: just insert the cartridge into the chamber, draw the leader across to the index mark, and close the back. The film will then be wound automatically to the first frame, the shutter will be cocked and the frame counter will read "1". Auto-rewind is initiated by sliding the rewind lever and lock situated in the base of the camera.





DX code contacts

Inside the film cartridge chamber there are electrical contacts that enable the Yashica 230-AF to "read" the CAS code printed on the cartridge to set film speed automatically. This data is relayed to the flash unit and CPU as well as to the optional data back (if fitted), enabling it to adjust the brightness of imprinting to match film sensitivity.



AF/MF selector

This selector is used for switching focusing modes: turn to "AF" for Standard AF or Continuous AF (CAF) modes, and to "MF" for Trap focus or manual focus. Although Trap focus is automatic, it is an "MF" selection because it requires that you prefocus the lens manually.



Program reset button

A special benefit of the Yashica 230-AF is that it allows the photographer a multitude of modes to suit different subjects and situations. However, a reset button has been provided to allow you to respond quickly to an unexpected photo opportunity. Depressing this button resets the Yashica 230-AF to the Program, Standard AF mode with exposure compensation returning to zero. Beginners will also find this feature handy.



Exposure compensation key

Exposure compensation can be adjusted by increments of 1/3EV within the range +4EV to −4EV. This is a convenient feature for shooting a backlit scene in auto-exposure modes, or for producing more creative compositions.

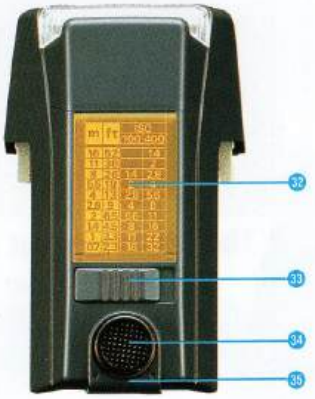


Cable switch terminal

A switch terminal is located on the back of the camera body, to the right of the finder. This allows the use of 4 types of cable switches in different lengths, or the Contax infrared controller S set.









Information on Demand



LCD Display Panel

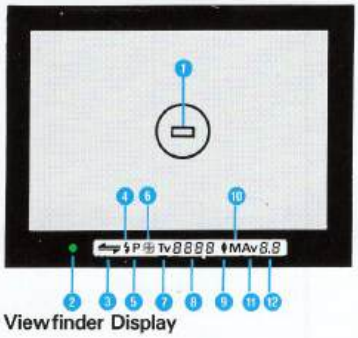
The LCD panel displays all photographic information. The LCD panel displays all necessary photographic data as required: focus mode, exposure mode, shutter speed, aperture, frame number, etc. Offering an easy-to-read layout, this feature greatly enhances operating ease.

1. Program Mode Indicator
2. Flash Mark
3. Shutter Priority Mode Indicator
4. Film Speed (ISO)
5. Manual Mode Indicator
6. Aperture Priority Mode Indicator
7. Electronic Beep Signal Indicator
8. Exposure Counter
9. Film Transport/Rewind Mark
10. Battery Check Mark
11. Aperture/Exposure Compensation
12. Trap Focus Mark
13. Exposure Compensation Mark
14. Continuous Shooting Indicator
15. Single-Frame Shooting Indicator
16. Self-Timer Mark
17. Shutter Speed/Film Speed
18. Over/Under Exposure Mark
19. Continuous Autofocus Indicator
20. Standard Autofocus Indicator
21. Manual Focus Indicator

and Function



1. Electronic Beep Signal Button
2. Film Speed Button (ISO)
3. Main Switch
4. Accessory Shoe
5. Flash Contacts
6. Operation Control Switch
7. Shutter Release
8. Program Reset Button
9. Drive Mode Button
10. Exposure Mode Button
11. Film Check Window
12. Exposure Compensation Key
13. Focus Mode Button
14. Viewfinder Eyepiece
15. Direct X-contact
16. Guide Rail
17. Camera Back
18. Display Panel
19. Release Socket
20. Strap Lug
21. Camera Back Lock
22. Self-timer LED
23. Power Terminal for Flash
24. Light Receptor Window
25. AF Lock/F-Number Button
26. Lens Release Button
27. Battery Holder
28. Film Rewind Switch
29. Rewind Release Button
30. Tripod Socket
31. AF/MF Selector
32. Exposure Guide
33. Flash's Main Switch
34. Flash Lock Button
35. Red Index Marks
36. Flash Reflector



Viewfinder Display

1. Focus Frame
2. In-Focus LED (green)
3. Front Focus/Rear Focus Mark
4. Flash Mark
5. Program Mode Indicator
6. Exposure Compensation Mark
7. Shutter Priority Mode Indicator
8. Shutter Speed/Film Speed
9. Over/Under Exposure Mark
10. Manual Mode Indicator
11. Aperture Priority Mode Indicator
12. Aperture/Exposure Compensation Setting

The viewfinder display enables you to check essential data while keeping the subject in view.

Important photographic data is also presented in the viewfinder display, connected with the LCD data panel. It is thus possible to quickly check on essential data while keeping the subject within the focus frame. In low-light conditions, viewfinder information is illuminated. To the left is the green "in-focus" LED that operates even in manual focus mode. And the lower part of the viewfinder is designed to glow briefly to indicate CS-110 AF flash.

CAMERA ANATOMY & DATA DISPLAY

Accessory shoe

The accessory shoe has special contacts for the dedicated autoflash unit as well as a direct X-sync contact. Naturally, optional TTL flash units — such as the CS-250 AF, TLA-20, and TLA-30 — can be used with this shoe.



Bayonet mount

Ensuring high precision and smooth exchange of lenses is the bayonet-type mount manufactured from sintered stainless steel. And, in order to ensure the reliability of data transferred from the lens into the camera's CPU, the electrical contacts are plated with gold.



Electronic beep signal button

When the Yashica 230-AF is in action, an electronic beep will sound to indicate that you've reached the end of the film, focus is correct, and the self-timer is activated. This function can be easily cancelled just by pressing the beep button. However, when the main switch is turned on, the beep will be reactivated.



Featherlight, electromagnetic shutter release button

Integrated with the finger rest, this is covered with silicon rubber, renowned for its resistance to chemical action and mechanical wear. As well as ensuring weather sealing, this shutter release button provides smooth operation.



Self-timer

The self-timer is activated by setting the drive mode to "⏲" (using the operation control switch) and depressing the shutter button. The self-timer LED on the camera will flash and beep* for 10 seconds (rapidly for the first 2 seconds, slowly for the next 6 seconds, and rapidly again for the last 2 seconds before the shutter is released).

*The electronic beep can be cancelled.



Shutter unit

The Yashica 230-AF features a quartz-controlled vertical travel focal-plane shutter. The shutter curtains are of a hybrid construction that makes them ultra-light but strong enough to withstand the shock of sudden acceleration and braking.



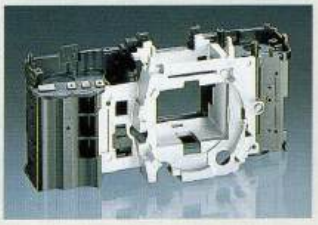
Long-eyepoint viewfinder

A newly designed pentaprism provides a long eyepoint. This means that you can move your head away from the camera without losing the field of view — a feature that will be welcomed by those who wear glasses.



Hybrid body

The hybrid body combines two main types of materials: aluminum alloy for sections that require high dimensional accuracy, and light but durable polycarbonate resin for complex, molded sections. This lightweight construction results in extremely high precision and reliability, as well as making the Yashica 230-AF condensation-proof and shock-resistant.



Yashica AF Lenses Lend Life to the Picture

AF LENSES







Choose from the range of AF lenses that combine high precision with intelligence — further boosting the capabilities of the Yashica 230-AF.

Thanks to Yashica's optical expertise, these AF lenses offer world-class performance.

Developed in tandem with the Yashica 230-AF body was a range of AF lenses derived from Yashica's many years of experience in advanced optical technology. Each one guarantees superb definition, color rendition, and contrast. Furthermore, AF macro photography is possible using the 35-70mm AF lens. And, all AF lenses are provided with multicoating to prevent ghosts and flares while increasing light transmission.

The Yashica 230-AF's proud partners.

In appearance, Yashica 230-AF's high-performance lenses have the same elegant simplicity as Contax/Yashica interchangeable mount lenses. But that elegant exterior design hides fully automatic capabilities such as zoom and distance information encoders (which feed data to the lens ROM for processing and relaying to the CPU), as well as other mechanisms required for autofocus. Full attention has been paid to manual function as well. And, like the camera body itself, the lens mount and housing are engineered so as to keep dust and moisture from entering, thus ensuring peak performance at all times.



YASHICA AF converter 1.6X



YASHICA LENS AF50mm F1.8



YASHICA LENS AF28mm F2.8



YASHICA LENS AF35–70mm F3.3–4.5 MACRO



YASHICA LENS AF28–85mm F3.5–4.5 MACRO



YASHICA LENS AF70–210mm F4.5

YASHICA AF LENS SPECIFICATIONS

Lens	Composition Elements-Groups	Picture Angle	Minimum Focus m (ft)	Maximum Magnification	Minimum f/stop	Dimensions mm (in)	Weight g (oz)	Filter size (mm)	Compatible Lens Cases	
									Soft Case	Hard Case
AF 50mm F1.8	6 - 4	46°	0.45 (1.5)	M1:6.6	22	66×38 ($2^{5}/_{8}\times1^{1}/_{2}$)	200 (7)	49	CONTAX NO.1	YASHICA ML70A
AF 28mm F2.8	6 - 6	76°	0.3 (1)	M1:7.6	22	66×40.5 ($2^{5}/_{8}\times1^{9}/_{16}$)	200 (7)	49	CONTAX NO.1	YASHICA ML70A
AF 35-70mm F3.3-4.5 Macro	8 - 7	63° ~ 35°	0.33 (1.1)	M1:4	22	67×59.5 ($2^{5}/_{8}\times2^{3}/_{16}$)	250 (8.8)	52	CONTAX NO.1	YASHICA ML80A
AF 70-210mm F4.5	12 - 9	34° ~ 12°	1.5 (5)	M1:6	32	68.5×129 ($2^{11}/_{16}\times5^{1}/_{16}$)	580 (20)	58	CONTAX NO.5	—
AF 28-85mm F3.5-4.5 Macro	13 - 9	75° ~ 28°30′	0.9 (2.9)	M1:4	22	75×87.5 ($2^{15}/_{16}\times3^{7}/_{16}$)	550 (19.4)	62	CONTAX NO.3	—
Yashica AF converter 1.6X	6 - 5	—	—	—	—	67×22 ($2^{5}/_{8}\times{}^{7}/_{8}$)	165 (5.8)	—	CONTAX NO.1	—

CONTAX/YASHICA MOUNT LENSES COMPATIBLE WITH THE AF CONVERTER 1.6x

Carl Zeiss T✳(T-Star) Lenses		Yashica ML Lenses	
Distagon T✳25mm F2.8	Planar T✳135mm F2	ML 24mm F2.8	ML Zoom 35 ~ 70mm F3.5
Distagon T✳28mm F2.8	Sonnar T✳135mm F2.8	ML 28mm F2.8	ML Macro 55mm F2.8
Distagon T✳35mm F2.8	Sonnar T✳180mm F2.8	ML 35mm F2.8	ML Macro 100mm F3.5
Planar T✳50mm F1.4	Tele-Tessar T✳200mm F3.5	ML 50mm F1.4	
Planar T✳50mm F1.7	Tele-Apotessar T✳300mm F2.8	ML 50mm F1.7	
Planar T✳85mm F1.2	Vario-Sonnar T✳35 ~ 70mm F3.4	ML 50mm F1.9	
Planar T✳85mm F1.4	Vario-Sonnar T✳40 ~ 80mm F3.5	ML 50mm F2.0	
Sonnar T✳85mm F2.8	Vario-Sonnar T✳70 ~ 210mm F3.5	ML 55mm F1.2	
Planar T✳100mm F2	Macro-Planar T✳100mm F2.8	ML 135mm F2.8	
Sonnar T✳100mm F3.5		ML Zoom 28 ~ 50mm F3.5	

IN-FOCUS GUIDE

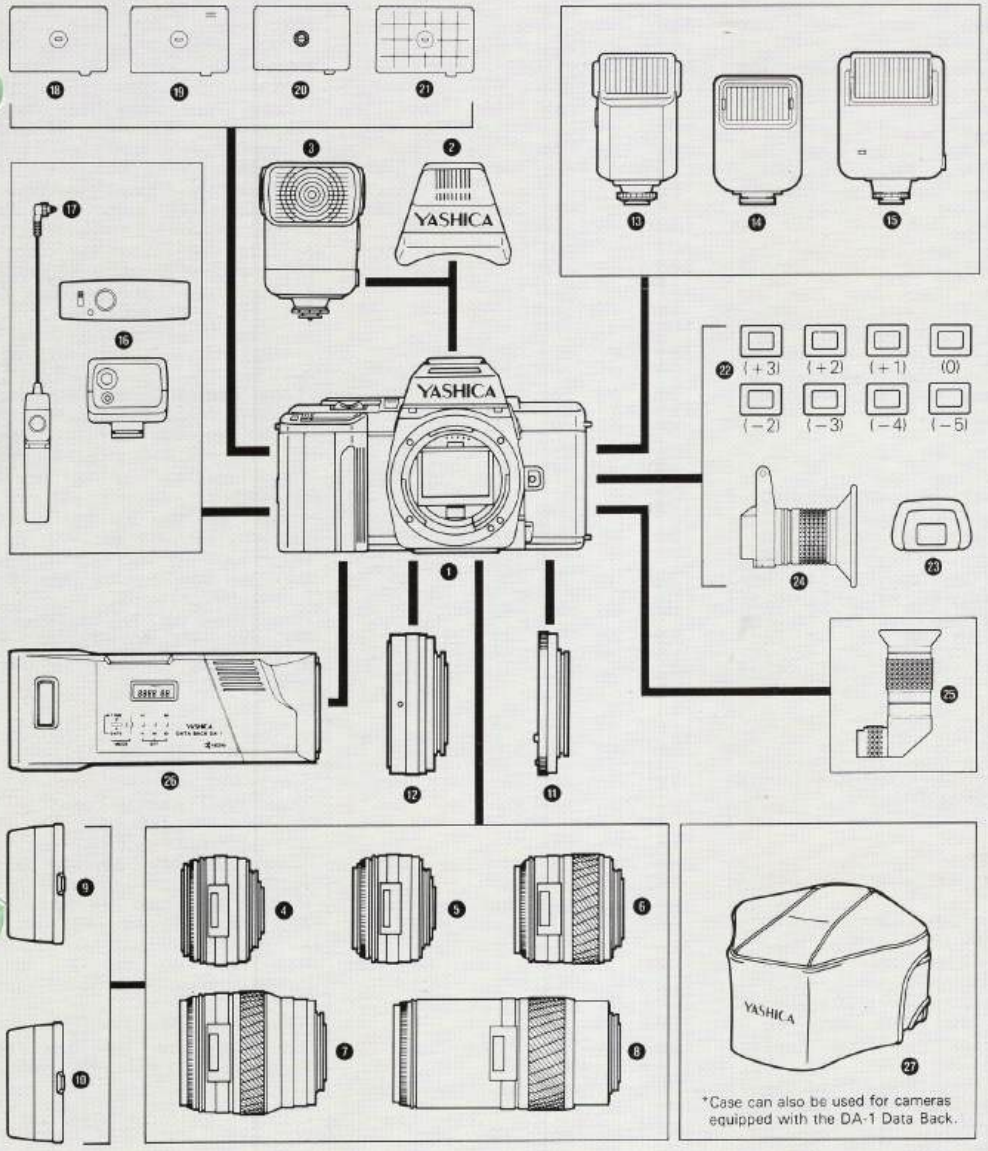
Focal Length	In-Focus Range*	
300mm	∞ to approx.	37.0 m (121.3ft)
200mm	∞ to approx.	15.6 m (51.1ft)
180mm	∞ to approx.	13.2 m (43.3ft)
135mm	∞ to approx.	7.4 m (24.2ft)
100mm	∞ to approx.	4.3 m (14.1ft)
85mm	∞ to approx.	3.3 m (10.8ft)
50mm	∞ to approx.	1.2 m (3.9ft)
35mm	∞ to approx.	0.6 m (1.9ft)
28mm	∞ to approx.	0.45m (1.5ft)

*When main lens is set to infinity.

Precautions:

- When using the AF converter 1.6X, the focal length and aperture of lens are both multiplied by 1.6.
- Only Av (Aperture-priority) and Manual exposure modes are operable when using the AF converter 1.6X.
- Use of lenses other than those listed in "Contax/Yashica Mount Lenses Compatible with the AF Converter 1.6X" could result in decreased AF sensitivity or damage to the body or lens
- Only use Contax/Yashica mount lenses and related accessories. Use of other equipment could result in damage to the camera body or lens, which may void the warranty.

YASHICA 230-AF SYSTEM ACCESSORIES



Body

❶ Yashica 230-AF

AF autoflash units

❷ CS-110 AF
❸ CS-250 AF

AF mount lenses

❹ AF 50mm F1.8 (Built-in hood)
❺ AF 28mm F2.8 (Built-in hood)
❻ AF 35-70mm F3.3-4.5 Macro
❼ AF 28-85mm F3.5-4.5 Macro
❽ AF 70-210mm F4.5

Lens hood

❾ GA-11: for AF 35-70mm, AF 50mm/1.8, AF 28mm/2.8 lens
❿ GA-21: for AF 70-210mm

AF Extension tube

⓫ MA-8.5

AF converter

⓬ AF converter 1.6x

Compatible flash units

⓭ CS-221 Auto
⓮ TLA-20*
⓯ TLA-30*

Remote control

⓰ Infrared controller S set*
⓱ Cable switch (4 different lengths)*

Focusing screen

⓲ FA-5 Standard matte screen with focus frame and spot metering area
⓳ FA-51 Matte screen with focus frame, spot metering area and data position
⓴ FA-4 Horizontal split-image/ microprism collar screen
㉑ FA-6 Grid matte screen with focus frame and spot metering area

Viewfinder & related equipment

㉒ Diopter lens FL type (+3 – –5)*
㉓ F-3 Eyecup
㉔ F-2 Magnifier*
㉕ Right-angle finder*

Data back/action case

㉖ Data back DA-1
㉗ CA-11 case (can be used with AF 35-70mm, 50mm, or 28mm lenses fitted on the camera)

*Contax brand equipment.

Please note: All items other than ❶, ❷, ⓰, and ㉓ are optional.



Carl Zeiss Planar T*
50mm F1.4 + AF converter 1.6x

Yashica AF Converter 1.6x

For those who already possess Contax or Yashica interchangeable mount lenses, an optional AF converter 1.6x allows you to use them (provided they have a maximum aperture of f/3.5 or faster) with the Yashica 230-AF as if they were AF lenses. For example, when a 50mm f/1.9 lens is used with this converter, focal length will be extended to 80mm.



Yashica AF Extension Tube MA-8.5

When utilized with Yashica's AF lenses (AF 50mm f/1.8, AF 28mm f/2.8, AF 35-70mm f/3.3-4.5 Macro, AF 70-210mm f/4.5, and AF 28-85mm f/3.5-4.5 Macro), this accessory allows you to take AF or manual closeup photographs. For example, used together with the AF 28mm f/2.8 lens, shooting range is 16 — 18 cm (6-5/16 — 7-1/16 in) and magnification is 0.43x — 0.3x.



Yashica Data Back DA-1

As an alternative to the standard back cover (complete with cartridge window) is the optional Yashica DA-1 data back with digital LCD. Cordless coupling with the body and a built-in quartz clock/calendar provide the data back with information necessary to imprint each frame clearly with year/month/day or hour/minute identification, if required. The calendar is programmed up to the year 2019 (with leap year correction).

SPECIFICATIONS

YASHICA 230-AF

Type: 35mm focal-plane type, autofocus, automatic wind/rewind single-lens reflex camera.
Format: 24mm × 36mm (35mm film format).
Lens mount: Yashica AF mount, Bayonet type.
Shutter: Vertical-travel focal-plane electronic shutter (quartz controlled).
Shutter speed: Auto: 16 – 1/2000 sec. Manual: 16 – 1/2000 sec. and bulb.
Shutter release: Electromagnetic release system operated by button or terminal.
Exposure control: 9-mode exposure control system.

1. <PROGRAM> Program mode
2. <Tv> Shutter-priority mode
3. <Av> Aperture-priority mode
4. <M> Manual exposure mode
5. Programmed autoflash
6. Aperture-priority autoflash
7. Manual autoflash
8. CPU system mode
9. Manual flash

Light metering system: Dual-selectable: either TTL center-weighted metering or TTL spot metering. Direct TTL center-weighted metering for flash applications. Dual silicon photodiode (SPD) light sensors.
Light metering range: With ISO 100 f/1.8 lens, 1 ~ 20EV.
Film sensitivity range: ISO 25 ~ 5000 using DX system, ISO 6 ~ 6400 using manual setting.
Autofocus system: TTL phase difference employing CCD array under mirror box. In AF modes, light depression of shutter release button activates autofocus. Green LED inside viewfinder indicates "in-focus".
Autofocus detection range: 2 ~ 20EV
Focus modes:

<AF>	Autofocus
<CAF>	Continuous autofocus (follow-focus)
< ◆ >	Trap focus
<M>	Manual focus

Focus lock: Activated by pressing AF lock button, or locks after focus obtained in AF mode.
AE lock: During spot metering only. Locks in exposure value.
Exposure compensation: +4EV to −4EV (in 1/3EV increments).
Self-timer: Electronic quartz control. 10-sec. delay. Can be cancelled during operation. Operation indicated by blinking LED; faster for first and last 2 seconds. AE automatically locked after activation.
Sync: X-sync. Using TTL flash, sync shutter speed set automatically to 1/90 sec. after completion of recharge. In manual mode, sync effective for shutter speeds of 1/90 sec. or less. Lightning bolt symbol display indicates the flash is ready to fire. Momentary orange color at the bottom of viewfinder confirms flash operation.
Viewfinder: Fixed eye-level pentaprism featuring long-eyepoint system. 95% vertical/horizontal coverage of picture area with magnification of 0.82X at infinity with standard 50mm lens. Viewfinder information illuminated under low-light conditions.
Focus screen: Matte focus screen with focus frame and spot metering area. User changeable.
Finder information: LCD: Exposure compensation, shutter speed/film sensitivity, aperture, exposure mode (PROGRAM, Tv, Av, M). LED: in-focus (green).
LCD data panel information: Exposure compensation, shutter speed/film sensitivity, aperture, frame counter, exposure, mode (PROGRAM, Tv, Av, M), ISO, beeper, battery check, film wind/rewind, flash, drive mode (C, S, ⏲), focus mode (AF, CAF, MF, < ◆ >).
Film advance: Auto loading, auto-advance system. After positioning leader and closing back cover, film automatically advances to first frame and frame counter is set to 1.
Film rewind: Automatic rewind activated by rewind lever and simultaneous depression of rewind-lock button. Stops automatically. Rewind switch allows film to be rewound in the middle of the roll.
Film counter: Automatic resettable additive type. LCD display.
Accessory shoe: Direct X-contact using TLA flash and connector cords.
Drive modes: Selectable: single-frame, continuous, or self-timer. Maximum speed of 1.8 f.p.s. in continuous mode.
Back cover: Removable. Features film cartridge window. Opens via release lever and lock button.
Power source: One 6V lithium battery (2CR5). Sufficient to shoot 25 rolls of 24 exp. film (assuming 50% flash operation).
Power check: Battery check mark on the data panel blinks when voltage runs low.
Flashmatic system: Integrated autoflash with range of 0.7m ~ 6m (ISO 100 film with 50mm lens).
Other features: Data back contacts, guides and recessed power terminals for integrated autoflash unit.
Dimensions (W × H × D): 148 × 93 × 50.5mm (5-13/16 × 3-11/16 × 2 in)
Weight: 530g (18.6 oz.) body only, without battery

Yashica Electronic Flash CS-250AF

Features: Zoom flash head – equipped with unique U-shaped xenon-tube – allows 4-way coverage according to lens picture angle, ranging from 28mm to 85mm. Near-infrared beam facilitates auto focusing even in very low-light conditions. Automatic control of flash output via TTL direct metering.
Type: Slip-on automated electronic flash with TTL flash metering capability. Full manual control possible.
Control circuitry: Thyristorized, energy-saving circuits.
Flash mode: TTL metering through SPD measuring light at film plane with Yashica 230-AF. Responds to program, aperture-priority and manual modes. Automatic shutter speed synchronization after completion of battery recharge. 28mm wide-angle lens to 85mm telephoto lens.
Guide number: At ISO 100 • m, full flash:
(1) GN 32 for 85mm lens
(2) GN 27 for 50mm lens
(3) GN 25 for 35mm lens
(4) GN 21 for 28mm lens
Flash bounce: Upwards from 0 ~ 90 degrees.
Recycling time: Approximately 6 seconds with alkaline batteries, and 3 seconds with NiCd batteries.
No. of flashes: Approximately 150 full-power flashes with alkaline batteries.
Near-infrared beam autofocus range: Under EV3; effective range from 1 to 5 meters.
Power source: Four 1.5V AA-size batteries (rechargeable NiCd batteries can also be used).
Dimensions (W × H × D): 70 × 108 × 95mm (2-3/4 × 4-1/4 × 3-3/4 in)
Weight: 235g (8.2 oz.)
Other features: Built-in connector for TLA extension cords.

Yashica Data Back DA-1

Type: Quartz-controlled data recording unit with liquid crystal display (LCD).
Coupling to camera: Cordless via direct signal contact.
Data display: 6-digit display with 7-segment liquid crystal.
Data printing: Superimposed printing (imprinted from back side of film by combined action of illumination and liquid crystal; automatic printing coupled to shutter operation).
Data print position: Bottom right corner of picture frame.
Confirmation of data print: Word "PRINT" appears.
Printing modes: Two modes (year/month/day and hour/minute).
Mode selection: Pushbutton.
Film speed setting: Automatic setting coupled to ISO speed on camera.
Quartz clock: Basic clock: Year/month/day and hour/minute. Calendar function: Auto-calendar up to year 2019; automatic correction of leap years and months with different days. Clock function: 24-hour system; deviation of ±15 seconds per month (at normal temperature).
Power source: One 3V lithium battery (CR 2025).
Dimensions (W × H × D): 146.5 × 55.5 × 26.5mm (5-3/4 × 2-3/16 × 1-1/16 in)
Weight: 61g (2.1 oz.) without battery

Specifications and external design are subject to change without notice.

KYOCERA

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