

CONTAX
RTS II
QUARTZ

Salesmen's Information Guide



The Quartz Digital Revolution



CONTAX
RTS III
QUARTZ

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RTS II Quartz THE CONTAX DESIGN PHILOSOPHY

The original CONTAX I was introduced to the world in 1932, the first 35 mm camera to offer a system of professional equipment capable of handling a wide variety of challenges.

In 1975, the CONTAX RTS was born—product of the finest design capabilities of three famed manufacturers: Carl Zeiss and the Porsche Design Group of West Germany and Yashica of Japan — and during the past seven years the RTS has attracted both professional and advanced amateur photographers with its outstanding qualities of precision, handling ease and durable performance.

Now, in 1982, the 50th Anniversary of the birth of the CONTAX name, Yashica introduces the most advanced camera of its time, a 35 mm single-lens reflex photographic system that offers performance unsurpassed, and reliability unequalled, by any other camera.

In designing the RTS II Quartz, Yashica devoted itself to producing a camera body that would retain all the best of the RTS, while adding even more in the way of quality performance, handling ease and electronic/mechanical reliability. And, professional photographers from throughout the world, who have been depending on the RTS, were asked what could be done to make the camera even better suited to their needs.

Their responses, together with the advanced electronic capabilities developed over the past seven years by the Yashica design team, were incorporated into the design of the new RTS II Quartz. The result is a camera body that in appearance differs only slightly from the original RTS—because that basic Porsche design was so successful. But internally the RTS II Quartz is a revolutionary application of the most advanced microprocessing capabilities. And in handling, the





camera offers a number of new features aimed at making the production of exquisite photography easier than ever before.

Basically, the RTS II Quartz is a professional system, designed and produced to provide the professional photographer with the capability of handling any shooting conditions. But, at the same time, many of the features and capabilities incorporated into the RTS II Quartz for professionals also make it an advantageous choice for the advanced amateur, since simplicity of operation rates very high on the professionals' list of requirements.

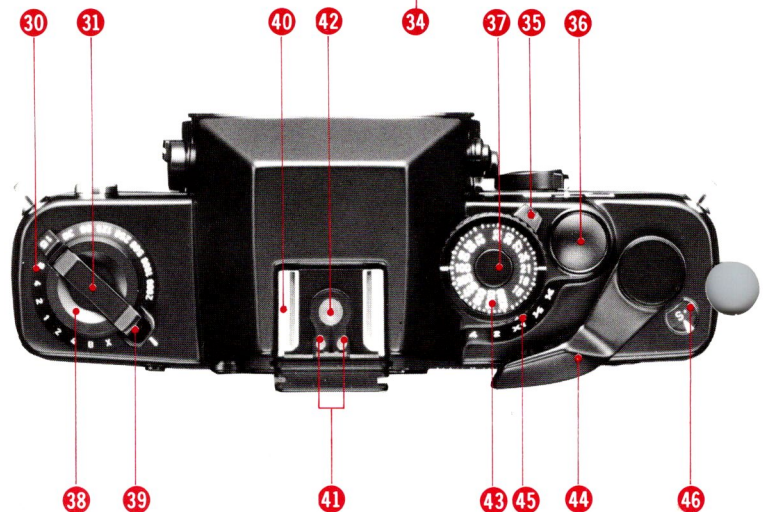
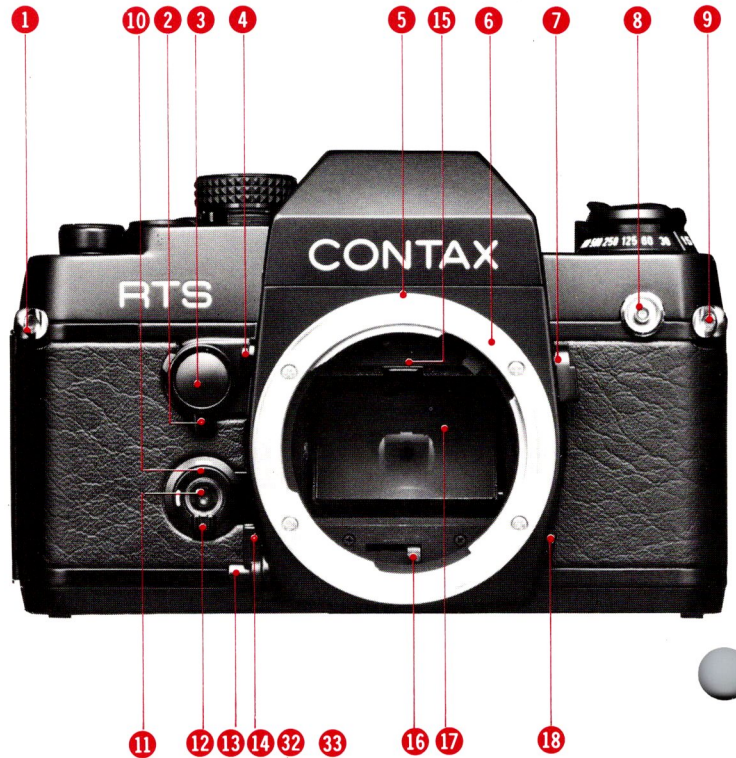
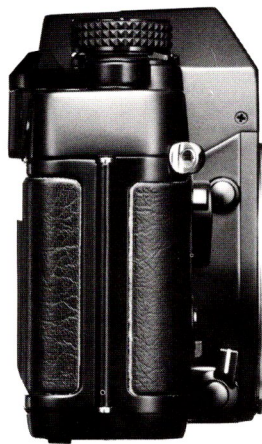
The microprocessing capabilities of the RTS II Quartz would have required entire rooms of the most advanced computer equipment just a generation ago; now they are contained in a single flexible printed circuit within the camera body. The mechanical functions operate with a precision and reliability found normally in only the finest scientific instruments. Unchanged from the RTS is the amazing optical superiority of the Carl Zeiss T lens series. And, the RTS II Quartz is designed from the start as a system, not merely a camera body. The Real Time System accessories of the camera are not 'add-on' afterthoughts; they are integral parts of the system which attach to form a single unit designed for specific capabilities.*

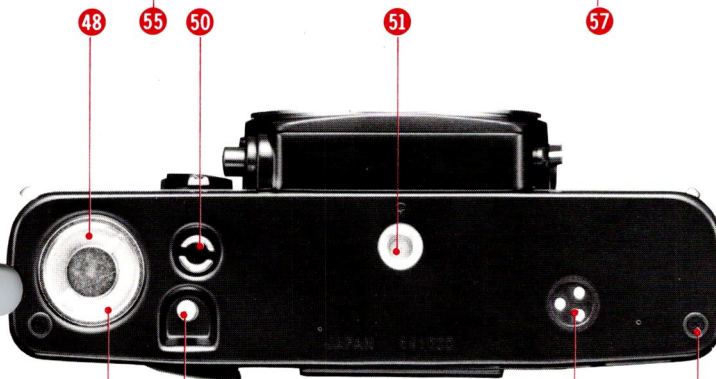
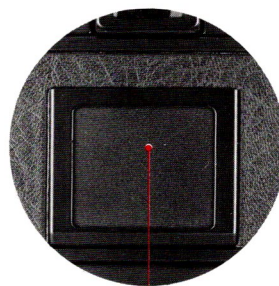
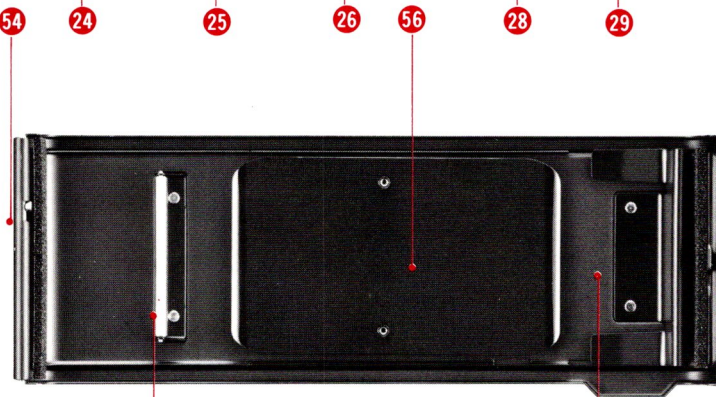
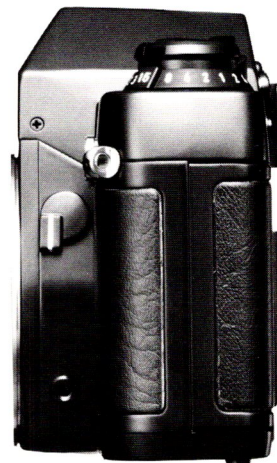
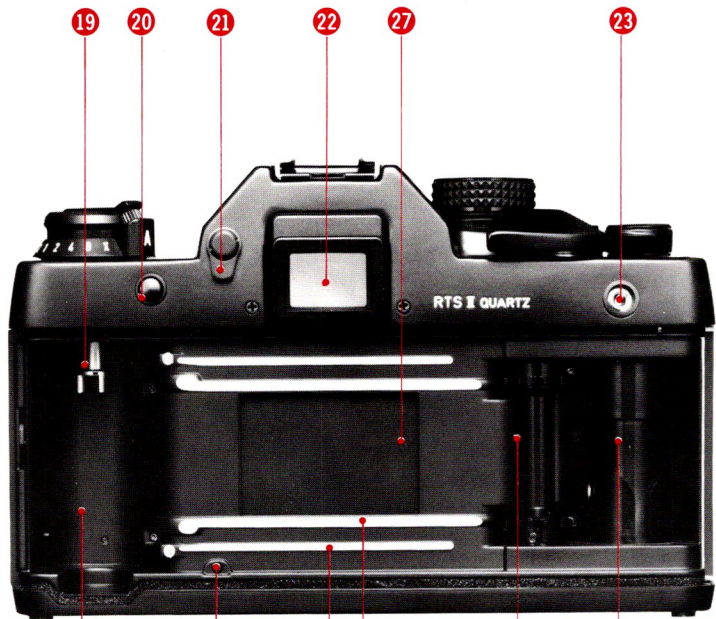
This is the secret of the RTS II Quartz, a design philosophy which begins with the aim of creating a photographic system, rather than merely a camera.

This product guide will outline to you the many new features and improvements incorporated in the RTS II Quartz, with explanations and illustrations of how they operate and how they contribute to making CONTAX photography faster, easier, more precise and more reliable. Step by step, the electronic, mechanical and operating advances of the camera will be shown, along with their applications to the photographic process and their advantages to the photographer.

Description of Parts

- 1 Carrying Strap Eyelet
- 2 AE (Auto Exposure) Lock Lever
- 3 Exposure Check Button
- 4 Lens Release Button
- 5 Lens Index
- 6 Contax/Yashica Mount
- 7 Mirror Lock
- 8 X Synch Terminal
- 9 Carrying Strap Eyelet
- 10 Self-Timer Index
- 11 Self-Timer Button/Self-Timer Flasher
- 12 Self-Timer Button Lock Ring
- 13 Depth-of-Field Preview Button/Mechanical Shutter Release Button
- 14 Mechanical Shutter Switch Lever
- 15 Focusing Screen Release Lug
- 16 Automatic Diaphragm Coupling Lever
- 17 Deflection Mirror
- 18 Mechanical Bulb Release Socket
- 19 Film Rewind Stud
- 20 Shutter Dial Lock-Release Button
- 21 Viewfinder Eyepiece-Blind Lever
- 22 Viewfinder Eyepiece
- 23 Release Socket
- 24 Film Cassette Chamber
- 25 Data Back LED
- 26 Film Guide Rails
- 27 Shutter Curtain
- 28 Sprocket
- 29 Take-up Spool





- 30 Shutter Control Dial
- 31 Film Rewind Crank-Handle
- 32 Focusing Ring
- 33 Aperture/Distance Scale Index
- 34 Aperture Ring
- 35 Main Switch
- 36 Electromagnetic Shutter Release
- 37 Exposure Compensation Dial
- 38 Film Rewind Knob
- 39 Shutter Speed Index
- 40 Accessory Shoe
- 41 TLA Auto Flash Contact
- 42 Direct X Contact
- 43 Film Speed Ring
- 44 Film Advance Lever
- 45 Exposure Compensation Index
- 46 Exposure Counter
- 47 Battery Compartment Cover Flip-up Key
- 48 Battery Compartment Cover
- 49 Film Rewind Release Button/Multiple Exposure Button
- 50 Film Drive Coupling
- 51 Tripod Socket
- 52 Motor Drive Coupling Terminal
- 53 Motor Drive Guide Studs
- 54 Back Cover Release Lug
- 55 Film Guide Roller
- 56 Pressure Plate
- 57 Camera Back
- 58 Memo Holder

The Production Process



Professional-Level Stability & Reliability In Performance

Yashica's design team for the RTS II Quartz began their development efforts by reviewing the entire concept of 35 mm SLR photography, its particular requirements and the functions and operations most suited to meeting those requirements. And then the team examined the original Contax RTS, part by part, function by function, to establish just what was required to meet today's professional demands and produce a camera worthy to carry the Real Time System name.

The result of these painstaking efforts is virtually a completely new camera. Viewfinder field of view was increased to fully 97 percent of the picture area; an improved, digital LED display in the viewfinder features two-step brightness control; Contax TLA Auto Flash System capability, with 'Fail-Safe' control of flash/shutter synchronization and direct TTL metering of flash exposures at the film plane was added; special new Titanium shutter curtains, 0.015 mm thick, run with ball bearing smoothness for improved high-speed consistency; shaft bearings smooth operation of the film drive/rewind system; electronic controls are more consistent and stable thanks to improved switch designs.

These are just a few examples of the more than 30 design improvements incorporated into the RTS II Quartz, in order to achieve a camera that fully meets the demands of professional use.

The Real Time System Tradition of Fully Integrated System Accessories

Just as with the original RTS, the design philosophy of the Contax RTS II Quartz required that a complete system, rather than simply a camera body, be the primary goal. Thus, while the RTS II Quartz body is indeed a remarkable photographic tool that can accept any challenge, it is, even more importantly, the nucleus of a system of fully integrated, fully interchangeable, accessories.

The original Real Time System itself was designed under the concept of providing for expected advances in production and design capability, so that improvements in individual components and the expansion of the overall system could be achieved without requiring drastic departures from the basic design/performance specifications.

Thus, the new RTS II Quartz possesses virtually complete interchangeability for all system accessories of the original RTS. At the same time, the new performance demands of the RTS II Quartz have led to the appearance of several new system accessories designed to take maximum advantage of the increased capabilities of the camera body. These include: the Real Time Winder (W-3) with a maximum performance of three frames per second in continuous mode; the Professional Motor Drive (W-6) model, the Data Back Quartz D-4, the External Power Pack P-3 and the eight new Focusing Screens developed to handle the increased 97% field-of-view.

CONTAX RTS II QUARTZ

The Camera Body As Nucleus Of The Real Time System

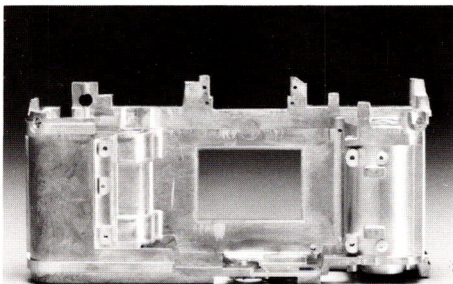
In order to achieve a photographic system of total reliability, like the Contax Real Time System, the fundamental requirement is a camera body at the nucleus which provides absolute accuracy, stability and durability in performance.

Therefore, the basic design requirement of the RTS II Quartz was total integration with Real Time System accessories, together with achievement of previously unattainable levels of accuracy, stability and durability.

While simple to state as a design goal, this is far more difficult to achieve in production reality, and required that Yashica adopt entirely new technologies, far advanced over other camera manufacturers, in such fields as materials selection and processing, mechanical and electronic design, assembly and testing.

Every function, every mechanism, every circuit in every Contax RTS II Quartz camera body must meet the strictest tests of accuracy, stability and durability in order to guarantee total system integration.

Total Accuracy & Precision In Design & Production



Every possible factor in the design of the RTS II Quartz camera body was computer analyzed to determine precisely how to achieve optimum performance levels that would remain stable and reliable under even the toughest conditions of rugged, long-term professional use.

And then, in the production stage, each component is subjected to the most rigorous testing—again computer controlled—to guarantee those performance levels. One good example of this testing is the central processing unit, the 'electronic brain' which controls automated exposure. Each CPU is subjected to more than 100 individual tests, all conducted by computer, to guarantee its reliability and durability.

Another area of strict examination is the shutter unit. Every RTS II Quartz shutter mechanism is put through a testing process that involves some 2,000 repetitive shutter operations; only those units that display absolute precision, and total consistency, from the first operation to the 2,000th, are approved for use in the camera bodies.

The RTS II Quartz is never rushed through an assembly line merely to meet market demands. Time and patience is freely expended to guarantee the accuracy, stability and durability of each and every mechanism, each and every function, each and every circuit in each and every body.

Even the body frame itself is produced to the most rigid standards. A copper silumin impregnated aluminum alloy of exceptional durability is used for the body diecastings. All potential for distortion is eliminated through a high-temperature, high-pressure steam annealing system, after which precision finishing of each body frame is completed.

'Block System' Production & Assembly Techniques Assure Quality

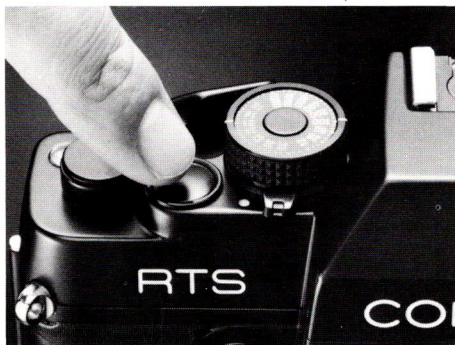
Rather than the usual assembly line process, in which a camera body proceeds along with parts and components added one by one, the RTS II Quartz is produced according to a unique 'Block System'.

Various components and mechanisms are produced and assembled in individual blocks, with regular block team members responsible for careful checks and tests of accuracy, consistency and reliability. Then, other block teams take over assembling minor components and mechanisms into major groups.

Each RTS II Quartz body proceeds through this step-by-step block system, undergoing strict examinations at each step, until the final camera body is finished.

Through the block system, the continuous quality control checks at every step of production and assembly insure that only those cameras that can meet every test of accuracy, stability and durability finally emerge from the factory carrying the famed CONTAX name.

The Contax Electromagnetic Shutter Release— Heart Of The Real Time System



One of the great innovations of the original Contax RTS was its use of an electromagnetic shutter release system through which the photographer controlled not just the camera body, but the entire Real Time System.

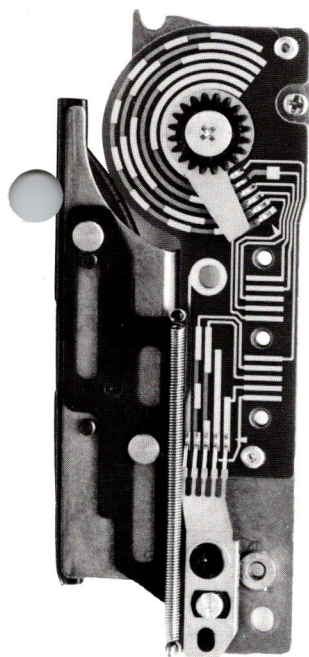
Faster, smoother and more reliable than any mechanical release system, this electromagnetic release remains the heart of the Real Time System capabilities of the RTS II Quartz. Its sensitive micro-switch, requiring only a 0.7 mm stroke, instantly relays commands to the electronic control center of the camera body to activate the picture-taking process.

Imitations of the Real Time System release have appeared, one by one, in numerous other cameras. But no one has been able to improve on the smooth responsiveness of the Contax electromagnetic system.

Numerous advantages come with this system. First of all, it virtually eliminates all possibility of camera shake during shutter operation—the main cause of blurred photographs. Next, it eliminates the time lag of mechanical systems, between the pressing of the release and the actual exposure of the film. This provides the photographer with vastly increased capability to achieve exposure at the 'peak' of action or emotion. Finally, the electromagnetic system allows the photographer to control accessory equipment and camera body simultaneously, all through a single release switch, and increases the reliability of performance of such accessories as the Professional Motor Drive, Real Time Winder, TLA flash, off-camera control systems, etc., all of which can be operated through their own release switches.

CONTAX RTS II QUARTZ

Maximum Reliability In Internal Electronic Switching



Within the body of a modern, electronic 35 mm SLR camera are numerous switches which play a vital role in the transmission and processing of data and the control of camera functions. To and from the Central Processing Unit, data flows through switches which must meet extreme standards of reliability in order to achieve accurate, stable performance.

All such switches in the RTS II Quartz have been designed for maximum reliability and stability, thanks to the use of the most advanced and sophisticated electronic-relay capabilities.

For example, aperture information is transmitted directly to the CPU, in gray-code digital values through a recently developed base plate with special laminated contact tracks and pronged brushes. A precision finish to within one micron (1/1000 mm) of flatness has been achieved for this base plate, in order to completely eliminate any possibility of 'chattering', or intermittent disruption of the signal, due to the mechanical bouncing of individual contacts.

Multi-contact systems and gold-plating finishes are executed on all switches, to guarantee reliable conduction of information or commands. A good example of this is the 'palladium' alloy of gold, white gold and silver which is employed for the pronged brushes.

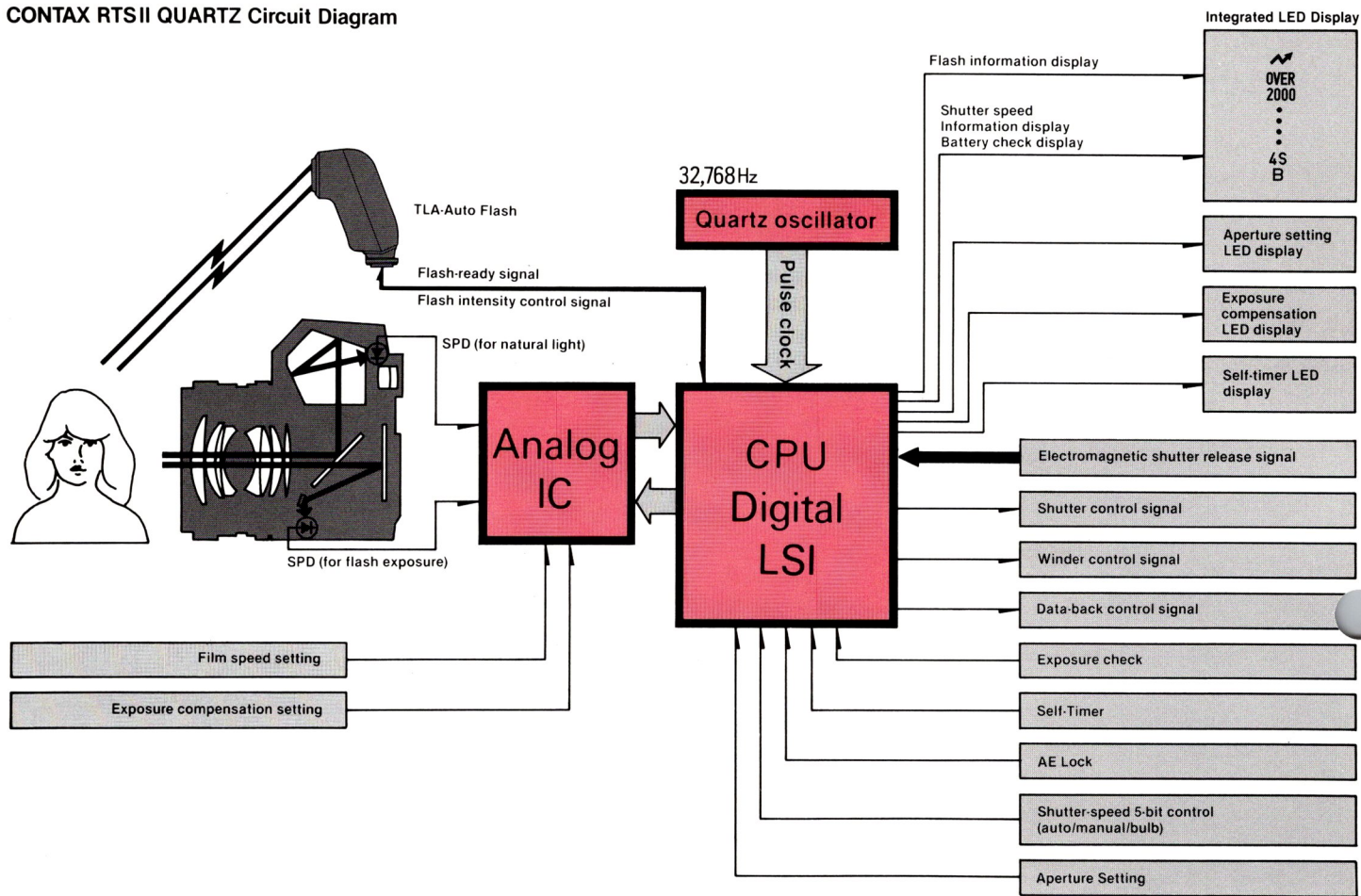
The original CONTAX RTS was a landmark in the field of sophisticated, electronically-operated SLR cameras. And now, the RTS II Quartz has advanced even further as a sophisticated auto-exposure camera of totally reliable and consistent performance. This is an achievement of photographic accuracy, stability and durability which was only possible when based on the achievements of the RTS and through the exceptional technologies developed by Yashica in photoelectronics.

The CONTAX RTS II Quartz is fated to be the standard of performance of an entire new generation of electronic cameras; and the choice of discriminating photographers for years to come.

The Exposure Process

Contax RTS II
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CONTAX RTSII QUARTZ Circuit Diagram



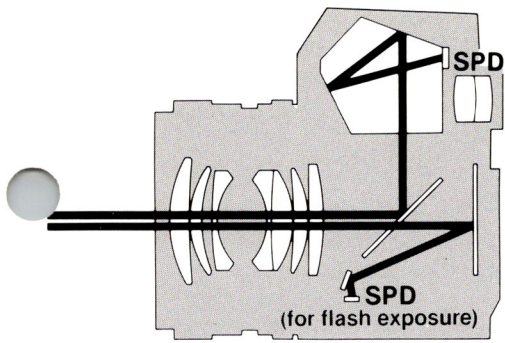
Total Accuracy In The Calculation Of Exposure Factors

The Contax RTS II Quartz offers two operating modes: Automatic Exposure (AE) and Manual. For decades professional photographers had been agreed on a fundamental principle of camera selection—sophisticated capabilities are available only in Manual SLR cameras.

But the appearance of the Contax RTS tumbled that principle. For the first time an SLR camera had appeared that combined both professional-level capabilities and an exposure metering system aimed primarily at AE operation. And professionals found that AE mode use was, in fact, preferential when the camera was capable of calculating exposures even better than the most experienced professional.

The RTS II Quartz provides Manual controls for those rare times when the photographer wants to employ exposure factors which are 'unordinary', or the even rarer times when extremes of lighting result in a scene which must be exposed to bring out one small element of the frame alone. At all other times the photographer, professional or amateur, will prefer to allow the RTS II Quartz to perform the work of calculating exposure, a task the camera can handle with consummate reliability. It is in the AE mode that the RTS II Quartz reaches its ultimate performance capabilities, freeing the photographer from exposure chores and leaving him or her to concentrate on the real work of the photographer—the creation of the image.

(for auto/manual exposure)



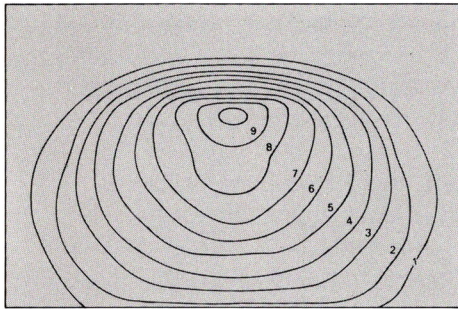
There are two factors involved in the exposure of a photograph. One is the size of the aperture through which the light travels; the other is the duration of exposure. Apertures are a fixed, known quantity, in accordance with the diaphragm setting selected by the photographer. In the past, shutter speeds, too, were fixed, known quantities. But today, the electronic revolution in 35 mm photography has changed that.

There are two reasons why the RTS II Quartz is capable of calculating exposures to a degree of accuracy never before achieved: SPD metering and Quartz shutter timing.

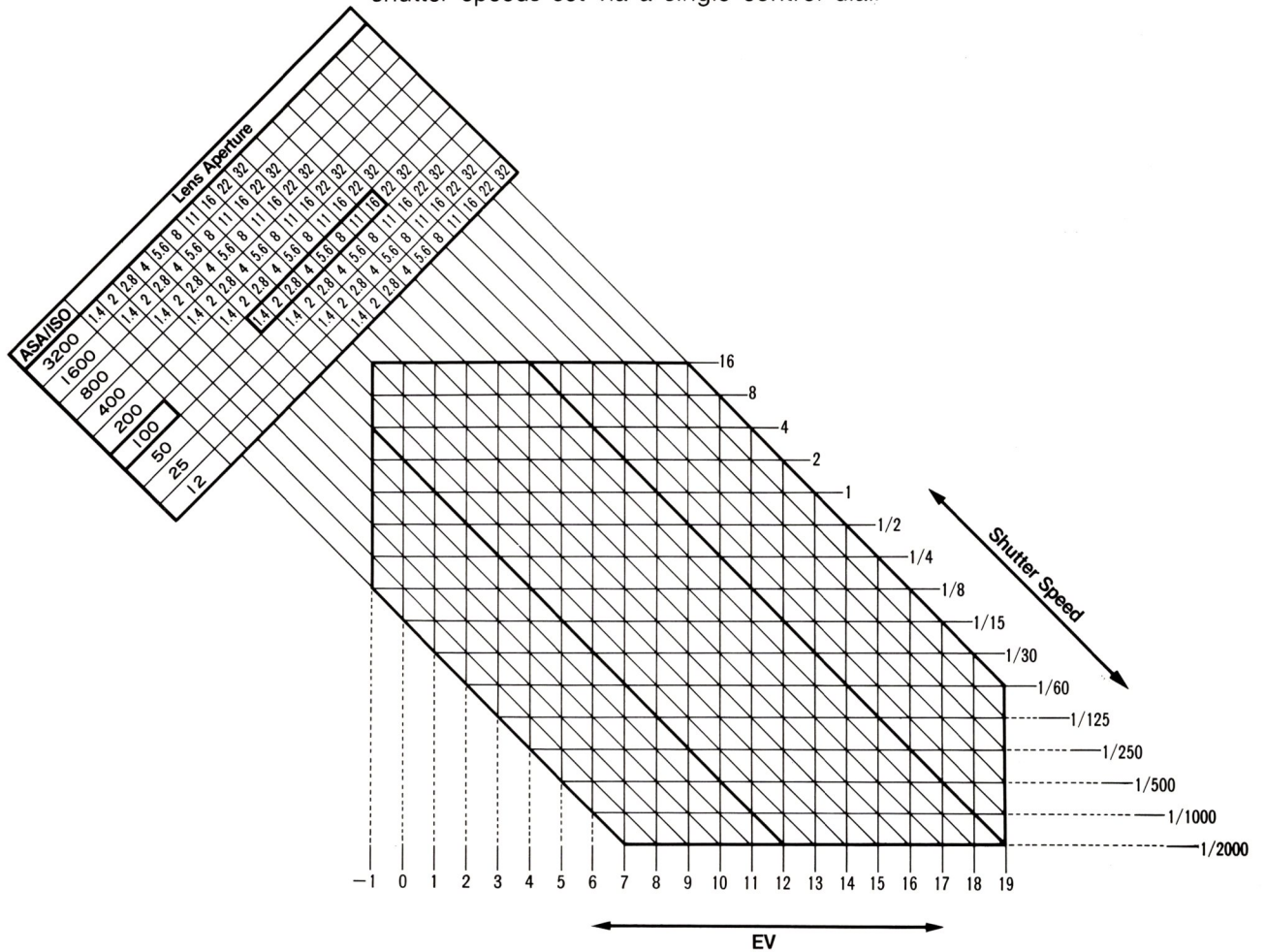
The sensitivity and response of SPD (Silicon Photo Diode) cells far surpasses any previous means of measuring light. SPD cells react instantaneously to even the slightest change in light value, and are capable of determining the amount of light to a precision sensitivity even greater than that of photographic film.

Quartz Crystal timing, used for the first time in the world in the Contax 139, is simply the most accurate means of calculating shutter speeds that has ever been employed in photography, accuracy to within a single one of the 32,768 pulses generated every second by a Quartz Crystal Element.

Through the use of Quartz shutter timing, the RTS II Quartz is able to offer the photographer stepless shutter speeds perfectly calculated to result in an optimum exposure. If the light value and aperture setting require a shutter speed of, for example, 1/49 sec., that is precisely the speed delivered. The photographer is no longer dependent on stepped shutter speeds set via a single control dial.



Ambient light metering pattern

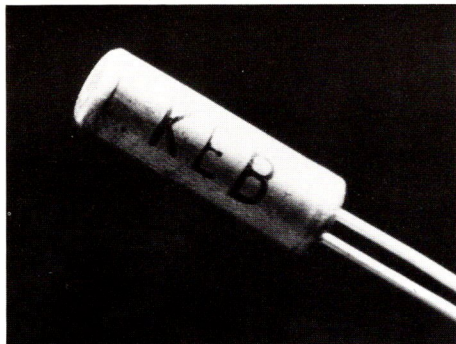


Quartz Control & Digital Information Processing

There is more to the use of Quartz than simply more accurate and more consistent shutter speeds.

Camera reliability is, particularly, a function of timing accuracy. If the timing of individual operations within the camera body is faulty, or inconsistent, the camera will be subject to far greater wear, and will thus have a far greater likelihood of malfunction.

The Contax RTS II Quartz employs its Quartz element to regulate not only shutter speeds, but the operating of all other time-related functions, as well. Both mechanical and electronic functions within the body are timed to ultimate precision by the Quartz element, resulting in far greater



accuracy and consistency of operation, far less wear and an almost complete elimination of mechanical or electronic malfunctions.

And this Quartz timing consistency remains in effect in either AE or Manual modes, with the only difference being the camera's selection of a stepless shutter speed, or the photographer's choice of a known speed through the shutter dial.

Actual calculation of exposure factors is performed by the camera's Central Processing Unit, comprised of the Quartz element and a C-MOS LSI microprocessing 'chip'. Input on every factor relating to exposure (aperture setting, film speed and light intensity metered by SPD) is accepted in analog form by a Bi-MOS-IC, which converts this data to digital form and relays it to the CPU. The CPU determines what shutter speed will provide optimum exposure, and signals its commands, in digital form, to the various circuits of the camera. (In Manual mode, the CPU 'recommends' a shutter speed to the photographer.) These commands flow to the working parts via circuitry assembled on a special flexible printed circuit board, which also, in fact, contains the CPU and other electronic elements itself.

The result of this electronic, Quartz-timed system is exposure calculation accurate to an extreme. From light measurement to processing, memory, shutter speed determination and shutter operation, the RTS II Quartz operates in Real Time, the Speed of Light!, to ensure total precision, total consistency and total reliability.



AE Mode Operation: The shutter Speed Dial is first set in the A position. Then, the photographer selects any desired lens aperture setting. (Note: smaller apertures result in slower shutter speeds, larger apertures in faster speeds; when high speeds are required, as in sports photography, a large aperture setting should be selected.) Light metering continues automatically until the shutter release is activated. Then, at the instant the mirror begins to move, a final light reading is taken by the SPD and relayed to the CPU. By the time the mirror has swung out of the light path, a command has been relayed to the Quartz element, which will time the shutter to precisely the determined speed within a range from 16 to 1/2000 sec.

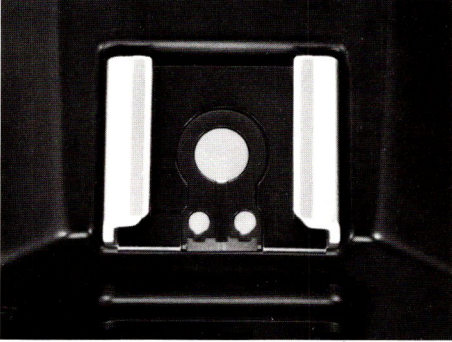
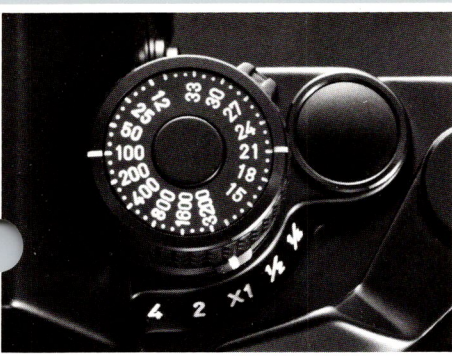


Manual Mode Operation: The photographer selects both aperture setting and shutter speed (4~1/2000sec., B or X at 1/60sec.) according to the exposure value desired. The SPD metering system of the RTS II Quartz can be used by the photographer to determine exposure factors which would result in optimum exposure of the scene. The shutter speed and shutter operation are timed by the Quartz element for perfect accuracy and consistency.

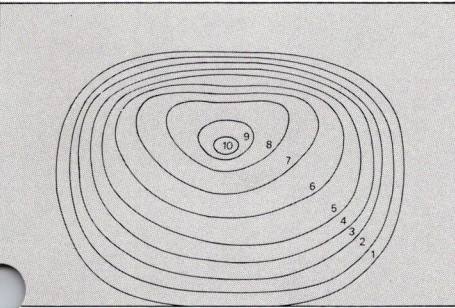


AE Lock Operation: The AE Lock function of the RTS II Quartz presents a significant improvement over similar systems previously used. Rather than freezing camera operation at a particular shutter speed when the AE Lock function is activated, the RTS II Quartz freezes the camera at the particular Exposure Value (EV) then operative. Thus, if the aperture setting is then changed, the camera will automatically compensate for this by increasing or decreasing the shutter speed. This feature is particularly useful in such applications as standardizing exposure (for scientific documentations) or for insuring perfect exposure of one element in the scene while varying depth-of-field. In addition, the AE Lock can be employed to overcome extreme back or side-lighting, or to achieve creative flash effects, particularly under dim light conditions.

Exposure Compensation Function: In order to allow the photographer to vary exposure for creative effect, the RTS II Quartz incorporates an Exposure Compensation Function providing for $\pm 2\text{EV}$ exposure variance, with intermediate click-stops. The main uses of this function are in overcoming moderate back or side-lighting, or as a means of bracketing exposures under difficult lighting conditions.



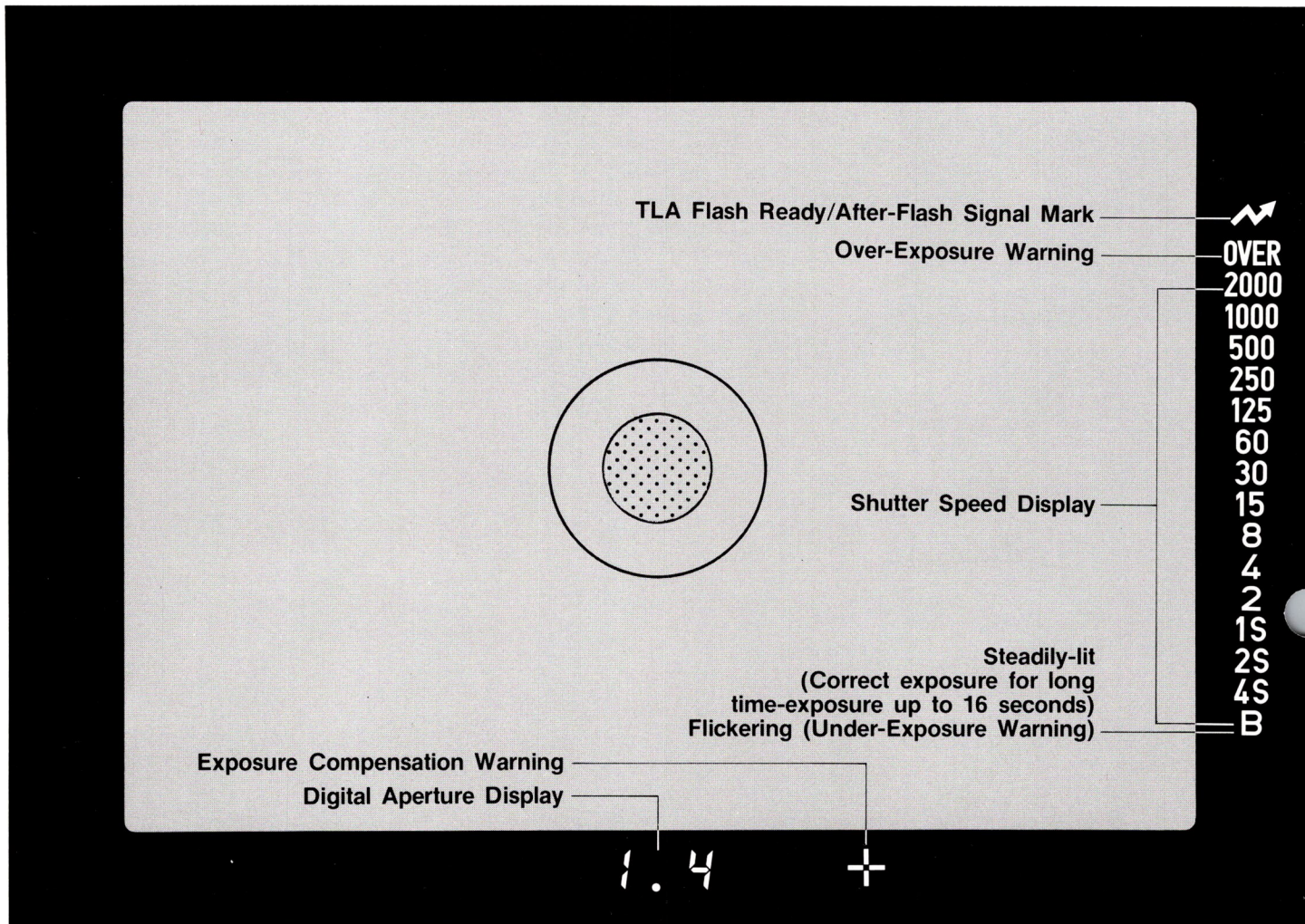
TLA Auto Flash Capability: Not one but two SPD cells are found within the RTS II Quartz body. The second of these is used to meter flash exposures, directly at the film plane, when the camera is used in conjunction with the dedicated TLA Auto Flash System. When the SPD determines that precisely accurate exposure has been achieved, a command is relayed by the CPU to the TLA flash unit (TLA 20, TLA 30 or RTF540 w/TLA Adapter) to cut flash output. A second major advantage of the TLA system is 'Fail-Safe' automated control of flash/shutter synchronization. With a TLA unit attached, the RTS II Quartz will automatically switch to proper X synchronization speed (1/60, indicated by viewfinder display) whenever the unit is prepared to fire, or revert to ambient light speed while the unit is recycling or turned Off. This system operates to exceptionally good effect in such applications as multiple-flash use, bounce-flash, macro or copy work.



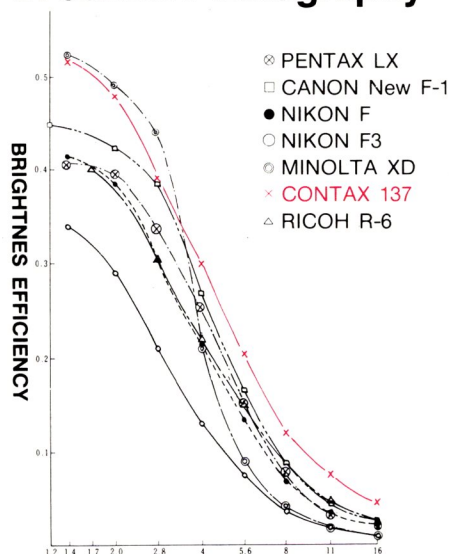
TLA Flash metering pattern

The Viewfinder

Contax RTS II
QUARTZ



The Greatest Degree Of Consistent Brightness In 35mm Photography



The viewfinder of the Contax RTS II Quartz is designed to offer sharp, crisp focus even at the corners of the finder screen, a vital consideration here is the brightness of the viewfinder.

A special high-reflection coating is applied to the mirror, and a silver evaporated coating is employed on the pentaprism to insure that brightness and normal color balance are optimal after transmission through the fresnel lens and matte face screen. Even the eyepiece is multi-coated, to prevent deterioration of focusing capability under poor lighting.

The large mirror prevents shadows or cut-off, even with the use of super-telephoto lenses, while the brightness of the screen allows pinpoint focusing even after manual stop-down to minimum aperture for checking depth-of-field.

BRIGHTNESS MEASUREMENT COMPARISON OF SLR CAMERAS BY LASER-BEAM METHOD
(from Current Camera and Lens Technology by Iwao Ogura in Shasin-Kogyo Special Issue)

Expanded Frame Coverage

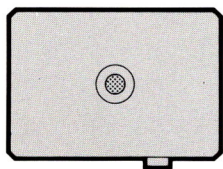
Field-of-view of the actual picture area has been increased to fully 97 percent in the new RTS II Quartz. This insures that the photographer will not find distracting, unwanted elements in the photograph after film processing.

Built-in Eyepiece Shutter

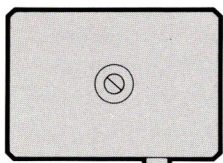
To guard against the possibility of extraneous light from the viewfinder affecting exposure determination during remote control, the RTS II Quartz has a built-in shutter within its eyepiece, which can be closed by a simple lever next to the eyepiece when the camera is used with its self-timer, or with any of the Contax Real Time System off-camera control accessories.

New Focusing Screens (FS Type)

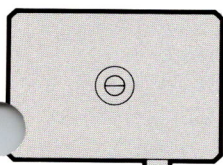
Because of the increased field-of-view of the RTS II Quartz, a whole new series of Focusing Screens has been developed, the FS Type, enlarged to dimensions of 37.3 × 25.9mm. The new Focusing Screens come in eight variations. Seven of these are identical to those for the original RTS, while one new model especially for use with the Data Back Quartz D-4 has been added.



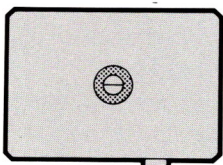
FS-1 Microprism Screen: This is the standard screen provided with the RTS II Quartz body. When the subject is in sharp focus, the image appears crisp and sharp within the center microprism area.



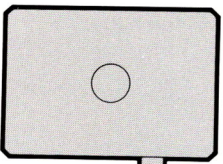
FS-2 45° Split-Image Screen: This is an extremely handy screen useful for most photo applications. The diagonal split-image focusing aid indicates sharp focus by the aligning of the two halves of the image.



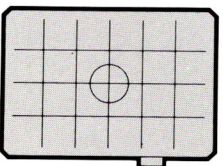
FS-3 Horizontal Split-Image Screen: Especially convenient for subjects having sharp vertical lines (Horizontal format) or horizontal lines (Vertical format). This screen is widely used, for example, in architectural photography.



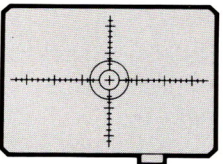
FS-4 Split-Image/Microprism Collar Screen: Combining the advantages of both types of screens, this allows the photographer to employ the 45° split-image focusing aid for subjects with sharp lines, or the microprism collar for general-area focusing sharpness.



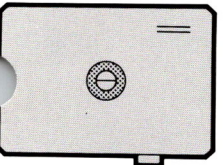
FS-5 Matte Screen: This screen has an overall, uniform matte field that allows critical focusing over wide areas. It is especially useful with certain long focal-length lenses.



FS-6 Sectioned Matte Screen: This screen too has an overall matte field, but also features cross-section horizontal and vertical lines that can be exceptionally useful in checking perspective or proportions, or insuring proper alignment of horizons.



FS-7 Cross-Scale Screen: An overall matte field featuring vertical and horizontal cross-scale aids that allow the photographer to make size comparisons, proportional checks, etc.

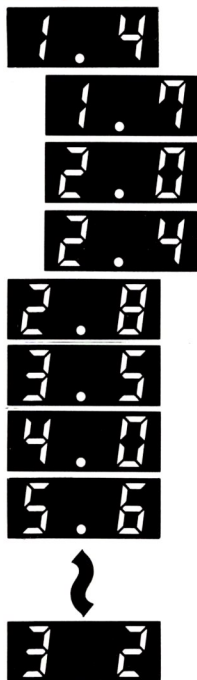


FS-41 Horizontal Split-Image/Microprism Collar w/Data Position: This is a new screen specially adapted for use with the RTS II Quartz Data Back. The horizontal split-image and microprism collar focusing aids insure sharpness, while a special section of the screen indicates where data will be imprinted in the frame.

Note: All FS Type Focusing Screens for the RTS II Quartz come with handling tweezers included.

Digital Information On Camera Status

LED Viewfinder Data Display



*Digital Aperture Display
in intermediate steps.*

An invaluable aid to the photographer is the full information on operating conditions available through the bright, red LED data display in the viewfinder of the RTS II Quartz. Information displayed in the viewfinder includes: Shutter Speed, Aperture, AE or Manual Mode, AE Lock Operation, Exposure Compensation Use, Flash Unit 'Ready' Indicator, Proper Flash Exposure Indication, Over-Exposure Warning and Battery Check. To guard against exposure failure due to lack of battery power, the RTS II Quartz provides advance warning before battery level drops below requirements. When the LED display flickers at slow, one-second intervals, this indicates that batteries should be replaced as soon as possible.

Shutter speeds are displayed by an advanced numerical LED system throughout the entire range from 1/2000 sec. to 4 sec. and "B" setting. (Note: full-second shutter speeds are indicated by "1S", "2S", "4S") this shutter speed display is shown on the right side of the frame. Aperture display is also by digital LED, at the bottom of the frame, in intermediate steps of f/1.2, 1.4, 1.7, 2.0, 2.4, 2.8, 3.5, 4.0, 4.5, 5.6, 6.5, 8.0, 9.5, 11, 13, 16, 19, 22, 27, 32. (Note: display will read "1.4" continuously with lenses of maximum aperture f/8.0 or smaller. However, AE exposure determination will be accurate.) With the RTS II Quartz in AE mode, the shutter speed indication will be by a steadily-lit LED; in Manual mode, the photographer must adjust shutter or aperture to 'match' two LEDs, one flashing at the set shutter speed, the other steadily-lit at the speed recommended by the camera's exposure system. By aligning these LEDs until only one (flashing) shows, the photographer can adjust for a perfectly exposed photograph. With the RTS II Quartz in AE mode, use of the AE Lock function is indicated in the viewfinder by the shutter speed LED flashing, rather than steadily-lit. This insures that the photographer will remember to turn off the AE Lock after use. Use of the Exposure Compensation function is indicated by "+" and "-" LEDs (for increased or decreased exposure) situated to the right of the aperture indicator at the bottom of the frame.

Whenever a TLA Auto Flash unit is attached to the camera and ready for use, a steadily-lit green arrow LED will appear above the "OVER" indicator at the top right side of the frame. This same LED will flicker after a flash exposure if the exposure has been accurate.

When the "OVER" LED above the shutter speed display lights, the camera is warning of possible over-exposure of the scene. The photographer must adjust to a smaller aperture setting to guarantee proper exposure.

Battery power is conserved by the RTS II Quartz by the simple means of not lighting up the viewfinder LED data display unless it is needed. With the camera switched 'ON' (by the Main Switch atop camera) the photographer must press the Exposure Check Button located on the front of the camera body. This turns on the LED display for a period of 16 seconds, after which it will automatically turn off unless the photographer once again presses the button.

For easy visibility under any lighting conditions, the viewfinder LED data display features a special, automatic two-stage control which brightens or dims the LED indicators, depending on ambient lighting conditions.

Exposure Check Function

Two-Stage LED Data Display Intensity

The Shutter

Contax RTS II
QUARTZ

High Speed Performance With Total Consistency

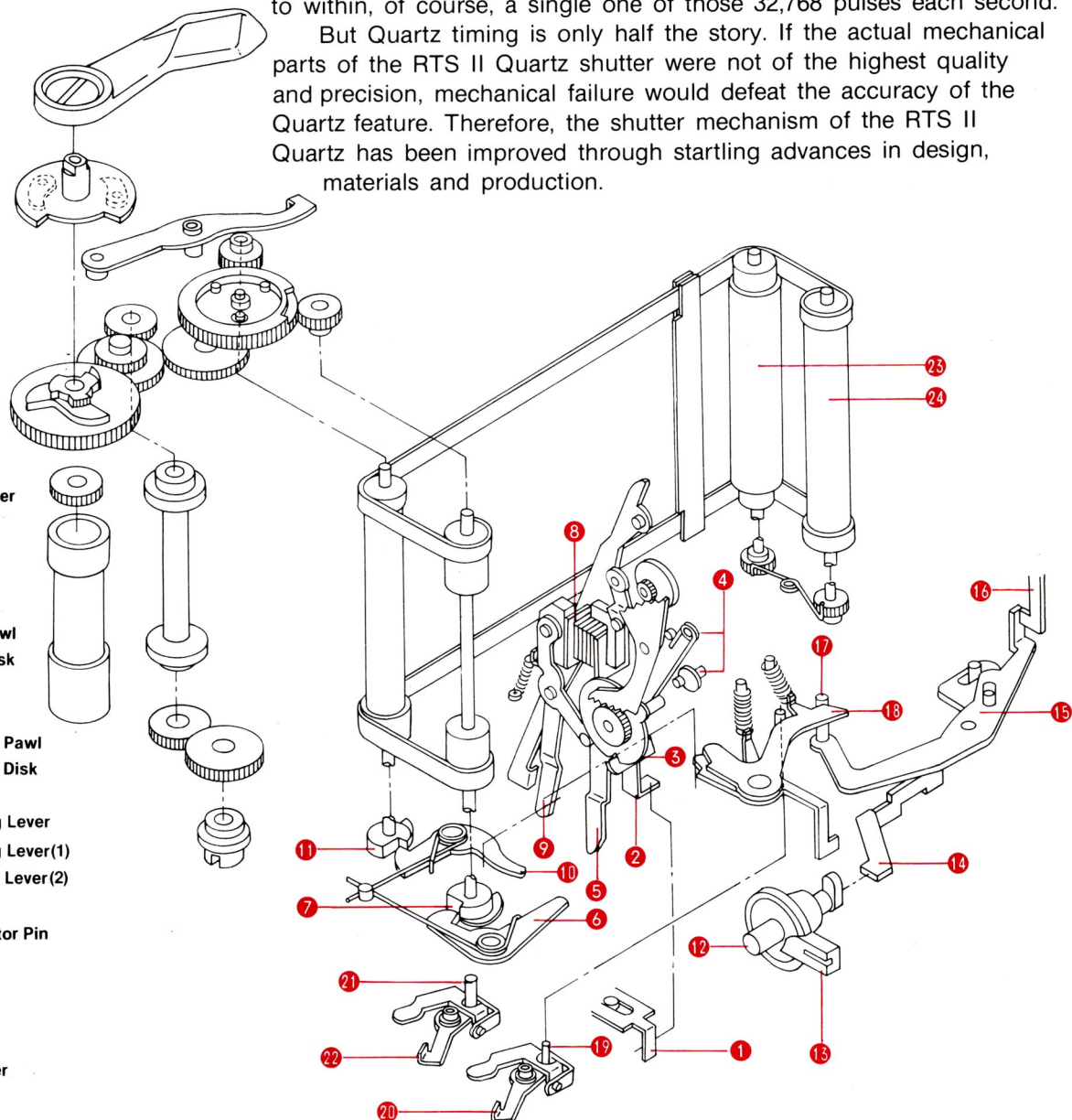
One of the most difficult tasks of the camera designer is to come up with a shutter mechanism that will give accurate and consistent results at high speeds. The original Contax RTS design went a long way to solving this problem, by providing for separate charging of the individual shutter curtains and their start-of-motion from identical positions.

Now, the RTS II Quartz has finished the job and produced a shutter mechanism that operates with total accuracy, consistency and reliability even at its top speed of 1/2000 sec.

Naturally, an important factor in this advanced shutter mechanism is the use of the Quartz Crystal Element to time all shutter speeds. This Quartz element pulses at a rate of 32,768 sec. to provide timing accuracy and consistency that are a quantum leap beyond any mechanical timing process. Whether set manually by the photographer, or automatically by the camera's CPU, the same shutter speed command will always result in precisely the same shutter speed, at any part of the range, with accuracy to within, of course, a single one of those 32,768 pulses each second.

But Quartz timing is only half the story. If the actual mechanical parts of the RTS II Quartz shutter were not of the highest quality and precision, mechanical failure would defeat the accuracy of the Quartz feature. Therefore, the shutter mechanism of the RTS II Quartz has been improved through startling advances in design, materials and production.

- 1 Mirror Box Trigger Linkage Lever
- 2 Trigger Disk Hook
- 3 Trigger Disk
- 4 Trigger Switch
- 5 Primary Curtain Trigger
- 6 Primary Curtain Tensioning Pawl
- 7 Primary Curtain Tensioning Disk
- 8 Switch Magnet
- 9 Secondary Curtain Trigger
- 10 Secondary Curtain Tensioning Pawl
- 11 Secondary Curtain Tensioning Disk
- 12 Depth-of-Field Preview Button
- 13 Mechanical Shutter Switching Lever
- 14 Mechanical Shutter Activating Lever(1)
- 15 Mechanical Shutter Activating Lever(2)
- 16 Mirror Box Release Lever (2)
- 17 Mechanical Tensioning Actuator Pin
- 18 Mechanical Tensioning Lever
- 19 X Sync. Contact Pin
- 20 Primary Curtain Brake Lever
- 21 Quick Return Signal Pin
- 22 Secondary Curtain Brake Lever
- 23 Primary Curtain Spindle
- 24 Secondary Curtain Spindle



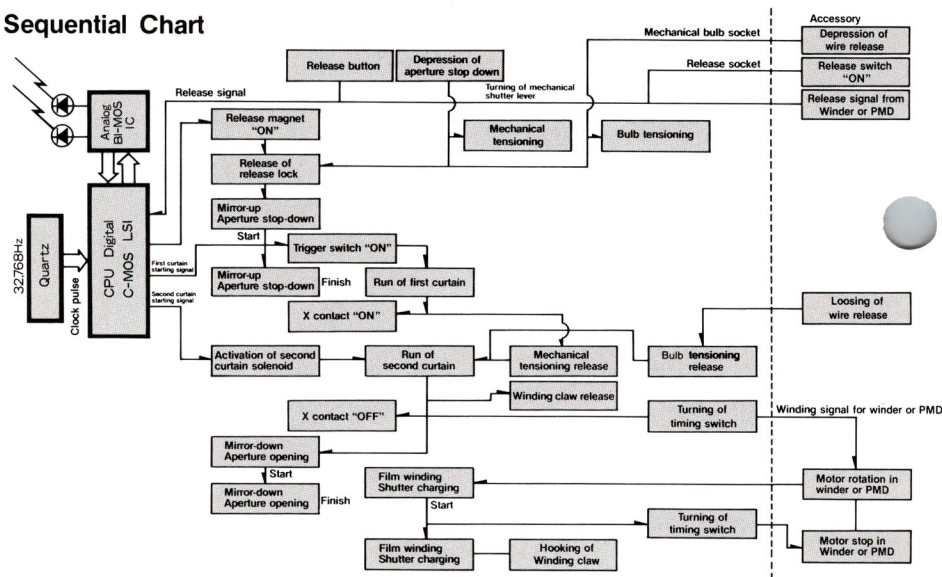
Special Titanium shutter curtains with a thickness of just 0.015 mm are used in the RTS II Quartz, reducing total shutter curtain weight to just half that of standard cloth curtains. These Titanium curtains are extremely resistant to temperature changes, so that they are exceptionally consistent in performance under conditions of extreme heat or cold. In addition they are amazingly durable, contributing greatly to the reliability of the RTS II Quartz and its general lack of any repairs.

A special declutching mechanism cuts off all unrelated parts movement after the shutter has been cocked, in order to lighten the shutter curtain travel and eliminate timing inconsistencies due to inertia. The shutter operates completely independently of mirror motion and all gear operations. Friction is reduced to virtually no effect by the use of ball bearings at six vital points.

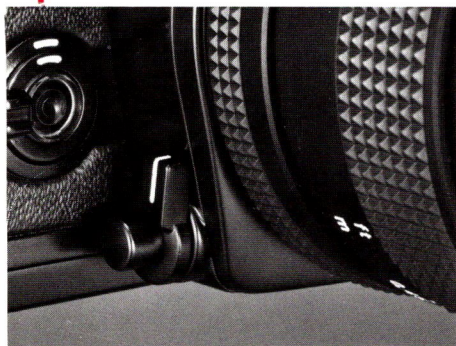
And, of course, as with the original RTS, all mechanical engagements are released and the secondary shutter curtain switched to electromagnetic hold when the release system is activated. This prevents any braking action and insures that even at 1/2000 sec., the primary and secondary curtains maintain an absolutely consistent slot.

In order to maintain consistent and reliable operation, particularly at high speeds, the shutter curtains must be well protected against shock after they complete their traverse. An advanced design of the RTS II Quartz shutter is the use of a wedge-shaped shutter brake, which is highly effective in damping shock during the braking of the curtains. This wedge-shaped design significantly reduces shutter wear, and contributes to consistency at high speeds.

Sequential Chart



Smooth Electromagnetic Release With Mechanical Options



The RTS II Quartz employs the same electromagnetic release system used in the original Contax RTS, with its feather-touch 0.7 mm stroke keeping hand-held movement and vibration to a bare minimum.

However, should the photographer suddenly be faced with the loss of battery power, and no replacement battery available, two mechanical options are incorporated into the RTS II Quartz so that operation can continue.

① Mechanical 1/50 Shutter Option

To use the mechanical 1/50 sec. shutter speed, the photographer simply turns the Mechanical Release Lever (at the base of the Depth-of-Field Preview Button) to the horizontal position. Now, the Depth-of-Field Preview Button is a standard mechanical shutter release, which will provide shutter operation at 1/50 sec.

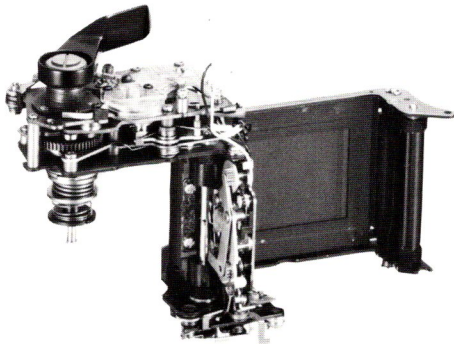
② Mechanical B Shutter Option

Mechanical operation of the shutter at B setting is possible by threading a standard cable release into the mechanical release socket located opposite the Depth-of-Field Preview Button, across the lens mount at the lower front of the camera body. With this cable release connected, it can be used to operate the shutter at B setting, ideal for conserving battery power during long exposures (as in astrophotography, etc.).

The Mechanism

Contax RTS II
QUARTZ

Precision Finished Rotary Parts

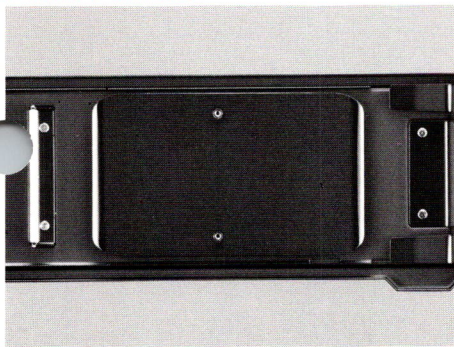


Most mechanical movement within the RTS II Quartz body is rotary in nature, involving shafts and/or levers. Eliminating friction in the movement of such parts contributes significantly to both increased accuracy and improved durability.

Therefore, all shaft bearings in the camera body are given a special honing after nitriding finishes have been accomplished. Levers also receive a nitriding finish and special precision honing, or a surface finish following a carburized hardening process.

These finishes guarantee that the performance of each individual part will be at an optimal level, and that accuracy and consistency will not suffer due to wear.

Absolute Flatness Of Film Plane



In a major sense, the task of the RTS II Quartz camera body is to display the extraordinary optical performance of the Carl Zeiss T* lens line. The color contrast and resolution properties of these lenses can be fully displayed only if the vital film plane is maintained perfectly flat.

To achieve this, the RTS II Quartz employs an extra-wide film pressure plate, supported by a double-construction back cover. The wider pressure plate keeps film completely flat, while the large-diameter winding spool helps to prevent irregular film curling.

Smooth Film Transport & Light Winding

To assure smooth film transport without external pressure, a special clutch mechanism is employed within the film rewind crank. This clutch mechanism operates to provide free movement of the rewind spool. A similar clutch acts to free the take-up spool during film rewind, reducing rewind torque to only half that of the original RTS.

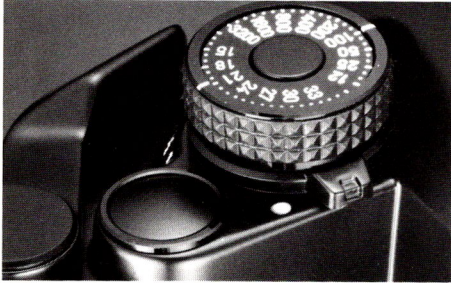
Double construction and lengthening of the rewind shaft promises smoother rotation, aided by a rounding of the film guide rail edges. Tiny ball bearings are employed at 13 spots (7 winding shaft bearings and 6 in the shutter mechanism) for a generally smoother wind/rewind operation.

Fixed-Speed 1/60 Shutter During Film Loading

When a roll of film is loaded into the RTS II Quartz, the photographer must advance the film, after closing the back, to the (1) indication in the frame counter. Since this is often done in the shade, with the camera pointed downward, AE mode shutter speeds are over-ridden and the shutter operates at a constant 1/60 sec. until the initial (1) film frame has been reached

The Controls

Main Switch



The Main Switch is controlled by a lever at the base of the Exposure Compensation Dial (camera top plate). Turning the switch On activates the electronic functions of the camera. When the switch is Off, all power is cut off and the shutter release and LED data display will not operate. This contributes to the prevention of accidental battery power drain and shutter release when carrying the camera from location to location.

Shutter Dial Lock



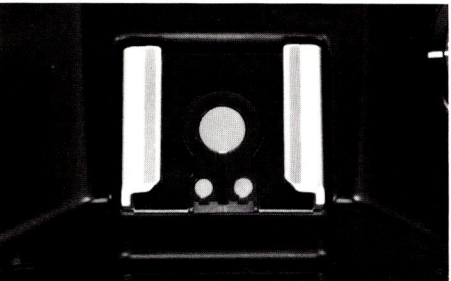
The Shutter Dial of the RTS II Quartz revolves 360° in either direction, but locks in place at the A (AE mode) and X (flash synch) settings. A lock release button built into the camera must be pressed to release the dial from these two positions.

Quartz Self-Timer



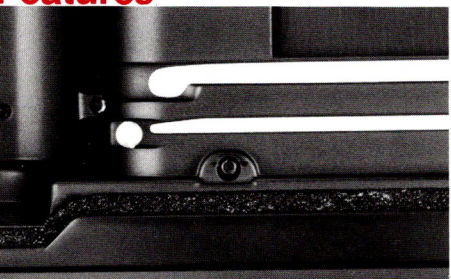
The RTS II Quartz features a Self-Timer with a precise 10-second delay timed by the camera's Quartz element. This Self-Timer can be reset or cancelled at any time during operation, which is signalled by a flashing red LED which accelerates during the final two seconds before shutter release.

Accessory Shoe



The Accessory Shoe atop the RTS II Quartz pentaprism provides connections for TLA System flash operation, and can also be used as a standard hot-shoe for other flash units.

Additional Controls & Features



Other controls and features of the RTS II Quartz, not explained in detail in other sections of this guide, include:

Data Back LED which transmits signals to the Quartz Data Back D-4 through cordless operation.

Screw-In Terminals for electromagnetic release accessories and PC flash synchronization cords.

Specifications

Contax RTS II
QUARTZ

Type:	35 mm single-lens reflex featuring Auto/Manual exposure modes and Quartz-timed operation.
Image Size:	24 × 36 mm
Lens Mount:	Contax/Yashica 3-claw bayonet mount.
Standard Lens:	Carl Zeiss Planar T* f/1.4 50mm (f/1.7 50 mm)
Shutter:	Quartz-timed, electronically operated horizontal travel Titanium focal plane shutter.
Shutter Speeds:	1/2000 sec. to 16 sec. in Auto mode; 1/2000 sec. to 4 sec. in Manual mode, with "B" and "X" (1/60 sec.). [Note: Mechanical shutter operation possible at 1/50sec. and "B" without battery power.]
Flash Synchronization:	X-synch at 1/60sec. (or slower) via direct hot-shoe or X-synch terminal.
Self-Timer:	Quartz-timed electronic self-timer with 10-sec. delay, cancellable or resettable during operation. LED flashes during operation, accelerating 2sec. before shutter release.
Shutter Release:	Real Time Electromagnetic Release System (with off-camera control options via Release Socket).
Exposure Control:	Through-the-lens (TTL) center-weighted metering at full aperture via Silicon Photo Diode (SPD) cell. Aperture-priority AE mode in EV range -1 (f/1.4 at 4 sec.) to 19 (f/16 at 1/2000 sec.) at ASA 100, f/1.4 lens. Manual override and control.
ASA Range:	12-3200
TLA Auto Flash Control:	With Contax TLA system, separate SPD cell reads flash exposure directly at film plane; 'Fail-Safe' control of flash/shutter synchronization. X-synch terminal for all non-TLA electronic flash units.
Exposure Check Button:	+2EV—2EV with click-stops every 0.5EV.
EV Lock:	Activated by lever, locks in EV setting.
Viewfinder:	Eye-level, pentaprism type showing 97 % of picture area at 0.87X magnification. Eyepiece shutter to block out extraneous light during remote control.
Focusing Screens:	Microprism standard, seven optional screens available.
Viewfinder Display:	Numerical LED array indicating shutter speed, aperture, exposure compensation use (+, -), over/under warning, TLA flash status.
Film Advance:	Single 120° stroke (20° stand-off) or several short ratchet actions.
Film Rewind:	By clutch-action rewind crank after rewind film release button is pressed.
Exposure Counter:	Auto resetting type, accumulative. [Camera will automatically set 1/60 sec. shutter speed until counter advances to '1' except at manual "B" shutter speed.]
Multiple Exposures:	Possible by depressing film rewind button.
Accessory Shoe:	Direct X-synch hot-shoe with Contax TLA capability.
Camera Back:	Interchangeable type, film memo holder.
Depth-of-Field Preview:	Button operated (button doubles as mechanical 1/50 sec. shutter release).
Mirror Lock:	Lever operated.
Power Source:	6.2 V silver-oxide battery (4SR44) (Eveready 544, Ucar 544, Mallory PX28 or equivalent) or 6 V alkaline-manganese battery (4LR44).
Battery Check:	Low power level indicated by slow flickering of viewfinder LED data display.
Other Features:	Fixed-speed 1/60 shutter operation during wind-on to frame (1); couplings for motor drive and winder; LED for Data Back application.
Size:	142 × 89.5 × 50 mm (5-9/16 × 3-1/2 × 2 in)
Weight:	735 grams (w/o battery) (25.93 oz)

*All specifications and designs are subject to change without notice.

The Accessories

CONTAX
Real Time System



New Real Time Winder (W-3)



To complement the improved capabilities of the new Contax RTS II Quartz, Contax also offers a new Real Time Winder, the W-3 model. The most visible new feature of the RTW W-3 is its grip-style design for easier handling and greater convenience. The winder incorporates two electromagnetic shutter releases, one on the grip itself and one on the winder body for faster, surer operation in the vertical format. In addition, the camera's own release may be employed, providing three ways to operate the camera/winder unit.

Internally, the RTW W-3 features improved electronic circuitry and greater power, sufficient to provide a maximum operating rate of three frames/second, equal to that of many motor drive units.

This new winder also features a design improvement allowing easier and more convenient handling. Battery replacement is now made via a side-insertion battery holder, so that the camera/winder unit need not be removed from a tripod to change batteries.

[Note: the RTW W-3 can be used with the Contax RTS body.]

W-3 Specifications:

Film Drive Modes:	Single-Frame or Continuous (at three frames/second). Usable at all shutter speeds, in AE or Manual modes.
Maximum Operating Speed:	Three frames/second (Continuous).
Auto Stop System:	Power is automatically cut off when end of film is reached; indicated by LED.
Shutter Release:	Operation by two built-in Shutter Release buttons (for vertical and horizontal formats) or by the camera body Shutter Release button.
Operation Checks:	Battery/Operation check button.
Power Sources:	① Six 1.5 V AA-size batteries (Ni-Cd batteries usable), side-loading ② External Power with RTW Power Pack utilizing either AA-size batteries or RTW Ni-Cd Pack.
Remote Control Accessories:	Contax Cable Switches, Contax Infrared Controller S Set, Contax Radio Controller Set.
Size:	152 × 79 × 64 mm (6 × 4-1/8 × 2-1/2 in)
Weight:	360 grams (w/o batt.) (12.7 oz)

**Specifications and design are subject to change without notice.*

New Professional Motor Drive Unit W-6



The heart of any professional quality 35 mm SLR camera system is a professional quality motor drive unit. Contax recognized this from the start, and introduced the original Professional Motor Drive unit with the original RTS camera body as an integrated part of the total Real Time System.

Now, with the introduction of the new RTS II Quartz, Contax has also developed a new Professional Motor Drive unit, the W-6 model, which integrates completely with the new camera body. There are no visible differences to mark the new PMD W-6, but considerable improvements have been made in the internal circuitry of the unit, to offer added voltage stabilization.

In all other respects the PMD W-6 is identical in features and specifications to the original PMD, offering the same five frames/second maximum performance and the total integration that allows Real Time operation together with the camera. In addition to the maximum rate, the PMD W-6 allows the photographer to select the shooting rate via a built-in intervalometer offering settings from 60 seconds to 30, 10, 5, 2 and one second, along with five, three or two frames/second sequential operation. The PMD W-6 can also be fitted with the convenient 250 Film Back for extended shooting. The Motor Drive unit operates via the camera's release button or by its own built-in shutter release, or through the use of the PMD Power Pack release or other Real Time System off-camera control accessories.

W-6 Specifications:

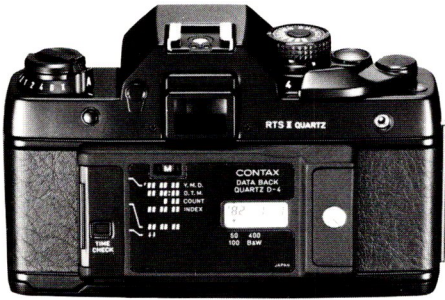
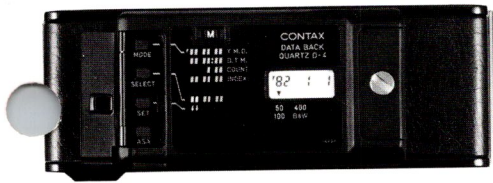
Type:	Grip-type motor drive with built-in intervalometer.
Mounting:	Direct to camera body via tripod socket.
Operating Speeds:	Five frames/second at (Intervalometer's) "H" setting; 3f/s at "1/3", 2f/s at "1/2"; additional settings for 1, 2, 5, 10, 30 & 60 second intervals; single-frame release at "S" (60-second) setting.
Shutter Release:	Sequential via built-in release buttons on PMD or Power Pack, single-frame via camera body release. All Contax remote control accessories usable.
Sequential Flash Capability:	Maximum of five flashes/second when used with Real Time Flash 540 unit.
Film Capacity:	36 exposures (250 exposures with special 250 Film Back accessory.)
Frame Counter:	36-frame subtractive-type with lock; manually reset.
Power Sources :	① PMD Power Pack utilizing two PMD Battery Cases (each holding six AA-size cells) ② AC Control Box (120 V & 220 V models available).
Remote Control Accessories:	Contax Cable Switches, Contax Infrared Controller S Set, Contax Radio Controller Set, AC Control Box.
Size:	149 × 98.5 × 65.6 mm (5-7/8 × 3-7/8 × 2-9/16 in)
Weight:	430 grams (15.2 oz)

PMD Power Pack Specifications:

Power Source:	12 AA-size batteries (18 V) installed in two PMD Battery Cases.
Battery Check	Built-in meter-type battery check.
Other Features	3P terminals for connecting the PMD Control Cord and tripod socket.
Size:	149 × 72 × 36 mm
Weight:	250 grams (w/o batteries)

**Specifications and design subject to change without notice.*

New Data Back Quartz D-4

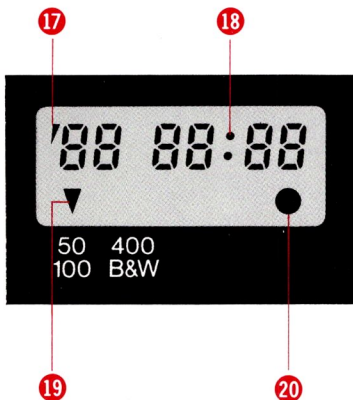


A new and more advanced data back, the Contax Data Back Quartz D-4, has been developed for dedicated use with the new Contax RTS II Quartz camera body.

The Data Back Quartz D-4 offers a number of improvements and new features, starting with cordless operation and connection to the camera body. Internally, the most advanced feature added to this new unit is a built-in Quartz Timing Device operating at the same 32,768-pulse rate. The Quartz Timer allows the Data Back Quartz D-4 to provide a highly precise Date/Hour/Minute imprint, accurate to within $\pm 15''$ /month, along with the conventional Year/Month/Date capability set by the photographer. Other modes of use possible with the Data Back Quartz D-4 include auto serial counting from 000 to 399, and numerical, six-digit code indication. The unit can also be set in a non-record mode. In the Date/Hour/Minute mode, operation is fully automatic, with the Quartz Timer providing the proper settings (leap years taken into account). Other features of the Data Back Quartz D-4 include: two-stage ASA adjustment, built-in auto battery check circuit, time check indication, external LCD operation check indication. The Contax Data Back Quartz D-4 is powered by two batteries of the SR44 (3.1 V) or LR44 (3 V) type. Data can also be imprinted manually by pressing the Manual Inprinting Button.

Description of Parts

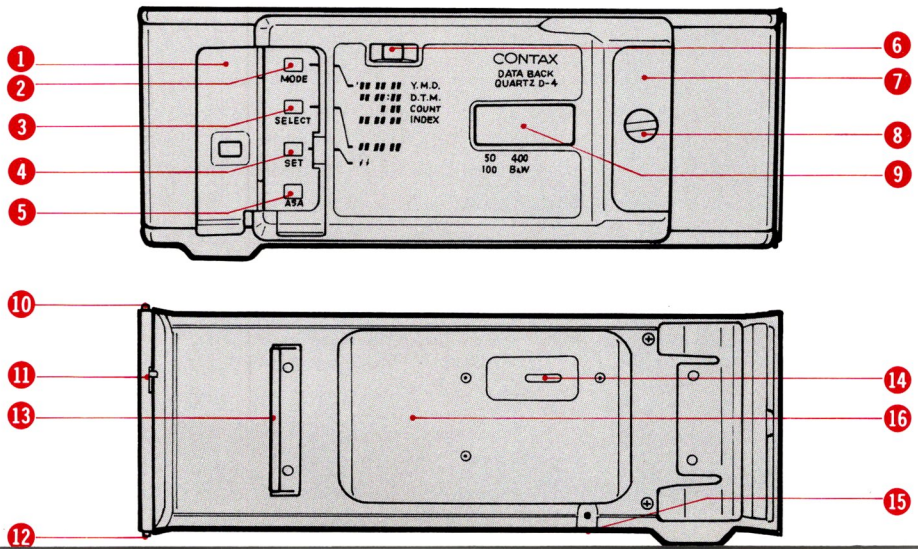
- 1 Counter Cover
 - 2 Mode Button
 - 3 Select Button
 - 4 Set/Time-Check Button
 - 5 Film Speed Button
 - 6 Manual Inprinting Button
 - 7 Battery Compartment Cover
 - 8 Retaining Screw
 - 9 Display Window
 - 10 Hinge Pin
 - 11 Release Lug
 - 12 Hinge Pin
 - 13 Film Pressure Roller
 - 14 Data Imprinting Window
 - 15 Sensor
 - 16 Film Pressure Plate
- (Display Window)**
- 17 Pulsating mark indicating YMD Mode in effect.
 - 18 Pulsating mark indicating DTM Mode in effect.
 - 19 Film speed index
Comes on to indicate speed rating of loaded film.
 - 20 Imprint confirmation mark
Comes on (for one sec.) only when data is being imprinted. Indicates that data has been imprinted on film.



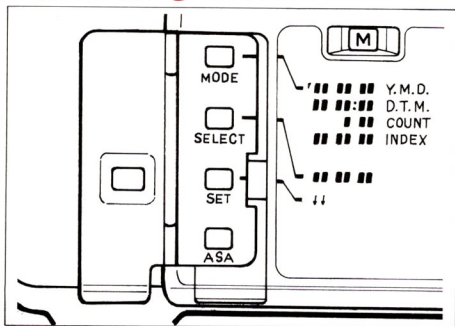
D-4 Specifications:

- Type:** Seven-segment LCD (liquid crystal diode) projection data back with built-in Quartz timing device.
- Operating Modes:** Year/Month/Date; Data/Hour/Minute; Serial Counting; Six-Digit Coding. (Non-record mode also settable)
- Recordable Data:** Year/Month Date
Date/Hour/Minute
Serial Counting (000-399)
Six-Digit Coding (00-00-00—99-99-99)
- Data Location:** Lower right corner of frame.
- Recording Method:** Direct LCD projection onto film (Monitor & Photo LCDs operate in parallel). [Data Imprint Button can be used for manual operation.]
- ASA Selection:** Two-step adjustment.
- Operating Checks:** Time check and battery/operating check.
- Power Source:** Two batteries, SR44 (3.1 V) or LR44 (3 V).
- Size:** 142 × 55 × 23.5 mm
(5-9/16 × 2-3/16 × 15/16 in)
- Weight:** 100 grams (w/o batt.)
(3.6oz)

*Specifications and design are subject to without notice.



Operating Controls



The Imprinting mode is selected by using the "MODE" button, and resetting of the data and time is accomplished using the "SELECT" and "SET" buttons. The "ASA" button is used to select the exposure level for imprinting on the film. The button cover can be opened by lifting up on the fingernail catch located on lower end of the cover.

"MODE" Button

This button is used to select the imprinting mode. Each time the button is depressed, it will select each one of the following modes in succession: "YMD", "DTM", "COUNT", "INDEX" and "NO IMPRINTING", and indicate the respective mode data in the digital display window.

"SELECT" Button

This button is used to select the digits to be corrected, applicable to all modes, up to two digits at a time. Only the digits selected for correction will begin to flicker while all other displayed digits will stay on steadily.

- When in the "SELECT" mode, depressing of the "MODE" button will not change the data shown in the digital display window.
- When in the "SELECT" mode, the data back will not imprint.

"SET" Button

With each depression of the button, the digit concerned is advanced to the next number. When continuously depressed, the button will fast forward the digit to the next series of numbers. Hold down the button until the desired number is nearly reached, then adjust to the desired number by advancing one number at a time with each depression of the button.

- Upon completion of the adjustment, the data back will, after a lapse of two or three minutes, automatically clear from the "SET" mode and revert to its regular mode.

"TIME CHECK" Function: When the "SET" button is depressed at times for other than adjusting, it will indicate the DTM data. Regardless of the mode (including "NO IMPRINTING") in effect, this button will indicate the "Day-Hour-Minute" data for as long as it is kept depressed.

"ASA" Button

This button is used to select the exposure level for imprinting, based on the speed rating of the loaded film. With each depression of the button, the film speed index mark " " will alternately indicate "50 100" and "400 B&W". The button can be set using the following information as a guide.
 For color film up to ASA/ISO 200 "50 100".
 For color film over ASA/ISO 200 and B&W film "400 B&W".

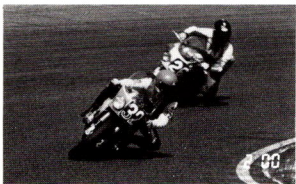
Imprinting Mode



'83 10 10



10 17:25



2 00



00 00 16

<Year-Month-Day (YMD)> Mode

In the YMD mode, the Year-Month-Day data, as read from left-to-right order in the display window, is imprinted exactly as thus displayed. In this mode, the " " mark appearing to the left of the Year data flickers. The "Year" data is indicated showing the last two digits of the Gregorian calendar year. Example: 1983 October 10 is indicated as '83 10 10

<Day-Hour-Minute (DTM)> Mode

In the DTM mode, the Day-Hour-Minute data, as read from left-to-right order in the display window, is imprinted exactly as thus displayed. In this mode, the ":" mark appearing between the "Hour" and "Minute" data flickers. The "Hour" is indicated on a 24-hour basis so "5 pm" is shown as "17". Example: Tenth day, 5:25 pm is indicated as 10 17:25

<COUNT> Mode

Being coupled to the film imprinting function, the figure shown in the COUNT mode advances to the next number whenever an exposure is undertaken and is directly imprinted onto the film. This mode allows the imprinting of three digit figures ranging from "000" to "399".

- When shooting in any of the other imprinting modes, the figure will advance to the next number whenever the shutter is released. However, when in the "NO IMPRINTING" Mode, the shots taken will not be registered in the count. Example: When it is set to count from "200", the display will show 2 00.

<"INDEX"> Mode

Because of the flexibility of the numbers at your disposal, you will be able to imprint in any suitable format for dating photographs, or for cataloging research and scientific and other data. It imprints six digit figures ranging from "00 00 00" to "99 99 99" directly onto the film exactly as they are indicated in the display window. Example: A length of 16 cm is expressed as: 00 00 16.

New External Power Pack P-3



Protection against extreme cold is vital to camera batteries. To provide this protection, the new External Power Pack P-3 has been developed for use with the Contax RTS II Quartz. The External Power Pack P-3 provides a considerable increase in battery capacity over the unit used with the original Contax RTS. It accepts four 1.5V AA-size batteries in a case that can be kept warm inside coat or pocket. The battery case is connected to the camera via a silicon-coated, cold-proof cord with a plug that fits into the camera body's battery chamber. The connecting cord is 1.5-meters in length for convenience and versatility.

The new External Power Pack P-3 Set for the Contax RTS II Quartz consists of the Power Adapter, Battery Case and new Power Pack P-3 with Cord and Jacket. This set can also be used with the Contax RTS camera body.

P-3 Specifications:

Camera Connection

Connects to the camera body's battery chamber.

Power Source:

Four 1.5V AA-size batteries.

*Ni-Cd batteries cannot be used.

Cord:

Length; 1.5m Silicon-coated cold-proof cord.



Contax TLA Electronic Flash System The World's Most Sophisticated & Fully Automated

Contax offers the world's most sophisticated and fully automated electronic flash system for completely integrated use with all three Contax SLR cameras, the RTS II Quartz, 137 MD Quartz and 139 Quartz. The Contax TLA Flash System consists of electronic flash units and accessory equipment which provide not only automatic TTL metering of flash exposures, but also 'Fail-Safe' automated control of flash/shutter synchronization. Equipment in the TLA System includes: the Real Time Flash 540 (with TLA Adapter), the TLA flash unit and accessories in the TLA Multi-Flash/Extension System, for off-camera and multiple-flash lighting techniques.



Questions & Answers

Q: What is the main advantage of Quartz timing?

A: Precision!
But to explain slightly, Quartz timing provides shutter speeds that are not only more accurate, but far more consistent than speeds timed mechanically. This, in turn, leads to far more accurate and far more consistent exposure results. In addition, the Quartz timing of camera sequences makes camera operation in general far more reliable and consistent.

Q: Why has the RTS II Quartz been equipped with an EV-based AE Lock system, rather than a standard system that freezes a shutter speed?

A: The primary use of the AE Lock function is in overcoming severe side or back-lighting. In addition, it can be used to standardize exposures, for scientific documentation, etc. Standard AE Lock systems allow the photographer to change aperture settings while shutter speed remains constant, and this can be useful as a means of bracketing exposures. But bracketing can also be accomplished by means of the Exposure Compensation System, so this benefit is merely a duplication. By freezing an Exposure Value, the RTS II Quartz provides an entirely new benefit, allowing the photographer to make a series of exposures at various aperture settings, with exposure consistency, for comparative depth-of-field results.

Q: Why are the Titanium shutter curtains of the RTS II Quartz an improvement over the cloth shutter curtains of the RTS?

A: Primarily due to their lightness, only half the weight of cloth curtains. This reduces tension and contributes to increased reliability in shutter operation.

Q: What makes Titanium curtains more reliable in operation?

A: Their lighter weight reduces inertia and air resistance, while their stiffness improves stability. This is particularly advantageous at high speeds, like the 1/2000 sec. featured by the RTS II Quartz.

Q: Why was a speed of 1/50 sec. selected for the mechanical shutter release option?

A: 1/50 sec. is a particularly suitable speed for general daylight photography, and has the advantage of being able to synchronize electronic flash, as well.

Q: Are there any special advantages to the viewfinder used in the RTS II Quartz?

A: Almost any SLR viewfinder will provide good results in the center area and in good lighting. The advantages of the RTS II Quartz viewfinder are that it provides equally good focusing, right out to the corners of the frame, and that even in poor light it maintains a high brightness level for easier focusing. This can be an important consideration when the photographer has stopped down the lens and is using the Depth-of-Field Preview function.

Q: Why was the change made in the viewfinder LED Display from the previous dot system?

A: The new, digital LED readouts provide two advantages. First, they do not intrude on the picture area, leaving a cleaner image with less distraction. Second, the digital LEDs are easier and faster to read in dim light. The photographer can see the shutter speed indication with a much quicker glance than before.

Q: Is the TTL metering feature of the Contax TLA Flash System really better than standard auto-flash operation?

A: Absolutely! In fact, the direct film-plane metering of flash exposures in the TLA System is far more sensitive than any standard auto-flash. Additionally, it is easier for the photographer to operate, since there is no need to adjust aperture to a 'recommended' setting as with auto-flash units. More importantly, only a system with direct metering like the TLA can provide the accurate flash metering required for macro photography and for slide copying.

Q: What benefit to the photographer is the TLA System's 'Fail-Safe' flash/shutter synchronization?

A: As with so many of the advances made by Contax, the main benefit is simply making things less complicated for the photographer, and requiring less distraction from the task of creating the image. Since all photos will be taken at the 'proper' shutter speed—an X-synch speed if the TLA unit is working, the correct ambient light speed if it is not working—the photographer never has to worry about rechecking speeds. In fact, the 'Flash Ready' warning in the viewfinder display can even be ignored, and the camera will continue to give perfect exposures—flash shots alternating with perfectly exposed non-flash shots.

Q: Are things like block system production and diecast annealing really important?

A: Not to someone who wants to buy a new camera every few years. But the Contax RTS II Quartz is a camera for the pro who expects equipment to stand up to rough treatment, who may be in the studio one day, atop a mountain the next and tramping through jungles a week later. The production processes for the RTS II Quartz produce a camera that we confidently say will last a lifetime with occasional maintenance.

Q: Will the RTS II Quartz function with no battery power at all?

A: Yes, employing mechanical shutter release at 1/50 sec. or B. However, since the full capabilities and system use of the RTS II Quartz to require battery power, it is recommended that a spare battery be carried on locations.

Q: Was the RTS II Quartz camera body designed by Porsche?

A: The Porsche Design Group provided the original RTS body design, with its unique contoured shape and finish. All other Contax camera bodies, including the RTS II Quartz, have been based on this design. The RTS II Quartz body differs from the RTS body only in the addition of a few control functions; the basic body design is identical.

Q: Are there any restrictions on the use of RTS accessories with the RTS II Quartz body?

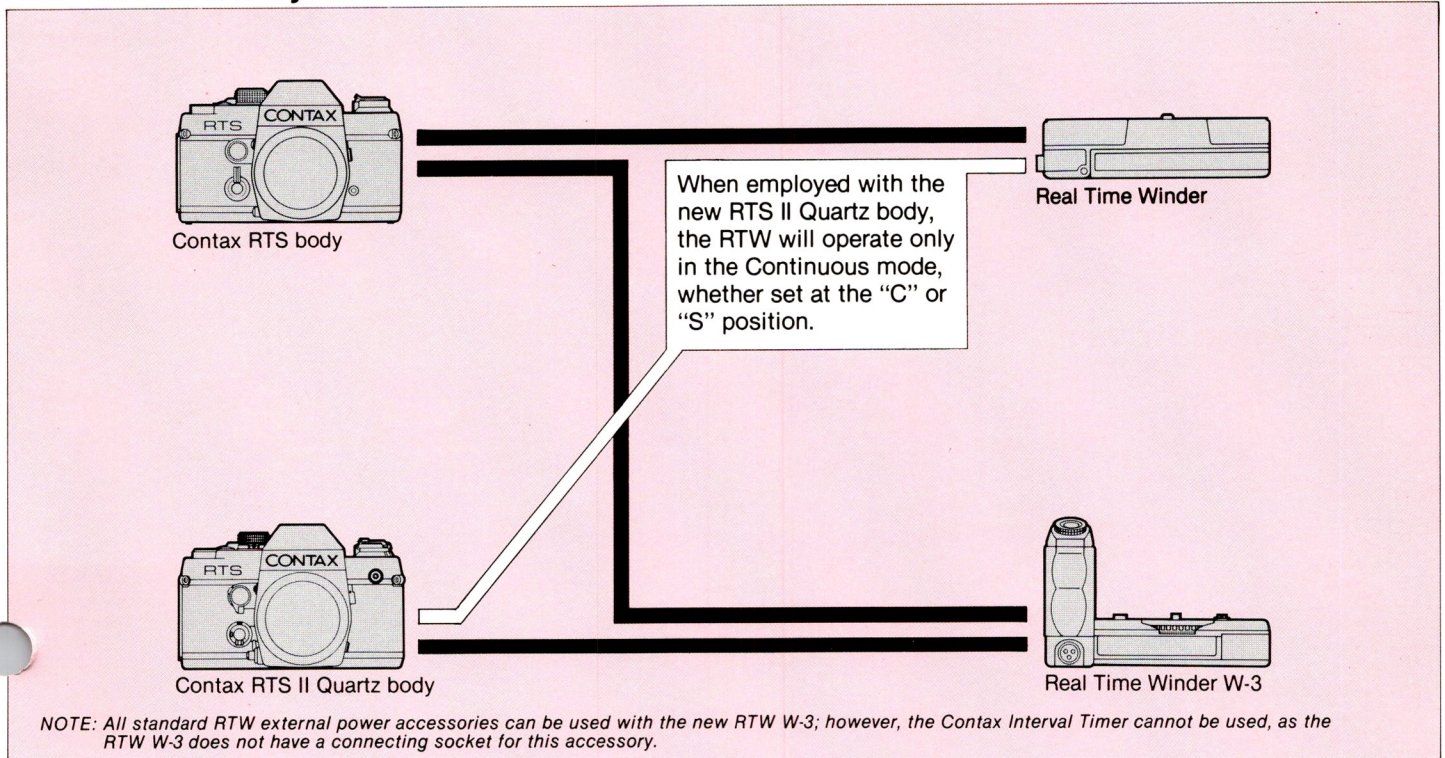
A: All Real Time System accessories can be used with the RTS II Quartz, with the following minor restrictions:

1. Attached to the RTS II Quartz, the previous model Real Time Winder operates only in 'continuous' mode. (Naturally, therefore, the Interval Timer cannot be employed.)
2. When using the previous model Professional Motor Drive with the RTS II Quartz, the power adapter is not used.
3. The RTS Data Back is not compatible with the RTS II Quartz, due to its need for a release socket link.
4. Cable Switches and other accessories linking to the accessory release socket must be of the S-type (139Q & 137 MDQ) series because the RTS II Quartz features a threaded socket.
5. RTS focusing screens are of a different size, and will not fit the RTS II Quartz. These focusing screens are the only accessories which cannot be used with the RTS II Quartz.

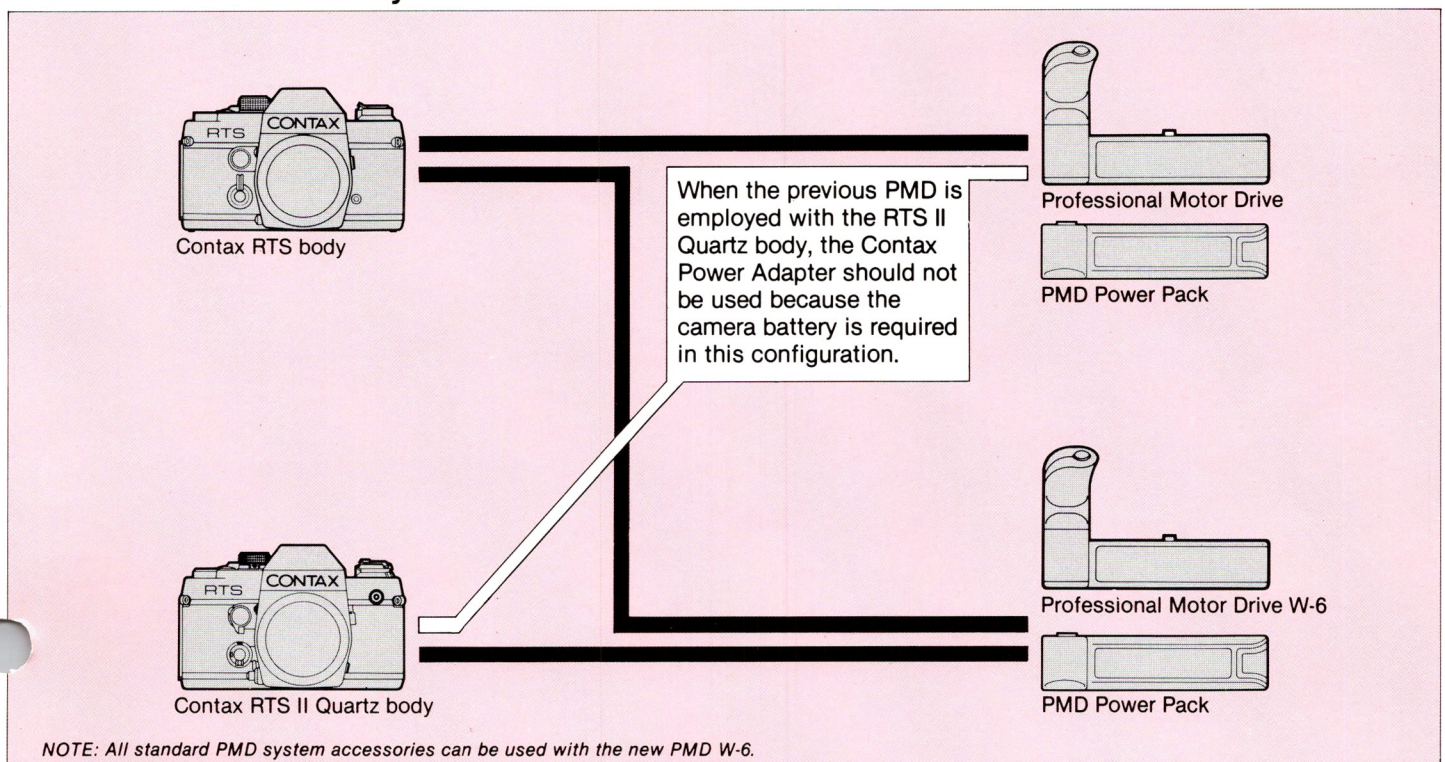
Interchangeability of System Accessories



Contax RTS II
QUARTZ

Real Time Winder System:

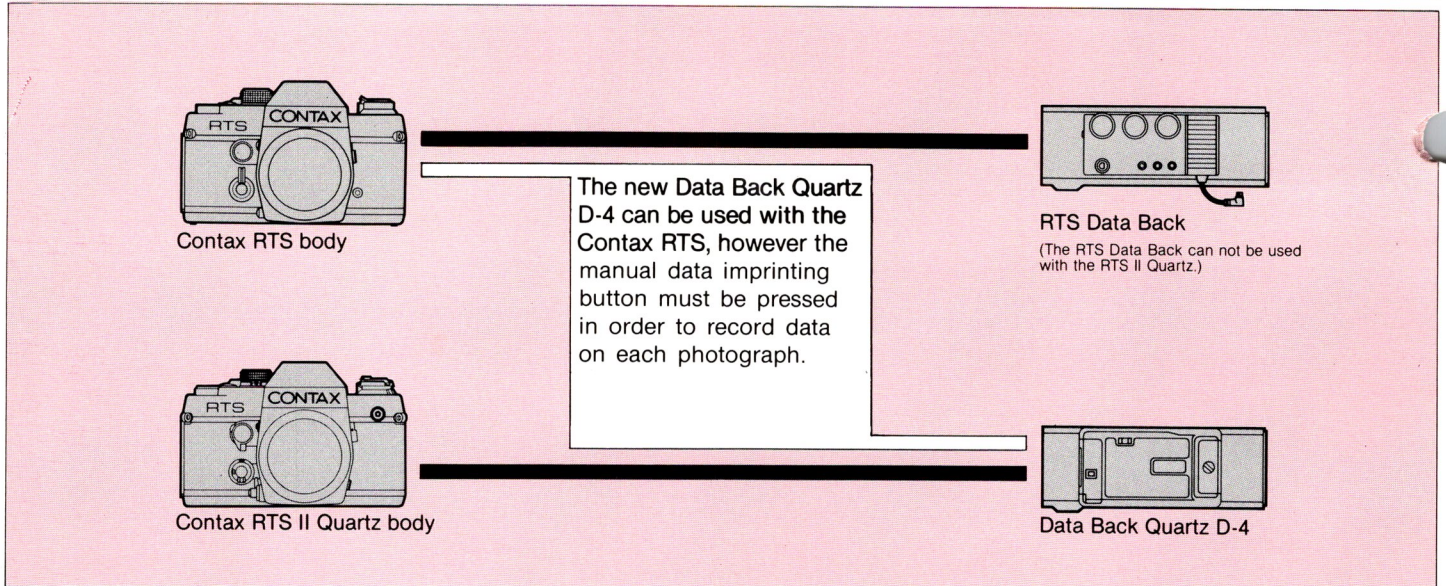


Professional Motor Drive System:

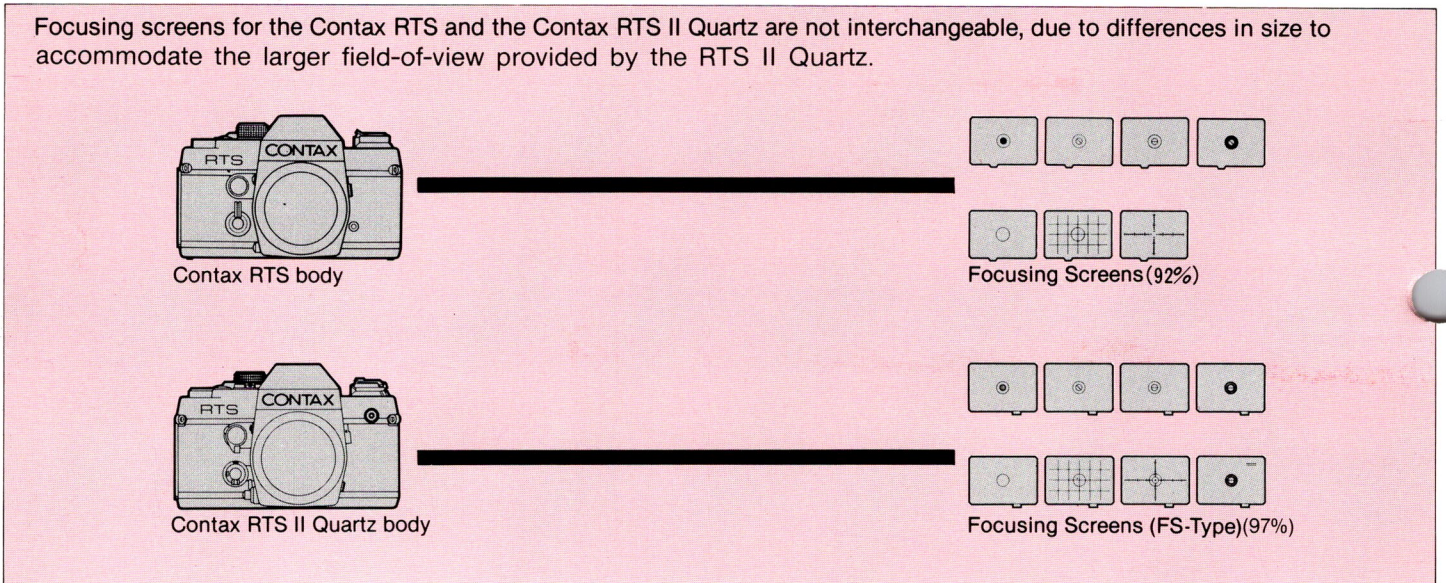


Notes:  indicates full interchangeability
 indicates interchangeability under certain conditions or with certain limitations.

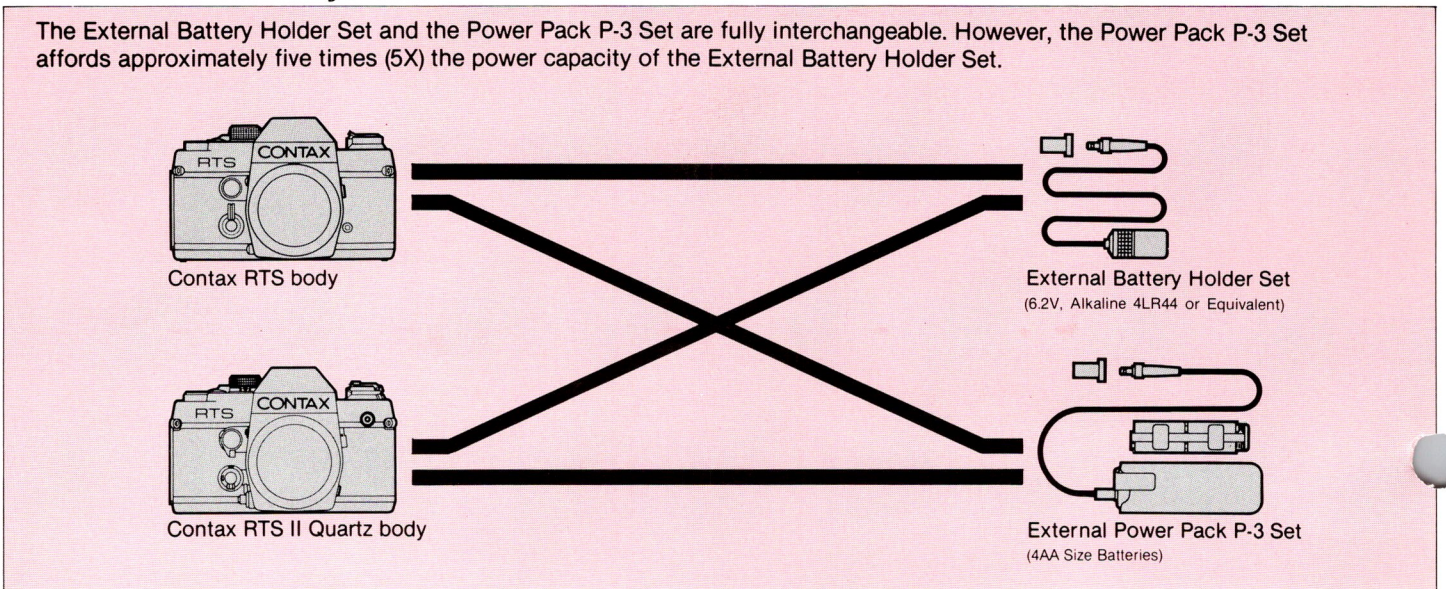
Data Back System:



Focusing Screen System:



External Power Pack System:





RTS

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T*
1925679
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