

# SONY



## DIGITAL STILL CAMERA / PHOTO PRINTER FEATURE GUIDE SPRING 2005

Cyber-shot®

FD Mavica®

CD Mavica®

Picture  
Station



### **Subtlety**

Thanks to Sony's 14-bit Digital EXTended Processing (DXP), the DSC-L1 captures the delicate play of light and shadow on these translucent stairs.

*Actual photo. ISO 100. Shutter 1/25 second. Aperture f/2.8.*

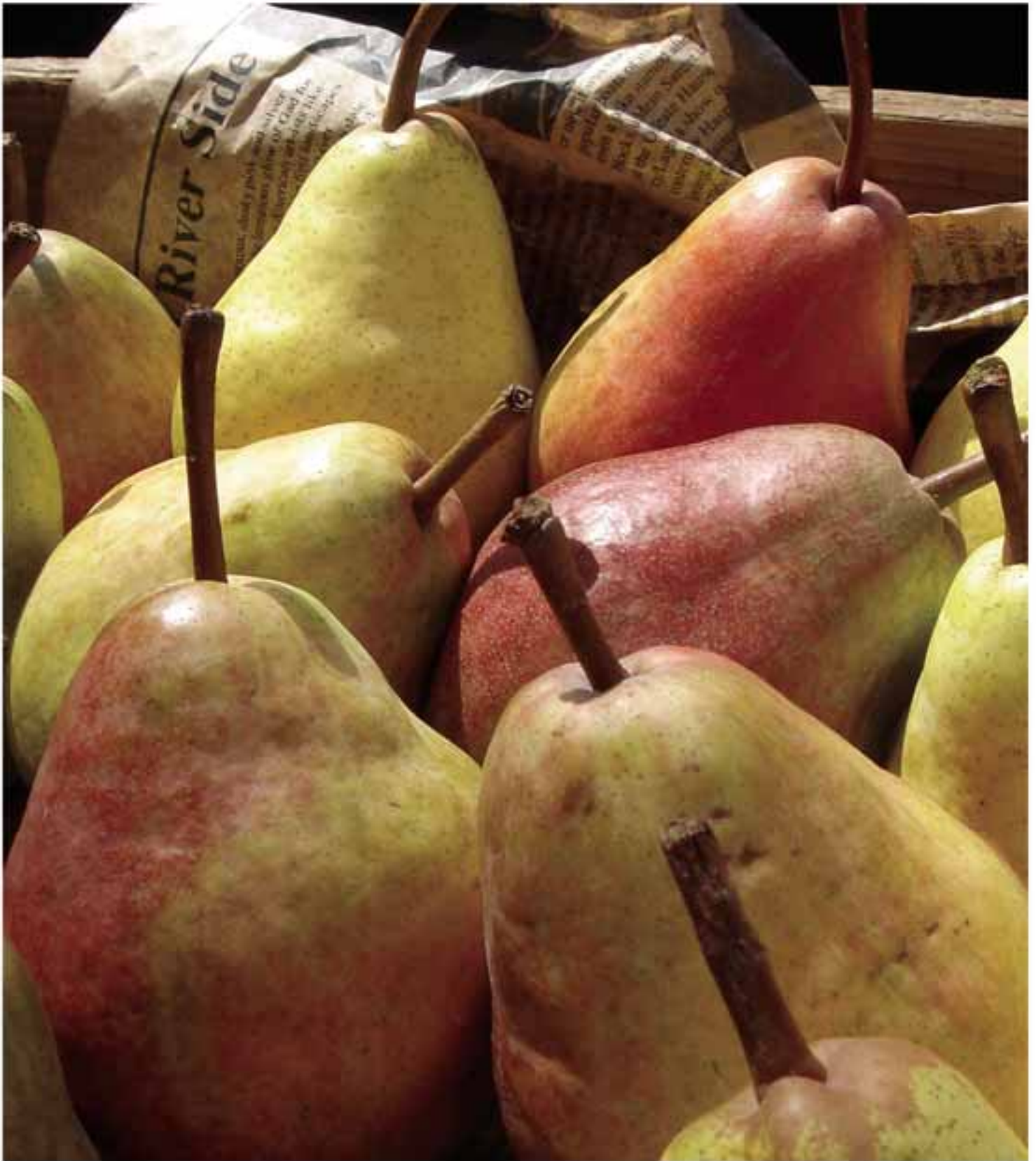




### Clarity

For the DSC-V3, 7.2 Megapixels are just the beginning. Thanks to Sony's Real Imaging Processor LSI, this actual photo is clean and clear across the full dynamic range from the highlights in the headlamps to the deep shadows in the lower right.

*Actual photo. ISO 100. Shutter 1/100 second. Aperture f/3.2.*



### **Detail**

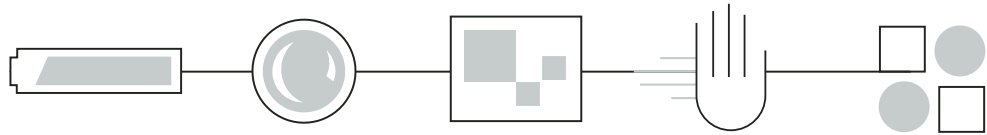
How good can a super-slim pocket camera get? Check out the texture of the pears and the detail in the crumpled newspaper.

*Actual photo from a Sony DSC-T33 camera. ISO 100. Aperture f/5.6.*





Serious photographers love the manual control of Sony's DSC-V3.



# worryfree digital photography™

Digital cameras are not simply about delivering the most megapixels. They're about delivering great pictures. And when it comes to taking great pictures, megapixels alone are not enough. This knowledge has inspired Sony to do what other camera companies haven't. Under the umbrella of worryfree digital photography, we've pursued advances in five broad categories:

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- **Power.** Sony cameras can keep taking pictures long after other cameras have run out of juice. Our exclusive Real Imaging Processor™ LSI is a big reason why.
- **Lens.** Because Sony never made film cameras, we design from the ground up for digital. Our digital-only approach has led us to put ultra-compact Carl Zeiss® optical zoom lenses into cameras that are sleeker and smaller than anyone thought possible.
- **Picture.** Sony is the world leader in digital camera image sensors. And while some questioned the wisdom of our large LCD monitors, Sony's "great big screens" have helped thousands of people shoot and share. And they helped make the Sony DSC-T1 and DSC-W1 phenomenally popular.
- **Response.** When you press the shutter, you expect a picture, not a delay. That's another reason why Sony developed our exclusive Real Imaging Processor LSI, which also improves picture quality.
- **Versatility.** While bulky cameras tend to stay at home, Sony cameras are so small and light, you can take them everywhere you go. So they're always ready for those priceless, spur-of-the-moment shots.

# Power

All cameras, both film and digital, tend to “eat” their batteries. Unlike flashlights and audio players, which tend to use power smoothly and predictably, flash photography can lead to rapid, unpredictable battery drain. That's why Sony extends the supply of battery power and makes it more reliable. Our power technologies even make for smaller cameras, because a pair of AA batteries can now do the work that once required four!

## REAL IMAGING PROCESSOR™ LSI

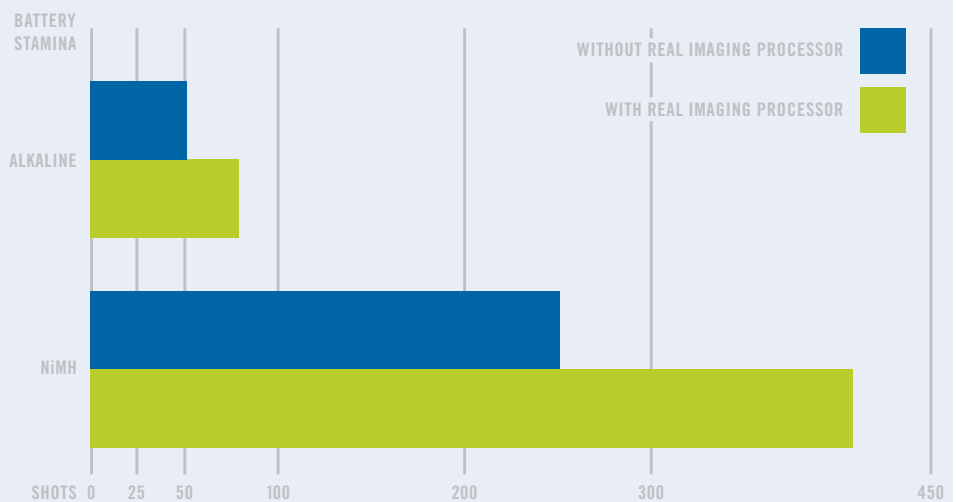
*Makes the most of your batteries, reducing power consumption by a whopping 70% and extending battery life.*

Some digital cameras use off-the-shelf processors, which can waste battery power. Sony's latest digital cameras make the most of battery power, thanks to a custom-designed Sony Large Scale Integrated Circuit (LSI) that we call the Real Imaging Processor™ LSI. Using large-scale integration, smarter clock management and smaller sub-micron internal parts, the Real Imaging Processor LSI reduces power consumption up to an incredible 70% over previous models.

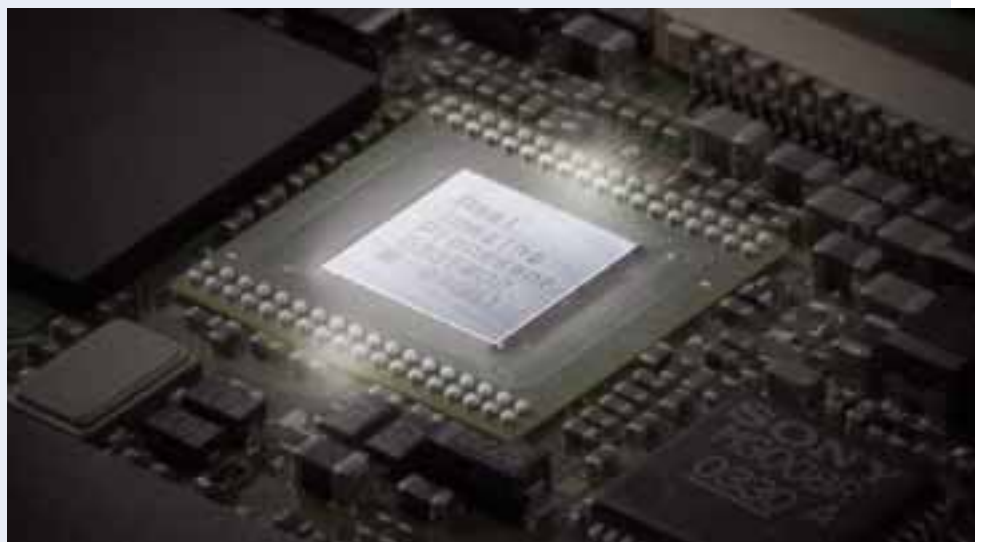
In practical terms, the Real Imaging Processor LSI enables Sony's DSC-S40, S60 and S90 Cyber-shot® Stamina series cameras to take up to 500 shots on a single set of NiMH rechargeable AA batteries!\*

Which means that Sony cameras can keep taking pictures long after other cameras have run out of gas. There's more. The LSI needs so little power that a pair of AA batteries can now do the work that once required four!

For more information on the Real Imaging Processor LSI, please turn to the **Picture** and **Response** sections of this Guide.



Sony's Real Imaging Processor LSI vastly increases the number of shots a camera can take on a single set of AA batteries, whether alkaline (top) or NiMH (bottom).



An original LSI designed and built by Sony, the Real Imaging Processor LSI helps reduce power consumption by 70%.

\* Based on the CIPA Battery Life Standard. Shooting in Normal mode at JPEG Fine picture quality. Shooting at 30-second intervals with flash used for every other shot and power turned off/on after every 10 shots. DSC-S40: 550 shots. DSC-S60: 510 shots. DSC-S90: 410 shots. Actual battery life varies according to use.

## INFOLITHIUM® BATTERY

*Sony's best battery technology makes power far more predictable and reliable.*

InfoLithium rechargeable batteries represent remarkable Sony technology in their own right. They take advantage of Lithium-ion chemistry to provide ample battery power in a very small package – a crucial advantage in making Sony cameras so sleek and portable.

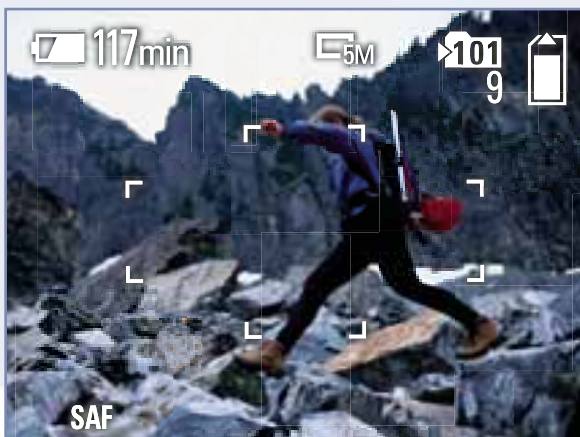
Lithium-ion batteries hold up to four times the charge of over-the-counter NiCad batteries, and up to three times the voltage of Nickel Metal Hydride (NiMH). The smaller size of InfoLithium batteries is a key factor Sony's sleek design!



A wide range of InfoLithium batteries fits a wide range of cameras.

InfoLithium batteries are also quick to recharge and they take advantage of in-camera charging. The AC adaptor is all you'll need to recharge the batteries. And unlike some other designs, when you charge a Lithium-ion battery, it actually stays charged.

Finally, Lithium-ion technology resists "memory effect," the tendency of some batteries to lose staying power if they're not completely drained before recharging. Sony InfoLithium batteries always give their best.



## ACCUPOWER® METER

*A Sony exclusive – approximate readout of remaining battery time in minutes!*

It's never pleasant to be surprised by the loss of battery power. That's where Sony's exclusive AccuPower meter comes in. You see, only Sony builds an integrated circuit control interface into the rechargeable battery. That's the "info" in InfoLithium batteries. This on-battery chip dynamically monitors the power draw and communicates the battery status to the camera, enabling Sony digital cameras to display remaining battery power right to the minute. No more worries. No more nasty surprises. And nobody else has it. The AccuPower meter truly is – like.no.other.™

The AccuPower meter at the upper left of the LCD screen uses information from an on-battery chip to show 117 minutes of battery power remaining. (Sample photo for illustration purposes.)



You can recharge Sony's NiMH batteries, or substitute store-bought alkaline batteries on a moment's notice.

## NiMH STAMINA™ BATTERIES

*Affordable, replaceable battery power.*

Many Sony cameras accept Nickel-Metal Hydride rechargeable batteries that boast high capacity. In fact, selected Sony AA NiMH batteries can pack up to 2500 mAh of charge\* – amazing in a battery so small. That's up to two times the capacity of NiCad batteries. So you can get up to 550 shots on a single charge! NiMH batteries are also easy to recharge. And their standard AA size delivers another benefit. Even when you're away from a charger, you can temporarily replace the NiMH batteries with off-the-shelf alkaline batteries from any convenience store.

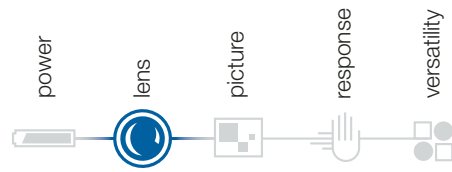
Since alkalines aren't nearly as strong as NiMH, the ability to switch to alkalines is remarkable. The secret is Sony's Real Imaging Processor LSI, which uses power so efficiently that these cameras can run on both battery types.

## BATTERIES AND CHARGER INCLUDED

*Most Sony cameras include everything you need, right out of the box.*



\* Based on the CIPA Battery Life Standard. Shooting in Normal mode at JPEG Fine picture quality. Shooting at 30-second intervals with flash used for every other shot and power turned off/on after every 10 shots. Actual battery life varies according to use.



# Lens

Digital cameras aren't film cameras. To begin with, the digital camera's image sensor is typically far smaller than a 35mm film frame. It is for this reason that Sony carefully optimizes the size, resolution and focal length of each lens to the specific requirements of each image sensor. And most Sony cameras incorporate legendary Carl Zeiss lenses, meticulously designed for optimum color, contrast and brightness! So all your pictures look their best.



A principal feature of the Sony DSC-F828 is its professional-grade Carl Zeiss T\* lens.

## CARL ZEISS T\* COATINGS

*82% less reflection than conventional lens elements, for maximum contrast and perceived sharpness.*

The DSC-F828 incorporates a Carl Zeiss lens distinguished by the T\* designation. This means that lens elements use the Carl Zeiss T-star coatings to reduce internal reflections at the glass-to-air surfaces. This suppresses lens "flare" or "ghosting" that can sap an image of its contrast and punch. The T\* coating means 52% less reflection than a standard Carl Zeiss® lens – and a whopping 82% less reflection than a conventional lens. You get notably more natural, more vibrant images.

## CARL ZEISS T\* LENS

*Prized by professional photographers for superior sharpness, excellent contrast and color accuracy.*

Lenses are responsible for maintaining resolution, contrast, even illumination and consistent color from the center of the picture all the way out to the corners. With so much at stake, professional photographers often treasure the lenses of Carl Zeiss. And that's why Sony incorporates a Carl Zeiss lenses in nearly every Sony digital camera.

### NO COATING



### T\* COATING



The difference that T\* coatings makes is obvious, even to the naked eye.

## OPTICAL ZOOM LENS

*Greater freedom in composition, including the ability to get close to your subject or pull back for a wider view.*

Optical zoom lenses set you free. You can zoom in tight on distant subjects, great for shooting children's sports or recital performances. For example, the full telephoto position of the DSC-H1 brings you incredibly close (12x zoom at 432mm, 35mm equivalent). A mild telephoto setting (about 100mm) is especially flattering for portraits, because it enables your subject to fill the frame while you stand back far enough for a natural perspective. Finally, you can use full wide, to pull back wide for scenic vistas or group photos. Unlike digital zoom, optical zoom always delivers the full performance of the camera's image sensor.

For information on Sony's Smart Zoom™ feature, please turn to the **Picture** section of this Guide.

## INTEGRATED LENS

*Delivers a combination of zoom range, aperture and compact size you won't find in detachable 35mm photography lenses.*

The size of digital still camera image sensor is typically far smaller than a 35mm film frame, and usually smaller even than an APS film frame. This smaller size makes focus and resolution especially critical. That's why every Sony digital camera incorporates an integrated lens – designed from the ground up for the specific size and performance characteristics of the specific sensor it's matched with. This yields a terrific combination of small size, fast speed and wide zoom range.



Wide



3x



4x



7x



12x

The 12x zoom of the DSC-H1 gets you even closer to the action.

- **Compact size.** Because the CCD imaging sensor of a digital camera is considerably smaller than the 35mm film image area, the lens can be correspondingly smaller. For example, a detachable lens that matches the DSC-H1's 36 to 432mm zoom range (35mm equivalent) would be gigantic.
- **Zoom range.** Using a 35mm film lens on the typical digital camera changes the lens field of view. That's fine if you'll never be interested in taking wide-angle shots. In a typical example, a wide-angle 28mm film lens suddenly becomes a middle-of-the-road 42mm lens (35mm equivalent) as soon as you mount it on a digital camera!
- **Resolution.** Because of the size of a 35mm film image, a "good" lens needs only to resolve 30 lines per millimeter at the film plane. But this performance isn't "good" enough for the typical digital camera. For example, the DSC-F828 lens resolves 185 lines per millimeter.
- **Maximum aperture.** In 35mm photography, long zoom lenses tend to be slow – an obstacle to picture quality when you're dealing with fast action or low light. Sony digital camera zoom lenses are relatively fast: f2.8-f3.7 for the 12x zoom of the DSC-H1 and f2.0-f2.8 for the 7x zoom of the DSC-F828. So you're far more flexible when it comes to sports, twilight and nighttime photography!
- **Preview and movies.** Finally, most cameras designed to accept interchangeable lenses require a mirror to direct incoming light to the optical viewfinder. Since the mirror remains in place until the moment of exposure, you can't see a monitor image of what you're about to shoot – and you can't take MPEG movies!

## ABOUT "35MM EQUIVALENCE"

*In the world of 35mm film lenses, a 28mm lens is always wide angle and a 100mm lens is always telephoto. But with digital cameras, the image size varies greatly from model to model. A 5mm focal length that's a standard angle of view for a small image sensor would be wide angle for a larger sensor and an extremely wide "fisheye" lens for a 35mm camera! To compare "apples to apples," the industry uses a "35mm equivalent" specification that converts every lens to its equivalent 35mm angle of view – regardless of image sensor size.*

## COMPACT ZOOM LENS

*The quality of Carl Zeiss optics and the power of 3x zoom in ultra-small, ultra-sleek cameras.*

Sony has an extensive background in microelectronics and micromechanics. You can see this expertise in products like Sony camcorders, portable CD players and ultra-slim laptop computers. So it's no wonder that we have our own, unique perspective on zoom lens design. A zoom lens needs room for zoom optics, zoom mechanics, shutter and focus actuators. But Sony has found ways to slim these lenses down considerably. That's why so many Cyber-shot cameras incorporate an optical zoom lens that combines good zoom range and good lens speed in a design that retracts into camera body. And some Sony cameras go further still.

Starting with the precision of the Carl Zeiss Vario-Tessar design, Sony created a folding-optical-path lens for the DSC-T1. You'll find that same inspired design today on the DSC-T33, T7 and M1. It never needs to extend forward from the camera body.

In the same vein, innovations in optics, a micro-miniature shutter mechanism and focus actuator enable the Carl Zeiss Vario-Tessar zoom lens of the DSC-L1 to be smaller in diameter than a dime! The result is a sleeker, slimmer, handier zoom camera – a camera – like.no.other™.

## MACRO PHOTOGRAPHY

*Breath-taking views of the small, small world.*

Sony makes it easy to capture beautiful images of small objects like jewelry, coins, stamps and flowers. Macro focus mode enables you to focus on objects just a few inches away from the lens!

A study in Macro focus. Actual digital photo taken with the DSC-T1. Exposure Compensation -0.3 EV, ISO 100, Shutter Speed 1/400, Aperture F5.6.

This 3x optical zoom lens originated with the DSC-T1 and is carried forward by the T33, T7 and M1. Not only is the lens small; it never extends forward from the camera body.



## MAGNIFYING GLASS MODE

*Capture detail not visible to the naked eye.*

Film cameras are limited in their macro focus modes. Because Sony is not limited by the film camera mentality, we see additional possibilities. Sony's amazing Magnifying Glass mode enables you to position the camera a mere 1 centimeter (0.4 inch) away from the subject! So you can see (and capture) detail not visible to the naked eye. The degree of image magnification depends on the distance from the camera to the subject.



Normal photography, Macro photography and Magnifying Glass mode. (Sample photos for illustration purposes.)

## SUPER STEADYSHOT® IMAGE STABILIZATION

*Razor sharp pictures, even at full telephoto zoom and even in low light.*

The more powerful the zoom lens, the more important it is to have a tripod or a steady hand. A similar issue occurs in low light, when exposure times are longer. Both shooting situations magnify the effect of camera shake, potentially blurring your picture. That's why the Sony DSC-H1, which has a powerful 12x zoom lens, also incorporates Sony's Super SteadyShot image stabilization. You get clearer pictures under demanding conditions: telephoto and longer-duration low-light exposures. Image stabilization is no substitute for the perfect stability of a tripod, but it often makes the difference between missing a shot and getting it.

The system uses separate vertical and horizontal sensors that detect camera shake. The camera sends an equal-but-opposite correcting signal to a stabilization lens, which moves to compensate for shake.



Above, actual image taken with the DSC-H1 at full telephoto, 1/15 second shutter speed, Super SteadyShot system off. Below, image taken under identical conditions with Super SteadyShot system on. The difference speaks for itself.

## AF ILLUMINATOR

*Accurate focusing, even in low light.*

Auto focus can run into trouble in low light, when the camera can't "see" contrast coming off the image sensor. That's why Sony offers AF Illuminator. The camera throws a special light on the subject prior to the shot, so the camera can "see" the subject's contrast. You get accurate focusing, even in low light.



While conventional focus (above) becomes very hit-or-miss in low light, Sony's AF Illuminator (below) is right on target. (Sample photos for illustration purposes.)

## ABOUT AUTO FOCUS (AF)

Auto focus works by evaluating the picture contrast and detail coming off an image sensor. The more detail the sensor captures, the more the image is in focus. Under normal circumstances, the system works well. But it can stumble when shooting in low light, where there is little or no contrast on the subject. In addition, it's crucial for the camera to "know" where the subject is in the frame; otherwise it could be focusing on the wrong subject! For these reasons, Sony has developed an array of powerful features for focus illumination, processing and control.

### HOLOGRAM AF ILLUMINATOR

*Accurate focusing, even in total darkness.*

A more advanced version of Sony's AF Illuminator, Hologram AF Illuminator uses a laser diode and a diffraction grating to project a red crosshatch pattern onto your subject. This pattern establishes contrast even for a subject, such as a white wall, that has no contrast itself! And Hologram AF illuminator enables the camera to achieve accurate focus – even in total darkness!



The red crosshatch pattern enables the camera to focus even in total darkness! (Sample photos for illustration purposes only.)

### MULTI-POINT AUTO FOCUS

*Automatically finds the focus, even when your subject isn't in the center of the frame.*

Simple cameras simply focus on whatever is in the middle of the frame. But when you're taking a picture of two people, the center of the frame often shows the background – the wrong place to focus! In other cases, you'll get a more creative shot when the subject is off center. For these reasons, Sony developed Multi-Point Auto Focus. Most Sony cameras use a five-point system, automatically selecting the right focus points based on your composition! Under a wider range of conditions, you get critically accurate focusing – automatically.

To accommodate the full range of shooting situations, Multi-Point AF also includes switchable modes like Center AF, which uses only the center area, Spot AF, which uses only a tiny spot and Focus Lock, which enables you to focus first, and then frame the shot any way you want.

### FLEXIBLE SPOT AF

*Enables you to move the focus spot almost anywhere in the frame, useful for tripod shooting.*



If the subject is off-center, cameras with a single focus point (top) tend to focus on the background. Sony Multi-Point AF (bottom) automatically brings the subjects into focus.

### MANUAL FOCUS

*Manual control when you need it.*

Most Sony cameras also include manual focus with at least four focal distances, enabling you to take control. The DSC-V3 and MVC-CD500 go beyond with 13-step manual focus. And the DSC-F828 has the ultimate control, a hands-on full manual focus ring.

With the Flexible Spot AF of the DSC-H1, V3 and F828, you can frame the shot first, then use the joystick to select the focus point. (Sample photo for illustration purposes.)

## SELECTABLE AF

*Perfect for unpredictable sports and fast-moving subjects, because you can choose a more responsive focus mode.*

Single Shot Auto Focus “locks” onto the subject as soon as you press the shutter half-way, which can be a problem when there’s plenty of relative motion between the subject and the camera.

- Single Shot AF is ideal for subjects that are standing still. The Auto Focus process doesn’t begin until you press the shutter halfway.
- Monitor AF speeds the shot, an important advantage in sports photography. In Monitor AF, the camera is always “pre-focusing” and doesn’t lock until you press the shutter halfway. Thanks to pre-focusing, the camera is faster to take the shot, improving your chances of getting exactly the shot you want. And Monitor AF works together with Multi-Point AF to intelligently capture your subject.
- Continuous AF is ideal when the subject may be moving towards or away from you. It’s especially useful for unpredictable subjects such as sports, pets and little kids at play. Not only is the camera always “pre-focusing,” but the camera also continues to track your subject right up until the moment of exposure.



Single Shot AF is ideal for subjects that are standing still. (Sample photo for illustration purposes.)



Monitor AF pre-focuses the shot to speed your picture-taking when you want to capture a “decisive moment.” (Sample photos for illustration purposes.)



Continuous AF is ideal for fast-moving subjects, particularly ones moving towards you. The focus keeps tracking until the moment of exposure. Note: Continuous AF uses center-point focusing only. (Sample photos for illustration purposes.)

## ULTRA-WIDE, SUPER-TELEPHOTO AND SPECIAL EFFECTS SHOOTING

*Attach conversion lenses for additional focal lengths; attach filters for stunning special effects.*

Many Sony cameras enable you to exceed the zoom range of the built-in lens, thanks to optional conversion lenses. Or unleash your creativity with optional filters. The DSC-S60, S90, W5, W7, H1, P200 and V3 accept conversion lens adaptors, enabling you to mount conversion lenses and special effect filters.



Conversion lens adaptors extend the capabilities of many Sony cameras. So you can shoot wider wide angles and longer telephotos as well as take advantage of star, soft, polarizing, and neutral density filters.

# Picture

Great pictures depend on vivid color, spectacular detail and perfect exposure. Sony applies some of the world's most advanced technology to accomplish all these goals. Our own Real Imaging Processor™ LSI, our own Super HAD™ CCD image sensors and our original algorithms for metering and exposure get your shots right the first time!

## REAL IMAGING PROCESSOR™ LSI

*Supremely accurate image processing with reduced picture "noise."*

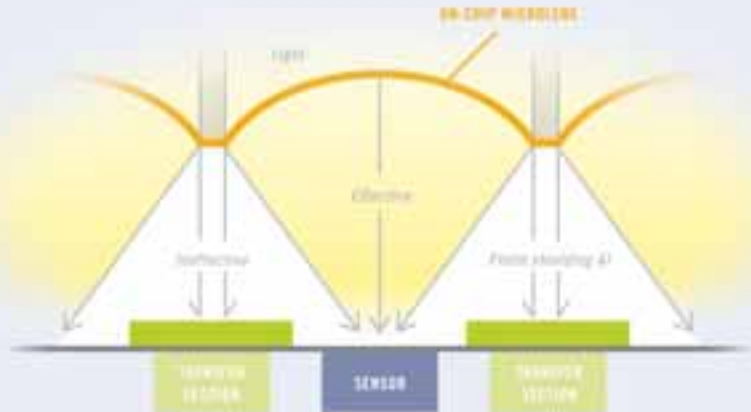
A digital camera's main processor calculates focus, exposure, and White Balance, while also converting the image data into your desired file format. In conventional digital cameras, these functions are performed by a generic, off-the-shelf processor. In a dramatic departure, Sony designed and built the Real Imaging Processor LSI from the ground up expressly for our digital cameras. You get more accurate processing, and reduced image noise – the digital equivalent of film grain – an unwanted grit or texture not present in the original scene. The processor also reduces "aliasing" distortions in the file conversion process. All told, you'll see better exposure, better white balance and smoother, more beautiful pictures.

For more information on the Real Imaging Processor LSI, please turn to the **Power** and **Response** sections of this Guide.

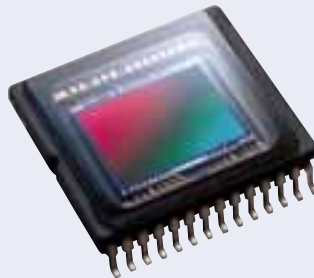
## SONY SUPER HAD™ CCDs

*Incredible resolution, sensitivity and clarity from the industry leader in CCD image sensors – Sony.*

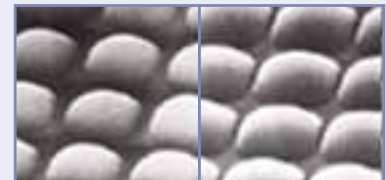
At the heart of any digital camera is an integrated circuit chip that converts the incoming light into an electrical signal – the image sensor. Instead of buying



Sony's microlenses maximize low-light performance by directing light onto the sensor areas and away from the non-sensing transfer sections.



An engineering marvel, Sony's 8 Megapixel Super HAD CCD.



Previous microlens designs (left) miss some of the incoming light. Sony's Super HAD design (right) has an improved microlens design for even higher sensitivity.

sensors from some other company, Sony designs and makes its own. Sony is not only the industry leader in charge coupled device (CCD) image sensors, we supply more digital camera CCDs than all other companies put together! This expertise, unrivaled in the industry, is evident in Sony's proprietary Super HAD™ CCDs.

Sony uses a Hole Accumulated Diode (HAD) design for its combination of resolution, low noise and superb low-light sensitivity. The CCD structure alternates

between small light-sensitive windows and transfer sections that provide DC voltage and output connections. Sony's design uses an array of microlenses on the CCD surface to gather the light that might otherwise miss the light-sensitive areas. This accounts for the high sensitivity of Sony CCD chips.



**MULTI-MEGAPIXEL RESOLUTION**

*More megapixels mean bigger, more detailed images, suitable for more applications.*

A digital image is composed of discrete squares of color, called pixels. One million pixels is a “megapixel.” And it appears that the entire world understands that more megapixels are better. Here’s why. The more megapixels you have, the bigger prints you can make at a given image quality. More megapixels create images ready to use in printed flyers and brochures. And higher megapixel counts enable you to crop the image or use digital zoom – without sacrificing too much picture detail.

More megapixels mean finer detail and larger print sizes. Shown here: print sizes for high quality at 200 dots per inch. (Sample photo for illustration purposes.)

PRINT SIZE	PRINT DPI				
	8MP	5MP	3.1MP	1.2MP	VGA
3 x 4 Inches	816	648	512	320	160
4 x 6 Inches	544	432	341	213	107
5 x 7 Inches	466	370	293	183	91
8 x 10 Inches	326	259	205	128	64
11 x 14 Inches	233	185	146	91	46

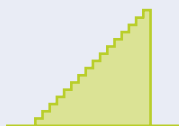
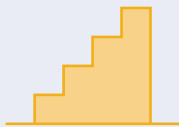
KEY: **Ideal picture quality** **Good picture quality** **Not recommended**

Anything above 300 dpi is photo quality, shown in green. High quality printing, from 200 to 300 dpi is shown in orange. Printing below 200 dpi will not yield high quality.

## 12-BIT/14-BIT DIGITAL EXTENDED PROCESSING (DXP)

*Better tonal gradation than conventional, 10-bit processing.*

In digital systems, the more bits you devote to each sample, the better your quality will be. So where consumer digital audio uses 16-bit samples, professional digital audio use 24 bits. And that's why Sony created Digital EXTended Processing (DXP). Conventional color image processing is often conducted at 10 bits. Skin tones that should show smooth gradations from light to dark can end up with "bands" of tone that form visible steps from dark to light. Sony's DXP fights this with 12-bit processing (four times as many steps) and 14-bit processing (sixteen times as many steps). So you get smoother, more natural images.



Limited bit depth (top) can lead to visible bands of distinct color. The improved bit depth of Sony DXP yields more natural color. (Sample photos for illustration purposes.)



## SMART ZOOM™ FUNCTION

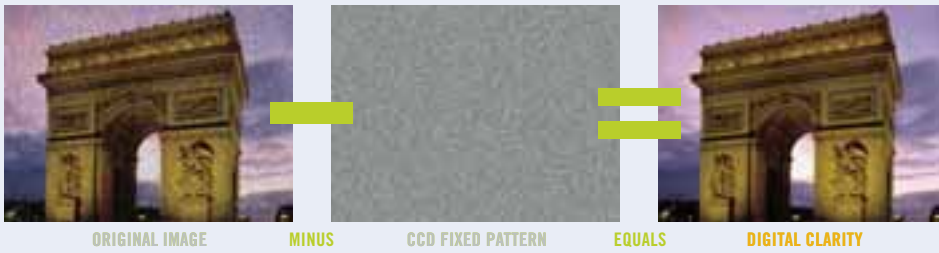
*Delivers the benefits of digital zoom without the softness of interpolation processing.*

Digital zoom takes over where optical zoom leaves off, using a progressively smaller portion of the CCD to crop into the area of interest. Unfortunately, in addition to sacrificing the resolution of the full CCD, most digital zooms soften the image further still through "interpolation," the need to calculate intermediate values "between" pixels. Sony's Smart Zoom feature overcomes the problem. Smart Zoom modes crop into the CCD image without interpolation, for cleaner, sharper pictures.

NOTE: Smart Zoom is not available at the highest camera resolution.



The Smart Zoom function allows you to crop the frame to just the portion of interest without interpolation.



The original recorded image (left) shows noise. The secondary capture (center) reveals the fixed-pattern noise of the CCD. Slow Shutter NR creates the resulting image (right) by subtracting the noise from the original picture! (Sample photos for illustration purposes.)

### SLOW SHUTTER NR

*Outstanding clarity in low-light shooting situations.*

Image noise – unwanted flecks and specks of color – is always a concern in digital photography, especially in low-light shooting. In the dark, the strength of the desired image is relatively weak compared to the “fixed pattern noise” of the image sensor. Sony’s Super HAD™ image sensor design works to overcome this problem with microlenses that maximize the incoming light. A second Sony technology, Slow Shutter NR, goes further still. After taking your pictures, the feature takes a second “exposure” of just the fixed pattern noise. By subtracting the noise from the desired photo, Slow Shutter NR achieves uncommonly clear shots at night!

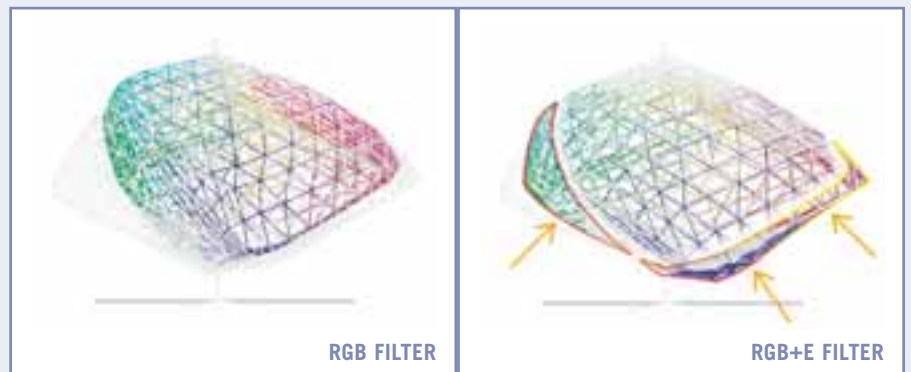


Slow Shutter NR in action. This is an actual photo taken with the DSC-T1 at night. (Exposure Compensation 0 EV, ISO 100, Shutter 1.3 seconds, Aperture F3.5.)

### RGB+E FILTER ARRAY

*Captures a noticeably wider range of real-world color than the conventional RGB filters.*

Digital cameras sense color by placing a separately colored filter in front of each individual pixel. The typical image sensor uses a checkerboard array of Red, Green and Blue (RGB) filters. But the Sony DSC-F828 goes far beyond this with an array of Red, Green, Blue and Emerald (RGB+E) filters. The ability to distinguish Emerald from Green enables the F828 to achieve far more sophisticated color processing and to create pictures with notably more natural, more lifelike color.



The RGB filter (left) falls notably short of human vision, shown in grey. As the arrows indicate, Sony’s RGB+E filter (right) does a far better job, including deeper greens, blues and reds.



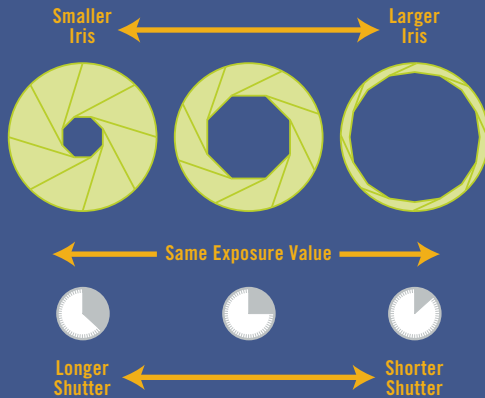
Microscopic view of a conventional RGB filter (left) and Sony’s RGB+E filter (right).

## ABOUT EXPOSURE

An essential part of photography, “exposure” determines the amount of incoming light that reaches the CCD. Cameras control exposure by varying the lens opening (aperture) and the amount of time given to taking the picture (shutter speed). One of the creative joys of photography is that there’s no single combination of aperture and shutter speed that’s uniquely correct.

Skilled photographers know how to use aperture and shutter speed to achieve creative effects. For example, you can open up the aperture to blur the background, or close down the aperture to maintain sharp focus. Fast shutter tends to freeze motion while slow shutter creates a beautiful motion blur.

The basic unit of exposure is the Exposure Value (EV). An increase of +1 EV represents a doubling of the incoming light, either by doubling the time the shutter stays open or opening up the aperture to a 70% smaller f number.




The camera’s iris controls the size of the lens opening or “aperture.” A larger aperture (lower “f number”) means more light can reach the CCD. For a given Exposure Value, a wider aperture means a faster shutter speed (shorter exposure time).

## SCENE MODES

Easily identified by icons, these modes optimize the camera’s auto exposure system, achieving ideal results for many popular shooting situations.

MODE	ICON	SAMPLE PHOTO	DESCRIPTION
Twilight			Slow shutter reproduces the mellow atmosphere of a night scene beautifully. Extends the shutter speed up to two seconds, compared to 1/30 second for Auto mode.
Twilight Portrait			Uses flash only on the person in the foreground, while using a long shutter speed to reproduce the background beautifully.
Soft Snap, Portrait			Applies maximum aperture to bring the person into focus while allowing the background to fall out of focus. Reproduces beautiful skin tones; makes the entire image softer.
Landscape			Reproduces the atmosphere of the entire landscape. Captures saturated blues and greens.
Snow			Uses a fast shutter speed for bright light and adjusts white balance to capture snow as clear white.
Beach			Captures saturated blue to emphasize the water.
Candle			Reproduces the atmosphere of a candle-lit scene without flash.
Fireworks			Sets a slow shutter speed and high color saturation to emphasize the bright colors of fireworks.
Fast Shutter			Uses a fast shutter speed to produce a clear picture of fast-moving subjects. Great for sports.
Magnifying Glass			Displays a magnified image on the LCD in macro focus shooting. Suppresses flash to avoid saturated whites.

Sample photos for illustration purposes.

USER	MODE	ICON	SHUTTER	APERTURE	OTHERS
Beginner	Auto		Auto	Auto	Auto
Beginner	Scene Modes	SCN	Auto	Auto	Adjustable
Intermediate	Program Auto	P	Auto	Auto	Adjustable
Advanced	Shutter Priority	S	Adjustable	Auto	Adjustable
Advanced	Aperture Priority	A	Auto	Adjustable	Adjustable
Expert	Manual Exposure	M	Adjustable	Adjustable	Adjustable

## FULL RANGE OF EXPOSURE MODES

*For everybody from the absolute beginner to the expert user.*

Because exposure is so important for picture quality and creative control, Sony cameras give you a wide range of ways to control it, ranging all the way from fully automatic for the beginning photographer to fully manual for the expert shooter.

### PROGRAM AUTO EXPOSURE

*Semi-automatic exposure for the intermediate photographer, Program AE gives you manual adjustment of ISO sensitivity, White Balance and Exposure Compensation.*

### EXPOSURE COMPENSATION

*Lets you adjust the Program Auto Exposure when backlighting or unusually bright subjects might throw the exposure off.*

### SHUTTER PRIORITY AUTO EXPOSURE

*An advanced mode for greater creative control.*

Shutter Priority enables you to select the shutter speed manually, while the camera automatically selects the appropriate aperture. This lets you use a fast shutter speed to freeze sports action – or a slow shutter speed to introduce an intentional blur on moving objects. If you “pan” along with a moving ice skater, a slow shutter speed will blur the background. And if you shoot a waterfall with slow shutter speed, the water will take on a beautiful, lace-like effect.

Note that long shutter speeds exaggerate the effect of camera shake. Clear images require steady hands or some means of camera support, such as a Sony accessory tripod. Camera shake is also exaggerated when you zoom the lens to telephoto.



Slow shutter speed enables you to blur the background as you “pan” the camera. (Sample photo for illustration purposes.)



Fast shutter speed (left) freezes the runner while slow shutter speed (right) introduces an evocative blur. (Samples photos for illustration purposes.)

## APERTURE PRIORITY AUTO EXPOSURE

*An advanced mode for greater creative control.*

Aperture Priority enables you to select the lens opening or “f number” manually, while the camera automatically selects the appropriate shutter speed. This lets you choose a wide opening (low f number) to blur the background or a narrow opening (high f number) to keep both foreground and background in sharp focus.

## AE LOCK

*Enables you to lock in the exposure first, before you frame the shot. Perfect when the subject will be far off-center in the frame.*

## MANUAL EXPOSURE

*For total creative control, a very wide range of Sony cameras now offer Manual Exposure.*

When you want the ultimate control over your photography, there is no substitute for Manual Exposure mode. Selecting your Shutter Speed and Aperture means exercising sophisticated control over the way you capture motion and the separation between foreground and background. Manual Exposure puts the entire mood and emphasis of each shot into your hands. That’s why Sony is extending Manual Exposure to a broader range of photographers. In addition to our high-end models, affordable cameras like the DSC-S60 and S90 give you Manual Exposure. These models offer a choice of two or three aperture settings, plus shutter speeds that vary in increments of just 1/3 EV.

A narrow aperture (high f number) keeps everything in focus (top) while a wide-open aperture (low f number) tends to blur the background (bottom) – focusing attention on the subject. (Sample photos for illustration purposes.)



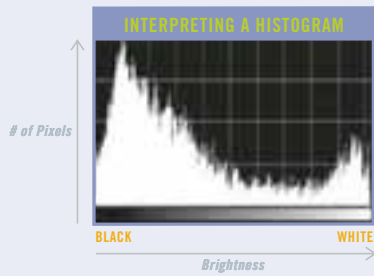
On Sony’s affordable DSC-S60 and S90 Cyber-shot Stamina series cameras, manual exposure includes on-screen displays of shutter speed and aperture which can be selected by the up/down/left/right Control buttons.

## ISO SENSITIVITY

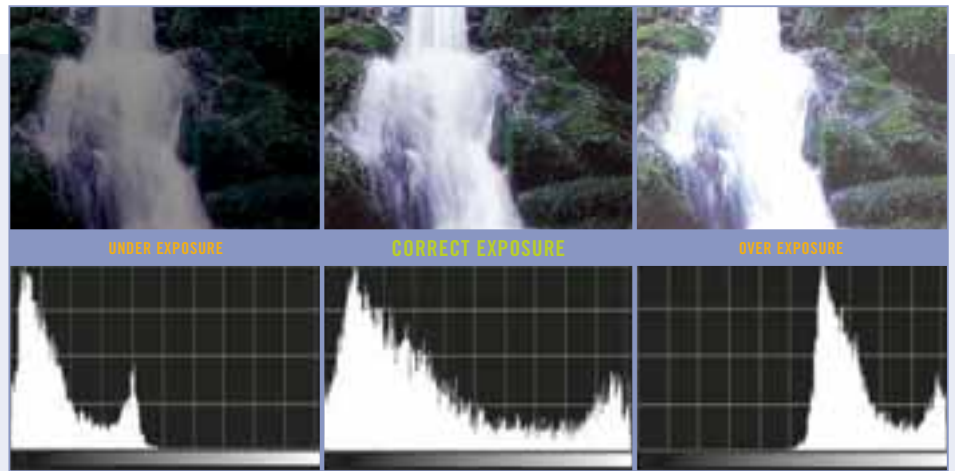
*Electronic adjustment for increased sensitivity when you need it – great for low-light situations.*

A big difference between film photography and digital photography is the ability to change ISO sensitivity with a flick of a switch. It’s like going from low-speed film to high-speed film in an instant. As you select higher ISO sensitivity, you increase the electronic “gain,” achieving a brighter image at some sacrifice in picture “noise” or “grain.” Doubling the ISO sensitivity means halving the amount of light required for a given exposure.

This gives you a whole new range of options in low-light shooting. Consider a low-light situation that calls for an aperture of f2.8 and a shutter speed of 1/8 second at ISO 100. A shutter that slow might be susceptible to camera shake, especially with a lens zoomed in to telephoto. In that case, you might be happy to increase the ISO to 200, which enables you to cut the shutter speed to 1/15 second, or choose an ISO of 400 for a shutter speed of 1/30 second. With switchable ISO sensitivity, the choice is yours.



The LCD monitor histogram is a graph of your exposure. This graph shows that while most of the picture is in the deep shadow range, the picture contains the full range of brightness levels.



Using the histogram to assist exposure. The underexposed image has no bright values. The overexposed image has no dark values. The correct exposure has a full range of values from black to white. (Sample photos for illustration purposes.)

### HISTOGRAM

*A quick and easy way to confirm proper exposure; great for getting pictures right the first time.*

Are you getting the right exposure? Under most situations, just one look at the LCD monitor will reveal the answer. But when difficult viewing conditions make it hard for you to see subtle shading on the LCD monitor, Sony's histogram display has the answers. This LCD monitor display indicates the exact details of your exposure. The histogram is a graph showing how many pixels in the image occur at each light intensity, all the way from full black (at the left) to full white (at the right). In general, you have the correct exposure when the histogram indicates pixels across the full range of light intensity.

### AUTO BRACKETING

*"Exposure insurance" for once-in-a-lifetime photo opportunities.*

Auto Bracketing takes three consecutive pictures at, above and below the auto exposure level. Depending on camera model, you can adjust the bracketing from  $\pm 1/3$  Exposure Value (EV) to  $\pm 1$  EV.

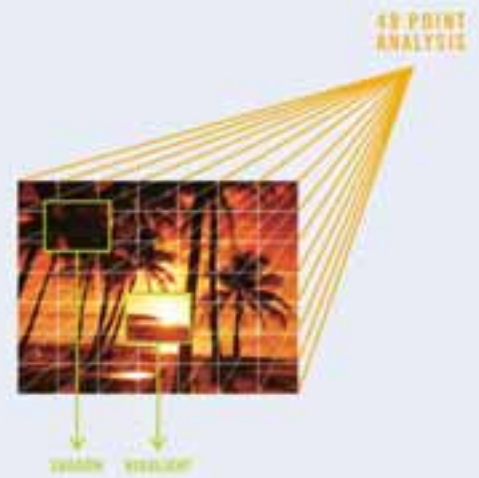
Auto Bracketing automatically takes shots at, over and under the automatically determined Exposure Value. (Sample photos for illustration purposes.)

### MULTI-PATTERN MEASURING

*Sony divides the image into 49 points to measure incoming light and intelligently set exposure levels.*

A crucial factor in any auto exposure system is the method of measuring incoming light. Sony's Multi-Pattern Measuring examines 49 points across the frame in a seven-by-seven grid. In this way, the camera isn't thrown off by a single bright highlight or deep shadow.

For additional flexibility, Center-Weighted and Spot metering ensure proper exposure when the subject is far brighter or darker than the background.



Sony's Multi-Pattern Measuring won't get thrown off by a single bright highlight or deep shadow. (Sample photo for illustration purposes.)



Spot metering makes sense in cases like this, when the subject is much brighter than the background. (Sample photo for illustration purposes.)

## TTL PRE-FLASH METERING

*Unlike other digital cameras, which only “guess” at flash exposures, Sony actually measures the flash output and adjusts accordingly.*

When it comes to flash photography, most auto exposure systems are flying “blind.” They can only guess at flash levels because they can’t measure the scene as it is lit by the flash. Sony demanded a better way, called Through-the-Lens Pre-Flash Metering.

**Step One:** The Sony system fires a momentary pre-flash onto your subject.

**Step Two:** The system instantly reads the resulting light through the camera’s lens, and off the camera’s CCD image sensor.

**Step Three:** in just a fraction of a second, the camera adjusts flash exposure precisely! It’s easy. And it’s automatic.

Unlike the many cameras that can only guess at flash metering, Sony delivers better flash exposure with Through-the-Lens Pre-Flash Metering. (1) Pre-Flash. (2) Metering off the CCD, through the lens. (3) Accurate flash exposure, adjusted according to the metering!



Conventional flash metering tends to overexpose near subjects and underexpose far subjects. Through-the-Lens Pre-Flash Metering helps deliver correct exposure for all subjects!

## FLEXIBLE FLASH MODES

*Sony flash modes get the best out of your specific shooting situation.*

Flash is a great addition to your photography when you want it, but there are times when you don't. Sony enables you to control the flash to your best advantage. In addition to the Auto Flash mode, Sony offers Forced Flash mode, to trigger the flash when you need the extra light. No Flash mode is great for twilight photography of distant subjects or candlelit photographs. Slow-Sync Flash is perfect for capturing people in the foreground, while it provides a longer exposure to capture a night-time background. Finally, Daylight Fill Flash is ideal for putting light on the faces of your subjects in strong backlight situations.



In this bright, backlit scene, the flash would normally not fire (left). Daylight Fill Flash automatically fires for the correct exposure (right). (Sample photos for illustration purposes.)



Normal flash photography (left) would miss the background. Slow-Sync Flash (right) combines flash for the girls along with long shutter speed for the background, to capture both in one shot. (Sample photos for illustration purposes.)

## RED-EYE REDUCTION

*Controls the ghoulish red in people's eyes that often appears in flash photography.*

Red-Eye is the creepy effect that occurs when the camera's flash bounces off the retinas of your subjects' eyes. Red-Eye reduction tackles the problem by shining a pre-flash, which enables your subjects' eyes to adjust before the main flash fires.



Red-Eye really detracts from a portrait (left). Red-Eye reduction is a big improvement (right). (Sample photos for illustration purposes.)

## ADVANCED ACCESSORY SHOE

*Enables advanced, TTL Pre-Flash metering with an accessory flash – no cables required!*

Sony cameras with the Advanced Accessory Shoe enable intelligent operation with a high-powered accessory flash. There's no need for a cable because all control connections are right in the shoe. This enables advanced operations like TTL Pre-Flash metering for super-accurate flash exposures.

## WHITE BALANCE

*Get natural-looking colors in every lighting condition.*

The brain understands that a white piece of paper is still "white" whether it's seen in sunlight, fluorescent light or incandescent light. But in digital photography, the white paper could end up looking reddish, yellowish or greenish, depending on the main light source. That's why Sony cameras have sophisticated White Balance controls. You get the right color balance under the widest variety of conditions.

## TRANSFLECTIVE LCD MONITOR

*Uses sunlight for increased brightness.*

The LCD monitors of the DSC-L1, T33 and T7 aren't afraid of the sun. In darkness, the monitors get transmissive light from inside the camera. In sunlight, the monitors also use reflective light, in Sony's transflective design.

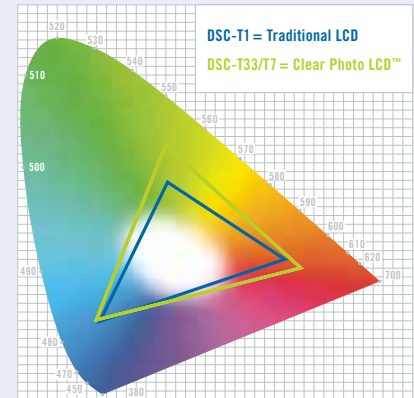
## LARGE LCD MONITOR

*The "great big screen" that makes digital cameras even more attractive.*

A digital camera's LCD monitor is your window on the world. Before you take the shot, the monitor shows you control menus and image framing. After you've taken the shot, the monitor is your first opportunity to show off your work. That's why Sony's 2.0 and 2.5-inch LCD monitors are creating such a stir. The larger screen makes a huge difference in enjoying the camera. It means bigger menus. It makes framing easier to see. And it's far more effective when it comes to showing off your results!

With Sony's talent for high-density packaging, the "great big screen" arrives in some amazingly sleek cameras. You get all the advantages of a bigger screen, without sacrificing the take-anywhere convenience of a compact camera!

The DSC-T33 and T7 go even further with Sony's Clear Photo LCD™ monitor. This jewel-like design delivers higher resolution, better contrast, and 40% better color than Sony's previous LCDs.



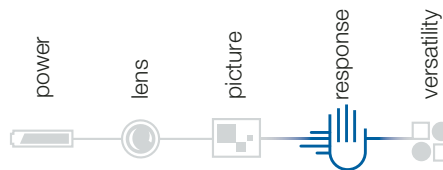
## TTL EYE-LEVEL VIEWFINDER

*A second LCD monitor for classic shooting style.*

Advanced shooters may prefer the classic, 35mm SLR style of shooting, with the camera viewfinder held up to the eye, the camera pressed against the face and the elbows tucked in. This style promotes greater stability and reduced camera shake – a decided advantage in long exposures and extreme telephoto shooting. That's why Sony's DSC-H1 and F828 offer true, Through-the-Lens (TTL) electronic eye-level viewfinders.



With its large LCD monitor, the DSC-T33 is the next generation of Sony's "great little camera with the great big screen." (Monitor picture simulated.)



# Response

To grab a baby's smile or a soccer goal before it's gone, your camera needs to be as fast as your subject.

That's why Sony designs digital cameras from the ground up for split-second response. With exclusive Sony innovations like our Real Imaging Processor™ Large Scale Integrated circuit (LSI), selected Sony cameras are ready to shoot one second after you turn them on. There's almost no "shutter lag;" they shoot a split second after you press the shutter release. And in about a second, they're ready for the next shot!

## REAL IMAGING PROCESSOR™ LSI

*Compared to generic, off the shelf circuits, Sony's purpose-built chip is far faster, for reduced startup time, shutter lag and shot-to-shot time.*

A camera's image processor is crucial to response, because the circuit performs so many critical functions, including transforming the analog output of the image sensor into digital image files. The processor also evaluates and adjusts focus and exposure.

Sony speeds up all these routines with a proprietary processor, designed from the ground up for demanding digital camera use. Sony's Real Imaging Processor large scale integrated circuit (LSI) incorporates an incredible 13 million transistors on a single chip. As a result, Sony cameras can capture the moment when conventional cameras are still getting ready!

Camera users experience three response delays in particular. Sony's Real Imaging Processor LSI shortens all three:

- **Start-up Time.** The time it takes from pressing the power switch until the LCD display shows the scene.
- **Shutter Lag.** The time it takes from when you fully press the shutter until the CCD captures the image.
- **Shot-to-Shot Time.** The time it takes from the beginning of one shot to the beginning of the next.

For more information on the Real Imaging Processor LSI, please turn to the Power and Picture sections of this Guide.

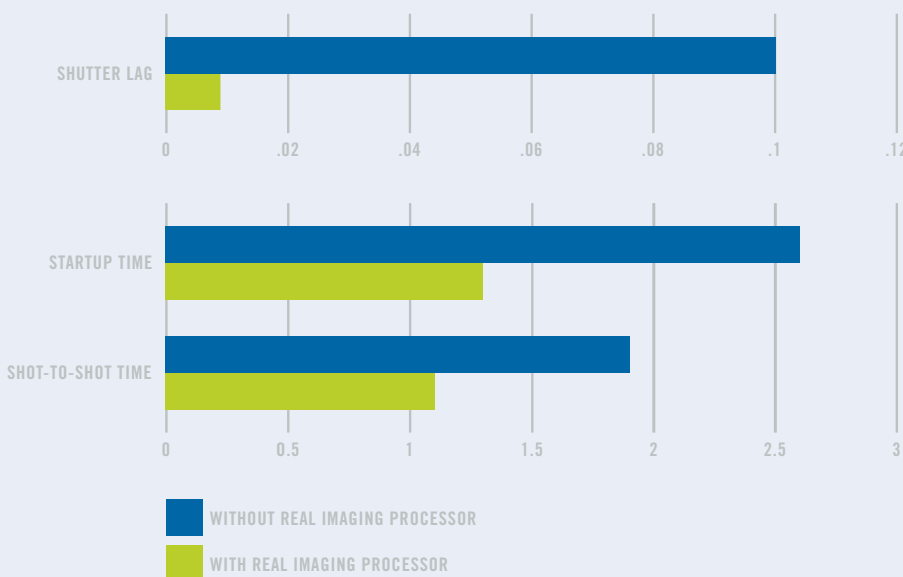
## INTERNAL MEMORY

*With Sony's latest Cyber-shot® cameras, you'll never worry about leaving the media at home. It's built into the camera!*

Five of Sony's latest Cyber-shot® cameras feature 32 MB\* of internal memory, in addition to a slot for optional Memory Stick® media. These models are the DSC-S40, S60, S90, W5, W7 and H1. Internal memory means you'll never be caught short because you left the media someplace else. It also enables you to extend shot capacity with optional Memory Stick® media and copy pictures between the internal memory and Memory Stick® media, for easy transfer to and from other cameras, PCs, printers and print kiosks.

\* A portion of the memory is used for data management functions. Actual available memory for storage is 30 MB.

RESPONSE TIMES IN SECONDS



Sony's Real Imaging Processor LSI delivers a substantial reduction in Startup Time, Shutter Lag and Shot-to-Shot Time.



## MEMORY STICK® MEDIA

*Ample storage in an ultra-slim form factor, fast read/write speeds and compatibility with 60 million devices, worldwide.*

Even if you never plan on taking the flash media card out of the camera, Sony Memory Stick media has important advantages.

- **Speed.** The flash media transfer speed helps define the “shutter interval” between shots.
- **Capacity.** Determines how many shots you can save at a time. With Memory Stick PRO™ media capacities of up to 4 Gigabytes, there's room for hundreds of pictures. (See note, below.)
- **Form factor.** The ultra-slim shape of Memory Stick Duo™ media helps define the ultra-slim shape of Cyber-shot® models like the DSC-T33, T7 and L1.
- **Compatibility.** If you do slide out the Memory Stick® media card, you'll find it's compatible with 60 million devices, for easy transfer of your pictures to a huge population of computers, printers, retail photo printing kiosks, and televisions.

NOTE: Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.

## CD-R/RW MEDIA

*Shoot and archive at the same time – no need to copy and re-copy image files.*

At prices on the order of \$100 per Gigabyte, flash media may be too expensive for permanently storing your precious memories. So if you shoot on flash media, you need another storage medium for permanent, “archival” storage. Many users will copy image files onto their PC hard drives. But this exposes images to loss if the hard drives should crash. And it becomes a headache when you're ready to replace the PC! That's why many will go the extra step of copying the image files a second time onto ultra-reliable CD-R/RW media. That's the inspiration for Sony CD Mavica® cameras. They shoot directly onto three-inch CD-Recordable (CD-R) and CD-Rewritable (CD-RW) discs. So you're archiving at the same time you shoot! There's never a need to copy and re-copy your image files!



The Memory Stick® media family includes full-sized Memory Stick media, High Speed Memory Stick PRO® media, and ultra-small Memory Stick Duo™ and Memory Stick PRO Duo™ media.

- **Capacity.** With 156 MB of storage, 3-inch CD-R discs have room for hundreds of images and lots of MPEG Movies.
- **Compatibility.** Recordable CD media is directly compatible with most any PC with a CD-ROM drive. No adaptors, readers or cables!
- **Low cost.** So affordable, you can store images for less than a penny!
- **Permanent archive.** Recordable CD is your “digital negative.” No need to transfer to the PC or take up hard disk space. Since CD-R media cannot be erased, it's particularly useful for law enforcement, insurance, litigation and other applications where robust archival storage is key.

The “Confirm Before Write” function of Sony CD Mavica® cameras also lets you view your image and choose whether or not to keep it before writing to disc.

Sharing with CD media is easy. Just like closing a session with CD-R/RW media in a PC, CD Mavica® cameras enable you to “finalize” the disc, so it can be read by most any PC with a CD-ROM drive. If there's still more space left, you can “re-initialize” a CD-R or “un-finalize” a CD-RW, preparing the disc for further recording!



Sony CD-Recordable (CD-R) and CD-Rewritable (CD-RW) media stores 156 MB of data on pocket-sized 3-inch discs!

## FLOPPY DISK MEDIA

*Affordable media makes it easy to share pictures with relatives and friends – right on the spot!*

Invented by Sony, the 3.5-inch floppy disk is among the most popular computer media ever. Millions of floppy disk drives and billions of floppies have been made. Floppies are also affordable – just pennies per disk! This makes floppies extremely attractive for storing pictures. And that's the idea behind Sony's FD Mavica® cameras.

FD Mavica® cameras are especially well suited to real estate, education, small business and other applications that require the simplest, lowest-cost media.

FD Mavica® cameras also enable you to copy pictures right on the spot. So you can give floppies of a group photo to all the friends and family members who are in the picture! No waiting!



Affordable and easy, floppies are compatible with hundreds of millions of personal computers.

## DUAL MEDIA CAPABILITY

*Selected Sony cameras give you a choice, for even greater storage versatility.*

Intended for professionals and serious amateurs, Sony's DSC-F828 and DSC-V3 are sold with the expectations that the owner will already have high-capacity flash memory cards. That's why the cameras support both Memory Stick® media cards and CompactFlash™ cards. The second slot of the DSC-V3 accepts CompactFlash™ Type I, while the DSC-F828 also accepts Compact Flash Type II media along with Microdrive™ plug-in hard disk storage. (CompactFlash storage performance is not guaranteed. File system is FAT 16/32 compatible.)

A second approach to dual media is the MVC-FD200 FD Mavica camera. It accepts both floppy disks (for low cost) and Memory Stick® media (for high capacity). The camera also supports copying images from floppy to Memory Stick® media and back, as well as copying from floppy to floppy and from one Memory Stick® media card to another!

Sony's latest generation of dual-media cameras feature 32 MB\* internal memory, plus a slot for optional Memory Stick® media. This also enables copying pictures back and forth. These models include the DSC-S40, S60, S90, W5, W7 and H1.

\* A portion of the memory is used for data management functions. Actual available memory for storage is 30 MB.

The DSC-F828 supports both Memory Stick® and CompactFlash™ media.



COMPACT FLASH CARD

MEMORY STICK MEDIA

2. COPY TO FLOPPY...



1. SHOOT TO MEMORY STICK

3. SHARE YOUR IMAGES!

FD Mavica cameras allow you to shoot to inexpensive, easy to handle Floppy Disks or Memory Stick® media for extra capacity.

## ERGONOMICS/HANDLING

*Controls that work just the way you expect, located just where you expect.*

People take better pictures when they understand and use the correct controls. That's why Sony engineers spent so much time refining the "ergonomics;" the human interface that makes Sony cameras so easy to use. When you pick up a Sony camera, the shutter button is always where your right index finger will be! The mode dial is ready to be operated by your right thumb. Rubber pads on the front of Sony cameras put your fingertips in exactly the right spot, clear of the lens and flash. The pads also help provide a secure grip.

## TIME MACHINE RECORDING

*Captures five seconds of video from BEFORE you press the shutter release!*

To capture elusive, spontaneous and unexpected events, the remarkable Hybrid Record Mode of the DSC-M1 "goes back in time" to record the five seconds BEFORE you press the shutter. The secret? A cache memory that continuously accumulates video and sound – even before the shutter is released! For the full story on Hybrid Record Mode, please turn to the Versatility section of this manual.

## USER INTERFACE

*Easy-to-navigate menus and large type make using secondary features a snap.*

Sony cameras abound in features like ISO sensitivity settings, picture size selection, and manual exposure control. Because a camera is far too small to support individual buttons for each of these features, Sony offers multi-function control buttons for Up/Down/Left/Right and Select. A clear, consistent user interface with large on-screen menus enables even first-time users to navigate these choices with ease. And where others show cryptic icons, the meaning of which is easy to forget, Sony menus feature easy-to-understand words.



Sony's Cyber-shot cameras have advanced ergonomics for extreme ease of use!



Sony's on-screen menus are easy to read and easy to navigate.

Sony's DSC-F828 is designed to be held and used.



PC-free printing is easy when you connect a PictBridge™ compatible Sony camera to any of the industry-standard PictBridge™ compatible printers.

## PICTBRIDGE™ COMPATIBILITY

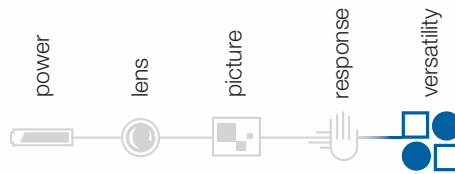
*Print without a computer – just connect the camera directly to the printer!*

PictBridge™ is an industry standard that enables the camera to control a printer for photo prints without a computer. You first connect the digital camera to an industry-standard PictBridge compatible printer via USB. Then you can select shots on the camera's LCD monitor and use the camera's controls to initiate printing. What once required a PC is now simplified with a direct connection from camera to a PictBridge compatible printer!

## DPOF PRINTING

*Lets you select images to print in the camera, prior to inserting the media into a printer.*

If you're taking your Memory Stick media, CD-R or CD-RW out of the camera and bringing it to a photo printer or retail store print kiosk, you may prefer to select your images for printing first. That's exactly what the Digital Print Order Format – DPOF – enables you to do. Then simply put the media into the printer and your selected pictures will print automatically!



# Versatility

Sony has a digital camera solution for nearly every type of photographer, shooting situation, and playback opportunity. We help you turn moments into memories with advanced video modes. Our cameras shine even when the sun doesn't. And we offer the features that help you get more from your pictures.

## SELECTION OF CAMERAS

*A camera for every type of photographer.*

In the early days, digital camera lineups ascended in price with one model at each Megapixel level. Today, no fewer than six different Sony cameras have 5-Megapixel CCDs. And all six have enormous 2.5-inch LCD screens for easier shooting and sharing. Why so many models? Because each camera caters to a different type of photographer! A look at these 5-Megapixel cameras reveals just how far Sony's lineup has evolved.



Not every photographer is the same. That's why Sony offers six distinct cameras with 5-Megapixel CCDs!

## NIGHT FRAMING

*Compose shots where other cameras can't – in low light or no light at all!*

Film cameras are limited to optical viewfinders, which make it very difficult to frame shots in the dark. Many digital cameras aren't much better, giving you a barely-distinguishable dark image in the LCD monitor. But Sony's DSC-V3 and DSC-F828 have an advantage. Night Framing illuminates your subject with infrared light and shows the results on your viewfinder, to help capture shots you couldn't get any other way! It's great for parties, clubs, intimate gatherings and sleeping babies. While Night Framing helps you compose the shot, the Hologram AF™ illuminator focuses in the dark. Then Through-the-Lens Pre-Flash Metering sets the correct exposure. The whole process is automatic and nearly instantaneous!

If you need ...	...then Sony has the right 5 Megapixel camera.
An all-around performer.	The DSC-W5 is the successor to one of last year's best selling cameras, the DSC-W1.
Advanced style and portability.	The ultra-slim DSC-T33 and DSC-T7 are less than one inch thin!
To turn snapshots into stories.	The DSC-M1 enhances still images with video, thanks to Hybrid Mode recording and superb MPEG-4 video technology.
Super powerful zoom.	The DSC-H1 features a 12X optical zoom lens.
To archive as you shoot.	The MVC-CD500 captures pictures on to affordable CD-R/RW media.



Night Framing first illuminates the subject with infrared light for a clearer LCD monitor image (left), then achieves accurate flash exposure (right). (Sample photos for illustration purposes.)

## NIGHTSHOT® SYSTEM

*Captures shots where other cameras can't – in low light or no light at all!*

Most cameras are limited to visible light, but Sony's DSC-V3 and DSC-F828 have no such limitation. The NightShot system illuminates your subjects with infrared light, which the camera uses to record an incredible image. With the NightShot system, you can literally see in the dark.

## PIVOTING LENS

*Greater flexibility in framing and shooting, to get shots that other cameras can't.*

Unlike film cameras, digital cameras enable the lens to pivot, rotate or turn in relation to the camera body. Free from "film camera" thinking, Sony saw this possibility during the early years of digital cameras. And Sony's line continues to feature this capability.

With the pivoting lens of the DSC-F828, you can hold the camera high over your head while still being able to frame the shot. Or hold the camera at floor level and frame the shot without pushing your face to the floor. Or mount the camera on a tripod and frame without stooping over.

## BURST MODE

*Catch a rapid sequence of shots, great for sports and unpredictable subjects like kids and pets.*

If you can't predict when the perfect shot might occur, Sony's Burst Mode gives you a range of choices. Burst Mode shoots at one frame per second, with the number of shots depending on image size. On the DCS-F828 and DSC-V3, the Speed Burst option can capture pictures at 3 frames per second by temporarily caching data to buffer memory.



Sony's Burst Mode gives you a rapid sequence of shots to capture fast action. (Sample photos for illustration purposes.)

## NIGHTSHOT



TOTAL DARKNESS



EXPOSURE WITH NIGHT SHOT

Even in total darkness (left), the NightShot system captures an image with infrared light (right). (Sample photos for illustration purposes.)



The pivoting lens of the DSC-F828 makes it easy to frame a wider range of shots.

## TURN & TWIST LCD SCREEN

*Adjusts to the perfect position for each situation: shooting, playback, transport and putting yourself in the picture.*

Incredibly adaptable, the 2.5-inch LCD screen of the DSC-M1 adjusts to four distinct positions:

- Turn the screen to the side for shooting.
- Twist it 180 degrees to put yourself in the picture.
- Turn it back against the camera body to view your pictures with everyone. In this position, three buttons along the left edge of the screen control playback.
- When you're done, twist the screen 180 degrees to face the body of the camera. This protects the screen from harm during transport!

## MULTI-BURST

*A sequence of images that plays back on-screen, Multi-Burst is perfect for analyzing a golf, tennis or baseball swing.*

Sony's Multi-Burst mode shoots a sequence of 16 rapid-fire frames, each of which has 320 x 240 resolution. The 16 frames become part of a single 1280 x 960 image that plays back sequentially in the camera. Selectable frame intervals include 1/7.5, 1/15 and 1/30 second for convenient motion analysis.



Multi-Burst Mode is perfect for analyzing your golf swing. (Sample photos for illustration purposes.)

## TIFF FORMAT

*Selected Sony cameras offer the option of uncompressed picture quality with the Tagged Image File Format (TIFF).*

## RAW FORMAT

*The DSC-F828 and V3 can capture RAW image data, free from the camera's digital processing.*

Serious photo enthusiasts know that image making is a two-step process: the moment of capture and the magic of the darkroom. In the "digital darkroom" of PC photo enhancement, you can correct the color, highlight exposure and shadow detail — with the ability to change your mind and start over from scratch. Unfortunately, digital camera compression and processing impose irreversible effects that inevitably limit your freedom to refine the image later on!

That's why the DSC-F828 and DSC-V3 offer RAW image capture, which bypasses the camera's internal signal processing. Think of the RAW image file as the digital equivalent of unprocessed film, with all the latent possibilities of the image left intact. When you take a RAW mode picture, the cameras also save a JPEG image that you can see on the LCD monitor. Unlike TIFF and JPEG files, Sony RAW files are not directly compatible with most image software. They must first be converted with Sony's Image Data Converter Software or with the DSC-F828 plug-in for Adobe® Photoshop® CS software.



RAW conversion with Sony's Image Data Converter software.

## PLAYBACK ZOOM

*An easy way to inspect the details of pictures, right after you've taken them. Great for checking focus and exposure.*

## TRIMMING

*Improve the framing of your shots by trimming out the boring background, then save the results as separate files.*

## MPEG MOVIE MODES

*Use your digital camera to capture movies with sound!*

Sony digital cameras can capture smooth, high resolution movie sequences with sound that you can watch on the camera's LCD monitor or your television. All Cyber-shot cameras work with the superior transfer speed of Sony's Memory Stick PRO™ media to deliver even higher frame rates for even smoother motion in MPEG Movie VX Fine mode. VX Fine mode achieves the ultimate yardstick of full motion video performance: 30 frames per second.

The DSC-M1 uses MPEG4 technology to capture stereo sound plus full-screen, full-motion video with 50% more horizontal resolution. Yet MPEG4 files occupy 1/4 the file size of conventional, MPEG1 files! So video clips will look great; and you can also shoot more of them.

## HYBRID RECORD MODE

*Turns snapshots into stories by capturing a still picture and a video clip simultaneously.*

Sony Handycam® camcorders are perfect for capturing EVENTS, such as violin recitals, soccer games, or birthday parties. The Hybrid Record mode of the DSC-M1 fulfills a different need — one that we call "casual video." Thanks to Hybrid Record mode, the DSC-M1 lets you capture MOMENTS like never before.

In Hybrid Record Mode, a full-resolution still picture is just the beginning. Along with the still, you also capture five seconds of video from BEFORE you push the shutter, plus three seconds after! You get the full memory of a surprise party, the full toss of the bridal bouquet, the full magic of the child and the birthday candles.

The M1 can act as a "time machine" thanks to a cache memory that starts registering video as soon you select Hybrid Mode! For the full story on Time Machine Recording, please turn to the Response section of this manual.

Our digital cameras are also movie cameras, with Sony's MPEG Movie modes. (Sample photos for illustration purposes.)



Mode	Resolution	Frame Rate (approx.)	Data Rate (approx.)
MPEG Movie Video Mail	160 x 112	8 fps	0.18 Mbps
MPEG Movie VX	640 x 480	16 fps	2.9 Mbps
MPEG Movie VX Fine	640 x 480	30 fps	10.5 Mbps
MPEG Movie 4TV	320 x 240	15 fps	0.277 Mbps
MPEG Movie 4TV	320 x 240	30 fps	0.975 Mbps
MPEG Movie 4TV	640 x 480	30 fps	2.88 Mbps

### 5-SECOND RECORD MODE

*Records short "casual video" clips that can later be combined into compelling sequences.*

Hybrid Record Mode is just one aspect of the DSC-M1's unique ability to support "casual video." Another is the 5-Second Record Mode. This lets you take "video snapshots" at whim. You can even combine the video snapshots into fast-paced sequences that play without interruption.

### METAL BODY INSTEAD OF PLASTIC

*Smaller, sleeker, more rugged cameras that are more substantial to the touch.*

You might expect that metal makes for a more rugged, solid-feeling camera. But there's much more to it than that. Because metal parts can be far thinner than plastic parts of equal strength, metal plays a crucial role in making Sony's cameras slender and attractive – yet rigid and precise.



The metal chassis of the DSC-V3 and DSC-T7 are more than rugged. They also help Sony provide maximum technology in minimum size.

### ACCESSORY USB CRADLE

*Quick and easy connections for USB, audio, video and power.*

Sony's Cyber-shot Station USB cradle is an alternative to individual cables. Simply snap the camera into the cradle to make a USB connection to the computer, a connection to AC power and an A/V connection to a television set! Cyber-shot Station cradles are optional accessories for the DSC-S60, S90 and P200, and supplied accessories for the DSC-T33 and M1.



Snap the DSC-M1 into its supplied UC-MA cradle for one-step connection to USB and power.

### ADVANCED ACCESSORY SHOE

*The flexibility of a more powerful flash.*

For extra power in flash photography, Sony has created an Advanced Accessory Shoe. There's no need for a cable because the shoe includes the contacts to communicate mode and exposure information with Sony's dedicated flashes. This enables advanced operations like TTL Pre-Flash Metering for super-accurate flash exposures. The shoe also provides a sync terminal for third-party studio flash systems.



Sony's Advanced Accessory Shoe provides connections not only for flash trigger, but also for precise control.

### GO-ANYWHERE DESIGN

*Cameras small enough to always be with you mean you'll always be ready to get the shot.*

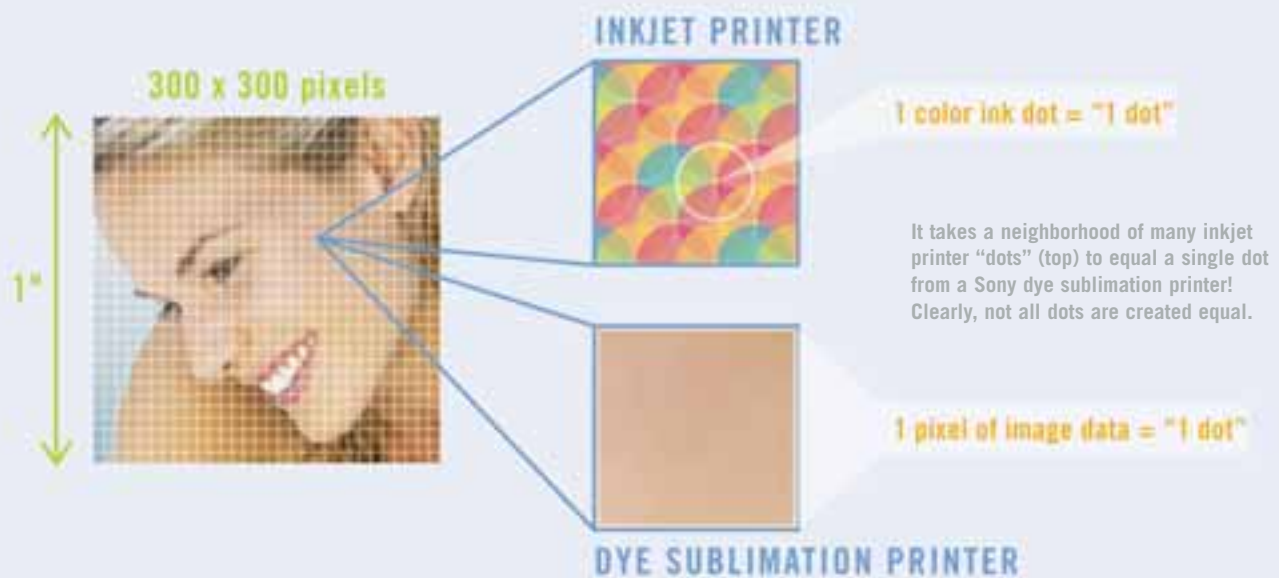
Sony DSC-L1, P200, T33 and T7 Cyber-shot® cameras all have something in common. They're small enough to fit in a shirt pocket and portable enough to take along wherever you go. These sleek, always-with-you designs mean that you'll always be ready to take a picture, no matter what funny, dramatic or moving moments life sends your way.

The DSC-T7 is just one excellent example of Sony's always-with-you cameras.



# worryfree digital photoprinting™

The typical color inkjet printer attached to the typical home computer is fine for many tasks. But high-resolution digital photo printing isn't likely to be one of them. In terms of color, resolution, durability, and archival life, you're far better off with a dedicated printer optimized for the single task of photo prints! And with a dedicated printer, you can print even without a PC! That's the concept behind Sony PictureStation™ digital photo printers.



## PICTURE

### DYE SUBLIMATION WITH 16.7 MILLION COLORS

*Thousands of times more color possibilities for each individual dot, when compared to inkjet printers.*

A 4-color inkjet printer can reproduce any individual dot in  $2^4$  or 16 distinct colors. A 7-color inkjet printer can reproduce  $2^7$  (128) distinct colors per dot. In dramatic contrast, Sony dye sublimation printers can print three dye colors – cyan, magenta and yellow – in 256 shades of each! Do the math and  $256 \times 256 \times 256$  equals 16,777,216 distinct colors for each pixel. Inkjet printers just can't come close.

Because inkjet printers can't match this range of colors, they need to approximate the correct color by printing a cluster or neighborhood of much smaller dots. Inkjet printer dots do not create a continuous tone. And the smaller dots create challenges for the transfer head and paper media. Because dye sublimation printers generate a true, continuous tone, they do not incur these issues.

To equal the color resolution of a Sony dye sublimation printer, inkjet printers require far, far smaller dots. So comparing dye sublimation dpi to inkjet dpi is not like comparing apples to oranges. It's more like comparing apples to thumbtacks.

While inkjet printers might be able to muster as few as 16 distinct colors per dot, Sony dye sublimation printers can reproduce 16,777,216 colors per dot. That's a much bigger box of crayons!



## COLOR GAMUT

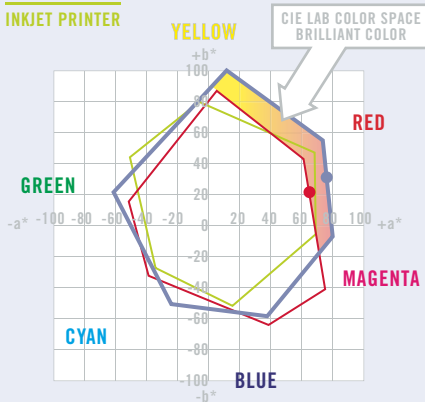
*A wider range of colors, particularly reds and yellows, than conventional photochemical prints.*

If you think of the silver halide chemical processing as the gold standard in photo prints, you may need to reconsider. Sony dye sublimation printers actually have a superior range or “gamut” of colors, especially in the reds and yellows. This means you’ll see vivid, natural colors that conventional photo prints are quite simply unable to duplicate!

SONY DYE SUBLIMATION PRINTER

SILVER HALIDE PHOTO

INKJET PRINTER



The CIE I\*a\*b\* color chart demonstrates the superiority of Sony dye sublimation printing.



SILVER HALIDE PHOTO

DYE SUBLIMATION PRINTING

Conventional photo printing (left) can't match the range of colors of Sony dye sublimation (right). (Sample photos for illustration purposes.)



Sony's SuperCoat 2™ treatment protects your precious memories from stains, spills and the ravages of time. (Sample photo for illustration purposes.)

## THE DURABILITY OF SONY'S SUPERCOAT 2™ TREATMENT

*Stands up to fingerprints, liquid spills and the ravages of time.*

Dye sublimation printers work by drawing the paper through the printer multiple times (once for each of three primary colors). Sony used this as an opportunity for a fourth pass – fusing a protective laminate that we call the SuperCoat 2™ finish. This incredibly durable coating protects the surface of each print from fingerprints, splashes of liquid and fading. So your prints remain fresh and beautiful year after year.

## RESPONSE

### SPEED

*Get a 4 x 6-inch print in about 60 seconds!*

Sony's high-sensitivity print paper makes for faster output than with conventional dye sublimation printers. The DPP-FP30 prints in about 90 seconds while the FP50 takes only about 60 seconds.

### PC-FREE PRINTING

*No need to connect a PC, no need to boot up.*

Because so much of our memories are shared in the living room, it makes sense to choose a photo printer that's as comfortable working with a television as with a PC. And PC-free printing is quick. (Just booting up the PC can be time consuming.) Sony digital photo printers are always ready to go right away. You can connect the camera via USB. Or you can slide the Memory Stick® media out of a Cyber-shot® camera and into the DPP-FP50 printer. The FP50 also accepts

Secure Digital and CompactFlash™ media. However you use them, Sony printers are fast and easy.

## VERSATILITY

### CONNECT TO TV

*Because the living room is a great place for sharing memories, the DPP-FP50 displays your pictures on a television.*

### PICTBRIDGE™ PRINTING

*Advanced control of printing from the camera's LCD monitor.*

When you connect a PictBridge™ compatible camera to a Sony digital photo printer, great things happen. The PictBridge™ system enables you to use the camera's LCD monitor to preview pictures, select the ones to print and start printing! The printer acts as a “slave” under the control of the camera.



Connect a Sony camera and printer via USB and you get easy, unified control of the entire printing process from the camera's LCD monitor.

### PRINTER EDITING

*Reduce red-eye in flash pictures, adjust image sharpness, contrast, brightness and size.*

The DPP-FP50 gives you powerful control over the look of your prints. Just connect the printer to a television and you're ready to refine your images!

# worryfree**digital**accessories™

To get the most out of worryfree digital photography, get connected with Sony Digital Still Camera accessories.

## **STARTER KITS/CHARGER KITS**

*A great way to complete the camera purchase, with soft carrying case, rechargeable battery and more.*



The ACC-CN3TR starter kit includes a camera carrying case, two high-capacity NiMH AA batteries and a compact travel battery charger.

## **FLASHES**

*Extend the reach of the built-in flash with a Sony external flash.*



The HVL-F32X external bounce flash achieves true, through-the-lens flash metering when connected to a camera with Sony's Advanced Accessory Shoe.

## **USB CRADLES**

*Easily transfer images and recharge batteries with the optional Cyber-shot® Station USB cradle.*



Cyber-shot Station cradles make it easier than ever to transfer and view your pictures. Each includes a USB cable for computer transfers and an audio/video cable so you can view your pictures and videos on your television. The DSC-S60 and S90 work with the CSS-SA while the DSC-P200 works with the CSS-PHB.

## **CONVERSION LENSES**

*Reach out to distant subjects with a telephoto converter or go wide to get the whole family with a wide angle converter.*



The VCL-DH0730 wide angle conversion lens attaches to several Cyber-shot® cameras through VAD series adaptors.

## FILTERS

*Another level of creative control, filters make professional-grade effects easy to achieve!*



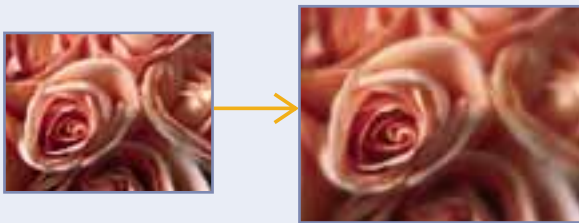
Use the polarizing filter of Sony's VF-30CPKS to control reflections off water or glass. (Sample photos for illustration purposes.)



The neutral density filter of Sony's VF-30NK helps control bright outdoor scenes, for images of more subtlety and beauty. (Sample photos for illustration purposes.)



The star filter of Sony's VF-30SC lends a dramatic touch to picture highlights. (Sample photos for illustration purposes.)



The soft filter of Sony's VF-30SC adds the right touch of diffusion for romantic portraits, emotional subjects and atmospheric landscapes. (Sample photos for illustration purposes.)

## CAMERA SUPPORT

*For long-exposure nighttime shots and full telephoto shots, a Sony tripod helps deliver crisp, tack-sharp pictures.*

Stabilize your camera with a Sony VCT-1500L lightweight tripod.



## MEDIA

*Not only is Sony a leader in digital cameras, Sony is an innovator in digital camera media.*



Step up to higher capacity with the MSX-4GN Memory Stick PRO™ media card with 4 GB (approx. 3.66 GB available) capacity. (Available storage may vary. A portion of memory is used for data management functions.)

## POWER

*Keep the good times rolling with Sony accessory batteries, and chargers.*



Stay in power with an extra NP-FR1 InfoLithium® battery and a BC-TR1 compact charger.

## PROTECTION

*Sony cases carry and protect your camera.*



Cyber-shot® P series cameras have a home in the LCS-PHC soft carrying case.

# Sony Digital Still Camera Lineup

## CYBER-SHOT® DSC-S40 DIGITAL CAMERA

*The battery life to keep up with your lifestyle.*

- 4.1 megapixels
- 3x optical zoom
- Alkaline batteries



### HIGHLIGHTS

- 4.1 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality and ultra-sleek design.
- Incredible battery stamina: up to 110 shots with supplied alkalines; up to 550 shots with optional NiMH rechargeables!
- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.
- 32 MB\* internal memory; shoot without a flash memory card.

### FEATURES

- Slot for optional Memory Stick® and Memory Stick PRO™ media to save more pictures, copy pictures for friends.
- MPEG Movie VX Fine mode captures smooth video clips of exceptional quality (with optional Memory Stick PRO media).
- 2X Precision Digital Zoom without the jagged picture edges of other designs, resulting in smoother images.
- 1.5" LCD monitor makes it easy to frame shots and review pictures (77K pixels).
- Auto Daylight Synchro Fill Flash identifies subjects in backlight or shadow and fires for optimum exposure.

### SUPPLIED ACCESSORIES

- AA Alkaline batteries
- USB cable
- Wrist strap
- Software CD-ROM



DSC-S90's 2.5" LCD Screen



## CYBER-SHOT® DSC-S60/S90 DIGITAL CAMERA

*Your pictures deserve the big-screen treatment.*

- 4.1 megapixels
- 3x optical zoom
- Alkaline/NiMH batteries

### HIGHLIGHTS

- Extra-large, 2" (DSC-S60) or 2.5" (DSC-S90) LCD monitors with 115K pixels make framing and sharing pictures easy.
- 4.1 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality and ultra-sleek design.
- Incredible battery stamina: up to 80 shots using alkalines; up to 490 shots with optional NiMH rechargeables! (optional for DSC-S60, supplied for DSC-S90).
- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.

### FEATURES

- 32 MB\* internal memory; shoot without a flash memory card.
- Slot for optional Memory Stick®, Memory Stick PRO™ media.
- MPEG Movie VX Fine mode.
- Manual exposure w. 46-step Shutter and 2-step Aperture.
- Live Histogram display.
- Add 30mm thread filters and wide or tele conversion lenses with the optional VAD-PEB adaptor.
- Works with the optional CSS-SA Cyber-shot Station cradle for instant connection to your computer.

### SUPPLIED ACCESSORIES

- NH-AA-DA Rechargeable AA batteries (supplied with DSC-S90, optional for DSC-S60)
- BC-CS2 battery charger (supplied with DSC-S90, optional for DSC-S60)
- AA Alkaline batteries (supplied with DSC-S60, optional for DSC-S90)
- AV/USB multi-cable
- Wrist strap
- Software CD-ROM



\* Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.

## CYBER-SHOT DSC-L1 DIGITAL CAMERA

*Maximum picture-taking power in minimum size.*

- 4.1 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery



### HIGHLIGHTS

- 4.1 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Ultra-small digital camera with optical zoom: Carl Zeiss® Vario-Tessar® 3x optical zoom lens.
- Super compact design, less than 100 cc, helps you capture life as it happens.
- 1.5" transreflective LCD monitor makes it easy to frame shots and review pictures (78K pixels).
- MPEG Movie VX Fine mode captures smooth video clips of exceptional quality.

### FEATURES

- Sony's own Real Imaging Processor™ LSI for fast shot-to-shot times and extended battery stamina.
- 2X Precision Digital Zoom without the jagged picture edges of other designs, resulting in smoother images.
- Live Histogram display makes it easier than ever to analyze your shots for correct exposure.
- Memory Stick Duo™ and Memory Stick PRO Duo™ media are compact, portable and rugged.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-FT1 InfoLithium® rechargeable battery
- AC-LS5 AC adaptor/in-camera battery charger
- Tripod adaptor
- USB cable
- Neck strap
- MSA-M16A Memory Stick Duo Media (16 MB)\*
- MSAC-M2 Memory Stick Duo Adaptor
- Software CD-ROM



DSC-W7's 2.5" LCD Screen



## CYBER-SHOT® DSC-W5/W7 DIGITAL CAMERAS

*Benchmarks in resolution, convenience and control.*

- 5.1/7.2 megapixels
- 3x optical zoom
- NiMH rechargeable batteries

### HIGHLIGHTS

- 5.1 Megapixel (DSC-W5) or 7.2 Megapixel (DSC-W7) Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality and ultra-sleek design.
- Ideal form factor with rangefinder-type, eye-level optical viewfinder for traditional shooting style.
- Extra-large, high-resolution 2.5" LCD monitor with 115K pixels makes framing and reviewing pictures easy.
- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.

### FEATURES

- 32 MB\* internal memory; shoot without a flash memory card.
- Slot for optional Memory Stick® and Memory Stick PRO™ media to save more pictures, copy pictures for friends.
- MPEG Movie VX Fine mode captures smooth video clips of exceptional quality (with optional Memory Stick PRO media).
- Live Histogram display makes it easier than ever to analyze your shots for correct exposure.
- Manual exposure mode with 46-step Shutter speed and 2-step Aperture control.
- Add 30mm thread filters and wide or tele conversion lenses with the optional VAD-WA adaptor.
- Rechargeable AA NiMH batteries for long lasting power; supplied BC-CS2 charger.

### SUPPLIED ACCESSORIES

- NH-AA-DA Rechargeable NiMH AA batteries
- BC-S2 battery charger
- A/V and USB cables
- Wrist strap
- Software CD-ROM

\* Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.



## CYBER-SHOT® DSC-P200 DIGITAL CAMERA

*Superlative resolution in a supremely compact design.*

- 7.2 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery

### HIGHLIGHTS

- 7.2 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality and ultra-sleek design.
- Outstanding picture-taking technology in a sleek, beautifully crafted camera you can take anywhere – just 1" thin to fit most any pocket or purse.
- Large, 2" LCD monitor with 134K pixels make it easy to frame shots and review pictures.
- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.

### FEATURES

- Works with the optional CSS-PHB Cyber-shot Station cradle for instant connection to your computer and power.
- Manual exposure mode with 46-step Shutter speed and 2-step Aperture control.
- Multi-Pattern Measuring is not thrown off by a single bright highlight or deep shadow for great exposure, automatically.
- Live Histogram display makes it easier than ever to analyze your shots for correct exposure.
- Add 30mm thread filters and wide or tele conversion lenses with the optional VAD-PHC adaptor.
- 14-bit Digital EXTended Processor (DXP) for extended dynamic contrast and detail.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-FR1 InfoLithium® Rechargeable battery
- AC-LS5 AC adaptor/in-camera charger
- AV/USB multi-cable
- Wrist strap
- MSA-32A Memory Stick® Media (32 MB)\*
- Software CD-ROM



DSC-T7's 2.5" LCD Screen

## CYBER-SHOT® DSC-T33/T7 DIGITAL CAMERAS

*The next generation of Sony's classic, ultra-thin camera.*

- 5.1 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery

### HIGHLIGHTS

- Incredible quality and compactness with 5.1 Megapixel Super HAD™ CCD and Carl Zeiss® Vario-Tessar® lens.
- The world's most compact zoom camera, less than 0.6" thin (T7), less than 3/4" thin (T33).
- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality with unique internal design so it never extends from the camera body.
- Enormous 2.5" LCD monitor with 230K pixels, amazing in such a small camera, makes it easy to read menus, share images with friends.
- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.

### FEATURES

- Supplied Cyber-shot Station USB Cradle for quick, one-step connection to a PC, a television and AC power (DSC-T33 only).
- 3x Optical/2x digital/6x total zoom brings even far-away subjects up close.
- Clear Photo LCD for higher resolution, contrast and brightness, 40% better color than Sony's previous LCDs.
- Magnifying Glass Mode can focus to within 0.4" (1 cm), displaying images at 3.3X actual size for spectacular macro shots.
- Multi-pattern measuring is not thrown off by a single bright highlight or deep shadow for great exposure, automatically.
- Memory Stick Duo™ and Memory Stick PRO Duo™ media are ultra-compact, portable and rugged.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-FT1 InfoLithium® Rechargeable battery (DSC-T33)
- NP-FE1 InfoLithium® Rechargeable battery (DSC-T7)
- AC-LM5 AC adaptor/in-camera charger (DSC-T33)
- BC-CS3 Battery charger (DSC-T7)
- Cyber-shot Station USB Cradle (DSC-T33)
- Desktop stand (DSC-T7)
- A/V and USB cables
- Wrist strap
- MSA-M32A Memory Stick Duo™ media (32 MB)\*
- MSAC-M2 Memory Stick Duo™ Adapter
- Software CD-ROM

\* Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.

## CYBER-SHOT® DSC-M1 DIGITAL CAMERA

*Equally brilliant for digital pictures  
& MPEG4 video.*

- 5.1 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery



### HIGHLIGHTS

- Vertical orientation and articulated design optimized for capturing both MPEG4 video and still pictures.
- "Mode-less recording" with dedicated, oversized function keys for direct still image or MPEG4 video capture.
- Hybrid Recording: simultaneously captures still picture, plus five seconds of video BEFORE you press the shutter and three seconds after!
- Free angle LCD twists so you can put yourself in the picture; folds out for compact playback, folds back for extra protection in transit.
- Enormous 2.5" LCD monitor, amazing in such a small camera, makes it easy to read menus, share images with friends.

### FEATURES

- Carl Zeiss® Vario-Tessar® 3x optical zoom lens combines exceptional picture quality with unique internal design so it never extends from the camera body.
- 5.1 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- MPEGMovie4TV recording captures full-screen video at up to 30 fps with stereo sound; provides 50% more horizontal resolution with 1/4 the file size.
- Supplied UC-MA Cyber-shot Station USB Cradle for quick, one-step connection to a PC, a television and AC power.
- Magnifying Glass Mode can focus to within 0.4" (1 cm), displaying images at 3.3X actual size for spectacular macro shots.
- Memory Stick Duo™ and Memory Stick PRO Duo™ media are ultra-compact, portable and rugged.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-FT1 InfoLithium® Rechargeable battery
- AC-LM5 AC adaptor/in-camera charger
- UC-MA Cyber-shot Station USB Cradle
- Stereo A/V and USB cables
- Wrist strap
- MSA-M32A Memory Stick Duo™ media (32 MB)\*
- MSAC-M2 Memory Stick Duo™ Adapter
- Software CD-ROM



DSC-H1's 2.5" LCD Screen

### HIGHLIGHTS

- 12x optical zoom lens pulls in far closer to distant subjects or pulls back for the wide shot.
- Super SteadyShot® Optical Image Stabilization fights motion blur, even during longer exposures at full zoom.
- 5.1 Megapixel Super HAD CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Ideal form factor with eye-level through-the-lens electronic viewfinder for traditional shooting style.
- Extra-large, high-resolution 2.5" LCD monitor with 115K pixels makes framing and reviewing pictures easy.

## CYBER-SHOT® DSC-H1 DIGITAL CAMERA

*Get closer than ever with an optically  
stabilized 12x zoom lens.*

- 5.1 megapixels
- 12x optical zoom
- NiMH rechargeable batteries

### FEATURES

- Sony's own Real Imaging Processor™ LSI for fast startup, fast shot-to-shot times and extended battery stamina.
- MPEG Movie VX Fine mode captures smooth video clips of exceptional quality (with optional Memory Stick PRO media).
- 32 MB\* internal memory; shoot without a flash memory card.
- Slot for optional Memory Stick® and Memory Stick PRO™ media to save more pictures, copy pictures for friends.
- 12x Optical/2x digital/24x total zoom brings even far-away subjects up close.
- Add 58mm thread filters and wide or tele conversion lenses.
- Rechargeable AA NiMH batteries for long lasting power; supplied BC-CS2 charger.

### SUPPLIED ACCESSORIES

- Lens hood and conversion lens adaptor
- NH-AA-DA Rechargeable NiMH AA batteries
- BC-CS2 battery charger
- A/V and USB cables
- Shoulder strap
- Software CD-ROM

\* Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.



DSC-V3's 2.5" LCD Screen

## CYBER-SHOT DSC-V3 DIGITAL CAMERA

*Total creative control in the palm of your hand.*

- 7.2 megapixels
- 4x optical zoom
- InfoLithium® rechargeable battery

### HIGHLIGHTS

- 7.2 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Carl Zeiss® Vario-Sonnar® 4x optical zoom lens combines exceptional quality with extraordinary zoom range.
- Flexible exposure modes: Aperture Priority, Shutter Priority, Program Shift and full manual.
- NightShot® infrared system and NightFraming make it possible to take the low- or no-light pictures that other cameras can't.
- Extra-large, high-resolution 2.5" LCD monitor makes framing and reviewing pictures easy.

### FEATURES

- Full Manual Exposure with 46-step shutter speed and 13-step aperture control.
- 5 Area Multi-Point Auto Focus with manually movable AF point, 14-step manual and Spot Focus option.
- Hot Shoe and ACC terminal for external flash, remote controls, sync with third-party studio flash systems.
- Compatible with optional VAD-VHA lens adaptor for filters and optional wide or tele conversion lenses.
- RAW mode and data converter software captures data directly from the CCD before any in-camera processing.
- Dual Media capability accepts optional Memory Stick Media, optional Compact Flash® Type I media.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-FR1 InfoLithium® Rechargeable battery
- AC-LS5 AC adaptor/in-camera charger
- A/V and USB cables
- Shoulder strap
- Software CD-ROMs

## CYBER-SHOT DSC-F828 DIGITAL CAMERA

*The standard against which all others will be compared.*

- 8.0 megapixels
- 7x optical zoom
- InfoLithium® rechargeable battery

### HIGHLIGHTS

- The first camera ever with Sony's 8.0 Megapixel Super HAD™ CCD, plus Sony's 4-color RGB+E system.
- Real Imaging Processor™ LSI converts RGB+E data into ideal RGB; achieves fast startup, extended battery stamina.
- Fast, sharp, high-contrast Carl Zeiss® Vario-Sonnar® T\* lens with 12 elements in 9 groups (3 aspheric elements).
- SLR-like control, with direct-access Focus and Zoom rings, top-mounted Mode dial, and high-res eye-level viewfinder.
- Pivoting lens shoots from waist level and over your head. Pivot the lens toward the subject, the LCD toward you.

### FEATURES

- 7x Optical/2x digital/5x Smart Zoom™ feature (up to 35x total zoom at VGA size) brings even far-away subjects up close.
- 4-color system goes beyond RGB to RGB+E (Emerald) for more natural color, closer to human perception.
- Flexible exposure modes: Aperture Priority, Shutter Priority, Program Shift, EV compensation and full manual.
- Eye level and 1.8" LCD Viewfinders for accurate framing, through-the-lens viewing and menu display.
- Manual focus and zoom rings for fast, intuitive, precise control.
- RAW mode with data converter software captures data directly from the CCD before any in-camera processing.
- Dual Media capability accepts optional Memory Stick Media, optional Compact Flash® Type I/II media and optional Microdrive media.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.



### SUPPLIED ACCESSORIES

- Lens hood
- NP-FM50 InfoLithium® Rechargeable battery
- AC-L15 AC adaptor/in-camera charger
- A/V and USB cables
- Lens cap with strap
- Shoulder strap
- Software CD-ROMs

## FD MAVICA® MVC-FD200 DIGITAL CAMERA

*Digital pictures as Easy as a floppy.*

- 2.0 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery



### HIGHLIGHTS

- 2.0 Megapixel Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- 3x Optical/2x Digital/6x total zoom brings even far-away subjects up close.
- Dual media: shoots onto inexpensive floppy disks or compact, portable, rugged Memory Stick® media.
- Distribute pictures to friends on the spot: copy them from Memory Stick® media onto floppies!
- 2.5" LCD monitor with 123K pixels makes it easy to frame shots and review pictures.

### FEATURES

- 12-bit Digital EXtended Processor (DXP) for extended dynamic contrast and detail.
- Intelligent flash with Red-Eye reduction provides the right amount of light for optimum brightness and color.
- MPEG Movie mode (no audio) captures easy-to-email video clips at 8.3 frames per second.
- Clip Motion saves a sequence of images as a GIF animation that plays back at 2 frames per second.
- 5-Mode Program AE for Twilight, Twilight +, Landscape, Pan Focus and Spot Meter.
- UXGA, XGA and VGA capture let you match the image resolution to your needs.

- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

### SUPPLIED ACCESSORIES

- NP-F330 Rechargeable InfoLithium® battery
- AC-L10 AC power adaptor/in-camera charger
- Shoulder strap
- Lens cap with strap
- AC cable
- Video cable
- USB Cable
- Software CD-ROM



## CD MAVICA® MVC-CD350/CD500 DIGITAL CAMERAS

*Shoot and save forever onto affordable CDs!*

- 3.2/5.0 megapixels
- 3x optical zoom
- InfoLithium® rechargeable battery

### HIGHLIGHTS

- Fast, sharp, high-contrast Carl Zeiss® Vario-Sonnar® lens with 7 elements (2 aspheric) in 8 groups (MVC-CD500 only).
- 3.2 Megapixel (MVC-CD350) 5.0 Megapixel (MVC-CD500) Super HAD™ CCD with exclusive Sony technology for superb resolution, sensitivity and clarity.
- Records onto affordable 3-inch CD-R/RW media compatible with most PCs; shoot and store on the same media (uses sequential formatting)!
- Contoured, ergonomic hand grip and curved body for easy handling, stable shooting.
- Flexible exposure modes: Aperture Priority, Shutter Priority, Program Shift and full manual (MVC-CD500 only).

### FEATURES

- 156 MB storage capacity on each disc: room for hundreds of images and movie clips.
- 3x Optical zoom. Smart Zoom™ system for up to 12x (MVC-CD500) or 9.6x (MVC-CD350) zoom at VGA size.
- Extra-large, high-resolution 2.5" LCD monitor makes framing and reviewing pictures easy.
- Live Histogram display makes it easier than ever to analyze your shots for correct exposure (MVC-CD500 only).
- 14-bit Digital EXtended Processor (DXP) for extended dynamic contrast and detail.
- Designed for use with rechargeable InfoLithium® battery (included) for long-lasting power without "memory effect;" enables time-remaining display.

- MPEG Movie VX mode captures smooth motion at up to 16 frames per second.

### SUPPLIED ACCESSORIES

- NP-FM50 InfoLithium® Rechargeable battery
- AC-L15 AC adaptor/in-camera charger
- A/V and USB cables
- Shoulder strap
- Lens cap
- MCR-156A CD-R media
- MCRW-156A CD-RW media
- Software CD-ROM

## PICTURESTATION™ DPP-FP30/FP50 PHOTO PRINTERS

*Sony brings lab-quality printing home!*

- 16 million colors
- 4" x 6" print size
- Photo quality processor



### HIGHLIGHTS

- Lab-quality prints at home with fabulous dye sublimation picture quality. Prints resist moisture, fingerprints.
- Preview images on your television (DPP-FP50 only).
- PC free printing with creative printing options.
- PictBridge™ compatibility for direct printing via USB interface with compatible cameras.
- Versatile printing directly from a camera's Memory Stick®, Secure Digital™, CompactFlash® media, or other media with adaptor (DPP-FP50 only).

### FEATURES

- 16.7 million colors.
- Supercoat 2™ protective lamination resists color shift, fading, moisture and fingerprints!
- Prints in two sizes: borderless 4 x 6" and borderless 3-1/2 x 5".
- Fast: prints a 4 x 6" image in about 90 seconds from a PC, including processing time (120 seconds from a PictBridge camera).
- PC printing via USB interface.

### SUPPLIED ACCESSORIES

- Paper tray
- Software CD ROM
- Video cable (DPP-FP50 only)
- Wireless remote control (DPP-FP50 only)
- 40-sheet print pack (DPP-FP30 only)
- 10-sheet print pack (DPP-FP50 only)
- AC Adapter

# Digital Still Camera Specifications

	DSC-S40	DSC-S60	DSC-S90	DSC-W5	DSC-W7
<b>LENS &amp; IMAGER</b>					
SUPER HAD™ CCD	1/2.7"	1/2.7"	1/2.7"	1/1.8"	1/1.8"
MEGAPIXEL	4.1 MP	4.1 MP	4.1 MP	5.1 MP	7.2 MP
LENS/OPTICAL ZOOM	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X
APERTURE	f2.8-5.2	f2.8-5.2	f2.8-5.2	f2.8-5.2	f2.8-5.2
FOCAL LENGTH	5.1-15.3 mm	6-18 mm	6-18 mm	7.9-23.7 mm	7.9-23.7 mm
35MM EQUIVALENCY	32-96 mm	38-113 mm	38-113 mm	38-114 mm	38-114 mm
SMART ZOOM™ FUNCTION	0-10X (VGA)	0-10X (VGA)	0-10X (VGA)	0-12X (VGA)	0-14X (VGA)
PRECISION DIGITAL ZOOM	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)
MULTI-POINT AF	Auto, 5 Area	Auto, 5 Area	Auto, 5 Area	Auto, 5 Area	Auto, 5 Area
AF ILLUMINATOR LIGHT	Yes	Yes	Yes	Yes	Yes
MANUAL FOCUS	N/A	Yes, 5-step	Yes, 5-step	Yes, 5-step	Yes, 5-step
NIGHTSHOT® SYSTEM	N/A	N/A	N/A	N/A	N/A
NIGHTFRAMING	N/A	N/A	N/A	N/A	N/A
<b>CAMERA</b>					
REAL IMAGING PROCESSOR™ LSI	Yes	Yes	Yes	Yes	Yes
DXP	14-bit	14-bit	14-bit	14-bit	14-bit
WHITE BALANCE	5 Preset	5 Preset	5 Preset	5 Preset	5 Preset
APERTURE RANGE	Auto f2.8-5.2	2-step f2.8-5.2	2-step f2.8-5.2	2-step f2.8-5.6	2-step f2.8-5.6
SHUTTER SPEED RANGE	Auto 1/8-1/1000	46-step 30-1/1000	46-step 30-1/1000	46-step 30-1/1000	46-step 30-1/1000
MANUAL EXPOSURE	N/A	Adj. Shutter/Ap	Adj. Shutter/Ap	Adj. Shutter/Ap	Adj. Shutter/Ap
SCENE MODES	6 mode	7 mode	7 mode	7 mode	7 mode
FLASH EFFECTIVE RANGE	6"-12'6" (0.2-3.8 m)	1'8"-12'6" (0.5-3.8 m)	1'8"-12'6" (0.5-3.8 m)	1"-14'9" (0.3-4.5 m)	1"-14'9" (0.3-4.5 m)
<b>LCD/VIEWFINDER</b>					
LCD	1.5" 77K pixel	2" 115K pixel	2.5" 115K pixel	2.5" 115K pixel	2.5" 115K pixel
EYE-LEVEL VIEWFINDER	Optical	Optical, True Zoom	Optical, True Zoom	Optical, True Zoom	Optical, True Zoom
HISTOGRAM DISPLAY	N/A	Yes	Yes	Yes	Yes
<b>RECORDING</b>					
RECORDING MEDIA	32 MB internal, optional MS	32 MB internal, optional MS	32 MB internal, optional MS	32 MB internal, optional MS	32 MB internal, optional MS
8 MP IMAGE	N/A	N/A	N/A	N/A	N/A
7 MP IMAGE	N/A	N/A	N/A	N/A	3072 x 2304
5 MP IMAGE	N/A	N/A	N/A	2592 x 1944	2592 x 1944
4 MP IMAGE	2304 x 1728	2304 x 1728	2304 x 1728	N/A	N/A
3 MP IMAGE	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536
2 MP IMAGE	N/A	N/A	N/A	N/A	N/A
1 MP IMAGE	1280 x 960	1280 x 960	1280 x 960	1280 x 960	1280 x 960
VGA IMAGE	640 x 480	640 x 480	640 x 480	640 x 480	640 x 480
3:2 IMAGE	2304 x 1536	2304 x 1536	2304 x 1536	2592 x 1728	3072 x 2048
BURST MODE FRAMES/FPS	4-shot, 0.7 fps (4MP)	4-shot, 0.7 fps (4MP)	4-shot, 0.7 fps (4MP)	9-shot, 0.7 fps (5MP)	5-shot, 0.9 fps (7MP)
AUTO EXPOSURE BRACKETING	N/A	N/A	N/A	N/A	N/A
PICTURE EFFECTS	Sepia, B&W	Sepia, B&W	Sepia, B&W	Sepia, B&W	Sepia, B&W
MPEG MOVIE MODES	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM
MULTI-BURST MODE	Yes	Yes	Yes	Yes	Yes
<b>PLAYBACK</b>					
PLAYBACK ZOOM	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X
TRIMMING/RESIZING	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
MPEG CUE/REV/DIVIDE	Yes	Yes	Yes	Yes	Yes
PICTBRIDGE™ COMPATIBILITY	Yes	Yes	Yes	Yes	Yes
<b>GENERAL</b>					
CONNECTIONS	USB	AV/USB via Multi-use	AV/USB via Multi-use	AV/USB	AV/USB
BATTERY COMPATIBILITY	2 AA Alkaline, NiMH	2 AA Alkaline, NiMH	2 AA Alkaline, NiMH	2 AA Alkaline, NiMH	2 AA Alkaline, NiMH
WINDOWS® OS COMPATIBILITY	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000 Pro, XP Home, XP Pro
MACINTOSH® OS COMPATIBILITY	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2)
DIMENSIONS	3-7/8 x 2 x 1-3/8"	4-3/4 x 2-1/2 x 1-5/8"	4-3/4 x 2-1/2 x 1-5/8"	3-9/16 x 2-3/8 x 1-7/16"	3-9/16 x 2-3/8 x 1-7/16"
WEIGHT, W. BATTERY, MEDIA	6.5 oz.	8.7 oz.	8.9 oz.	8.9 oz.	8.9 oz.

	DSC-L1	DSC-P200	DSC-T33	DSC-T7	DSC-M1
<b>LENS &amp; IMAGER</b>					
SUPER HAD™ CCD	1/2.7"	1/1.8"	1/2.5"	1/2.5"	1/2.5"
MEGAPIXEL	4.1 MP	7.2 MP	5.1 MP	5.1 MP	5.1 MP
LENS/OPTICAL ZOOM	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X	Carl Zeiss, 3X
APERTURE	f2.8-5.1	f2.8-5.2	f3.5-4.4	f3.5-4.4	f3.5-4.4
FOCAL LENGTH	5.1-15.3 mm	7.9-23.7 mm	6.7-20.1 mm	6.33-19 mm	6.7-20.1 mm
35MM EQUIVALENCY	32-96 mm	38-114 mm	38-114 mm	36-108 mm	38-114 mm
SMART ZOOM™ FUNCTION	0-10X (VGA)	0-14X (VGA)	0-12X (VGA)	0-12X (VGA)	N/A
PRECISION DIGITAL ZOOM	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)	2X (6X Ttl)
MULTI-POINT AF	Auto, 5 Area	Auto, 5 Area	Auto, 5 Area	Auto, 5 Area	Auto/Manual, 5 Area
AF ILLUMINATOR LIGHT	Yes	Yes	Yes	Yes	Yes
MANUAL FOCUS	Yes, 5-step	Yes, 5-step	Yes, 5-step	Yes, 5-step	Yes, 5-step
NIGHTSHOT® SYSTEM	N/A	N/A	N/A	N/A	N/A
NIGHTFRAMING	N/A	N/A	N/A	N/A	N/A
<b>CAMERA</b>					
REAL IMAGING PROCESSOR™ LSI	Yes	Yes	Yes	Yes	Yes
DXP	14-bit	14-bit	14-bit	14-bit	14-bit
WHITE BALANCE	6 Preset	5 Preset	6 Preset	6 Preset	6 Preset
APERTURE RANGE	2-step f2.8-5.1	2-step f2.8-5.2	2-step f3.5-5.6	2-step f3.5-5.6	2-step f3.5-5.6
SHUTTER SPEED RANGE	Auto 1/8-1/2000	46-step 30-1/1000	Auto 1-1/1000	Auto 1-1/1000	Auto 1-1/1000
MANUAL EXPOSURE	N/A	Adj. Shutter/Ap	N/A	N/A	N/A
SCENE MODES	7 mode	9 mode	9 mode	10 mode	9 mode
FLASH EFFECTIVE RANGE	8'-6'6" (0.2-2.0 m)	8'-11'6" (0.2-3.5 m)	4'-5'3" (0.1-1.6 m)	4'-7'6" (0.1-2.3 m)	1'-5'5" (0.3-1.7 m)
<b>LCD/VIEWFINDER</b>					
LCD	1.5" 78K pixel	2" 134K pixel	2.5" 230K pixel	2.5" 230K pixel	2.5" 123K pixel
EYE-LEVEL VIEWFINDER	N/A	Optical, True Zoom	N/A	N/A	N/A
HISTOGRAM DISPLAY	Yes	Yes	Yes	Yes	Yes
<b>RECORDING</b>					
RECORDING MEDIA	Memory Stick Duo™ Media	Memory Stick® Media	Memory Stick Duo™ Media	Memory Stick Duo™ Media	Memory Stick Duo™ Media
8 MP IMAGE	N/A	N/A	N/A	N/A	N/A
7 MP IMAGE	N/A	3072 x 2304	N/A	N/A	N/A
5 MP IMAGE	N/A	2592 x 1944	2592 x 1944	2592 x 1944	2592 x 1944
4 MP IMAGE	2304 x 1728	N/A	N/A	N/A	N/A
3 MP IMAGE	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536	2048 x 1536
2 MP IMAGE	N/A	N/A	N/A	N/A	N/A
1 MP IMAGE	1280 x 960	1280 x 960	1280 x 960	1280 x 960	1280 x 960
VGA IMAGE	640 x 480	640 x 480	640 x 480	640 x 480	640 x 480
3:2 IMAGE	2304 x 1536	3072 x 2048	2592 x 1728	2592 x 1728	2592 x 1728
BURST MODE FRAMES/FPS	4-shot, 1.1 fps (4MP)	5-shot, 1.1 fps (7MP)	4-shot, 0.33 fps (5MP)	9-shot, 0.7 fps (5MP)	4-shot, 3 fps (5MP)
AUTO EXPOSURE BRACKETING	N/A	N/A	Yes	Yes	Yes
PICTURE EFFECTS	Sepia, B&W	Sepia, B&W	Sepia, B&W	Sepia, B&W	Sepia, B&W
MPEG MOVIE MODES	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM	MPEG Movie 4TV
MULTI-BURST MODE	Yes	Yes	Yes	Yes	Yes
<b>PLAYBACK</b>					
PLAYBACK ZOOM	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X
TRIMMING/RESIZING	No/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
MPEG CUE/REV/DIVIDE	Yes	Yes	Yes	Yes	Yes
PICTBRIDGE™ COMPATIBILITY	Yes	Yes	Yes	Yes	Yes
<b>GENERAL</b>					
CONNECTIONS	USB/Power	Multi-Cnt/Pwr	Multi-Connector	Multi-Connector	Multi-Cnt/Power
BATTERY COMPATIBILITY	InfoLithium® FT	InfoLithium® FR	InfoLithium® FT	InfoLithium® FE	InfoLithium® FT
WINDOWS® OS COMPATIBILITY	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000 Pro, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro
MACINTOSH® OS COMPATIBILITY	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)
DIMENSIONS	3-3/4 x 1-3/4 x 1"	4 x 2 x 1"	3-7/8 x 2-3/8 x 7/8"	3-5/8 x 2-3/8 x 5/8"	2 x 4-1/2 x 1-1/16"
WEIGHT, W. BATTERY, MEDIA	5.0 oz.	6.3 oz.	5.3 oz.	4.7 oz.	7.8 oz.

# Specifications (continued)

	DSC-H1	DSC-V3	DSC-F828	MVC-FD200	MVC-CD350	MVC-CD500
<b>LENS &amp; IMAGER</b>						
SUPER HAD™ CCD	1/2.5"	1/1.8"	2/3"	1/2.7"	1/2.7"	1/1.8"
MEGAPIXEL	5.1 MP	7.2 MP	8.0 MP	2.0 MP	3.2 MP	5.0 MP
LENS/OPTICAL ZOOM	Sony, 12X	Carl Zeiss, 4X	Carl Zeiss, 7X	Sony, 3X	Sony, 3X	Carl Zeiss, 3X
APERTURE	f2.8-3.7	f2.8-4.0	f2-2.8	f3.8-3.9	f3.8-3.9	f2-2.5
FOCAL LENGTH	6-72 mm	7.0-28 mm	7.1-55 mm	6.4-19.2 mm	6.4-19.2 mm	7-21 mm
35MM EQUIVALENCY	36-432 mm	34-36 mm	28-200 mm	41-123 mm	41-123 mm	34-102 mm
SMART ZOOM™ FUNCTION	0-48X (VGA)	0-19X (VGA)	0-35X (VGA)	N/A	0-9.6X (VGA)	0-16X (VGA)
PRECISION DIGITAL ZOOM	2X (24X Ttl)	2X (8X Ttl)	2X (14X Ttl)	2X (6X Ttl)	N/A	N/A
MULTI-POINT AF	Auto, 3 Area	Auto, 5 Area	Auto/Manual, 5 Area	Center AF	Auto, 3 Area	Auto/Manual, 5 Area
AF ILLUMINATOR LIGHT	Yes	Hologram AF	Hologram AF	N/A	Yes	Hologram AF
MANUAL FOCUS	Yes, 5-step	Yes, 14-step	Yes, Continuous Ring	Yes, 5-step	Yes, 5-step	Yes, 13-step
NIGHTSHOT® SYSTEM	N/A	Yes	Yes	N/A	N/A	N/A
NIGHTFRAMING	N/A	Yes	Yes	N/A	N/A	N/A
<b>CAMERA</b>						
REAL IMAGING PROCESSOR™ LSI	Yes	Yes	Yes	N/A	N/A	N/A
DXP	14-bit	14-bit	14-bit	12-bit	14-bit	14-bit
WHITE BALANCE	6 Preset, manual	6 Preset, manual	6 Preset, manual	4 Preset	6 Preset	6 Preset, manual
APERTURE RANGE	13-step f2.0-8.0	13-step f2.0-8.0	13-step f2.0-8.0	Auto	Auto f2.8-5.6	13-step f2.0-8.0
SHUTTER SPEED RANGE	46-step 30-1/1000	46-step 30-1/1000	46-step 30-1/2000	Auto 2-1/800	Auto 2-1/1000	46-step 30-1/1000
MANUAL EXPOSURE	Adj. Shutter/Ap	Adj. Shutter/Ap	Yes, w/EV indicator	N/A	N/A	Ap/Sh Pr/Manual
SCENE MODES	7 mode	7 mode	4 mode	5 mode	7 mode	4 mode
FLASH EFFECTIVE RANGE	1'-17' (0.3-5.2 m)	1'3"-8' (0.4-2.5 m)	1'6"-16'4" (0.5-5 m)	1'6"-6'5" (0.5-2 m)	2'6"-8'2" (0.8-2.5 m)	1'6"-16'4" (0.5-5 m)
<b>LCD/VIEWFINDER</b>						
LCD	2.5" 115K pixel	2.5" 123K pixel	1.8" 134K pixel	2.5" 123K pixel	2.5" 123K pixel	2.5" 123K pixel
EYE-LEVEL VIEWFINDER	115K EVF LCD, TTL	Optical, True Zoom	235K EVF, LCD, TTL	N/A	N/A	N/A
HISTOGRAM DISPLAY	Yes	Yes	Yes	N/A	N/A	Yes
<b>RECORDING</b>						
RECORDING MEDIA	32 MB internal, optional MS	Memory Stick®, CompactFlash™ Media	Memory Stick®, CompactFlash™ Media	Floppy Disk, Memory Stick® Media	3-inch CD/R/RW	3-inch CD/R/RW
8 MP IMAGE	N/A	N/A	3264 x 2448	N/A	N/A	N/A
7 MP IMAGE	N/A	3072 x 2304	N/A	N/A	N/A	N/A
5 MP IMAGE	2592 x 1944	2592 x 1944	N/A	N/A	N/A	2592 x 1944
4 MP IMAGE	N/A	N/A	N/A	N/A	N/A	N/A
3 MP IMAGE	2048 x 1536	2048 x 1536	2048 x 1536	N/A	2048 x 1536	2048 x 1536
2 MP IMAGE	N/A	N/A	N/A	1600 x 1200	1632 x 1224	N/A
1 MP IMAGE	1280 x 960	1280 x 960	1280 x 960	N/A	1280 x 960	1280 x 960
VGA IMAGE	640 x 480	640 x 480	640 x 480	640 x 480	640 x 480	640 x 480
3:2 IMAGE	2592 x 1728	3072 x 2048	3264 x 2176	1600 x 1072	2048 x 1360	2592 x 1728
BURST MODE FRAMES/FPS	9-shot, 0.7 fps (5MP)	8-shot, 2 fps (7MP)	7-shot, 2.6 fps (8MP)	N/A	2-shot, 2 fps (3MP)	3-shot, 2 fps (5MP)
AUTO EXPOSURE BRACKETING	N/A	Yes	Yes	N/A	N/A	Yes
PICTURE EFFECTS	Sepia, B&W	Sepia, B&W	3 Mode	4 Mode	4 Mode	3 Mode
MPEG MOVIE MODES	VX Fin/Std, VM	VX Fin/Std, VM	VX Fin/Std, VM	PM, VM w/o audio	VX Std, VM	VX Std, VM
MULTI-BURST MODE	Yes	Yes	Yes	N/A	Yes	Yes
<b>PLAYBACK</b>						
PLAYBACK ZOOM	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X	Yes, 1.1X-5X
TRIMMING/RESIZING	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
MPEG CUE/REV/DIVIDE	Yes	Yes	Yes	N/A	Yes/Yes/No	Yes/Yes/No
PICTBRIDGE™ COMPATIBILITY	Yes	Yes	Yes	N/A	N/A	N/A
<b>GENERAL</b>						
CONNECTIONS	AV/USB	AV/USB/Power/Acc	AV/USB/Power/Acc	AV/USB/Pwr	AV/USB/Pwr	AV/USB/Pwr
BATTERY REQUIREMENT	2 AA NiMH	InfoLithium® FR	InfoLithium® M	InfoLithium® L	InfoLithium® M	InfoLithium® M
WINDOWS® OS COMPATIBILITY	98, 98SE, Me, 2000 Pro, XP Home, XP Pro	98, 98SE, Me, 2000 Pro, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000, XP Home, XP Pro	98, 98SE, Me, 2000 Pro, XP Home, XP Pro	98, 98SE, Me, 2000 Pro, XP Home, XP Pro
MACINTOSH® OS COMPATIBILITY	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2/10.3)	9.1/9.2, OS X (10.0/10.1/10.2)*	8.51/8.6/9.0/9.1/9.2/10.0/10.1	10.1/10.2	10.1/10.2
DIMENSIONS	4-1/4 x 3-1/4 x 3-1/4"	4-3/4 x 2-7/8 x 2-1/2"	5-5/16 x 3-9/16 x 6-3/16"	5-5/8 x 4-1/8 x 3-1/8"	5-3/16 x 3-5/8 x 2-7/8"	5-7/8 x 3-3/4 x 4"
WEIGHT, W. BATTERY, MEDIA	16.2 oz.	15 oz.	2 lbs., 2 oz.	1 lb., 2 oz.	1 lb., 2 oz.	1 lb., 6 oz.

# Media Storage

REPRESENTATIVE SHOT STORAGE*	Memory Stick® Media				Memory Stick PRO™ Media				
	16 MB	32 MB	64 MB	128 MB	256 MB	512 MB	1 GB	2 GB	4 GB
<b>JPEG</b>									
3264 x 2448 (8 MP)	7	15	30	60	109	223	456	934	1847
3072 x 2304 (7 MP)	9	18	36	73	132	268	548	1125	2223
2560 x 1920 (5 MP)	11	23	48	96	174	354	723	1482	2928
2304 x 1728 (4 MP)	14	30	60	121	216	440	898	1841	3638
2048 x 1536 (3 MP)	18	37	74	149	264	537	1097	2250	4447
1280 x 960 (1 MP)	46	93	187	376	649	1320	2694	5388	10776
640 x 480 (VGA)	243	491	985	1975	3571	7261	14821	29624	59284
<b>JPEG Fine</b>									
3264 x 2448 (8 MP)	4	8	16	32	59	121	247	506	1000
3072 x 2304 (7 MP)	4	9	18	37	67	137	279	573	1132
2560 x 1920 (5 MP)	6	12	25	51	92	188	384	789	1559
2304 x 1728 (4 MP)	8	16	32	65	119	242	494	1012	2001
2048 x 1536 (3 MP)	10	20	41	82	148	302	617	1266	2501
1280 x 960 (1 MP)	24	50	101	202	357	726	1482	N/A	N/A
640 x 480 (VGA)	97	196	394	790	1428	2904	5928	N/A	N/A
<b>MPEG</b>									
MPEG Movie Video Mail**	11:12	22:42	45:39	1:31:33	2:51:21	5:47:05	11:44:22	24:18:25	48:04:40
MPEG Movie EX**	2:54	5:52	11:48	23:39	42:47	1:27:01	N/A	N/A	N/A
MPEG Movie VX**	0:42	1:27	2:56	5:54	10:42	21:47	44:27	1:31:09	3:00:06
MPEG Movie VX Fine**	N/A	N/A	N/A	N/A	2:57	6:02	12:20	25:19	0:50:01
MPEGMovie 4 TV 640 x 480, 30 fps***	0:44	1:29	2:59	5:59	10:50	22:01	44:20	1:27:35	N/A
MPEGMovie 4 TV 320 x 240, 30 fps***	2:10	4:20	8:49	17:42	32:00	65:04	2:16:45	4:19:58	N/A
MPEGMovie 4 TV 320 x 240, 15 fps***	7:40	15:30	31:07	1:02:23	1:52:48	3:49:21	7:32:35	15:15:06	N/A

\* Actual storage varies by camera and by type of image recorded.

\*\* MPEG Movie Capacity in Hours:Minutes:Seconds. Actual storage varies by camera.

\*\*\* Does not include hybrid recorded video. Time will vary according to images recorded.

NOTE: Available storage capacity of Internal Memory, Memory Stick® and Memory Stick PRO™ media may vary. A portion of the memory is used for data management functions. Actual available memory in MBs is 16=15, 32=30, 64=61, 128=123, 256=220, 512=460, 1GB=940 MB, 2GB=1.85GB, 4GB=3.66GB. Memory Stick® transfer speeds vary by and are dependent upon the host hardware device.

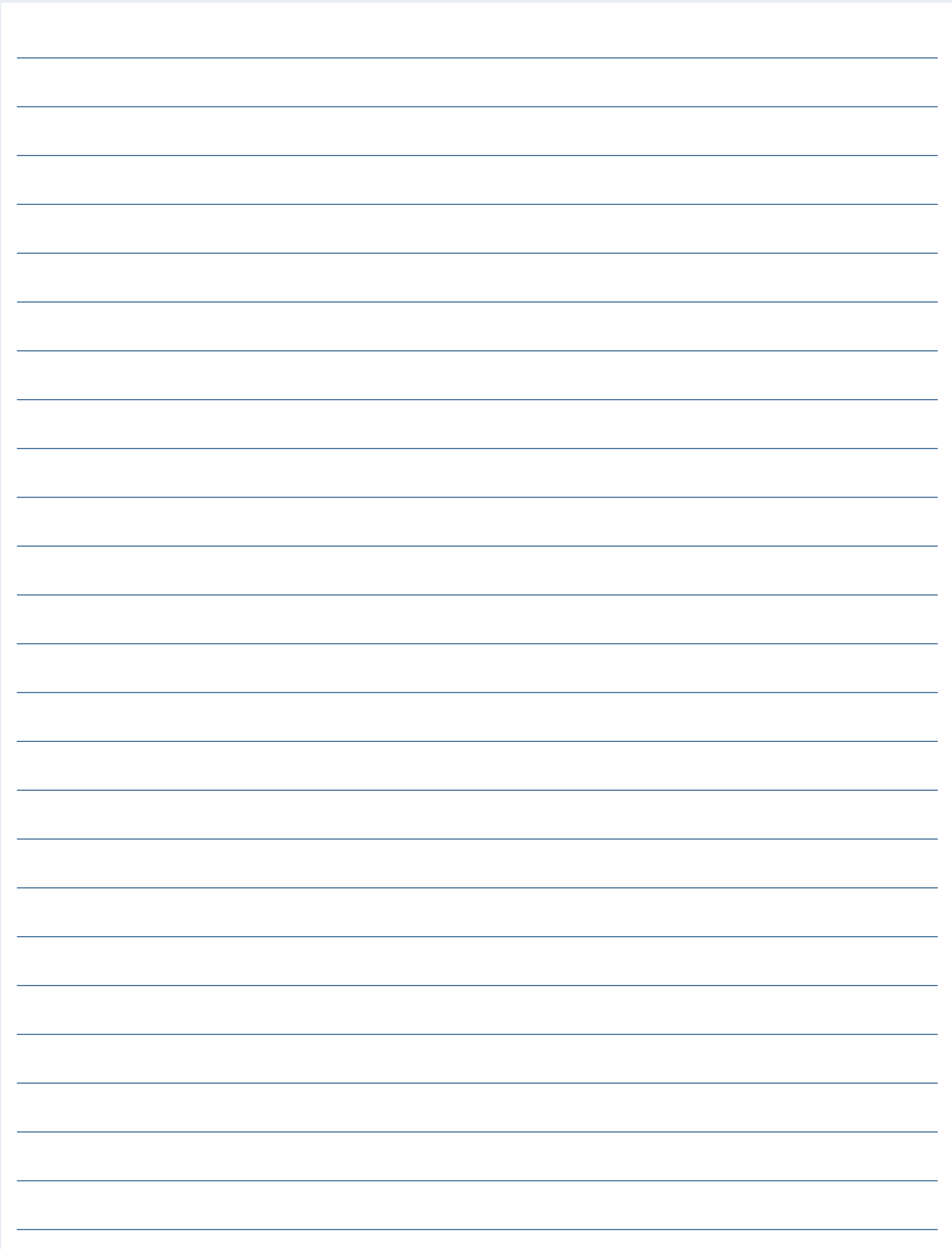
# Optional Accessories

	DSC-S40	DSC-S60	DSC-S90	DSC-W5	DSC-W7	DSC-L1	DSC-P200	DSC-T33	DSC-T7	DSC-M1	DSC-H1	DSC-V3	DSC-F828	MVC-FD200	MVC-CD350	MVC-CD500	
STARTER KITS	ACC-CN3TR	ACC-CN3TR	ACC-CN3TR	ACC-CN3TR	ACC-CN3TR	ACC-CFT	ACC-CFR	ACC-CFT					ACC-FM50A	ACC-MVC2	ACC-MVCD2	ACC-MVCD2	
LENS ADAPTORS		VAD-PEB	VAD-PEB	VAD-WA	VAD-WA		VAD-PHC					VAD-VHA				VAD-S70	
LENSES AND FILTERS*		VCL-DH0730 VCL-DH1730 VCL-DH2630 VF-30CPKS VF-30NK VF-30SC	VCL-DH0730 VCL-DH1730 VCL-DH2630 VF-30CPKS VF-30NK VF-30SC	VCL-DH0730 VCL-DH1730 VCL-DH2630 VF-30CPKS VF-30NK VF-30SC	VCL-DH0730 VCL-DH1730 VCL-DH2630 VF-30CPKS VF-30NK VF-30SC		VCL-DH0730 VCL-DH1730 VCL-DH2630 VF-30CPKS VF-30NK VF-30SC				VCL-DH0758 VCL-DH1758 VCL-M3358 VF-58CPKS VF-58M	VCL-DEH17VA VCL-DEH07VA VCL-M3358 LSF-VHA VL-58CPKS VF-58M VF-58SC	VCL-MHG07A VCL-HGD0758 VCL-HGD1758 VCL-M3358 VF-58CPKS VF-58M VF-58SC	VCL-HG0737X VCL-HG2037X VCL-MHG07A VF-370K	VCL-HG0737X VF-37CPKS VF-520K VF-R52K		VCL-MHG07A VF-52CPKS VF-520K VF-R52K
FLASHES	HVL-FSL1B	HVL-FSL1B	HVL-FSL1B	HVL-FSL1B	HVL-FSL1B		HVL-FSL1B				HVL-RLA (with VCT-S30L)	HVL-F32X HVL-F1000 HVL-FSL1B HVL-RLA	HVL-F32X HVL-F1000 HVL-IRM			HVL-F32X HVL-F1000	
CAMERA SUPPORT	VCT-R640 VCT-MTK VCT-1500L	VCT-R640 VCT-MTK VCT-1500L	VCT-R640 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-TK1*** VCT-MTK*** VCT-1500L***	VCT-R640 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-R640 VCT-MTK VCT-1500L	VCT-D580RM VCT-D680RM VCT-1500L	VCT-D580RM VCT-D680RM VCT-1500L	VCT-R640 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	VCT-TK1 VCT-MTK VCT-1500L	
MEDIA**	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-M128A MSX-M256S MSX-M256N MSX-M512S MSX-M512N MSX-M1GS MSX-M1GN MSX-M2GN MSX-4GN	MSH-128 MSX-M256S MSX-M256N MSX-M512S MSX-M512N MSX-M1GS MSX-M1GN MSX-M2GN MSX-4GN	MSH-M128A MSX-M256S MSX-M256N MSX-M512S MSX-M512N MSX-M1GS MSX-M1GN MSX-M2GN	MSH-M128A MSX-M256S MSX-M256N MSX-M512S MSX-M512N MSX-M1GS MSX-M1GN MSX-M2GN	MSH-M128A MSX-M256S MSX-M256N MSX-M512S MSX-M512N MSX-M1GS MSX-M1GN MSX-M2GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	MSH-128 MSX-256S MSX-256N MSX-512S MSX-512N MSX-1GS MSX-1GN MSX-2GN MSX-4GN	10MFD-2HDGF MSH-128	MCR-156A 5MCR-156A MCRW-156A 3MCRW-156A	MCR-156A 5MCR-156A MCRW-156A 3MCRW-156A	
POWER	NH-AA-2DB	NH-AA-2DB NP-NH25	NH-AA-2DB NP-NH25	NH-AA-2DB	NH-AA-2DB	NP-FT1 BC-TR1 AC-LS5 DCC-L1	NP-FR1 BC-TR1 AC-LS5 DCC-L1	NP-FT1 BC-TR1 DCC-L1	NP-FE1	NP-FT1 BC-TR1 DCC-L1	NH-AA-2DB	NP-FR1 BC-TR1 AC-LS5 DCC-L1	NP-FM50 BC-TRM AC-SQ950D BC-VM50	NP-F570 AC-V700A BC-V615 BC-V500	NP-FM50 AC-SQ950D BC-VM50	NP-FM50 AC-SQ950D BC-VM50	
PROTECTION	LCH-SA/B LCS-CSD	LCH-SA/B LCS-CSD SPK-SA	LCH-SA/B LCS-CSD SPK-SA	LCH-WA LCS-CSD LCS-WB LCS-WD MPK-WA	LCH-WA LCS-CSD LCS-WB LCS-WD MPK-WA	LCS-LB/H LCS-CSD LCS-LA SPK-LA	LCH-PHA LCS-CSD LCS-PHE LCS-PHC	AJK-THC LCS-THC LCS-THD/B LCS-THD/H	LCS-THE/B LCH-THA LCS-CST LCS-CSD SPK-THA	LCS-MHA LCS-CSD	LCS-HA LCJ-HA STP-SA	LCH-VHA STP-SA	LCS-FHA LCS-FHB STP-SA LCH-FHB	LCS-MVCA STP-SA LCS-VA30 LCS-VA40	LCS-MVCA STP-SA LCS-VA30 LCS-VA40	LCS-MVCA STP-SA LCS-VA30 LCS-VA40	
OTHER	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30 CSS-SA	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30 CSS-SA	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 VLC-14UMB2	CSS-PHB LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	MSAC-US30 VLC-14UMB2 AC-LS5K	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30 VLC-15MU	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30	LCH-MA MSAC-PC4 MSAC-USM1 MSAC-US30 DCC-L50B VLC-14UMB2	VLC-14UMB2	VLC-14UMB2	VLC-14UMB2	

\* If camera takes a "lens adaptor," then lenses and filters can only be used in conjunction with that lens adaptor. \*\* Available storage may vary. A portion of memory is used for data management functions.

\*\*\* The DSC-T33 can only be mounted on a tripod when used with the AJK-THC jacket case.







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