Exploring the Sony Alpha A700

G oing out and photographing with your Sony Alpha A700 set on Auto is easy, but to really unlock the capabilities of your camera, knowledge is the key. This chapter helps get you acquainted with the A700 and all of its controls and features.

The A700 is built on an aluminum chassis made of a magnesium alloy with a plastic-coated exterior and rubber environmental seals. The camera features a 12-megapixel CMOS sensor, an 11-point auto focus system, and a wide range of ISO speeds. With a 3-inch LCD, an impressive range of color modes (called Creative Styles), and Dynamic-Range Optimizer functions that are supported in RAW using the included Sony software, the A700 offers tremendous power to get great shots.

However, it also has many buttons, switches, levers, and dials, to control all these great features. This chapter guides you through what and where all the controls are.

Camera Controls

Holding the camera as you would when shooting, you should notice that the layout of the buttons and the controls seems to be just right. And, with the amazing amount of customization that is possible with the A700, some of the buttons can even be programmed to perform different functions.



Chapter 2 covers customization; the definitions here apply to a camera with the factory default settings.

In This Chapter Camera controls Remote Commander Viewfinder display LCD display Image files ISO sensitivity Viewing images on the camera White balance setting Metering modes

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Scene exposure modes

Semiautomatic and manual exposure modes

Drive modes

Creative Styles

D-Range Optimization



On the front

The front of the A700 is not only the place where the lens is attached, it is also the location of a key control: the Focus mode lever. Knowing where all the controls are located is important when shooting. The time spent trying to locate the right lever or switch can be the difference between getting the shot and talking about the one that got away.

Remote sensor. This is the sensor for the Remote Commander. If the remote does not seem to be working correctly, make sure that nothing is covering this sensor. The Remote Commander is covered later in this chapter.

- Handgrip. The ergonomic handgrip also houses the battery. The grip is comfortable and secure for horizontal and vertical shooting.
- Grip sensor. The A700 comes with the Eye-Start Auto Focusing system that starts focusing as your eye reaches the viewfinder. This automatic focusing system can also be triggered when the camera is hanging around your neck by the proximity of the viewfinder to your body. To stop this from happening, there is a second sensor on the handgrip. The Eye-Start focusing system does not turn on unless your hand is covering the handgrip sensor.



1.1 The front of the A700 without a lens mounted

Depth of field preview button. After the subject is in focus, pressing the Depth of field preview button changes the view to show the actual aperture used. Note that the image is darker in the viewfinder because less light is passing through the lens.

Cross-Reference

For more detailed information on depth of field and aperture, see Chapter 3.

- Focus mode lever. This is where the Focus mode for the camera is set. The four choices are S, the Single-Shot Auto Focus mode; A, the Automatic Auto Focus mode; C, the Continuous Auto Focus mode; and MF, the Manual Focus mode.
- Mirror. The mirror reflects the light that is passing through the lens up to the viewfinder and lets the photographer see what the camera sees. When the Shutter button is pressed, the mirror moves out of the way so the light can reach the sensor. The mirror is inside the camera body and should not be touched.
- Lens mount release button.
 When pressed, this button unlocks the lens mount so the lens can be removed.
- Lens mount. This is where you attach the lens. The Sony lens mount is based on the Minolta Atype lens mount and can accept all Sony camera lenses and a variety of older Minolta A-type lenses.
- Lens contacts. These contacts communicate between the camera lens and the camera body.

- Strap mounting point. One of the two mounting points for the camera strap.
- Auto focus illuminator / Selftimer lamp. The auto focus illuminator helps the camera's auto focus system work in low light or with low-contrast subjects. When the Shutter button is pressed halfway down, the illuminator emits a red light until the focus is locked on. This light has a range of 3.3 to 23 feet (1 to 7 meters). This light can be turned off in the Recording menu. The Self-timer lamp flashes when the 10-second self-timer is used. The Self-timer is accessed in the Drive mode.

Cross-Reference

The Recording menu and the selftimer are covered in Chapter 2.

On top

The top of the A700 differs from most digital cameras; it doesn't have any display screen. The space saved by this is used for dedicated buttons that control the ISO, Drive mode, and white balance.

Mode dial. This is where you set the Recording mode on the camera. The choices are Auto, a fully automatic mode; P, Program Auto mode; A, Aperture Priority mode; S, Shutter Speed Priority mode; M, Manual mode; MR, Memory Recall mode; or one of the six scene modes.



1.2 A top view of the camera

- Built-in flash. The flash is accessed by lifting up on the two small ridges on either side of the viewfinder. To close the flash, just push down from the top until it locks into place. Figure 1.1 shows the flash open.
- Hot shoe. This hot shoe lets you attach an external Sony flash unit such as the HVL-F56AM, HVL-F42AM, or the HVL-F36AM.
- Image sensor plane indicator. This marking on the camera body is used if you need to measure the exact distance from the subject to the image sensor.
- Drive mode button. This button opens the Drive mode menu on the LCD.
- White Balance button. This button opens the White Balance menu on the LCD.

- ISO button. This button opens the ISO menu on the LCD.
- Cross-Reference Balance menu, and the ISO menu are covered in detail in Chapter 2.
- Exposure button. This button opens the Exposure Compensation menu on the LCD.
- Shutter button. When pressed, the shutter moves out of the way and the photo is taken.
- Front control dial. The Front control dial controls the shutter speed when the camera is in M (Manual mode), P (Program Auto mode), and S (Shutter Priority mode). The Front control dial controls the aperture when the camera is in A (Aperture Priority mode).

On the back

The back of the camera is dominated by the large 3-inch LCD, but when you hold the camera with your right hand, you will notice that the controls used when shooting—especially the multi-selector and the Rear control dial—are all easily accessed with your right thumb.

Power switch. This is the power switch. The A700 has a built-in sensor cleaning mode that vibrates the sensor every time the power is turned off. The slight vibration when turning the camera off is normal.

- Menu button. The Menu button opens the Main menu on the LCD.
- Display button. The Display button switches between the detailed display and the enlarged display in the Recording mode. The brightness of the LCD can be adjusted by pressing the Display button for a few seconds.
- Trash button. When you are reviewing images on the LCD, pressing this button opens the delete image dialogue. There is a choice to delete the image or to cancel, which returns the display to reviewing images mode. It is also



1.3 A rear view of the A700

possible to protect the images using the Protect feature in the Playback menu 1.



- Playback button. The Playback button is pressed to view the images already taken on the LCD.
- LCD monitor. The 3-inch LCD screen displays different information depending on the mode.
- Function / Rotate button. When in Shooting mode, the Function button switches between the Recording Information screen and the Quick Navigation screen. In Playback mode, the button opens the Rotate Image menu that is then controlled by the multi-selector.
- Custom / Histogram button. When in Viewing mode, pressing the Histogram button once displays the histogram and shooting data of the displayed image. Pressing the button a second time returns to the previous view. When in Shooting mode, this button can be programmed with a function of your choice. The default setting is the Creative Styles menu. It is possible for the Custom button to control any of the following: AF Lock, AF/MF control, Depth of field preview, ISO, white balance, exposure compensation, flash compensation, Drive mode, AF area, image size, image quality, D-Range Optimizer, Flash mode, and Memory.

- Super SteadyShot. This turns the Super SteadyShot vibration reduction on or off.
- Multi-selector. The multi-selector lets you select and execute a variety of different functions. The multi-selector works like a miniature joystick; it can be moved left, right, up, and down. It is used to navigate through the Quick Navigation screen and the A700's menu choices.
- Access light. This red light is on when the camera is writing information to the memory card. Do not turn the camera off while this light is on.
- Rear control dial. The Rear control dial controls the aperture when the camera is set in P (Program Auto) mode, M (Manual) mode, and A (Aperture Priority) mode. When in S (Shutter Priority) mode, the Rear control dial can control the shutter speed.
- AF/MF Enlarge button. When in Shooting mode, this button lets you easily switch between auto focus and manual focus without having to use the Focus mode lever on the front of the camera. When in Auto Focus mode, holding down the AF/MF button switches the focus to Manual mode and lets you focus using the focusing ring on the lens. When the camera is in Manual mode, pressing the AF/MF button engages Auto Focus mode. When in Viewing mode, pressing the button enlarges the image on the LCD.

- Metering mode lever. The Metering mode lever lets you pick one of the three Metering modes: Multi-segment, Center-weighted, or Spot metering. The actual Metering modes are covered later in this chapter.
- AEL (AE Lock) / Slow Sync / Index button. This button has three purposes depending on which mode the camera is in. When the camera is in Shooting mode, this button locks in a certain exposure. When you focus on an area or subject that you want to be metered for exposure, even if it is not going to be the main subject of your photograph, and press the AEL button, those exposure settings are then locked. You can reframe the image and take the photograph. The setting is canceled when the button is released. When the built-in flash is activated, the button sets the flash to Slow-sync mode. When in Preview mode, the button puts the preview in Index mode, and then you can use the Display button to cycle through a 4-image index, a 9-image index, and a 25-image index.
- Viewfinder. The optical glass pentaprism design shows a bright clear view of the scene shown through the lens. The display has three separate parts: the view through the lens, the focus sensors, and an information display below the image.

- Diopter adjustment dial. This adjustment dial lets you compensate for farsightedness and nearsightedness. Adjust the dial while looking through the viewfinder until the image is sharp. If you are farsighted, rotate the dial down; if you are nearsighted, rotate the dial upward.
- Eyepiece sensor. This sensor right below the viewfinder can determine if you are looking through the eyepiece. The default setting is for the LCD to turn off when the sensor determines that you are looking through the viewfinder.

On the bottom

The bottom of the A700 houses the battery and tripod mount.

- Battery compartment. The battery compartment is accessed by a recessed latch on the bottom of the camera. When the battery is fully inserted into the camera, it is held in place with a small blue latch so that even if the battery door is opened, the battery will not fall out. The latch needs to be pressed in to remove the battery. The battery compartment is spring-loaded, so when the latch is pushed in, the battery pops right out.
- Threaded tripod socket. The Sony Alpha A700 comes with a standard tripod socket that is aligned with the exact center of the lens.





Battery compartment (open)

1.4 A bottom view of the camera

On the left side

The left side of the camera is covered with rubber doors. These doors are all connected to the camera, and while they can be opened, they cannot be removed. The doors cover the following:

 Flash sync terminal. The Sony Alpha A700 can use any flash or studio flash system with a flash sync voltage of 400V or less. To attach the sync cord, open the cover of the sync terminal and plug in the sync cord. When the A700 is connected to a flash using the flash sync terminal and the Super SteadyShot vibration reduction is turned on, the fastest shutter speed that can be used is 1/200 of a second. When the SuperSteady shot is turned off, the fastest shutter speed that can be used is 1/250 of a second.



- 1.5 The left side of the A700
 - Remote terminal. The RM-S1AM Remote can be used with the Sony Alpha A700 by opening the cover and inserting the plug of the remote. The remote lets you release the shutter without touching the camera or the Shutter button.
 - DC power in. The optional AC-VQ900AM AC adaptor / battery charger can be used to power the camera using an ordinary household power outlet. To use the adaptor, first turn off the power to the camera, and then plug the power cord into the DC-in terminal. You can then turn the camera on.
 - USB port / video out. The camera can be connected directly to a computer using a USB cable with a mini USB connector to plug into the camera and a regular connector to plug into the computer. The supplied mini USB-to-video RCA plug enables the A700 to be connected to a regular television.

Mini HDMI socket. Using an HDMI cable that has a mini HDMI connector on one end for the camera and a connecter suitable for your television on the other, the A700 can be used with a highdefinition television.

On the right side

The right side of the camera houses the memory of the camera. This is the place where the memory card goes.

Memory card cover. Sliding it towards the back of the camera opens the memory card cover. The door is spring-loaded and opens easily. To close the cover, fold it back towards the camera and slide it forward until it clicks into place. If the camera is turned on when the door is opened, the LCD shows a cover open message.





Memory Stick Duo slot

CompactFlash card eject button

1.6 The right-side view of the camera

- Memory Stick Duo slot. The Sony Alpha A700 can use Memory Stick Duo to save the images, and this slot is where it is inserted into the camera. The Memory Stick Duo is pushed into the camera until you hear it click. To remove the Memory Stick Duo, press down on the memory stick to release it.
- CompactFlash slot. The Sony Alpha A700 can use CompactFlash or Microdrive media, and this is where it is inserted into the camera. The CompactFlash card or Microdrive needs to be inserted with the label towards the back of the camera. Push on the CompactFlash card until it is firmly seated.
- CompactFlash card eject button. To eject a CompactFlash card or Microdrive, press down on this button until the card can be removed from the slot.

Remote Commander

The Remote Commander is a great accessory for your Sony Alpha A700, and the best part is that it doesn't cost anything extra. The Remote Commander can be used in two different ways. The first is when it is used to remotely trigger the camera's shutter, and the second is during playback of the images on a television screen.

To use the remote to take photos, set the Drive mode on the camera to Remote Commander. This is done by pressing the Drive mode button located on the top of the camera and then using the multi-selector to choose the Remote Commander mode. The Remote Commander has two buttons that trigger the shutter release. The first is the Shutter button, located on the top left of the remote. When this button is pressed, the shutter on the camera is immediately released. The second button on the remote is the 2-second button. When it is pressed, there is a 2-second delay before the shutter on the camera is released.



1.7 The Remote Commander

When the Sony Alpha A700 is connected to a television, the Remote Commander can control the playback of the images stored on the camera. The Remote Commander has a Slide show playback mode that is not available when using the camera to control the playback.



Using the Remote Commander to play back the images is covered in detail in Chapter 7.

- Histogram. This displays the histogram and the recording data of the displayed image the same way that the Histogram button on the back of the camera does. When the Histogram button is pressed, it displays the histogram and shooting data of the displayed image. Pressing the button a second time returns to the previous view.
- Display. This button cycles among three views: the image alone, the image with an information overlay, and the image with some details overlaid and a thumbnail strip on the top of the display.

- Index. The index opens a thumbnail view of the images and can be navigated using the navigation buttons.
- Rotate. The Rotate button opens a choice to rotate either left or right using the navigation buttons.
- Playback. This button switches between playing back the images and showing the camera settings screen.
- Menu. When in Playback mode, this opens the camera menus, and they can be set using the navigation buttons.
- Slide show. The Slide show button starts a slide show of the images. Pressing it a second time stops the slide show.
- Scale up/down. These two buttons let you zoom in and out of the photo. The navigation buttons let you move around in the zoomed view.
- Delete. The Delete button opens the delete photo option. The navigation buttons are used to make a selection.
- Navigation buttons. These navigation buttons take the place of the multi-selector on the back of the camera. The four direction buttons and the center button act to move between photos, move between selections, and make choices.
- Print. If you connect the camera to a HDTV using the HDMI cable and you connect the camera to a printer using the USB port on the camera, this button lets you print while viewing the images on the television. This only works when connected to a HDTV because connecting to a regular television requires the USB port on the camera.

Viewfinder Display

The viewfinder in the Sony Alpha A700 covers 95 percent of the frame, and because of its pentaprism design and optical glass construction, it is bright and clear. The viewfinder display is broken into two parts, the main viewing area and the information display along the bottom of the viewfinder.

The main display

The main display is where the photographed is composed. Being able to see what the sensor will record makes composing your photo easy.

 AF area. There are 11 auto focus indicators, four on the left, four on the right, one on the bottom, one on the top, and the Spot auto focus area in the center.

- Spot AF area. This is the small square directly in the middle of the viewfinder. It is the focus indicator for the Spot auto focus setting.
 When the focus has locked on, the indicator turns red for a moment, indicating that the setting is in use.
- Spot metering area. The circle around the Spot AF area defines the Spot metering area. This is the total area of the scene used in Spot exposure metering.
- 16:9 shooting area guidelines. These crop guidelines are there to help when composing in the 16:9 aspect ratio Crop mode. Any information above or below the crop marks is not recorded when the 16:9 aspect ratio is set.



1.8 The view through the viewfinder

The data display

The data display across the bottom of the display gives you instant access to the most important settings without having to take your eye away from the viewfinder.

- Flash compensation. When using the flash, you can adjust the amount of light without changing the exposure. When any flash compensation is used, the flash compensation indicator is visible in the viewfinder.
- Flash symbol. When the flash symbol is flashing, the flash is being charged. When the light turns solid, the flash is charged and ready to fire.
- WL. When an external flash is used in Wireless mode, the WL indicator is lit.
- H or HSS. Some external flashes can use a High-speed sync mode. When in the High-speed sync mode, an H or HSS appears in the viewfinder.
- MF. When in Manual Focus mode, this indicator lights up.
- Focus indicators. The focus indicators show whether the focus is locked and ready to shoot, focused on a moving subject and ready to shoot, in the process of focusing, or unable to focus on the subject.
- Shutter speed. This shows the current shutter speed.
- Aperture. This shows the current aperture.
- EV scale. The EV or Exposure Value scale in the viewfinder shows the exposure set by the photographer and what the camera's metering system believes to be the correct exposure. The

small bar over the scale shows the current exposure setting in regard to what the camera believes is the correct setting. The EV scale also indicates when the bracketing is active by showing either three or five bars above the scale.

AE lock. When the AEL button is pressed, the exposure value currently determined by the camera becomes the standard value. The AE lock indicator is visible in the viewfinder when the AEL button is pressed.

Cross-Reference

Exposure Value is covered in detail in Chapter 2

- Shots remaining counter. This shows how many photos can still be taken. The display starts at 9 and counts down as the photos are taken; as the images are written to the memory card, the counter goes back up. When the memory card is full and no more images can be saved, the counter reads 0. If you try to take photos after the card is full, the word FULL flashes across the display and the counter reads 0.
- Camera shake warning. This indicator flashes even if the Super SteadyShot is turned on. The camera calculates the likelihood of camera shake using the focal length and shutter speed.
- Super SteadyShot scale. The scale is shown when the Super SteadyShot is activated. The higher the scale, the more shaking is present. To get the sharpest image possible, there should be no bars.
- Aspect ratio 16:9. This indicates when the camera is set to the 16:9 aspect ratio.

LCD Display

The 3-inch screen on the back of the camera provides a single display area that keeps all the pertinent information in one place. This also means that the display changes to accommodate the mode the camera is in. Because the LCD is the only display on the camera, it does double duty. In the Recording Information display mode, it shows the current camera settings, and when in the Playback display mode, it shows a review of the images already taken.

Recording Information display

The Recording Information mode shows the current settings of the A700. When the A700 is turned on, the display automatically opens the Recording Information display. This display is viable for five seconds and then the display turns off. This can be adjusted using the info.disp.time setting located in the Setup menu 1.



Chapter 2 has more details on changing menu settings.

The Recording Information display has two different modes: a Detailed mode and an Enlarged mode, which are cycled through by pressing the Display button. The Enlarged mode shows some but not all of the information in the Detailed mode. In the Enlarged mode the information is presented in a larger format, making it easier to read quickly. One of the great little touches in the A700 is that when the camera is rotated from horizontal to vertical, the display changes its orientation automatically, making it easier to read no matter how you are shooting.





1.9 This shows the LCD screen's detailed Recording Information display in the horizontal mode and in the vertical mode. The information on the display rotates to match the orientation of the camera.



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1.10 This shows the LCD screen's enlarged Recording Information display in the horizontal mode and the vertical mode. With less information visible than in the Detailed mode, the screen is easy to read even in low light.



1.11 The Recording Information display

The following bulleted list details the Recording Information display.

- Register number. The A700 can have three user-defined settings. When the Mode dial is set to MR (Memory Recall mode), the selected set of settings displays here.
- Mode dial display. The display here shows the Mode dial's setting.
- Shutter speed indicator. Displays the current shutter speed.
- Aperture indicator. Displays the current f-stop.
- Exposure. This display is blank unless the photographer has made any exposure compensation adjustments; otherwise, it shows the amount of exposure compensation.
- AE lock indicator. Displays an asterisk when the AE lock is pressed and the AE lock is in use.
- Flash mode. The indicator shows whether the Flash mode is set to Autoflash, Fill Flash, Rear Sync, or Wireless. It also shows if Red-eye reduction has been set.
- Exposure compensation / Metered manual indicator. The display shows a small arrow above the EV scale, showing what the camera believes is the difference between your exposure and the correct exposure. When the arrow is above the 0, the EV scale, the camera meter, and the photographer's settings agree. When the arrow appears toward the right, it indicates overexposure, which causes the photo to be too light. When the arrow appears to the left, it indicates underexposure, which causes the photo to be too dark.

- Flash compensation indicator. If any flash compensation is set, a small arrow appears under the EV Scale, showing the amount of compensation.
- EV scale. The EV or Exposure Value scale shows what the camera believes is the correct exposure, which is set at 0. The scale also shows three steps of overexposure and three steps of underexposure. The scale is also used as a guide for exposure compensation and flash compensation.
- ISO setting. The current ISO setting is shown here below the word ISO. The ISO is shown as a number from 100 to 6400. The word AUTO appears if the ISO is set to Auto.
- Drive mode indicator. The Drive mode indicator shows what Drive mode the camera is in. There are eight modes that can be set. Most modes have more than one choice, for a total of 22 available settings that can be shown.
- Focus mode indicator. This shows which of the four Focus modes is selected: AF-S when the camera is set on Single-Shot Auto Focus, AF-A when the camera is set to Automatic Auto Focus, AF-C for Continuous Auto Focus, and MF for Manual Focus.
- Auto focus area indicator. Shows if the Wide, Spot, or Local Auto Focus area is selected.
- Metering mode indicator. Shows if the Multi-segment, Centerweighted, or the Spot metering mode is being used.
- D-Range Optimizer setting.
 When the D-Range Optimizer is turned on, the mode it is set for is

shown here. D-R for Standard, D-R+ for Advanced Auto, and D-R+ with Lv1 to Lv5 for the Advanced mode with multiple levels.

Cross-

Reference The D-Range Optimizer settings are covered in depth in Chapter 2.

 Creative Style. There are 14 different Creative Style settings: Standard, Vivid, Neutral, AdobeRGB, Clear, Deep, Light, Portrait, Landscape, Sunset, Night, Autumn, B/W, and Sepia.

Cross-Reference The Creative Styles are discussed in depth in Chapter 2.

- Adjustable item display. This area shows adjustments made to the Creative Style in Contrast, Saturation, Sharpness, Brightness, and Zone Matching.
- White balance indicator. This shows the current white balance setting.
- Battery power remaining indicator. The remaining power in the battery is shown as both a graphical representation and a numerical percentage.
- Image Quality setting. This display shows the Image Quality setting as RAW, cRAW, RAW+J, cRAW+J, X.FINE, FINE, or STD.
- Image Size setting. This displays the size of the image: Large, Medium, or Small in either the 3:2 aspect ratio or the 16:9 aspect ratio.
- Memory card type indicator.
 When a CompactFlash card is being used, the letters CF appear in this box and MS appears if you are using a Memory Stick Duo card.

 Shots remaining counter. This is pretty self-explanatory. It shows the amount of shots that can still be saved on the memory card using the current settings.

Note that the bottom area of the display changes depending on what is on the main area of the screen. The bottom area can have any of the following: multi-selector directions, Menu button, Menu return, Delete button, Enlarge button, Custom button, Function button, Playback button, Front and Rear control dial, Front control dial, or Rear control dial.

Playback screen

Pressing the Playback button on the rear of the camera accesses the Playback display mode where you can review your images. When in Playback mode, press the Display button to cycle through the three different Viewing modes: the image alone, the image with shooting data, and the image with a thumbnail display of the last five images taken.

Pressing the Playback button again returns the display to the Recording Information display.

Image alone view

In this view, the entire display is filled with a single image. The Front or Rear control dials or the multi-selector can be used to cycle through the images on the memory card in the camera. Press the Display button to change to the Image with shooting data view.

Image with shooting data view

When the display is in the Image with shooting data view, the shooting data is superimposed across the top and bottom of the displayed image.



1.12 The screen during basic playback (not all icons are shown)

The information across the top of the screen consists of:

- Memory card indicator. This shows which memory card is being accessed, either the CF CompactFlash or the MS memory stick.
- Folder and file number. This shows the folder number followed by the file number.
- Protect display. If the image is protected, the protect symbol appears here.
- DPOF. Images can be marked for future printing. If the image has been selected to print, the DPOF3 symbol appears here.
- Image quality. The image quality of the photo appears here.
- Image size. The image size of the photo appears here.
- Image. The image appears here.

The information across the bottom of the screen consists of:

- Shutter speed. The shutter speed of the current image appears here.
- Aperture. The f-stop of the current image appears here.
- ISO sensitivity. The actual ISO of the current image appears here, even if the photo was taken using AUTO ISO.
- Date of recording. The date and time that the image was taken is shown here.
- File number / total number of images. This shows the sequence number of the selected image and the total images taken.

Image with thumbnail strip view

Pressing the Display button when in the Image with shooting data view brings up the Image with thumbnail view. This view has a five image thumbnail strip across the top of the image and a limited set of shooting data across the bottom.



1.13 Image preview with the thumbnail strip shown

The top area has a thumbnail strip that holds, at the most, five images. The image that is currently selected has a red bar beneath it. The multi-selector can be used to navigate between images. The bottom area has the following shooting data:

- Shutter speed. The shutter speed of the current image appears here.
- Aperture. The f-stop of the current image appears here.
- ISO sensitivity. The actual ISO of the current image appears here, even if the photo was taken using AUTO ISO.
- Date of recording. The date and time that the image was taken is shown here.
- File number / total number of images. This shows the sequence number of the selected image and the total images taken.

Histogram view

Pressing the Histogram button while in Playback mode opens the Histogram view. This view has the most amount of information. Once the Histogram button has been pressed, the view in Playback mode will be in Histogram view until the Histogram button is pressed again. The Histogram display has a full set of shooting data on the left side of the display with the histograms on the right.

This histogram itself is broken into four graphs. They are, from top to bottom: Luminance, Red, Green, and Blue. Each shows the luminance distribution from darkest to lightest across the bottom of the graphs, with the amount of pixels being affected in the heights of the graphs. The overall luminance of the scene is shown in the top graph, and each of the color graphs shows the luminance for that color. The more information that appears on the left of the chart, the darker the image; and the more information that appears on the right on the chart, the brighter the scene.

Across the top, you see the following:

- Memory card indicator. This shows which memory card is being accessed, either the CF CompactFlash or the MS memory stick.
- Folder and file number. This shows the folder number followed by the file number.
- Protect display. If the image is protected, the protect symbol appears here.
- DPOF. Images can be marked for future printing. If the image has been selected to print, the DPOF3 symbol appears visible here.
- Image quality. The image quality of the photo appears here.
- Image size. The image size of the photo appears here.
- Image. The image appears here. Overexposed areas can blink between black and white.



1.14 Image preview with the Histogram view shown

Across the bottom, there are four rows of information that contain the following:

- Mode indicator. This shows the mode that was set when the image was taken. The display matches the setting on the mode dial.
- Shutter speed. The shutter speed of the current image appears here.
- Aperture. The f-stop of the current image appears here.
- ISO sensitivity. The actual ISO of the current image appears here, even if the photo was taken using AUTO ISO.
- Exposure Value. This displays how much over or under the exposure compensation was set, compared to the 0 of the standard exposure.
- Flash compensation indicator. This displays the flash compensation, if any, used in creating the photo.
- Metering mode indicator. This displays the Metering mode that was used to capture that image.
- Focal length indicator. The focal length that was used appears here.
- Creative Style. The creative style used when the image was captured is shown here.
- White balance. The white balance used for this image is shown here.
- D-Range Optimizer. The D-Range setting is shown here.
- Date of recording. The date and time that the image was taken is shown here.

 File number / total number of images. This shows the sequence number of the selected image and the total images taken.

Index view

The Index view is opened by pressing the AE lock / Index button. The view changes to an index screen showing nine images, three columns of three images. Navigating through the images can be done with the multiselector and pressing the multi-selector's center button selects that image and opens it in the Playback screen.

When in the Index mode, press the Display button to switch from a nine image index preview to a twenty-five image index preview. Press the Display button again and the display changes to a four-image index preview.

Image Files

Digital cameras use a digital image sensor to capture images, and the images are saved as image files on your memory card. The aspect ratio, file quality, and file size you select before shooting all play a part in the creation of the image file.

Aspect ratio

The *aspect ratio* is the width of the image divided by the image height. The Sony Alpha A700 has a feature not found on most cameras: the ability to record not only in the standard photographic ratio of 3:2 but in the 16:9 aspect ratio as well.



1.15 This image was photographed in the 3:2 aspect ratio. The faded areas at the top and the bottom show what information would not be recorded when the camera is set to the 16:9 aspect ratio.

- 3:2. This is the standard aspect ratio used in photography. Because the sensor is in the same aspect ratio, this ratio uses all the available pixels.
- 16:9. This is the aspect ratio of high-definition televisions. Sony is a leader in the high-definition television field, and with the HDMI output on the camera, this camera can produce high-definition images in a native format for the 16:9 televisions. Because the 16:9 aspect ratio does not use areas on the top and the bottom of the sensor, the resulting image is smaller in size than one taken using the 3:2 aspect ratio.

File quality setting

When a photograph is taken, the image is saved to the memory card. The file format is the type of file and the format of the information that is written to the memory card. The Sony Alpha A700 has seven different file format settings.

- RAW. The information in this format is the RAW data that the camera sensor captures.
- cRAW. The cRAW mode is a compressed RAW mode. This file format saves space by compressing the image 60 to 70 percent compared to the regular RAW mode. Everything else is the same as the regular RAW mode.

	🗘 🖻 💐
	RAW
Aspect ratio	cRAW
Quality	RAW & JPEG
D-RangeOptimizer	cRAW & JPEG
Creative Style	Extra fine
	Fine
Exposure step	Standard
♦ Select ● Enter MENU ◆	

1.16 The File Quality menu makes picking a file quality easy and fast.

- RAW & JPEG. This mode saves two files every time you take a photograph. One copy is in the RAW mode, and the other is in the JPEG Fine mode.
- cRAW & JPEG. This is the same as the RAW & JPEG mode except that the RAW file is compressed, saving space.
- Extra Fine. This stores the images using a JPEG file format with very little compression.
- Fine. This setting stores the images using a JPEG file format with more compression than Extra Fine, creating a smaller file.
- Standard. This setting stores the image using the JPEG file format with the highest amount of file compression. The higher the compression, the lower the image quality.

Changing the file quality is done by pressing the Menu button and then using the multiselector to navigate to Recording menu 1 and selecting Quality from the menu. It can also be set by pressing the Function button to open the Quick Navigation menu, and then using the multi-selector to choose the current file quality; by pressing the multiselector center button, the file quality can then be changed.

File size setting

	\$
lmage size	■ L : 12M
Aspect ratio	M:6.4M
Quality	S:3.0M
D-RangeOptimizer	Advanced Auto
Creative Style	Standard
Custom button	Fine
Exposure step	0.3 EV
∢≎ ≯Sel	ect 🛛 Enter MENU ᠫ

1.17 The Image Size menu changes depending on the aspect ratio used. This menu shows the file sizes for the 3:2 aspect ratio, but does not show the actual dimensions of the image.

	🗘 🖻 🗳
Image size	■ L : 10M
Aspect ratio	M:5.4M
Quality	S:2.6M
D-RangeOptimizer	Advanced Auto
Creative Style	Standard
Exposure step	0.3 EV
∢\$ ≯Sel	ect 🕒 Enter MENU 🍤

1.18 The Image Size menu when the aspect ratio is set to 16:9. The file sizes are smaller than the 3:2 counterparts.

	Chapter 1 🔶 Ex	ploring t	he Sonv Al	pha A700 33
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Table 1.1 Size Chart		
	3:2 Aspect Ratio	16:9 Aspect Ratio
Large	12M, 4272 × 2848 pixels	10M, 4272 \times 2400 pixels
Medium	6.4M, 3104 \times 2054 pixels	5.4M, 3104 \times 1744 pixels
Small	3.0M, 2128 \times 1424 pixels	2.6M, 2128 \times 1200 pixels

The A700 has three file size settings: Large, Medium, and Small. Each of the file formats can be set to one of the three sizes as shown in Table 1.1. The sizes are dependent on the aspect ratio.

ISO Sensitivity

AUTO	ISO sensitivity
100	
125	
160	ISOAUTO
200	
250	
	\$Select ●Exit

1.19 Using the ISO button and the multi-selector, the ISO can be changed easily.

The ISO settings determine how sensitive the image sensor is to light. The Sony A700 ISO settings range from 100 all the way to 6400, with 100 being the least sensitive to light and 6400 being the most sensitive to light. To get a higher sensitivity to light, the signal from the sensor is amplified, increasing the amount of digital *noise* that is introduced to the file. Digital noise is unwanted spots of random color that show up in areas that should have smooth color. The more the signal is amplified, the more noise is introduced. The A700 also has an Auto ISO mode that sets the ISO value between 200 and 1600.

Viewing Images on the Camera

At any time, you can press the Playback button to view on the LCD the most recently taken image. Once an image is on the screen, you have many options for viewing and deciding an image's fate.

- Navigate through the images using the multi-selector or the Front or Rear control dials.
- Press the Display button to switch among the three view modes. Each time you press the Disp button, the display cycles to the next display mode. The three modes are
 - Display with information. In this mode, the image is overlaid with the filename, file type, file size, shutter speed, aperture, ISO, date and time the image was recorded, and the image

number / total images that are on the card. The type of storage, CompactFlash or Memory stick, is also displayed on the top-left corner of the image. The Front or Rear control dial or the multi-selector can be used to cycle through the images on the memory card.

- Display without information. In this mode, the image is displayed without any information at all. The Front or Rear control dial or the multi-selector can be used to cycle through the images on the memory card.
- **Display with 5-image thumbnails.** In this mode, the display is broken into two parts; the thumbnail strip along the top and the main image on the bottom. Shutter speed, aperture, ISO, the date and time the image was taken, and the image number / total images taken are all displayed over the bottom of the main image. The Front or Rear control dial or the multi-selector can be used to cycle through the images on the memory card. The selected image will have a red line under it on the thumbnail strip.
- Press the Custom button to open the Histogram view. Press it again to revert back to the previous view. Use the histogram to help you determine if you have a good exposure.



1.20 The Histogram view

Zoom in on any photo using the **AM/MF button.** To help identify this button's dual purpose, there is a blue magnifying icon next to the button. When in the Zoom mode, the Front control dial scrolls from one photo to the next, and the Rear control dial changes the percentage of the zoom. Pressing the multi-selector moves the zoomed image around within the LCD screen. Pressing the multi-selector's center button changes the display by showing the entire image with a red box located in the middle of the image. This red box is the area of the image that is displayed when the multi-selector's center button is pressed a second time. The red box can be moved around the image by using the multi-selector to select the area of the image vou want to look at closer. While in this mode, the Rear control dial changes the amount of zoom and graphically shows this change by making the red box bigger or smaller. The Front control dial changes from one image to the next. Pressing the AM/MF button returns the view to the previous mode.



1.21 The Zoom screen

- **Pressing the Index button opens** a thumbnail index screen. This screen shows three columns of three images per screen. It is a fast and easy way to navigate through your images. You can use the multi-selector to navigate through the images and the multi-selector's center button to select the highlighted image. The Front control dial navigates among images, and the Rear control dial navigates by screen. You can also change which folder on the memory card is being viewed. When the folder icon on the left side of the screen is selected and the multi-selector's center button is pressed, you can change the folder using the multi-selector.
- Press the Delete button to delete the image that is on the screen. After the Delete button has been pressed, a confirmation screen asks if the image should be deleted or if you want to cancel this action. After an image has been deleted, there is no way to get the image back. Taking this action is something to seriously consider before executing.



1.22 The Index screen

Note

Although the 3-inch LCD is great for doing quick reviews, it isn't ideal for doing critical reviews. The A700 LCD just can't compare to a computer or television screen. I do use the review to quickly check my photos, making sure that the image is properly exposed.



1.23 The Delete confirmation screen

Caution

When viewing your images on the camera, battery life is seriously impacted. Using the LCD to view images depletes the battery extremely fast.

White Balance Setting

The color of an object changes depending on the color of the light that reflects off of it. The human eye and brain translate this when looking at objects in different color light. Hold a white piece of paper outside in sunshine and it looks white, and then hold that same piece of paper in the shade and it looks white. The human brain naturally adjusts because you know the paper should be white. The sensor in the A700 records the values as it sees them, not knowing what the situation is. It is up to the photographer to set the white balance, and in doing so, tell the camera what the scene is.



1.24 The White Balance menu is clear and easy to read and can easily be navigated using the multi-selector.

The A700 has a wide range of white balance settings that cover a wide range of lighting situations. Most of the settings can also be fine-tuned to achieve more natural-looking colors.



White balance is covered in detail in Chapter 2.

- Auto White Balance. Auto White Balance or AWB sets the white balance automatically.
- Daylight. This setting is for photos taken in the bright direct sunlight outdoors. You can fine-tune the setting by adding or subtracting up to 3 stops. Adding increases the color temperature and increases the red tone, and decreasing turns the image paler.
- Shade. This is for when the subject is in the shade on a bright sunny day. This setting can be fine-tuned by 3 stops, where adding increases the red tone and decreasing reduces the red tone.
- Cloudy. This setting is best used for shooting outdoors under a cloudy sky. This setting can be finetuned by 3 stops, where adding increases the red tone and decreasing reduces the red tone.
- Tungsten. Tungsten lights are used mainly in incandescent lighting, and are used in everything from household lamps to flashlights to commercial lighting. This setting can be fine-tuned by 3 stops, where adding increases the red tone and decreasing reduces the red tone.
- Fluorescent. Fluorescent lighting is very common and can seem harsh and displeasing. When shooting in fluorescent lights, not setting the white balance can cause a loss of reds in the image. The white balance can be fine-tuned from a positive 4 to a negative 2. Adding increases the amount of red. Because fluorescent lights can cause a subject to look pale to begin with, adding red is more important than subtracting it.

- Flash. This is color balanced for using the built-in flash and Sony external flashes. This setting can be fine-tuned by 3 stops, where adding increases the red tone and decreasing reduces the red tone.
- Color temperature / Color filter. The white balance can be set using a color temperature. The color temperature can be set between 2500K and 9900K. Once the color temperature is set, it can be adjusted from Green (G) to Magenta (M) the same way a color compensation filter is used in film photography. There are a total of 18 steps of adjustments, 9 for green and 9 for magenta.



Color temperature is covered in greater detail in Chapter 4.

 Custom white balance. Using a Custom white balance is great for scenes with multiple types of light. The A700 lets you store three Custom white balance settings, each one accessible from the White Balance menu.



Setting a Custom white balance is covered in Chapter 2.

Note

The white balance can be changed with software after the photo has been taken. This used to only be possible when the photo was taken in the RAW format. With the release of Adobe Photoshop CS3, it is now possible to change the white balance on JPEG files as well.



1.25 Images taken in the wrong white balance can cause dramatic color shifts. This image was taken with the white balance set to AWB (Auto White Balance) which rendered great colors.



1.26 The same image taken with the white balance set to Tungsten makes the colors look unnatural with a strong blue cast.

Metering Modes

The Sony Alpha A700 has three Metering modes: Spot, Center-weighted, and Multi-segment.

 Multi-segment metering. The Sony Alpha A700 uses a 40segment metering system. There are 39 sensors in a honeycomb

the main area and one sensor that covers the surrounding area. The metering system is linked to the auto focus system so that the main subject is exposed correctly.

pattern for



1.27 The Metering mode lever makes it easy to switch among Metering modes.



1.28 The Multi-segment mode uses all 39 of the honeycomb sensors and the outside area as the 40th sensor. The Centerweighted metering mode uses the red and yellow segments, and Spot metering uses the red center sensor area.

 Center-weighted metering. The entire scene is metered, but the center of the scene is given greater emphasis over the outer areas.

Spot metering. This mode uses the light measured in the center area to calculate the exposure. This is used when the exposure of a part of the subject is more important than the whole scene. The center area used to calculate this exposure is shown on the viewfinder.

Scene Exposure Modes

There are six Scene Exposure modes, and they can be easily set by turning the Mode dial to the desired Scene Exposure mode. Any changes that you make while in one of the Scene Exposure modes resets if the Mode dial is moved.



Night View/ Night Portrait mode Portrait mode

1.29 The Mode dial makes it easy to quickly switch Scene Exposure modes.

- Portrait. Setting the Exposure mode to Portrait sets a larger aperture (smaller number), which decreases the depth of field. This keeps the subject in focus but the background out of focus. Portrait mode also sets the D-Range Optimizer to Advanced Auto.
- Landscape. In Landscape mode, the camera sets a smaller aperture (larger number), which increases the depth of field. Using the smallest aperture possible helps keep everything from the foreground to the background in acceptable focus.
- Macro. Macro mode sets the shutter speed as high as possible and tries to keep the aperture at f/5.6 if possible. Macro mode also sets the D-Range Optimizer to Advanced Auto.
- Sports Action. Sports photography is all about stopping the action, and this setting tries to use the fastest shutter speed possible. It also sets the Drive mode to Continuous High-Speed Advance, and it changes the Focus mode to Continuous Auto Focus if necessary. Sports Action mode also sets the D-Range Optimizer to standard.
- Sunset. In Sunset mode the camera sets a smaller aperture (larger number), which increases the depth of field. Sunset mode turns the D-Range Optimizer off.
- Night View / Night Portrait. The camera sets a slower shutter speed to try to capture the night scene. The difference between Night View and Portrait is the use of the flash; the flash is activated in Night Portrait mode. D-Range Optimizer is turned off in this mode.

Semiautomatic and Manual Exposure Modes

The Mode dial is used to set the Semiautomatic and Manual Exposure mode. It's as easy as turning the dial to the desired mode.

- Auto. Setting the camera to the Auto mode gives control of all exposure settings to the camera. The A700 allows you to change the white balance, ISO, Creative Style, D-Range Optimizer, Flash mode, exposure compensation and flash compensation, Focus mode, Drive mode, image quality, and image size. When the dial is moved from the Auto setting to any of the other modes settings and then back to Auto, all the changes except for image quality and image size are reset to the default settings.
- Program Exposure. Although the Program mode and the Auto mode might seem similar, they differ in some very important ways. The shutter speed or the aperture can be adjusted by using the Front and Rear control dials. Any changes that are made in this mode are reset if the Mode dial is moved.
- Aperture Priority. In the Aperture Priority mode, you set the aperture, and the camera sets a shutter speed to achieve proper exposure based on the Metering mode. The aperture is set by using either the Front or Rear control dial.
- Shutter Priority. In Shutter Priority mode, you set the shutter speed and the camera sets the aperture

to achieve proper exposure based on the Metering mode. The shutter speed is set by using either the Front or Rear control dial.

Manual Exposure. In this mode, you set both the aperture and the shutter speed. By default, the Rear control dial controls the aperture, and the Front control dial controls the shutter speed. As the aperture and shutter speed are changed, the camera displays how close your selected exposure is to the metered exposure on the EV scale.

Drive Modes

The A700 has eight different Drive modes. The Drive modes are set using the Drive menu, which is accessed by pressing the Drive mode button on the top of the camera. The drive menu can also be accessed by pressing the Function button to bring up the Quick Navigation screen and using the multi-selector to navigate to the Drive mode.



1.30 The Drive menu is accessed by pressing the Drive mode button or by using the Quick Navigation screen.

- Single Frame Advance. In this mode, the camera takes one exposure every time the shutter is pressed.
- Continuous Advance. There are two settings in the Continuous Advance mode: Hi and Lo.
 - Hi Continuous Advance mode. The A700 shoots at a maximum of 5 frames a second when the shutter speed is 1/250 or higher, manual focus is used, image quality is Fine, and file size is Large.
 - Lo Continuous Advance mode. The A700 shoots at 3 frames a second. The number of images that can be shot continuously depends on the quality and size of the image.
- Self-timer. There are two modes in the Self-timer mode; a 2-second timer mode and a 10-second timer mode.
 - 2-second mode. This mode locks the mirror up before taking the photograph, making it very useful in reducing camera shake. Once you engage the 2second mode, it cannot be cancelled before the photograph is taken.
 - 10-second mode. This mode is useful when you want to be in the photograph. The self-timer lamp located on the front of the camera flashes before the shot is taken in the 10-second mode. The 10-second mode can be cancelled by pressing the Drive mode button before the photograph is taken.

- Continuous Bracketing. There are six different Continuous Bracketing modes available on the A700. Holding the Shutter button down takes three or five shots in rapid succession.
 - 0.3ev3. This setting lets you take three photos continuously with the exposure shifted by .03 of a stop. The order of the images is correct exposure, underexposed by 0.3 of a stop, and overexposed by 0.3 of a stop.
 - 0.3ev5. This setting lets you take five photos continuously with the exposure shifted by .03 of a stop. The order of the images is correct exposure, underexposed by .03 of a stop, overexposed by 0.3, underexposed by 0.6 of a stop, and overexposed by 0.6 of a stop.
 - 0.5ev3. This setting lets you take three photos continuously with the exposure shifted by.05 of a stop. The order of the images is correct exposure, underexposed by 0.5 of a stop, and overexposed by 0.5 of a stop.
 - 0.5ev5. This setting lets you take five photos continuously with the exposure shifted by .05 of a stop. The order of the images is correct exposure, underexposed by .05 of a stop, overexposed by 0.5 of a stop, underexposed by 1 step, and overexposed by 1 stop.

- 0.7ev3. This setting lets your take three photos continuously with the exposure shifted by .07 of a stop. The order of the images is correct exposure, underexposed by 0.7 of a stop, and overexposed by 0.7 of a stop.
- 0.7ev5. This setting lets you take five photos continuously with the exposure shifted by .07 of a stop. The order of the images is correct exposure, underexposed by .07 of a stop, overexposed by 0.7 of a stop, underexposed by 0.7 of a stop, and overexposed by 1.4 stops, and overexposed by 1.4 stops.
- Single Frame bracketing. Single Frame bracketing is the same as Continuous Frame bracketing except that the Shutter button must be pressed for each photo.
- White balance bracketing. White balance bracketing takes three photos every time the Shutter button is pressed. The three images are identical except that the first photo has the set white balance, the second has less red and is paler, and the third has more red. The amount of change between the three can be set in the Drive menu using the Lo3 and Hi3 choices. The Hi3 adds and subtracts greater amounts of red than the Lo3 setting does.
- DRO bracketing. Each time the Shutter button is released, the A700 takes three different photos, each with separate optimization of colors. The three images are recorded in the following order: low, mid, high. The D-Range Optimization (DRO) bracketing

Drive mode has two choices. The Lo3 choice lowers the DRO bracketing when taking the photo, and the Hi3 choice amplifies the DRO bracketing. These settings can be applied in the Drive mode menu. DRO is covered later in this chapter.

 Remote Control. In this mode, the A700 is triggered either by the Shutter button or the 2-second button on the Remote Commander. The 2-second button on the remote locks the mirror up before the photo is taken, minimizing camera shake as much as possible.

Creative Styles

There are 14 different Creative Styles (previously called Color modes) preprogrammed into the A700, but the Creative Styles menu that opens when the Custom button is pressed only has places for 7 of the 14 styles. The first four menu choices are unswitchable, meaning they cannot be changed. The styles are

- Standard. Captures a wide variety of scenes with rich colors.
- Vivid. Useful for capturing scenes with bright colors; the saturation and contrast are both increased.
- Neutral. Both sharpness and saturation are decreased in this color space. This is recommended for images that will be adjusted on a computer.
- AdobeRGB. Captures images using the AdobeRGB color space. This is the most well-known color space for professional photographers.

Each of these four choices can also be adjusted by changing their contrast, saturation, and sharpness.

The three remaining choices can be assigned any of the 14 styles, including the four that are assigned to the unswitchable choices. When any of the 14 styles are set to one of the three empty slots, they can be adjusted in five different ways: contrast, saturation, sharpness, brightness, and zone matching. The remaining styles are

- Clear. Darkens the overall color tone and increases the contrast.
- Deep. Reduces the contrast, bringing out more detail in dark, solid color areas.
- Light. Brightens the overall tone of the image.
- Portrait. Skin tones are captured in a soft tone, making this mode the choice for portraits.
- Landscape. Contrast, saturation, and sharpness are increased to capture landscapes.
- Sunset. Helps to capture the reds of sunset.
- Night View. The contrast is weakened, giving a more realistic view of night scenes.
- Autumn Leaves. Pushes the colors to capture the reds and yellows of autumn.
- B/W. Captures the image in black and white.
- Sepia. Captures the image in sepia (a yellow-brown tone). This gives the image an old world look closely associated with the photographs of the Old West.



1.31 The Creative Styles menu is accessed by pressing the Creative Style button and is easily navigated by using the multi-selector.

The Creative Styles cannot be used with any of the Scene Exposure modes. If you press the Custom button when in any of the Scene Exposure modes, the LCD displays an Invalid Operation screen and you have to press the multi-selector center button to continue.

D-Range Optimization

Dynamic Range Optimization or DRO technology lets the A700 analyze the image and helps to recover details in the dark and bright areas of the scene. Each of the Scene Exposure modes sets the DRO automatically, but they can be changed. The changes are not permanent, and if the Mode dial is moved from one scene to the next, the DRO resets to the default for that particular Scene Exposure mode.

Pressing the Function button opens the Quick Navigation screen and using the multi-selector navigates to the D-Range Optimization setting. Pressing the multiselector center button opens the D-Range

Optimization menu and allows you to set the D-Range Optimization. Press the Menu button and use the multi-selector to open the Recording menu 1; then set the desired mode. The D-Range Optimization works in all file qualities and sizes.

There are four D-Range Optimization choices:

 Off. When the DRO is turned off, it does not correct any brightness or contrast.

- Standard. In the Standard mode, the DRO adjusts the brightness and the contrast of the entire image.
- Advanced Auto. The contrast and color reproduction of the scene is optimized by areas of color in the scene.
- Advanced Level. Five levels of optimization are available. They all optimize the color reproduction and contrast of the scene, but in varying degrees from weak (Lv1) to strong (Lv5).