



Figure 4-19. Screen 3 of Shooting Menu

Drive Mode

This first option on screen 3 of the menu gives access to continuous-shooting and related features of the RX100 IV, for shooting bursts of images, bracketing exposures, and using the self-timer. You can also get access to this menu option by pressing the Drive Mode button (Left button), as discussed in Chapter 5.



Figure 4-20. Drive Mode Menu

When you highlight this option and press the Center button, a menu appears at the left of the screen as shown in Figure 4-20, with 9 choices represented by icons: Single Shooting, Continuous Shooting, Speed Priority Continuous Shooting, Self-timer, Self-timer (Continuous), Continuous Exposure Bracketing, Single Exposure Bracketing, White Balance Bracketing, and DRO Bracketing. (You have to scroll down to see the last 5 choices.)

Details for each of these Drive Mode settings are discussed below.

SINGLE SHOOTING

This is the normal mode for shooting still images. Select this top choice on the Drive Mode menu to turn off all continuous shooting. In some cases, having one of the continuous-shooting options selected will make it impossible to make other settings, such as Soft Skin Effect or Long Exposure Noise Reduction. If you find you cannot make a certain setting, try selecting single shooting to see if that removes the conflict and fixes the problem.

As noted earlier, this option is not available with the Sports Action setting of Scene mode.

CONTINUOUS SHOOTING

Continuous shooting, sometimes called burst shooting, is useful in many contexts, from shooting an action sequence at a sporting event to taking a series of shots of a person in order to capture changing facial expressions. I often use this setting for street photography to increase my chances of catching an interesting scene.



Figure 4-21. Continuous Shooting Icon Highlighted

The Continuous Shooting option is the first of 2 types of burst shooting available with the RX100 IV. With this setting, whose icon is highlighted in Figure 4-21, the camera shoots continuously when you hold down the shutter button.

If you have Focus Mode set to single autofocus, the camera will not adjust its focus during the burst of shots. But, if you set the focus mode to AF-C for continuous autofocus, the camera will adjust focus for each shot. As you can imagine, this focusing may not be exact because of motion by the subject, the camera, or both, but the camera will try to re-focus while the burst continues.

If you want the camera to adjust its exposure during the series of continuous shots, you need to go to screen 3 of the Custom menu and check the setting of the AEL w/ Shutter menu item. If that item is set to On, the camera will lock exposure when you press the shutter button, and exposure will be locked throughout the burst as it was set for the first image, even if lighting changes dramatically. However, if you set AEL w/Shutter to

Off, then the camera will adjust its exposure as needed during the burst of shots. If you set AEL w/Shutter to Auto, then the camera will adjust exposure during continuous shooting if Focus Mode is set to continuous autofocus. If it is set to single autofocus, then the camera will keep the exposure locked. (Of course, if you want the camera to adjust exposure automatically, you have to use an exposure mode in which the camera normally controls exposure. If you use Manual mode with a fixed ISO value, the exposure will not change.)

Depending on conditions such as image size and quality, lighting, settings for autofocus and autoexposure lock, and the speed of the memory card, the rate of burst shooting can vary considerably. With optimal conditions, the camera can shoot at between 5 and 6 frames per second (fps) using this setting until the memory buffer fills up. Then the rate slows to about 1.5 fps. When shooting with Quality set to Raw & JPEG, I found that the shooting speed slowed down after about 30 shots. When shooting with lower Quality settings, the camera was able to take substantially more shots before slowing down. For example, with Quality set to Extra Fine, the camera fired off about 60 shots before slowing down. With Quality set to Fine, it managed to capture more than 150 shots at a steady speed before slowing down.

Although you can turn on the flash when the Continuous Shooting option is selected, and the camera will actually take a series of shots with flash as you hold down the shutter button, the time between shots may be several seconds because the flash cannot recycle quickly enough to take a rapid series of shots.

The speed of this first continuous-shooting mode is not very great compared to that of the Speed Priority

option, discussed below. However, being able to take a stream of shots with focus adjusted for each one can be worth the reduction in speed when your subject is moving or when you need to focus on moving subjects or subjects at varying distances.

SPEED PRIORITY CONTINUOUS SHOOTING

To shoot a series of images at the fastest rate possible, choose the Speed Priority Continuous Shooting option, highlighted in Figure 4-22.



Figure 4-22. Speed Priority Cont. Shooting Icon Highlighted

With this setting, the camera captures images at a rate up to about 16 fps or slightly faster in ideal conditions. The trade-off for speed is that the camera will not adjust focus between shots, even if you set the focus mode to continuous autofocus. As with the standard Continuous Shooting setting, with Speed Priority the camera will adjust exposure for each shot if the AEL w/Shutter menu option is set to Off. If that menu option is set to On, the camera will lock the exposure with the first shot and will not adjust it for the remaining shots. With the Auto setting, it will adjust exposure if continuous AF is

turned on, though, as noted, the camera will not adjust focus between shots.

As with normal continuous shooting, various factors including the Quality setting affect the shooting rate of the Speed Priority setting. When I used my fastest memory card and set the camera to take Extra Fine JPEG images at a shutter speed of 1/500 second, the camera managed a burst of more than 40 images at about 17 fps. When I took Raw & JPEG or just Raw shots, the camera took an initial burst of about 25 shots at a rate of about 9 fps, then slowed to a pace of less than 1 fps. As with the standard Continuous Shooting option, using the flash slows down the shooting drastically. Also, using slower memory cards has a noticeable impact on the speed of continuous shooting.

After taking a burst of shots, it can take the camera a while to save them to the memory card. You can't use the menu system or play back existing shots until the data has been saved, although you can take additional shots. There is an access lamp that lights up in red while the camera is writing to the card, but you cannot readily see it. It is inside the battery compartment near the edge of the camera, as shown in Figure 2-7, back in Chapter 2. While that light is illuminated, be sure not to remove the battery or the memory card.

Figure 4-23 includes a series of images I took using continuous shooting, to illustrate how rapidly the camera can fire its shutter with the burst settings. I attached the RX100 IV to a spotting scope, as discussed in Chapter 9, and waited for birds to visit the bird feeder. Eventually, this bird appeared and I held down the shutter button to capture a rapid burst. You can see

from the small distances the bird moved between shots that the camera froze the action at very short intervals.



Figure 4-23. Continuous Shooting Series

SELF-TIMER

The next icon down on the menu of Drive Mode options represents the self-timer, as shown in Figure 4-24.



Figure 4-24. Self-timer Icon Highlighted

The self-timer is useful when you need to be the photographer and also appear in a group photograph. You can place the RX100 IV on a tripod, set the timer for 5 or 10 seconds, and insert yourself into the group before the shutter clicks. The self-timer also is helpful when you don't want to cause blur by jiggling the camera as you press the shutter button. For example, when you're taking a macro shot very close to the subject, focusing can be critical, and any bump to the camera could cause motion blur. Using the self-timer gives the camera a chance to settle down after the shutter button is pressed, before the image is recorded.

The self-timer option presents you with 3 choices: 10 seconds, 5 seconds, and 2 seconds. When the self-timer icon is highlighted, press the Left or Right button on the Control wheel to choose one of these options by highlighting it and pressing the Center button to select

it. After you make this selection, the self-timer icon will appear in the upper left corner of the display with the chosen number of seconds (10, 5, or 2) displayed next to the icon, as shown in Figure 4-25. (If you don't see the icon, press the Display button until the screen with the various shooting icons appears.)



Figure 4-25. Self-timer Icon on Shooting Screen

Once the self-timer is set, when you press the shutter button, the timer will count down for the specified number of seconds and then take the picture. The reddish lamp on the front of the camera will blink, and the camera will beep during the countdown.

The self-timer is not available in Sweep Panorama mode or for recording a movie with the Movie button.

SELF-TIMER (CONTINUOUS)

The next item down on the Drive Mode menu, shown in Figure 4-26, is another variation on the self-timer. With this option, the camera lets you set the timer to take multiple shots after the countdown ends. You can choose any of the 3 time intervals, and you can set the

camera to take either 3 or 5 shots after the delay. When you highlight this option, you will see a horizontal triangle indicating that, using the Left and Right buttons, you can select one of 6 combinations of the number of shots and the timer interval. For example, the option designated as C3/2S sets the camera to take 3 shots after the timer counts down for 2 seconds; C5/10S sets it for 5 shots after a 10-second delay.

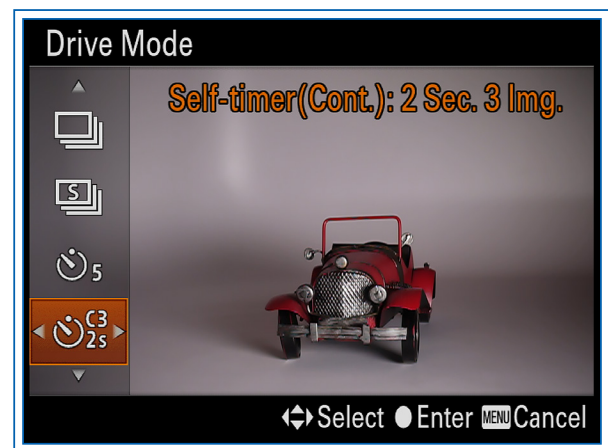


Figure 4-26. Self-timer Cont Icon Highlighted

This option is useful for group photos; when a series of shots is taken, you increase your chances of getting at least one shot in which everyone is looking at the camera and smiling. You can choose any settings you want for Image Size and Quality, including Raw & JPEG, and you will still get 3 or 5 rapidly fired shots, though the speed of the shooting will decrease slightly at the highest Quality settings. You cannot use the Continuous AF setting for Focus Mode with this option.

CONTINUOUS EXPOSURE BRACKETING

This next option on the Drive Mode menu, shown in Figure 4-27, sets the camera to take 3, 5, or 9 images

with one press of the shutter button but with a different exposure level for each image, giving you a greater chance of having one image that is properly exposed.



Figure 4-27. Continuous Exposure Bracket Icon Highlighted

When you highlight this option, you will see a horizontal triangle meaning that you can use the Left and Right buttons to select one of 13 combinations of the difference in exposure value and the number of images in the bracket. The first 9 choices include exposure value (EV) intervals of 0.3, 0.7, or 1.0, each with a bracket of 3, 5 or 9 exposures. The other 4 choices are for EV intervals of 2.0 or 3.0 EV, each with a bracket of 3 or 5 exposures. The decimal numbers represent the difference in EV among the multiple (3, 5 or 9) exposures that the camera will take. (Note that, with the larger EV intervals of 2.0 or 3.0 EV, the available numbers of shots are 3 or 5; there is no option for choosing 9 shots, because the overall exposure range would be too great, given the larger EV interval and the large number of shots.)

For example, if you select 0.7 EV as the interval for 3 exposures, the camera will take 3 shots—one at the

metered exposure level; one at a level 0.7 EV (or f-stop) below that, resulting in a darker image; and one at a level 0.7 EV above that, resulting in a brighter image. If you want the maximum exposure difference among the shots, select 3.0 EV as the interval for the 3 or 5 shots.

Once you have set this option as you want it and composed your scene, press and hold the shutter button and the camera will take the 3, 5 or 9 shots in rapid succession while you hold down the button.

If you set this option for 3 exposures, the first one will be at the metered value, the second one underexposed by the selected interval, and the third one overexposed to the same extent. If you set it for 5 exposures, the first 3 shots will have the values noted above, the fourth will have the most negative EV, and the fifth will have the most positive EV. With 9 exposures, the pattern will be similar, with the final 2 exposures having the most negative and positive EV settings, respectively. (You can change this order using the Bracket Settings menu option, discussed later in this chapter.)

You can use exposure compensation, in which case the camera will use the image with exposure compensation as the base level, and then take exposures that deviate under and over the exposure of the image with exposure compensation.

If you pop up the flash and set it to fire, using the Fill-flash setting for example, the flash will fire for each of the bracketed shots and the exposure will be varied, but you have to press the shutter button for each shot, after the flash has recycled. (The orange dot to the right of the flash icon on the screen shows when the flash is ready to fire again.) With this approach, the camera

will vary the output of the flash unit rather than the exposure value of the images themselves.

When using Manual exposure mode with ISO set to Auto, the camera adjusts the ISO setting to achieve the different exposure levels for the multiple images. If ISO is set to a specific value, the camera varies the shutter speeds for the multiple shots.

SINGLE EXPOSURE BRACKETING

The next option is similar to the previous one, except that, with this selection, you have to press the shutter button for each shot; the camera will not take multiple shots while you hold down the shutter button. You have the same 13 choices for combinations of EV intervals and numbers of exposures. You might want to choose this option when you need to pause between shots for some reason, such as if you are using a model who needs to have some costume or makeup adjustments for each exposure. It also could be useful if you want to look at the resulting image after each shot to see if you need to make further adjustments to your settings.

Apart from using individual shutter presses, this option works the same as continuous exposure bracketing. For example, you can use flash and you can change the order of the exposures using the Bracket Settings menu option.

None of the bracketing options—exposure, white balance, or DRO—is available in the Auto, Scene, or Sweep Panorama shooting mode.

WHITE BALANCE BRACKETING

The next option on the Drive Mode menu, White Balance Bracket, whose icon is highlighted in Figure 4-28, is similar to Continuous Exposure Bracketing,

except that only 3 images can be taken and the value that is varied for the 3 shots is white balance rather than exposure.

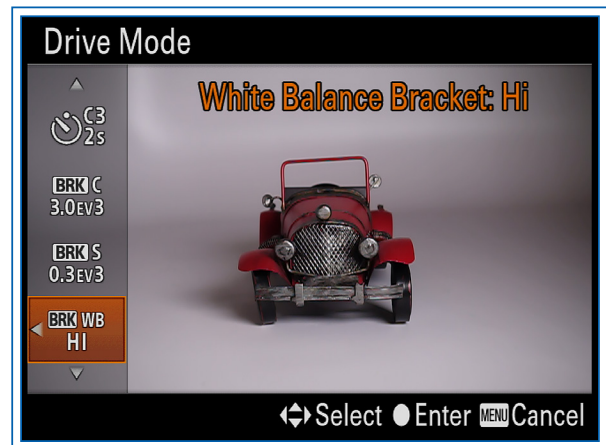


Figure 4-28. White Balance Bracket Icon Highlighted

Using the Left and Right buttons, select either Lo or Hi for the amount of deviation from the normal white balance setting. Then, when you press the shutter button (you don't have to hold it down), the camera will take a series of 3 shots—one at the normal setting; the next one with a lower color temperature, resulting in a “cooler,” more bluish image; and the last one with a higher color temperature, resulting in a “warmer,” more reddish image. When you use this form of bracketing, unlike exposure bracketing, you will hear only one shutter sound because the camera takes just one image, with one quick shutter press, and then electronically creates the other 2 exposures with the different white balance values.

You can change the order of the exposures using the Bracket Settings menu option, discussed later in this chapter.

DRO BRACKETING

This final option on the Drive Mode menu, whose icon is shown in Figure 4-29, sets the RX100 IV to take a series of 3 shots at different settings of the DRO (dynamic range optimizer) option.



Figure 4-29. DRO Bracket Icon Highlighted

I'll discuss DRO later in this chapter. Essentially, DRO alters the RX100 IV's image processing to even out the contrast between shadowed and bright areas. It can be difficult to decide how much DRO processing to use, and this option gives you a way to experiment with several different settings before you decide on the amount of DRO for your final image.

As with White Balance Bracket, you can select Hi or Lo for the DRO interval. Also, as with White Balance Bracket, you only need to press the shutter button once, briefly; the camera will record the 3 different exposures electronically. The order of these exposures is not affected by the Bracket Order menu option.

Bracket Settings

The second option on this menu screen lets you adjust 2 settings for how bracketed exposures are taken. When you select Bracket Settings, you will see 2 sub-options: Self-timer During Bracket, and Bracket Order.

The first choice, Self-timer During Bracket, lets you use the self-timer with bracket shooting. Without this option you could not use bracketing and the self-timer at the same time, because they are selected by different options on the Drive Mode menu. With this menu option, you can have the self-timer set for 2, 5, or 10 seconds before the first bracket shot is triggered, or you can leave the self-timer turned off. This setting turns on the self-timer for any type of bracket shooting you choose—exposure, white balance, or DRO.

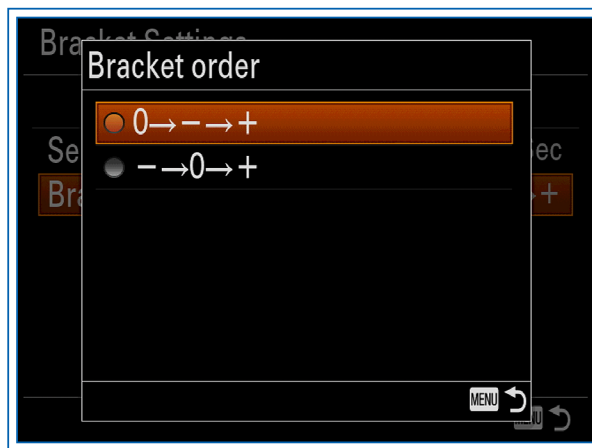


Figure 4-30. Bracket Order Options Screen

The second sub-option, Bracket Order, lets you alter the sequence of the bracketed shots. As shown in Figure 4-30, there are 2 choices. The first one is the default setting, with which the first shot is at the normal setting, the next is more negative (or with lower color

temperature), the one after that is more positive (or with higher color temperature), and so on, ending with the most negative setting and, finally, the most positive setting. If you choose the second option, the images are shot in a strictly ascending series, moving from the most negative setting to the most positive setting.

The Bracket Order option affects the order for exposure bracketing and white balance bracketing, but not for DRO bracketing.

Flash Mode

In Chapter 2, I discussed the use of the RX100 IV's built-in flash, which is controlled with the Flash Mode menu option. As I discussed earlier, that option can be reached by pressing the Flash button, which is the Right button on the Control wheel. Flash Mode also is this third option on screen 3 of the Shooting menu.

There are 5 options on the Flash Mode menu—Flash Off, Autoflash, Fill-flash, Slow Sync, and Rear Sync—the first 4 of which are shown in Figure 4-31. The Slow Sync option is dimmed on this screen, because that setting is not available for selection in the shooting mode illustrated here. There is no shooting mode in which all 5 options are available. Here is a brief summary of the options I discussed in Chapter 2, followed by a discussion of the ones I did not discuss there.



Figure 4-31. Flash Mode Menu

FLASH OFF

To make sure the flash will not fire, choose Flash Off. This is a good choice when you are in a museum or other place where you don't want the flash to fire, or if you know you will not be using flash. It also can be helpful to avoid depleting a battery that is running low. This option is available in Auto mode and with the Portrait, Sports Action, Macro, Landscape, Sunset, Pet, and Gourmet settings of Scene mode. Of course, with the RX100 IV you also have the option of just not raising the flash with the flash pop-up switch, which will have the same effect as using this Flash Mode option.

AUTOFLASH

With Autoflash, you leave it up to the camera to decide whether to fire the flash. The camera will analyze the lighting and other aspects of the scene and decide whether to use flash without further input from you. This selection is available only in Auto mode, and with the Portrait and Macro settings of Scene mode.