

CHAPTER 3: THE RECORDING MODES

Choosing a Recording Mode

Whenever you set out to capture still images or videos, an important first step is to select a recording mode, sometimes called a shooting mode. This “mode” is a general setting that controls the camera’s behavior for adjusting exposure. As with most advanced cameras, the LX100 II provides a standard set of modes: Intelligent Auto, Program AE (also known

as Program), Aperture Priority, Shutter Priority, and Manual exposure. These last four are often known as the PASM modes, for the first letter of each mode.

The major distinguishing factors for the various modes are the degree of automation the camera uses for evaluating exposure and the settings that you, the user, make as opposed to those that the camera makes automatically. Table 3-1 gives a brief introduction to the modes and when you might want to choose each one.

Table 3-1. Recording Modes of the Panasonic Lumix LX100 II Camera

Mode	Exposure Setting(s) by Camera	Exposure Setting(s) by User	Situations for Using	How to Set
Intelligent Auto	Shutter Speed, Aperture	None	Quick shots without time to change settings	Press iA Button on top of camera
Program	Shutter Speed, Aperture	None	General shots when you want to control many settings	Set shutter speed dial and aperture ring to red A marks
Aperture Priority	Shutter Speed	Aperture	Blurred background to reduce distractions or large depth of field to keep various subjects in focus	Set shutter speed dial to the red A mark and set aperture ring to desired value
Shutter Priority	Aperture	Shutter Speed	For fast shutter speed to stop action or a slow shutter speed to blur action	Set aperture ring to the red A mark and set shutter speed dial to desired value
Manual Exposure	None	Shutter Speed, Aperture	To control motion blur and depth of field or for unusual exposure effects	Set aperture ring and shutter speed dial to desired values

Some cameras have a mode dial with an array of options labeled P, A, S, M, and the like for selecting recording modes, but the LX100 II uses a different approach. As you can see from Table 3-1, to select one of the advanced recording modes (Program, Aperture Priority, Shutter Priority, or Manual exposure), you set the shutter speed dial and aperture ring to different positions. To select Intelligent Auto mode, you simply press the iA button on top of the camera. When you do

that, the automatic mode will take effect, regardless of the settings of the shutter speed dial and aperture ring. When you have finished using Intelligent Auto mode, press the iA button again, and the mode that was previously active will take effect again.

With that introduction to the recording modes, I will provide more detailed explanations of the modes in this chapter. First, though, I will include a brief reminder

of the preliminary steps to take before shooting still images, no matter what recording mode you use. The steps don't have to be taken in this exact order, but this sequence is a useful one to remember in general terms.

Preliminary Steps Before Shooting Pictures

1. Check to be sure you have selected the aspect ratio you want—3:2, 16:9, 1:1, or 4:3—with the slide switch on top of the lens barrel. I generally use 3:2 or 4:3 for everyday shooting, but you may prefer one of the others. If you intend to use software to edit and tweak your photos later, you can always change the aspect ratio then.
2. Check to be sure you have selected the focus method you want: AF for autofocus, AF macro for autofocus with close-ups, or MF for manual focus. Use the sliding focus switch on the left side of the lens barrel.
3. Remove the lens cap (unless you are using the automatic lens cap, discussed in Appendix A).
4. Turn on the camera.

Now you're ready to select a recording mode. I'll discuss them all below.

Intelligent Auto Mode

This is a good mode to use when you don't want to take time to adjust several controls or menu options. To make this setting, you don't have to worry about the position of the shutter speed dial or the aperture ring. Just press the iA button, located on top of the camera directly behind the shutter button. (You may have to hold the button down for a second or two, depending on the iA Button Switch setting on screen 3 of the Custom menu.) The camera will now be set to Intelligent Auto mode. You will see the iA icon in the upper left corner of the display, as shown in Figure 3-1. (You may instead see the iA+ icon for Intelligent Auto Plus mode, or an icon showing what sort of scene the camera detected, such as portrait, closeup, infant, etc., as discussed later in this section.)

In this mode, the camera limits the settings you can make, in order to simplify things. For example, you cannot fully adjust items such as white balance, ISO,

Photo Style, Metering Mode, Filter Settings, Autofocus mode (setting the area for autofocus) and several others. In addition, as I discussed in Chapter 2, even if you select AF with the autofocus switch, the camera sets the focus mode to AF Macro. You can select the MF position for manual focus, though.



Figure 3-1. iA Icon on Shooting Screen

The camera turns on several settings, including Auto White Balance, scene detection, image stabilization, Quick AF, backlight compensation, Intelligent ISO, Intelligent Resolution, and Intelligent Dynamic, all of which are useful settings that will not unduly limit your options in most cases. I'll discuss all of those items in Chapter 4 in connection with Recording menu settings, except for scene detection and backlight compensation, which I will discuss here, because they are not menu options; the camera uses them automatically in the Intelligent Auto shooting mode.

With scene detection, the camera attempts to figure out if a particular scene type should be used for the current situation. The camera uses its programming to try to detect certain subjects or environments. For example, it looks for people; babies (if you have registered them using the Face Recognition menu option); night scenes; close-ups; sunsets; food; and portraits. It will identify scenes calling for the iHandheld Night Shot setting if that option is turned on through the menu system, as discussed later in this chapter. If the camera detects one of these factors, it displays an icon for that type of scene and adjusts its settings accordingly.

For example, in Figure 3-2, the camera detected a human face and displayed the icon for portrait scene detection in the upper left corner of the display.



Figure 3-2. Scene Detection Icon for Portrait

With backlight compensation, the camera will try to detect situations in which the subject of the photograph is lighted from behind. This sort of lighting can “fool” the camera’s metering system into making the exposure too dark, because of the light shining toward the lens. With this setting, the camera automatically adjusts its exposure to be brighter, to overcome the effects of the backlighting.

Even though the LX100 II makes various automatic settings in Intelligent Auto mode, there are still several options that you can adjust using the menu system and, to some extent, the physical control buttons.

OPTIONS ON SPECIAL MENU FOR INTELLIGENT AUTO MODE

First, you can use the special menu for Intelligent Auto mode to turn on two settings that can improve your photographs in challenging lighting conditions. As shown in Figure 3-3, when the camera is in Intelligent Auto or Intelligent Auto Plus mode, the top icon in the column of menu system icons is the iA (or iA+) icon.

If you highlight that icon and press the Right button, the yellow selection bar will be in the single screen for these special menu options. There are three choices: Intelligent Auto Mode, iHandheld Night Shot, and iHDR, as seen in Figure 3-3. The first option lets you choose the basic Intelligent Auto mode or Intelligent Auto Plus mode, which is discussed later in this chapter.

The iHandheld Night Shot option is designed to minimize the motion blur that can result from taking a handheld shot at the slow shutter speed that is likely to be needed to get a sufficient exposure in low light. When iHandheld Night Shot is turned on, if the camera detects

darkness and senses that it is handheld, the camera will raise its ISO setting in order to permit the use of a faster than normal shutter speed. Also, because using a higher ISO can increase the visual “noise” or grainy look in an image, the camera will take a burst of several shots and combine them internally into a final image. By blending the contents of several images together, the camera can reduce the noise in the final, composite result. This setting is a useful one to activate when shooting in low-light conditions without flash or a tripod.



Figure 3-3. Intelligent Auto Mode Menu Icon Highlighted

You cannot decide when to capture an image with this feature yourself—all you can do is turn it on and see if the camera determines that conditions call for it to be used.

The other choice on this special menu screen, iHDR, also will be activated only when the camera determines that its use is called for. If the iHDR option is turned on through the menu, it is triggered when the camera detects a scene with strong contrast between the dark and light areas. When the camera makes that determination, the LX100 II will take a burst of shots and combine them internally to create a final result. In this situation, the camera will place on the screen a message saying HDR Shutters 3 to let you know that the shutter will fire three times. You should try to hold the camera steady while it takes the burst of shots.

I will discuss high dynamic range, or HDR photography, further in Chapter 4. Essentially, with HDR, the camera combines the most normally exposed parts of multiple images in order to achieve a final result that appears to be properly exposed throughout most or all of its

various areas. This setting can be useful when you are taking photographs in highly contrasty conditions.

OPTIONS ON RECORDING MENU

Second, in Intelligent Auto mode you can use the Recording menu (designated in the menu system by the camera icon) to select certain settings, although the choices are sharply limited compared to the many options that are available in other shooting modes. In those other modes (including Intelligent Auto Plus), there are four screens of options available on the Recording menu; in basic Intelligent Auto mode, there is only a single screen of options. I will discuss those options in Chapter 4.

Third, when the shooting screen is displayed, you can use the focus switch, located on the left side of the lens barrel, to select either AF or AF macro for autofocus, or MF for manual focus. I will discuss those settings in Chapter 5.

Fourth, you can press the Down button from the shooting screen to call up the drive mode menu. In Intelligent Auto mode, you can select burst shooting, 4K Photo, Post Focus, or the self-timer from the drive mode menu. I will provide further information in Chapter 5.

You also can use other controls for their intended purposes in this mode, such as the function buttons to get access to their assigned settings and the Q.Menu button to get access to the Quick Menu. You can attach the flash unit and turn it on, but the camera will decide whether to use it; there are no flash mode settings you can make in this shooting mode. (In Intelligent Auto Plus mode, you can turn the flash on or off from the menu, but that is the only setting available.) I will discuss various options for the use of physical controls in Chapter 5.

In summary, although the Intelligent Auto shooting mode lets the camera make most of the technical decisions, you still can have a fair amount of involvement in making settings for photographs (and movies). Especially when you're just starting out to use the LX100 II, the basic Intelligent Auto mode provides a good start for exploring the camera's features. The automation in this mode is sophisticated and will often produce excellent results; the drawback is that you don't have as much creative control as you might like. But for ordinary picture-taking opportunities, vacation

photos, and quick shots when you don't have much time to decide on particular settings, Intelligent Auto is a useful tool to have at your fingertips.

Intelligent Auto Plus Mode

There is another important setting available when the LX100 II is set to the Intelligent Auto mode. That setting lets you choose between two different varieties of Intelligent Auto mode: basic Intelligent Auto and Intelligent Auto Plus. In this chapter, I have been discussing the use of basic Intelligent Auto mode, in which the camera controls most settings and leaves few menu options that you can change. If you choose Intelligent Auto Plus instead, the camera opens up numerous other options for adjustment.

To make this setting, with the camera set to Intelligent Auto mode, press the Menu/Set button, then press the Left button to highlight the column of menu icons at the far left. Using the Up and Down buttons, navigate to and highlight the iA icon at the top of the column, as seen earlier in Figure 3-3. Press the Right button to move the yellow highlight bar into the screen with three menu options. Highlight the Intelligent Auto Mode option at the top, and press the Menu/Set button to select it. The camera will display a small menu with choices of the iA icon or the iA+ icon, as shown in Figure 3-4. Highlight the iA+ icon and select it, then press the Fn3 button or press the shutter button halfway to return to the shooting screen. You should now see the iA+ icon in the top left corner of the screen. (You may instead see an icon showing what kind of scene the camera has detected, such as macro or portrait.)



Figure 3-4. Intelligent Auto Mode Menu Options Screen

For a quicker way to switch between Intelligent Auto and Intelligent Auto Plus modes, if the touch screen is turned on, touch the iA or iA+ icon in the upper left corner of the display, and the camera will display a screen for selecting one of those two modes. On that screen, touch the icon for the mode you want and then touch the Set icon in the lower right corner of the display to confirm the setting.

In Intelligent Auto Plus mode, three differences from standard Intelligent Auto mode are that you can adjust brightness, use the defocus control option, and adjust color tone. To adjust brightness, turn the exposure compensation dial on the top right of the camera, and you will see a screen with an exposure compensation scale at the bottom, as shown in Figure 3-5.



Figure 3-5. Exposure Compensation Scale

Turn the dial to the right or left to change the exposure value (EV) of the scene by up to three units in either direction to compensate for a subject that may be too dark or too light otherwise. In this mode, you also can assign exposure compensation to one of the function buttons. I will discuss exposure compensation further in Chapter 5, where I discuss the physical controls.

Another feature that is available in Intelligent Auto Plus mode is defocus control. That option lets you set a wider aperture, which may result in a pleasantly blurred background. As I will discuss later in this chapter, in Aperture Priority mode you can control the aperture setting more directly. The wider the aperture (the lower the aperture number, such as $f/1.7$), the more likely it is that the background will be blurred, while the foreground remains sharp.

In Intelligent Auto Plus mode, the camera selects the aperture initially, based on its automatic exposure

reading. However, when you activate defocus control, you can change that setting. To do this, press the Fn3 button. The camera will display graphic strips with numeric values, as shown in Figure 3-6.

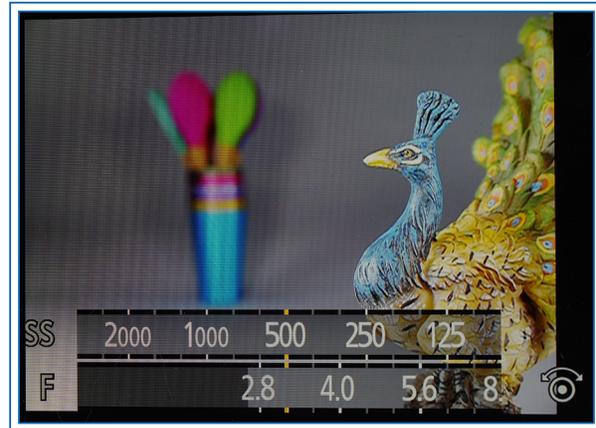


Figure 3-6. Defocus Control Display

The top line of values shows the shutter speed, and the bottom one shows the aperture. If you turn the control dial or press the Left and Right buttons (or touch the scale with your finger), these settings will change. The lower the aperture number you can set, the better the chance there will be of having a blurred background.

When defocus control is in use, the camera sets the autofocus mode to 1-Area, which is discussed in Chapter 5. With that setting, the camera uses a single autofocus frame, which you can move around the screen with your finger.

In addition, when the camera is in Intelligent Auto Plus mode, if you press the Right button, the camera will display a screen for adjusting color tone, as shown in Figure 3-7.

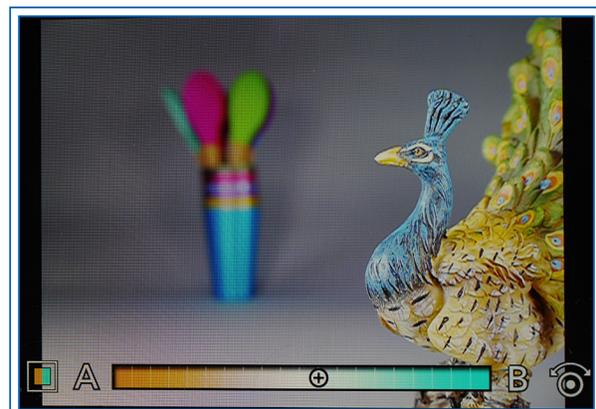


Figure 3-7. Color Tone Adjustment Screen

Turn the control dial to the right or press the Right button to change colors to the bluish, or “cooler” side; an adjustment to the left will turn colors to the reddish, or “warmer” side. You also can use the touch screen for adjustments. If any adjustment is made, a small color block will appear in the lower right corner of the shooting screen after the adjustment scale is dismissed.

You also can activate defocus control and color control using the iA+ touch icon at the right of the display, as shown in Figure 3-5. After you touch that icon, the camera will display icons for adjusting defocus control and color tone. In addition, if exposure compensation has been assigned to a function button, the camera will display an icon for adjusting exposure compensation as well. (If that assignment has not been made, exposure compensation will be controlled only by the exposure compensation dial on top of the camera.)

Also, in Intelligent Auto Plus mode, the camera lets you choose more options from the Recording, Motion Picture, and Custom menus than in Intelligent Auto mode. For example, you can select Quality, Photo Style, Color Space, Stabilizer, and Shutter Type from the Recording menu. You can select Continuous AF, Photo Style, and others from the Motion Picture menu, as well as Half Press Release, Focus/Release Priority, MF Assist, and others from the Custom menu.

There still are some important settings you cannot make in Intelligent Auto Plus mode, such as ISO (Sensitivity), Metering Mode, Highlight Shadow, i.Dynamic, HDR, and Multiple Exposure. For those settings, you need to select an advanced shooting mode such as Program, Aperture Priority, Shutter Priority, or Manual. However, you may sometimes want to select Intelligent Auto Plus mode so you can make some settings that are unavailable in Intelligent Auto mode, while still getting the benefit of the camera’s automation.

In Intelligent Auto Plus mode, as in basic Intelligent Auto mode, you can attach and turn on the camera’s built-in flash unit, but you have no control over the flash mode the camera uses. However, in this mode, unlike the basic Intelligent Auto mode, you do have the ability to turn the flash on or off from the menu.

Figure 3-8 is an image I took using Intelligent Auto mode for a quick shot of the waterfront area at the James River in downtown Richmond, Virginia.



Figure 3-8. Intelligent Auto Mode Example

Program Mode

To set the camera to Program mode, the most automatic of the advanced (PASM) recording modes, set both the shutter speed dial and the aperture ring to their automatic settings, by moving the red A so it is lined up next to the indicator dot, as seen in Figure 3-9.



Figure 3-9. Aperture Ring and Shutter Speed Dial Set for P Mode

The camera will then display a P icon in the upper left corner of the display, as shown in Figure 3-10, to indicate the shooting mode. (If the iA icon is displayed, press the iA button on top of the camera to remove it.)



Figure 3-10. P Icon for Program Mode on Display