Firmware v3.0 Supplement

The Friedman Archives Guide to

Sony's Alpha 1

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"Professional Insights for Experienced Photographers"

Table of Contents

1.1 HOW TO UPDATE THE FIRMWARE

The Sony Alpha 1 has had a LOT of firmware updates. Why so many?

- Firmware version 2.0 introduced a lot of new features but bricked many A1s after updating.
- Firmware version 2.01 fixed the bugs that were contained in version 2.0. Updating the camera was now safe.
- Firmware version 2.02 is identical to version 2.01 but they fixed a bug where it wouldn't work with Sony's 200-600mm lens.
- Firmware version 3.0 added some new features which are described in this supplement.

The firmware update to version 3 can *only* be completed successfully if your current firmware version is 2.01 or 2.02. And the update to version 2.01/2.02 can only be completed successfully if your firmware version is 1.35. If your firmware version is *less* than 1.35, then you need to update to version 1.35 first. (Got all that?) You can find your current firmware version via **MENU → 🧰 → Setup Option → Version**.

The starting point for your updates is here, which leads to all firmware version updates, for both Mac (MacOS 12, 13, or 14) and PC (Windows 10 and 11):

https://www.sony.com/electronics/support/e-mount-body-ilce-1-series/ilce-1/software/00343092

Be sure to read the instructions carefully since the update method has changed in the past year and may be different from the method you're used to.

***Important TIP**: Yes, there's a chance you'll lose your camera settings when you upgrade. It all depends on the firmware version you're upgrading from.*

TIP 2**: On Mac computers with an Apple silicon processor, you need to change the security policy. The **About This Mac** screen will show an item labeled **Chip**, followed by the name of the chip. Refer to the **How to change the security

policy on Mac computers with Apple silicon *article (https://support.d-imaging.sony.co.jp/mac/security/11/l/index.php). For Mac computers with an Intel processor, this step is not necessary.*

1.2 SUMMARY OF NEW FEATURES

1.2.1 NEW EXPOSURE BRACKETING STEPS

Previously, the **MENU → 📷 → Drive Mode → Bracket Settings → Bracketing** function (Section 5.5.3 of the original book) allowed you to bracket 0.3, 0.7, 1.0, 2.0 or 3.0 EV stops apart, shooting 3, 5, or 9 frames. Those options have now been expanded, with a greater degree of fine-tuning. When Single BRACKET or Continuous BRACKET is selected in DRIVE mode, the following options are now available to you:

Exposure Bracket Amount	**# of shots**
0.3 EV	2, 3, 5, 7, or 9 images
0.5 EV	2, 3, 5, 7, or 9 images
0.7 EV	2, 3, 5, 7, or 9 images
1.0 EV	2, 3, 5, 7, or 9 images
1.3 EV	2, 3, 5, or 7 images
1.5 EV	2, 3, 5, or 7 images
1.7 EV	2, 3, 5, or 7 images
2.0 EV	2, 3, 5, or 7 images
2.3 EV	2, 3, or 5 images
2.5 EV	2, 3, or 5 images
2.7 EV	2, 3, or 5 images
3.0 EV	2, 3, or 5 images

1.2.2 FOCUS BRACKET FUNCTION

This is a feature I've wanted every time I've done macro photography. If you're shooting macro images for catalogs (jewelry photography, for example), you can't just use a small f/stop and hope to get everything in focus. Most of the time the depth-of-field won't be great enough, plus at the smallest f/stops something called diffraction kicks in, where the image actually gets a little bit fuzzier. (That's why so many lens experts recommend shooting at the lens' "sweet spot" which is usually in the middle of its f/stop range for sharpest results (but not the greatest depth-of-field).

Figure 1: *Left image - f/32. Right image: Focus Stacking.*

Have a look at the close-up images of the jewelry shot in **Figure 1**: both were shot with a legendary Minolta 100mm macro lens (with the Sony LA-EA5 adapter) with the same lighting setup. The left image was shot at f/32 (the smallest that lens can go), and the right image used a technique called Focus Stacking. Notice how the left image isn't all that sharp even in the area toward the front (the lens was focused 1/3rd of the way between the closest part and the furthest part, which is considered best practice for maximum depth-of-field), whereas the right image is sharp from the front to the back. (You can download the originals to compare them for yourself: https://bit.ly/3HZig9x .)

Focus Stacking involves taking several different images, each focused on a different part of the subject. Then all of the different images are merged on a computer, where only the sharpest parts of each image are composited into one really sharp, everything-is-in-focus final. The first

step of this process, that of taking several different images, is called Focus Bracketing. The second part is merging the images using popular desktop software like Photoshop.

To access this feature, make sure the Drive mode dial is set to "BRK" and then access the Bracket Type menu from **MENU → 📷 → Drive Mode → Bracket Settings → Bracket Type** and then hit the center button to reveal the screen in **Figure 2**a**.** Then hit the right arrow button where you can specify the focus step size and the number of shots to take (a 3-digit number).

But wait! There are more variables you can change. Go to **MENU → 📷 → Drive Mode → Bracket Settings → Focus Bracket Settings** and the screen in **Figure 2**c appears. Here's a rundown of what each variable does:

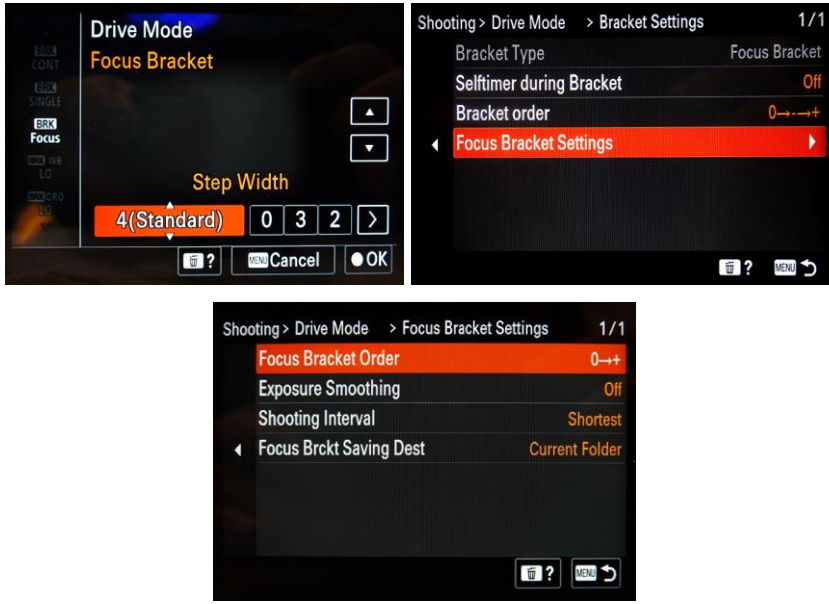

Figure 2: *The Focus Bracket Menus*

Focus Bracket Order	There are two options here, only the first one is useful. With the first 0 → +, the camera starts at the closest set point and then adjusts the focus toward infinity in the specified step width. The other option, 0 → - → + takes only three images: The current set position, closer (according to step width), and farther (step width). Keep it set to the first option.
Exposure smoothing	In instances where you're not in Manual Exposure mode, and the exposure changes shot-to-shot (either because of changes in lighting or the fact that out-of-focus highlights will appear larger in the frame negatively affecting the automatic exposure), this feature will try to "smooth out" the changes in exposure. If you think this might be an issue It is strongly recommended to use manual exposure instead to keep exposure consistent shot-to-shot to begin with.
Shooting Interval	Do you want to wait a short time between shots? (For example when you're using a flash and you need to give it time to recycle before the next shot)? Here you can choose between "Shortest" (i.e., take the next picture immediately!), or from 1 to 30 seconds.
Focus Brckt Saving Dest	You can have the camera save the bracketing shots either in the current folder or a New Folder. If you choose "New Folder" a new folder will be created with a new name as if you had invoked the "Create New Folder" function and will be named accordingly. (Section 5.3.7 in the original book.)

Then exit the menu, press the shutter release button, and your series of exposures will commence!

My biggest complaint about this feature is that there's absolutely no guidance or clues provided for how to set these values. What's an appropriate Step Width? How many shots are needed? And as

mentioned in the table above, the Step Width varies with lens/focal length/aperture used so I can't just do some tests and share with you my differential focus measurements. To each your own. 😵

So here is my recommendation: Ignore this feature, and do your focus bracketing manually. There won't be any guesswork, you'll get it right on the first try, and you'll save time and disk space by not overshooting. I show how to focus bracket manually in my YouTube video from 2022: https://youtu.be/UZGOYTO-JfY

How to Merge the Images on your Computer

There are two popular tools for merging focus bracketed images: The first is Photoshop, and I demonstrate exactly how to do that in this *other* YouTube video from 2022: https://youtu.be/K6XI7cgvkis

The second is a program called Helicon Focus which I haven't personally used but comes highly recommended by my readers: https://www.heliconsoft.com/heliconsoft-products/helicon-focus/

***TIP 1**: The Focus Bracket feature doesn't work with adapted lenses.*

***How it should work:** Here's how I feel this feature should work in order to be useful, in case anyone at Sony is listening: You specify the closest and furthest points to focus on (either by touching the screen or using the arrow buttons) and then the camera will automatically choose the step width and number of shots. It knows the characteristics of the lens, and it also can know which parts are in focus so it can determine step width automatically. Even better, merge the images in-camera the way Olympus (sorry, "OM Digital") does with their OM-1 and OM-1 II.*

1.2.3 NEW FOCUSING AIDS IN BRIGHT MONITORING MODE

I've been wanting this feature for a long time. Recall that the Bright Monitoring feature (Section 10.3.2 in the original book) is designed to help you compose your shot in extremely low light – so low that you can't really see your subject. When assigned to a button, this feature oversamples and amplifies the Live View image so you can see what you're doing.

So far, so good. BUT as I discovered the first time I used it, the feature couldn't be used to aid in focusing; you kind of had to use that low-resolution distance scale on the bottom of the screen when you were in Manual Focus mode. Not very bueno.

Well, now if you're in Manual Focus mode, and have the Focus Magnifier (Section 7.4.2 of the original book) and/or Auto Magnifier in MF (Section 7.4.1 of the original book) enabled, these functions can help you focus critically in these uber-dark environments. Huzzah!

In use, you press the assigned button which brightens up the Live View screen, and focus manually. The focusing aids you normally use will kick in (showing Peaking Color around areas of high contrast; zooming in on a specified area if invoked), and you can compose and focus your shot. Bright Monitoring remains in effect until you press the assigned button again.

Figure 3: *The Bright Monitoring function was designed to help you compose your shot in extremely low light – situations where previous Live View cameras would only show you a black screen.*

1.2.4 OTHER CHANGES IN FOCUSING AIDS

The Focus Magnifier function (Section 7.4.2 in the original ebook) is now selectable even if you're not in MF or DMF focusing modes. When selected in other modes, you can tell the camera "Yeah, but when you ARE in MF or DMF modes, magnify by this much (you have two choices).

Figure 4: *The new Focus Magnifier screen*

Here are the details:

MENU → AF/MF → Focus Assistant → Focus Magnifier. The screen in **Figure 4** appears. From here you have the following controls:

- Center button: Change the magnification. Each time you press the button the magnification changes from x1.0 to x4.2 to x8.5 to [exit the function].
- Arrow buttons: move the orange rectangle around within the frame, showing which part of the composition will be magnified.
- Trash Can (C4) button: Restores magnification rectangle to the center of the frame.

1.2.5 FREEZE FRAMES FROM SHOT MARKS

Recall that Shot Marks are ways of marking points in video for shortening or quickly jumping to while playing back. (Section 1.2.4 from the Firmware 2.02 supplement has more details.) In use, while the exposure mode dial is set to "Video", you have to assign **Add Shot Mark 1 [or 2]** to a button (**MENU → 🧰 → Operation Customize → 🎞 Custom Key/Dial Set. → [Pick a button] → 8 → Add Shot Mark [1/2].**), then you press it at the appropriate time while shooting.

Well, now your camera can automatically create still images from those Shot Marks. (And you have the option to automatically delete those shot marks once the still images have been created!)

There are THREE new menu items that support this new functionality:

1) **Auto Create Still Image**, which lets you specify Shot Marks to turn into still images *while you're recording the movie*. (Section 1.2.6 of this supplement.)
2) **Create Still Image**, which lets you specify Shot Marks to turn into still images *while you're playing the video back*. (Section 1.2.7 of this supplement.)
3) **Delete After Still Image Creation**, which tells the camera whether to remove the shot marks from the videos once the images have been extracted. (Section 1.2.8 of this supplement.)

Details on all three of these new menu items are explained in the next sections.

1.2.6 AUTO CREATE STILL IMAGE

Menu Position **MENU → 🎞 → Shooting Option → S**
AutoCreateStillImage

What it Does Automatically creates still images from Shot Marks made while the movie is being recorded

Constraints Must be in "Movie" mode

Recommended Setting On, unless you use Shot Marks for other purposes and don't want the extra freeze frames created

To use this feature, just assign **Add Shot Mark [1/2]** to a button (as described in the previous section) and then press it at key times while you're shooting video. The image extraction begins once the video shooting has stopped.

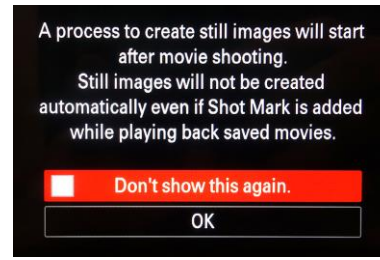

Figure 5: *When invoking this feature, the camera reminds you that this only applies to Shot Marks created while shooting the video. If you want to create images from Shot Marks added while playing back the video, see "Create Still Image" (see next section).*

How large are the images this feature creates?

- If you're shooting 8K: 7680 x 4320 (25" x 14" at 300 dpi) approx. 18 MP file size
- If you're shooting 4K: 3840 x 2160 (12.8" x 7.2" at 300 dpi); approx. 8.3 MP file size
- If you're shooting HD: 1920 x 1080 (6.4" x 3.6" at 300 dpi); approx. 2.1 MP file size
- (And for comparison: one standard .jpg image from this camera is 9504 x 6336 (31.6" x 21.1" at 300 dpi))

1.2.7 CREATE STILL IMAGE

Menu Position **MENU → ▶ → Edit → Create Still Image**

What it Does Creates still images from frames with Shot Marks that were made while playing back a movie

Constraints Camera must be in "Movie" mode

Recommended Setting (It's a command; not a setting.)

Let's say you created Shot Marks while playing it back (as opposed to "while recording it", which is what the previous menu item is for). When done, while still in playback mode, you would invoke this feature to go through the current video and extract images at the Shot Mark points.

In order to create Shot Marks while playing back a video, another button assignment is needed: **MENU → 🧰 → Operation Customize → ▶ Custom Key Setting → [Pick a button] → 3 → Add/Delete Shot Mark [1/2] .** (Note that this is a different button assignment than the one you use to create Shot Marks while shooting the video.)

> ***TIP 1****: You can only execute this command on one video at a time; not on all videos on the card at once.*
>
> ***TIP 2:*** *Don't forget you also have the* ***Photo Capture*** *function to grab a freeze frame during playback mode, which does the same thing as this but doesn't require any button assignments. See Section 8.5.4 of the original book.*

1.2.8 DELETE SHOT MARKS AUTOMATICALLY AFTER STILL IMAGE CREATION

Menu Position **MENU → 🎞 → Shooting Option → S S after still img crt**

What it Does Tells the camera to automatically delete those Shot Marks after images have been extracted from the videos

Constraints Camera must be in "Movie" mode

Recommended Setting "Maintain"

The description pretty much explains it. This applies to Shot Marks created either while shooting the video or while playing back the video. You have to configure this menu item first prior to extracting the images.

Your choices are **Auto Delete** and **Maintain** (meaning "Don't Auto Delete").

1.2.9 LETS YOU KNOW WHEN NEW SOFTWARE IS AVAILABLE

Don't want to futz with doing a firmware update via the process described in Section 1.1 of this supplement? The new Creators' App provides another alternative. (I was going to say "simpler", but really there's the same number of steps.) When connected to the camera, the Creators' App will alert you of a new firmware update, and when you hit "Update" (the red circle in **Figure 6**), the app uploads the firmware update to the camera. From that point on you just follow the screen instructions. This new method doesn't involve moving memory cards from your computer to your camera – Apple owners using Apple silicon will surely rejoice at this new method.

Sony has created a pretty good guide on how to use this, so there's no sense in re-inventing the wheel. You can see the step-by-step instructions here: https://www.sony.com/electronics/support/articles/CCCA06012

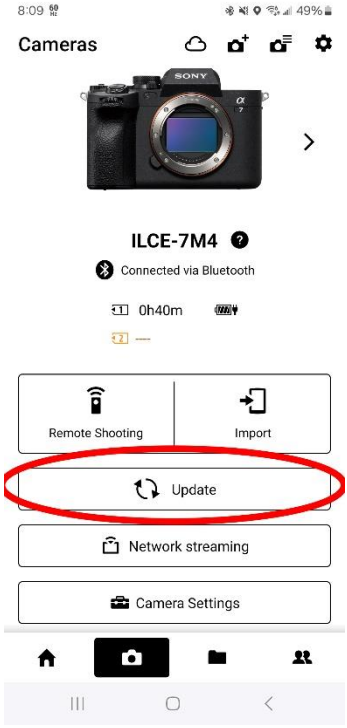

Figure 6: *If an update is available, you'll be able to install it by pressing the "Update" button (as described briefly in Section 1.1.)*

1.2.10 INITIATE FTP TRANSFERS WHILE WRITING TO MEMORY CARDS

In the past, the FTP (File Transfer Protocol) function pulled images from the memory card in order to send them to an FTP Server via Wi-Fi or via your smartphone. Now it dives into the camera's buffer as well, meaning you can start the FTP process before the images are written to the memory card. If you've been shooting RAW in 120 fps mode with a slow memory card, this can save some serious time.

The FTP function also automatically continues should the transfer be interrupted (by turning the camera off, for example).

> ***TIP**: If an FTP transfer is interrupted, a partial .jpg will end up on the server of smaller size and may look corrupted if opened. Once the FTP transfer resumes, the full image will be transferred with an "_1" appended to the filename.*

1.2.11 CAN KEEP SHOOTING WHILE UPLOADING IMAGES TO CREATORS' CLOUD

This one is especially important to event photographers who like to upload their images to the cloud while still shooting.

There are many features where the camera is able to download images to your smart device such as FTP, or after remote shooting, or the Import function on the Creators' app. In the past if you were to turn off your camera after initiating these transfers the transfers would stop and you'd have to manually re-initiate them all over again.

It turns out that limitation that was easy to overcome via software, for now the A1 can automatically resume interrupted downloads of this nature. No special menu setting need be invoked. Just remember that, once configured, it takes the camera about a minute between being turned on and re-establishing the previously-configured upload connection.

1.2.12 C2PA FUNCTIONALITY

This one is near and dear to my heart, for Sony and a bunch of other imaging industry leaders have finally implemented the idea I patented way back in the 1990's. The idea I came up with was for a "Trustworthy Digital Camera" – if you took a picture with this camera, you'd be able to prove in court that the image had NOT been manipulated by computer. (Then Nikon and Canon stole the idea. It's really a wild story. See this blog post for all the dirt: https://friedmanarchives.blogspot.com/2020/03/i-invented-camera-whose-output-could-be.html)

Anyway, Adobe has revived the idea and formed the Coalition for Content Provenance and Authencity (C2PA). Sony, Nikon, Canon, and a host of others have signed on and will be producing products that adhere to this standard.

Apparently the A1 has had the necessary hardware (a secure microprocessor) to make this a reality. Now the firmware is in place to make it functional.

All that needs to happen now is for Sony to make the downloadable license available and the feature will be complete. How much will the license cost? When will it be made available? I don't know, but I'm eager to put this feature through its paces to find out. I suspect that when it's finally released you'll be able to buy the license here: https://www.sony.net/cas/

1.2.13 NEW BEHAVIOR FOR MEMORY RECALL ON THE EXPOSURE MODE DIAL

Section 5.4.4 of the original book said that when you move the exposure mode dial to either of the 1-2-3 positions, the camera would bring up the screen in Figure 5-28 of the original book.

Now, moving the exposure mode dial to the 1-2-3 position instantly applies the settings; with no intermediary menu screen to slow you down. Finally this function is now more intuitive!

1.2.14 TOUCH FUNCTION ICONS

***Figure 7**: The "Touch Function Icons" allow you to operate basic controls while in front of the camera.*

And here's something new: There is an entirely different, ultra-simplified on-screen touch menu designed specifically for vloggers who are always in front of the camera and still want to control the basic operations without having to turn the camera around and futz with buttons or menus. With the touch screen enabled, you can bring up this new touch menu by swiping from the left edge toward the center. (Or from the right edge toward the center). You can see these menus in **Figure 7**. Sony calls these "Touch Function Icons". Here's what each one does when you touch it:

Left column:

- Choose your Focus Area
- White Balance settings
- Set the Creative Look

Right column:

- Take a still image
- Start/stop video
- Change the Subject Recognition target
- Bring up the "Touch Function in Shooting" menu, where you can specify what happens when you touch the center of the screen (in an area that doesn't have icons). The choices are:
    - Touch to Focus
    - Touch to Focus and Track your subject
    - Touch to focus and take the picture (just like your smartphone!)

    - Touch to spot meter and then lock the reading
    - Off – don't take a picture when you touch in the picture area
- Enter playback mode.

Bottom:

- Adjust the exposure mode settings (f/stop, shutter speed, ISO)

To make the Touch Function icons go away, just swipe from the inside edge of the column to the outside edge of the screen.

This operation can be a little tricky; for example, if I wanted to swipe left to make the entire menu go away, I would start from just to the right of the left column. Not on the column itself; for that would invoke a menu. Not too far to the right of the column, for then the camera thinks you're trying to specify a focus point. There's a very small invisible thin vertical strip where the "swipe left" operation can be done successfully. (Swipe right works the same way.)

***TIP 1**: You can also swipe UP from the bottom edge to bring up the **Fn** menu. Handy when you're working your camera from the front.*

***TIP 2:** The Keyboard screens (used to type copyright names and internet server details) are now touch-sensitive too!*

***** End of Supplement *****