Sony A7sII Mirrorless Camera Quick(ish) Guide
Global Emergent Media Lab


INDEX

If you have some experience with cameras of this type I suggest that you read pages 3 (Proper Handling and Issues), 4 (Tripod Collar, UV Filters, ND Filters), 10 (ISO), 11 (Focus Modes), 12 (Mode Dial, Video Mode) and 18 (Function Menu). 21 (Picture Profiles) is suggested if you want to grade footage in post-production.

CAMERA INFORMATION

Interchangeable lens camera (supplied with 24-70mm & 70-200mm lenses.)

AVCHD and MP4 Video File Recording
4k Video Recording @ 24 or 30 fps (50 and 100 mbps data rates available.)
1080p Video Recording @ 24, 30, 60, 120 fps (50+ mbps data rates available.)
30 minute Recording Length Restriction.

Jpeg and RAW Still Images
Full Frame 12.2MP Sensor (4240 x 2832 Maximum Resolutions)

Extreme Lowlight Capability (ISO Up to 409600)

Up to 1 hour of battery life shooting in 4k resolution (SD Card ~ 1h 30)
Up to 1.5 hour of battery life shooting in 1080p (24 or 30fps) (SD Card ~ 2h30)
Up to 1 hour of battery life shooting in 1080p (120fps) (Memory Card ~ 1h 30)

BEFORE YOU SHOOT

The A7sII is a professional level Sony camera, this means that the menu system is going to be very elaborate and not user friendly. I would suggest you take some time before you intend to start shooting to look up tutorials or experiment with the camera. Though I will attempt to list the relevant settings here, it will not be an exhaustive list.

Also this is a professional level mirrorless/DSLR camera so it requires more of a base in photography language to understand, the guide will try to remain simple.

Here are basic actions you should take before shooting with the A7sII.

CHARGE YOUR BATTERIES

This may seem an obvious step, but the batteries for the A7sII take quite a while to charge to full capacity; up to 2 to 3 hours if they are completely empty. This kit includes 2 chargers and five batteries, so I suggest you start charging the night before you shoot. If shooting for long periods of time where you have access to power, I would suggest that you immediately start charging a battery when you switch to a new one, just in case your shoot runs longer than expected. (As the camera also does not include a true AC Adapter for wall power.)

The batteries in the kit should give you between 5 and 7.5 hours of shooting time depending on settings, this could be worse in cold weather.

FORMAT YOUR MEMORY CARDS

The camera kit comes with 3 memory cards, each 64gb in size and capable of 4k capture speeds, you should format all three in the camera before you start shooting.

To do so:
Hit the “MENU” button on the top left above the screen.
Navigate to the “Toolbox” Menu
Navigate to the “5th Page” of the Toolbox Menu
Select “Format” and Confirm.

You will now have a fresh memory card with the max free space, this formatting also helps lower the chance of file corruption.

PROPER HANDLING and MIRRORLESS CAMERA ISSUES

PROPER LENS CHANGES

Given that this is an interchangeable lens camera, you have to be careful not to damage the sensor when changing lenses. Lens changes should never be done in wet/dusty/sandy conditions or other conditions that may damage the sensor of the camera while it is exposed during a lens change.

You want to find a location where you can put your camera down on a flat surface (or it should be secured by strap to your neck/mounted to a tripod), protected from wind as much as possible. (Note: do not put the camera down on a surface that will scratch it’s rear screen.)

Take the lens you wish to mount, identify the white dot near the collar (this is the indicator of how to orient it when mounting.) Unscrew the cap on the bottom of the lens, with the front of the lens pointing up. NEVER TOUCH THE REAR ELEMENT OF THE LENS. Then unscrew the body cap from the camera, lower the lens into to the camera mount (lining up the white dots) and then turn the lens gently clockwise until you feel a secure click. You want to do this as fast as you safely can to avoid dust getting into the camera.

Verify that the lens is locked in position. Store the rear lens cap and body cap locked together to avoid dust and place them somewhere secure where you won’t lose them. (Do the same with the front lens cap when you take it off to shoot.)

When switching between lenses, make sure to put the put the body cap on while changing or change them very quickly, again to avoid dust infiltrating the camera.

FRAGILITY OF THE REAR SCREEN

One great quality of the A7sII is the rear screen and it's ability to extend out as well as tilt up and down, facilitating low or high angle shooting. However you have to be very careful not to damage the hinge that attaches the screen to the rest of the camera while it is extended. If the hinge is damaged then the rear screen may be rendered inoperable and the camera will need to be repaired.

POSSIBLE OVERHEATING ISSUES

When recording in 4k resolutions (or very high framerates) it is a known possibility that the camera may eventually manually shut itself down to prevent overheating. This has been reposted as an issue with 4k shooting but not with 1080p (at 60fps and below). User reports indicate that this seems to only occurs in certain situations after a continuous hour of shooting in 4K. The sensor itself will generate heat in 4K mode, but overheating seems to be more of a problem in high ambient heat environments. (Bright summer day, small spaces with lots of cinema light, etc.)

If the camera overheats, it will save your current file, send you a message via the screen and you will have to wait for it to cool enough to recommence shooting. (So get it out of the way of any direct heat.)

RECORDING TIME LIMIT

This camera, like 99% of DSLR and Mirrorless cameras has a software limit on how long it can continously record. The A7sII will record for 29min 59sec and then it will save the file in question and stop recording until you hit record again, it is important to keep this in mind when shooting interviews or other documentary footage. This is unrelated to the overheating issues and is a by-product of camera regulations and not a functional safety feature for the camera, so don't worry about recording continuously in general.

BASICS OF THE A7sII KIT - COMPONENTS

THE LENSES INCLUDED IN THE KIT

The kit comes with two lenses; a black 24-70mm F/4.0 Zoom lens and a beige 70-200mm F/4.0 Zoom lens.

The 24-70mm is considered a "walk around" lens in photography, meaning if you are only carrying one lens this is it. It is usefull as it offers you (@ 24mm) a wide shot, (@ 50mm) a standard shot (meaning distortionless) and (@70mm) something close to a long distance shot. So for most interviews, landscapes, live situations in close proximity, and in a pinch a portrait, this lens will serve you just fine.

The 70-200mm is considered a long to telephoto, so it's more specialized. It gives you a more "ideal" portrait (@100mm or 135mm) and long distance shooting (@ above 135mm). This is useful for events, wildlife or situations where you cannot physically approach your subject as easily but want to feel close.

THE 70-200mm TRIPOD COLLAR

Additionally you will notice a removable collar on the beige lens with a tripod mount on the bottom, this is a tripod collar. If you mount the A7sII to a tripod while using this lens you should screw the tripod into this bracket rather than the camera's mounting point. This is done to reduce stress on the cameras lens mount. (Note: this weight issue is somewhat mitigated when using cinema accessories like follow focuses.)

You can remove the collar if you are using this lens without a tripod. Please reconnect it when storing the lens in the kit.

LENS HOODS

Additionally both lenses are left in the kit with their lens hoods on in the reversed position. These lock and unlock via twisting them clockwise/counter-clockwise, you will feel the friction lock system click in to place (or out of place when removing the hood.) The hoods are extremely useful when shooting in order to reduce the occurrence of flares as well as to protect the front element of the lens.

UV FILTERS

Both lenses have a UV filter mounted to the front of the lens, this filter screws into the filter threads of the lens.

This is used to order to eliminate the problem of "haze" in the sky when shooting, making the blue of the sky in photos more representative of it's actual color. Otherwise the filter serves as a protective layer in case of scratches. It is possible the filter may produce more lens flares in rare conditions.

If you absolutely need to remove this filter, be sure not to over tighten it when putting it back on the lens for storage in the kit, as it could become seized and stuck. Store it in it's plastic case provided in the kit when not in use.

It is generally advised you do not remove the filter.

VARIABLE NEUTRAL DENSITY FILTER (Variable ND)

The other filter included in the kit is a variable ND filter, this is a filter that is used to reduce the amount of light entering the camera.

The purpose of this filter is to allow for creative camera control in bright environments (exteriors for example.) By using the variable ND you can keep your other settings like F-Stop/ISO/Shutter Speed consistent in order to retain the "look" of your footage/photos while controlling your exposure using the filter. If aiming for a more "cinematic" look it can also allow you to smoothly adjust exposure. True cinema built lenses have physical wheels for F-Stop exposure control which do not have "clicks" in them, photo lenses like those in the kit "click" between aperture settings resulting in noticeable jumps in exposure. The ND can allow you to get the look of the smoother adjustment in certain situations

In the kit you will find a filter pouch containing: a 82mm Variable ND filter, a 67-82mm Step-up Ring and a 72-82mm Step Up Ring. To attach the filter to one of the two lenses in the kit, first screw on the applicable step-up ring (67 for the black 24-70mm lens and 72 for the beige 70-200mm lens.) Then screw the variable ND into the threads of the step up ring.

When screwing in any filter or step up ring, you want to tighten it until it feels snug in place but do not overtighten it past this point. If you overtighten a filter it can damage the threads (rendering the filter useless) or seize it onto the lens/step up ring making it impossible to remove.

Operating the filter is simple, on the side of the filter you will see markings indicating MIN and MAX with intermediate points, as you turn the ring form one end to the other it will become more opaque and block more light. (Note: it's lowest setting will still block approximately 1-Stop worth of light.)

There are two things to take into account when using the variable ND. One is that, like all filters, it will make you more prone to lens flares. (This is especially true when using both it and the UV filter at the same time.) Secondly due to it's larger size it renders the lens hoods unusable.

CLEANING LENSES AND FILTERS

You may notice dust on your lenses or filters. DO NOT USE YOUR SHIRT OR OTHER CONVENTIONAL CLOTH TO CLEAN OFF DUST, DO NOT USE ANY CHEMICALS ON THE LENSES OR FILTERS. In general a few small specs of dust will not affect your image quality.

However, If you need to clean the lenses, use appropriate materials. In general you want to start by blowing off most of the dust (an air bulb is ideal, do not use canned compressed air.) Then use a clean lens cloth (or eyeglass cloth) to wipe away the remaining dust, using a circular motion from the center out towards the edges of the lens or filter. If you want to invest in supplies for this use Lozeau or other camera stores in the city will have them and they are generally not expensive.

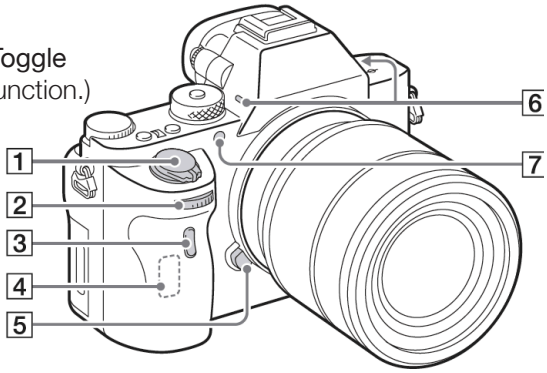
BATTERIES

To load a battery into the camera, find the battery hatch on the bottom of the camera and release the door lock. It will pop open. If a battery is already in the camera flip the blue lever up and the battery will pop out of the battery socket. When a new battery is put into the camera the blue lever should pop back into place securing the battery, do not force a battery in as it is most likely in the wrong orientation if it doesn't lock into place smoothly.

The A7sII has a rather large set of controls and physical features, below are diagrams of it's controls and following that are a list of the important controls for most uses.

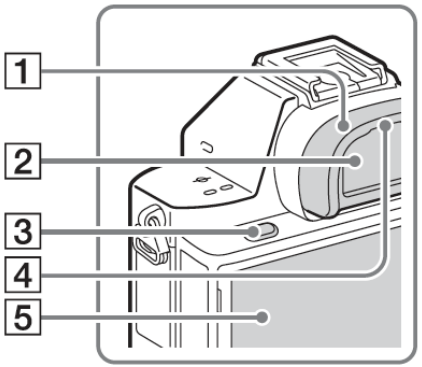
FRONT VIEW

1. Shutter Button (Stills) / Power Toggle
2. Front Dial (same as rear dial in function.)
5. Lens Release Button



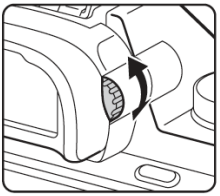
REAR VIEW

2. Electronic Viewfinder (toggled on/off in menus and with C4 Button.)
3. Menu Button (back button when in menus.)
5. Screen / Monitor

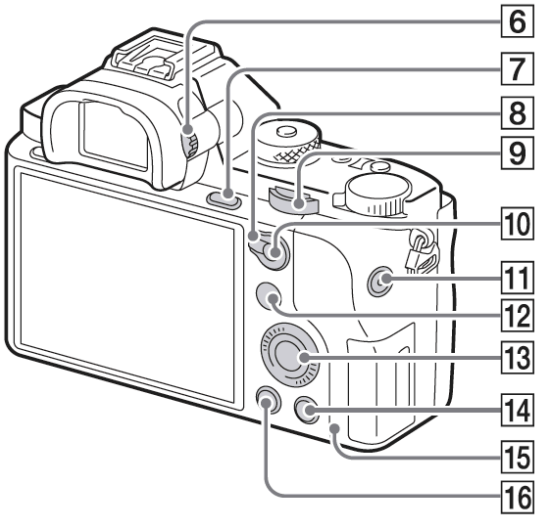


REAR VIEW 2

6. Viewfinder Diopter Control
(To adjust viewfinder to different eye strengths)

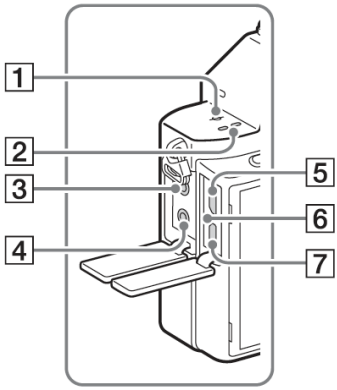


REAR VIEW 2 (CONT.)



7. Custom Button 3
(Video Record Button)
8. Auto Focus & Manual Focus / Auto Exposure Switch
9. Rear Dial (Both front and rear dials function identically.)
10. AF/MF/AEL Button
11. Video Record Button (In a place you can't reach while holding camera)
12. "Fn" Function Button (Allows access to a quick menu of shooting controls.)
13. Control Wheel (Easiest way to navigate menus)
14. Custom Button 4 – Rear Screen / Viewfinder Toggle (Delete button when in playback mode.)
15. Access LED (Demonstrates when camera is recording)
16. Playback Button.

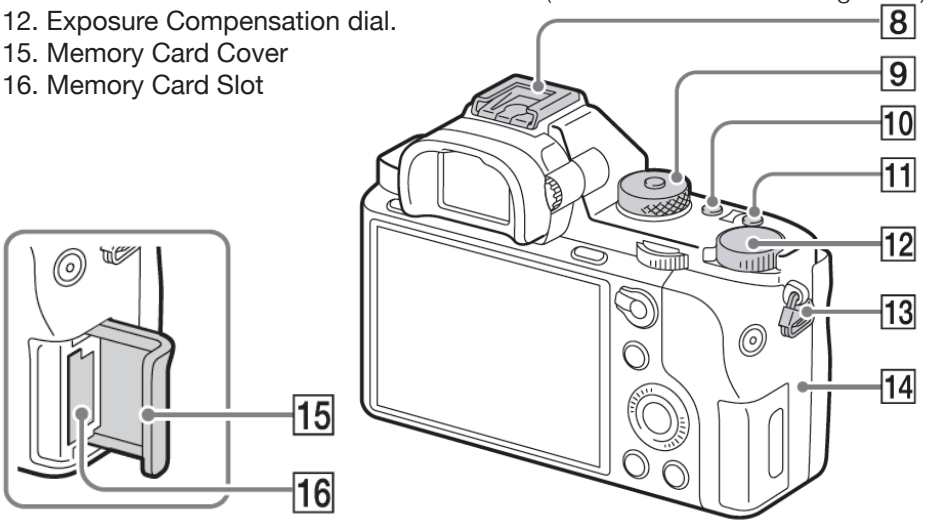
SIDE VIEW



3. 3.5mm Microphone Jack
4. Headphone Jack

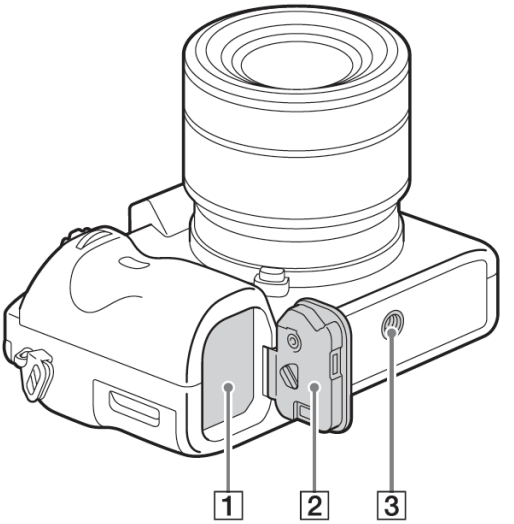
TOP VIEW

8. Multi Interface Shoe (Used to Connect XLR Adapter)
9. Mode Dial (Press in center button and rotate) (See PG 11)
10. Custom Button 2 – ISO Control
11. Custom Button 1 – White Balance Button (Not active when recording video)
12. Exposure Compensation dial.
15. Memory Card Cover
16. Memory Card Slot



BOTTOM VIEW

1. Battery Slot
2. Battery Cover
3. Tripod Socket



The following section will describe the controls of the A7sII, before we go into this description I will briefly explain necessary photography and camera terminology for those not specifically trained in these arts.

EXPOSURE (~Brightness)
This refers to the total brightness of what you are recording. Increased exposure is bright, decreased exposure is dark.

F-STOP (~Lens Aperture)
Lenses control the amount of light that passes through them by the way of a contracting aperture (i.e. blades that contract to restrict light.). F-Stops are the steps that indicate different positions of this aperture. A low number indicates a more open aperture (hence more light entering the camera) a high number indicates a more closed aperture (hense less light entering the camera.)

DEPTH OF FIELD (~Range in Focus)
Depth of field is a term that refers to the area between the closest thing your camera registers as in focus and the farthest thing it registers in focus. Depending on the settings you choose for your camera, this can be “shallow” (i.e. a range of a few inches of in focus space) or “deep” (i.e. a range of a few feet of space that are in focus.) Depth of field is primarily a function of the F-Stop of a lens, the higher the F-Stop the more depth of field your camera will have and the easier it will be to focus.

WHITE BALANCE (~Setting “True White”)
Cameras register the color of light differently from our eyes and brains, thus the camera must be intstructed as to what to interpret as “white”. Incandescent light (traditional light bulbs) emit more orange light, Daylight varies depending on time of day but is generally more blue. Fluorescent lights can fall somewhere in the middle. So your white balance is your instruction for the camera to recognise a given color of light as true white in order for your footage to look true to what you see with your eyes.

ISO (+Clean ISO) (~Sensor Sensitivity)
This is the term used for the sensitivity of a camera sensor. A smaller number means a lower sensitivity and a larger number means a higher sensitivity. Typically the lower the ISO you use, the less chance you have of encountering “noise” in your image. In general this camera is considered by professionals to be “clean” at or below ISO 3200 and “useable” up to ISO 12800. “Clean” footage can be used more or less as is, “useable” footage is footage that most pros would apply noise reduction to in post. Going higher than ISO 12800 the camera can shoot in the dark but you will have extensive noise that may not be reduced by noise reduction in post, so it is a creative decision wether to shoot this way.

SHUTTER SPEED (~Speed of Image Capture)
This is the amount of time the shutter is open when an image is taken. So essentially a low shutter speed (1/50 = one 50th of a second) keeps the shutter open longer for a single image allowing it to take in more light, thus increasing the exposure of the image. A high shutter speed (1/1000 = one 1000th of a second) makes the shutter open and close extremely quickly, less light gets to the sensor and exposure goes down. However the longer your sensor is exposed to light, the more visible motion blur will be on subjects in frame. So shutter speed is a balance between gaining light and preventing motion blur depending on the speed of your subjects. (Or introducing it for artistic reasons.)

FOCUS MODES

This camera has four focusing modes and a focus assist function, depending on how you want to shoot, choose the one that you think best suits your situation.

To access the focus modes:
- Press the menu button.
- Navigate to the Camera Tab (Tab 1)
- Navigate to Page 3
- Enter Either “Focus Mode” or “Focus Area”

Focus Area
The auto focus needs to be told what part of the frame to autofocus to. This menu gives you a fairly easy to understand set of options for this task.

Basic options are **Wide** (attempts to balance focus across the entire frame), **Zone** (Which attempts to focus on a quarter of the frame of your choosing) and **Center** (which focuses on the object in the center of the frame.)

More complex options are **Flexible Spot** (You place a spot on a position in frame, the spot can be small, medium or large) and **Expand Flexible Spot** (which works like flexible spot but then uses features like face detection to attempt to track your original subect in continuous drive mode.)

In all cases where the spot can be moved it is done by selecting the option in the menu and then moving the box or boxes that appear by pushing the multi-dial up, down, left or right.

AF-S (Single Shot Focus) (“Photo” Auto Focus) (Focus Ring is OFF)
This is the “standard” form of autofocus for photo cameras. You use this form of auto focus by half pressing the shutter button. (I.E. pressing it until you feel resistance but not so much that it releases the shutter and takes a photo.)

When the shutter button is half pressed the camera will focus on the subject as set in the focus area menu (center is the easiest). As long as you hold the button

in this position it will maintain that focus distance. (So if you want to use AF but don't want your subject in the center at all times, you can engage the AF and then while holding the button, change your framing and then take the photo.)

To refocus just release the button completely and then repeat this same process. (Note: If your drive mode is set to Continous it will Auto Focus in between each photo, drive modes are further described in the Function Menu Section.)

AF-C (Continuous Auto-Focus) ("Video Auto Focus") (Focus Ring is OFF)
This is the "standard" form of autofocus that video camera users will recognise. The camera will continually attempt to focus on whatever is in the center of the frame, you don't need to press any button for it to do so.

The camera is relatively accurate at finding the correct focus in this mode, slightly less in low-light. Also in this mode the camera focuses more slowly, attempting to not show very obvious "autofocus" hunting. (I.E. when the camera very quickly keeps alternative between close and far focus for a few seconds until it nails the subject.) As such this can be used in video as it feels competent in ideal conditions and just like a slow focus puller in bad conditions.

Also in this mode you can use the same method as AF-S mode to make it "snap" to your focus point by half pressing the shutter button. However that will make the auto-focus action more obvious in video.

DMF (Direct Manual Focus) ("Optional" Manual Focus) (Focus Ring is On)
This mode is essentially AF-S above, but it allows you to engage the focus ring. So you'll half press the shutter button and engage the autofocus, but you can then fine-tune and change your focus using the focus ring. So it's a halfway point between auto-focus and manual.

MF (Manual Focus) (Focus ring is On.)
Manual Focus is full manual, so you focus with the focus ring on the lens. Can

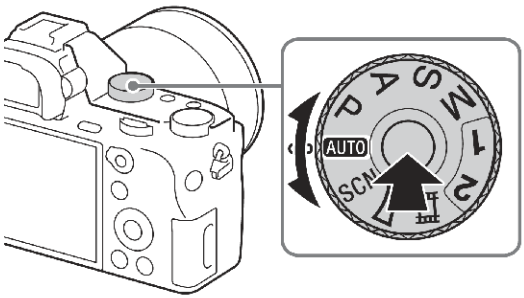
MF ASSIST (Automatic "Punch-In")
If you are used to focusing manally on DSLRs, you most likely are used to framing your subject and then hitting a button to "punch-in" or in other words magnify the image on your screen to verify focus.

The A7sII does this a bit differently, it uses an Manual Focus Assistance system which will automatically "punch-in" for you when you start turning the focus wheel on your lens. It will then revert back to your full frame view after a few seconds. (Note: this feature does not function while video is recording.)

This is controlled through the following menu:
- Press Menu
- Navigate to the “Gear” Tab (Tab 2)
- Navigate to Page 1
- Choose “MF Assist” or “Focus Magnif. Time”

You can toggle this function on or off in “MF Assist” and you can change the amount of time it stays punched in after the focus wheel has stopped moving in “Focus Magnif. Time.” I would suggest leaving this on “2 sec”.

MODE DIAL



The Mode dial, as seen above, sets the overall mode that the A7sII will function in. Depending on your choice certain functions may be set to auto or certain settings grayed out. This wheel has the most overal effect over how the camera will “handle”. To change between modes, press the button in the middle of the wheel and then turn it to the desired mode.

AUTO (Full Auto Photo Mode)
This mode automatically engages the camera with: Auto Focus (Single Shot), Intelligent Focus Area (Auto Face/Person Detect), Auto Shutter Speed, Auto Aperture, Auto ISO, Auto White Balance and Picture Profile 1 (Camera Default). Using this mode is as simple targetting your subject, half pressing the shutter to auto focus and then pressing the shutter the rest of the way to take a photo. The only thing you can really control is the Drive Mode. (Described in Function Menu section.)

P (Program) (F-Stop/Shutter Speed Auto Exposure) (Auto focus suggested)
This mode gives you control over all settings but F-Stop and Shutter Speed, which the camera uses to maintain relative auto exposure and aid auto-focus.

What this means is essentially that you choose an ISO and it will adjust the other settings to keep a balanced exposure and depth of field. As a note, you should use auto focus in this mode (AF-S or AF-C) as the mode is designed to work with them. It can be used with DMF or MF manual focus modes, but the interface becomes very hard to use.

A (Aperture Priority)
This mode gives you control over the F-Stop of your lens and ISO. It will adjust only the Shutter Speed to give a minor auto-exposure benefit. It is very responsive and works in all auto-focus and manual focus modes well, but it will not compensate quite as much as Program or AUTO.

Choose this mode if Depth of Field is your main concern.

S (Shutter Priority)
This mode give you control over the Shutter Speed and ISO. It will adjust only the F-Stop of your lens to give a minor auto-exposure benefit. It is very responsive and working in all auto-focus and manual focus modes well, but it will not compensate quite as much as Program or AUTO.

Choose this mode if Motion Blur is your main concern.

M (Full Manual)
All aspect of the camera are manual in terms of exposure. (Shutter Speed, F-Stop and ISO.) You can still engage the various auto focus modes or manual focus modes if you desire.

You should know photography or cinematography if using this mode, but it gives you the most direct creative control.

1 and 2 (Memory Modes)
These modes commit various settings to permanent memory in the camera.

(Video Mode)
This mode is focused on cinematography. By default, It is basically M (Full Manual) mode, but unlike in other modes where the display changes when you start recording a video, this mode will always show the video recording display. This is important as the video mode uses a slightly smaller portion of the sensor.

The benefits of this mode are you always know where your frame ends (as opposed to photo modes where it is unclear.) Also you can toggle through the displays options (see next section “Multi-Dial”) and end up with a screen that only displays your **recording time**, **frame guides** (see “Marker display” in function menu section), **audio levels**, **histogram** and **exposure settings** at the bottom of frame. This is probably the best set-up for filming with the camera. (Auto focus and other options are all still available.)

IMPORTANT

The Video Mode has a specific way of accessing versions of all of the above auto exposure modes. If you want to access them OR find that your video mode is locked into an auto exposure setting, following the instructions in the next section to set it to the exposure mode you would prefer.

Video Mode Auto Exposure Modes
These settings are found in the menu system.
Got to “Camera Tab”, Page 7, “Movie/HFR” select it.

This will bring you to the selection menu for the exposure modes in Video Mode. You’ll know you’re in the appropriate menu as it has ridiculous photos in the background behind the setting descriptions.

Regular Video Auto Exposures: [Movie]P, [Movie]A, [Movie]S, [Movie]M.
These settings will apply the same auto exposure settings as their similarly named modes earlier in this section. So respectively Program, Aperture Priority, Shutter Priority and Manual (which is essentially auto exposure set to off.)

Slow Motion Video Auto Exposures: [HFR]P, [HFR]A, [HFR]S, [HFR]M.
These settings will apply the same auto exposure settings as their similarly named modes earlier in this section. *However it will boost the exposure it is aiming for in anticipation that you are shooting slow motion (high frame rate) footage. (This is because the higher the frame rate the less light the camera will take in per frame shot.)* So respectively Program, Aperture Priority, Shutter Priority and Manual (which is essentially auto exposure set to off.)

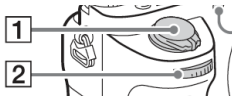
SCN (Scene Modes) (Situation Specific Auto Exposure)
This mode functions like a mix of P, A and S modes, but it balances it’s auto control depending on a number of possible shooting scenarios. So your front and rear Dials will toggle from scene to scene. It can be useful if you want to use one of the other auto modes but it isn’t giving you results you want for a specific type of shooting.

 (Panoramic Mode)
This mode is designed to shoot panoramic images, it works like this function which is found on most new smartphones.

You half press the shutter button to engage the focus and then follow it’s indications of which side to move or pan the camera to. (You can toggle between left, right, up and down with the front or rear dials.) Once you hit the shutter button it will continuously take photos as you slowly move or pan the camera in that direction up until it’s maximum width (indicated by a bar that appears on screen.) It will then automatically stitch all of the photos together to create a panoramic image automatically.

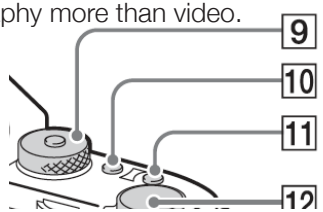
The results are actually quite fantastic if you are in need of a panoramic photo. Note that there isn’t auto exposure in this mode but AF-S, DMF and MF focus modes are available. You most likely want to just use AF-S for the best results.

Despite having a dizzying number of buttons on it's body and extremely deep menus, as configured, most of the A7sII's main functions are easily accessed thanks to the custom buttons and Fn (Function) Button.



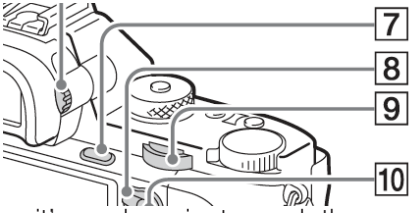
FRONT DIAL (FRONT VIEW #2) F-Stop Control
The front dial, when not accessing a menu, controls the F-Stop of the lens you are using. (On the included lenses this varies between F/4.0 and F/22.) Changing the F-Stop on a lens changes both the exposure and depth of field for the camera.

REAR DIAL (REAR VIEW 2 #9) Shutter Speed Control
The rear dial allows you to change the shutter speed of the camera. This is essentially controlling how long the sensor takes in light to produce a given frame. A low shutter speed will increase exposure but also introduce motion blur. A high shutter speed will decrease exposure, but will allow you to keep fast moving objects free of motion blur. This setting affect photography more than video.

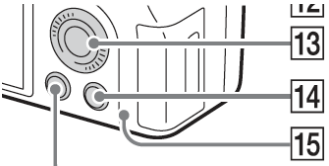


C1 (TOP VIEW #11) White Balance Settings
This will open the white balance settings menu on the screen. You can then use either the front or rear dials to move to the desired setting. (If using the Kelvin White Balance Mode, the multi dial will allow you to change the setting itself.)

C2 (TOP VIEW #10) ISO Settings
This will open the ISO setting menu, using the dials you can change your desired ISO. Different resolutions and frame rates of the camera have different minimum ISOs. (If you are shooting in bright conditions and need to reduce exposure further than the lowest value available it is suggested you use the variable ND filter.)



C3 (REAR VIEW 2 #07) Video Record Button
This button will function as a video record button, it's much easier to reach then the other dedicated record button which compromises your grip on the camera.



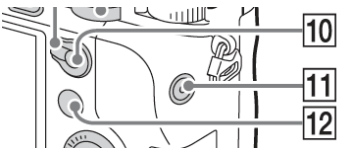
C4 (REAR VIEW 2 #14) Toggle Viewfinder/Screen
This button, which has the “trash” symbol on it, will toggle wether the rear screen or viewfinder is operational at a given time. Either can be used when recording video or taking photos, but both cannot be on at the same time due to power draw. Menus appear in whatever screen is operating. (Also note, the trash button is only active in playback mode, so unless you are in that menu you don’t have to worry about it being the “trash” button.)

MULTI-DIAL (REAR VIEW 2 #13) Displays/Drive/ISO
The Multi-Dial is generally the easiest way to interact with menus on the device (as long as you aren’t using the viewfinder). The dial can spin (adjusting settings like the other two dials), be pushed like a button in four cardinal directions (when in menus to navigate or out of menus enter a quick menu) and the center button functions as the “select” button.

DISPLAYS
Pressing the dial up will toggle through the various display optiocn for the screens. It will cycle through adding pieces of the user interface until it eventually cycles back to a clean screen.

ISO
Pressing the dial to the right will give you an alternate way of accessing the iso control menu.

DRIVE MODE
Pressing the dial to the left will open the photo drive menu. This allows you to toggle the photo shutter behaviour of the camera between single, continuous or time delay style settings. (Described more later in the Function Menu section.)



Fn (REAR VIEW 2 #12) Enable Function Menu
This will open the function menu on the screen. The function menu allows quick access to various other functions and menus of the camera that are useful in everyday situations.

As described above, pressing the Fn button will open the function menu. Navigating this menu is simplest with the multi-dial on the back of the camera, navigate to the desired function and then hit the select button to go into it and change it's settings.

Audio Record Level
Allows you to change the sensitivity of the onboard microphone. (note: this function is trumped by physical controls if using XLR Adapter.)

Toggle Audio Meters On/Off
Allows you to toggle wether the audio levels appear as part of the displays on screen while recording. (Note you may have to cycle through the display options using the multi dial when you leave the menu to see them.)

Zebra Settings
Zebra is a setting that helps you judge exposure when shooting video. It is set as a percentage of total exposure and displays as moving lines on areas of the image that are above the set percentage.

It can be set between 70%-100% of recordable exposure, thus if you set it to between 90-100% you can detect what may overexpose in your image. (I.E. what will be be devoid of information and recorded as pure white.) Anything recorded as pure white (above 100% on the zebras) will not be recoverable in color correction in post, anything between 95%-100% may be dificult to recover, hence why important information should be kept bellow 90%.

Marker Display
This toggles whether the markers set in the marker settings menu are displayed during video recording. (**Marker settings** is in Tab 1 of the "Gear" Menu.)

These markers can be set to give various on screen indicators to assist framing, however they all appear as the same width of white line and adding multiple may just clutter your screen. **Center** indicates the center of frame, **Aspect** displays white lines on the screen to demonstrate the bounds of a given aspect ratio (options from 4:3 to 2.35:1), **Safety Zone** imposes a white box to demonstrate safety zones on most conventional displays (TVs) for possible cut off of the image, **Guideframe** is your basic Rule of Thirds grid.

Here are commonly helpful combinations.

Shooting with a specific Aspect Ratio in Mind = Center + Aspect
Shooting with the standard Aspect Ratio = Guideframe
Shooting while avoiding extreme framing = Safety Zone

Gamma Display Assist
This is useful if you are shooting in a picture profile designed to maximize dynamic range (this concept is discussed later in the Picture Profile section). It gives you the option to apply a correction to the view screen (not the recorded file) that will boost saturation and contrast of the displayed image to match a REC 709 standard television colour correction.

Steadyshot
This is the Sony image stabilisation function, which is active both in the lenses and in the camera body itself. This will allow you to turn the stabilization on/off or to modify it's behaviour.

You should turn steadyshot off if using a tripod or monopod. You should leave it's behaviour to Auto if using the supplied lenses in the kit. If using third party lenses it can allow you to designate the focal length of the lens to adapt the in camera stabilization.

ISO Settings
This is another way to access and change your ISO settings.

Metering Mode
This allows you to change how the camera meters light, either Multi which meters around the entire frame, Center which meters the center of the image, or Spot which meters a given part of frame

White Balance
This is another way to access and change your white balance setting.

Drive Mode (Photo)
Drive mode allows you to change the behaviour of the camera when pressing the photo shutter. Single is the most basic; one press of the shutter registers one frame.

Continuous will make the camera continue to take photos when you hold the shutter button down for a few seconds until the camera buffer is exhausted and the camera needs to save photos to the SD card. The autofocus (if enabled) will re-focus between each shot.

Spd Priority Continous will make the camera take photos continuously until you release the shutter button like regular continuous. However it will shoot more photos per second in a shorter length burst, additionally the auto-focus locks it's target on the first photo and does not re-focus for each shot.

Self Timer and Self timer Continous both allow for a given amount of time before the shutter fires. Self timer fires once, continuous fires multiple times.

Picture Profile Select
This allows you to toggle between the various Picture Profiles or turn them off. An in depth explanation of Picture profiles will follow this section.

Silent Shooting Mode
When shooting photos, normally there is a shutter than engages for each frame shot, this results in the telltale camera "click" that you hear. If you turn on silent shooting more, much like in video more, the camera will not engage the shutter when taking a photo. Thus silently shooting which could be adventageous in situations where you do not want to draw attention to yourself. However note that Picture Profiles and some other settings are made innacessible in this mode.

PICTURE PROFILES / DYNAMIC RANGE

The most basic explanation of picture profiles is that they change the way the camera interprets it's sensor data and saves it as a file. It changes the "look" of the image but also the amount or way that the image data is saved.

This is easily one of the most complicated and customisable features of this camera, if you just want to get shooting turn them off, if you want to be able to do more extensive work on your image in post-production or want to give your image a more "cinematic" look then read on.

DYNAMIC RANGE

A basic understanding of the concept of dynamic range is integral to understanding picture profiles. This is what often accounts for the difference that people see between old video footage, film footage and new digital cinema footage.

In the most layman terms, dynamic range is the range of light values (measured in F-stops) that a camera's sensor can record between the darkest point and the lightest point in the frame. (To give a real world benefit, if you have a shot with a practical light in the shot, for example a lamp, a higher dynamic range camera will have a better chance at not "blowing out" this bright object while maintaing the same exposure as a camera with a low dynamic range. Or you'll keep more detail in someone's face if you are only lighting them from one side.)

To give an idea of the difference in dynamic range between cameras:
Hollywood
Arri Alexa (Digital Cinema Camera) = ~15 Stops of Dynamic Range
Cinematic 35mm Film = 14+ Stops of Dynamic Range
Indie/Documentary
Canon C300 (Docu. Digital Cinema Camera) = 12 Stops of Dynamic Range
DSLR = 10 Stops of Dynamic Range
Home Video
Consumer Handycam/Action Cam = Less than 8 stops of Dynamic Range

This is part of the reason why film images look so detailed and why DSLRs took over mid range videography from camcorders; because low dynamic range sensors create a forced high contrast look and therefore an inability to retain detail in the highlights and shadows of the image.

The topic is much more complicated than this description, alice in wonderland rabbit whole complicated, but that's the basics of it.

DYNAMIC RANGE OF THE A7sII

There are three broad reasons why this camera is so popular with filmmakers, one of them is it's dynamic range. (The others are it's lowlight sensitivity and video bitrate options.)

If you shoot photos or video with the A7sII with the picture profiles turned off, the camera has ~10 stops of dynamic range. Respectable for a DSLR style camera.

However if you do use the picture profiles, depending on which one you choose, you can boost this to ~12.5 stops of dynamic range and also make your files more open to color correction/grading in post-production.

This jump in dynamic range puts it in keeping with 16mm film stocks and low to medium budget cinema cameras, thus potentially giving you a more cinematic look.

What Picture Profile is Right for Me?

The short answer is... it really depends. There is no one clear winner among the picture profiles and the internet is littered with articles on what profile certain people deem is best for a given application. If you really want to get into it just start searching with terms like "Sony A7sII" "Picture Profiles" "Dynamic Range" "Lowlight" and "Noise".

One thing you should know is that to get the most out of footage shot with picture profiles you will need someone to grade it. (a.k.a. Creatively Color Correct.) All of these profiles could be color corrected by someone with basic knowledge for a potentially decent result, but for something to look truly "filmic" it needs to have a good grader.

(The following suggestions are mostly reflective of the general concensus, but you can also find counter opinions almost everywhere.)

<u>PP8 - Slog3 - Maximum Dynamic Range (High Lighting Needs)</u>

This profile uses Sony's video color gamma Slog3, its newest gamma. (Gamma is what tells your camera to record color and brightness.) This profile will give you the complete 12.5 stops of range, however it is very succeptible to noise in the shadows and at high isos (6400+), so it is recommended primarily for well lit or exterior shooting, the camera will need light to get the best out of this profile.

PP7 - Slog2 - Good Dynamic Range (Medium Lighting Needs)
This profile uses the previous Slog color gamma, Slog2. This profile, depending on exposure, can get you more in the range of 11+ stops of dynamic range and is less succeptible to noise in the shadows of your image or at higher isos. Also Slog2 is usually considered slightly easier to color correct/grade yourself in Adobe Premiere.

PP6 - Cine2 - Lowlight Dynamic Range (Low Lighting Needs)
This is part of an older set of color gammas that predate Log, but have been updated over time. Numerous members of the online community have tests that show Cine2 performs better than Slog2 overall in serious lowlight conditions. It still aims to capture a similar 10-11 stops of range as Slog2, but it shifts some of that detail retention from the highlights to the shadows, which seems to make it better for lowlight situations overall.

PPoff - No Picture Profile
If you read the past three entries and were confused or overwhelmed, it can be a good idea to shoot without a picture profile. The image that comes out of the camera natively is really quite good and although it might not use the cameras ability to it's fullest, working without a picture profile allows you to go straight from shooting to the edit without worrying about needing to do extensive color correction.