Sony A9 III Settings

For Wildlife Photography

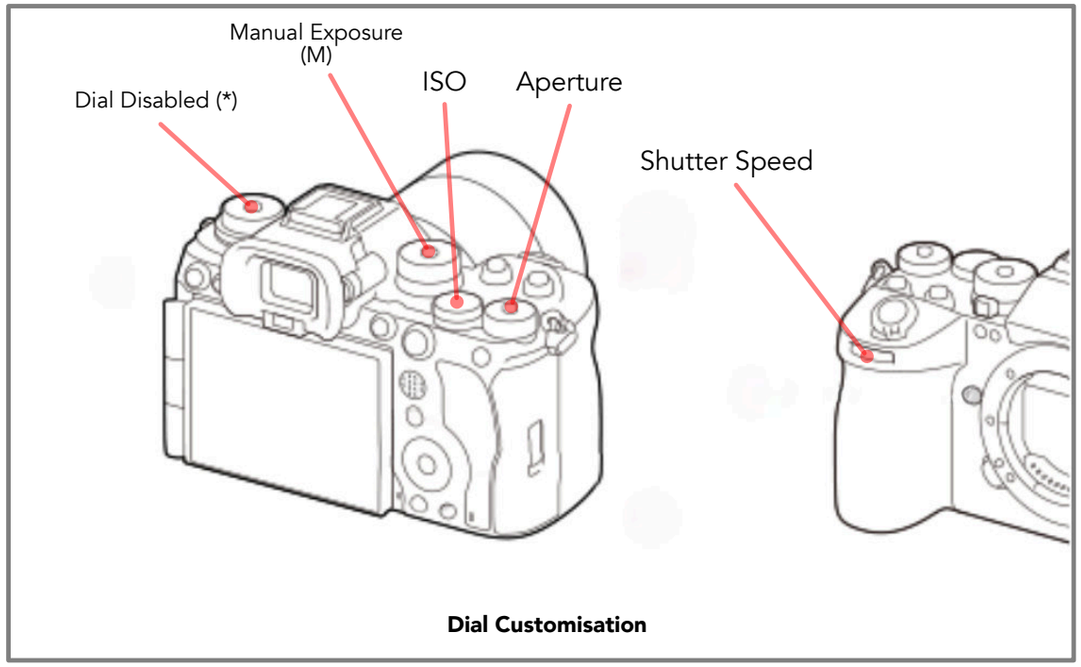
Version 1.4

Video settings available in a future update

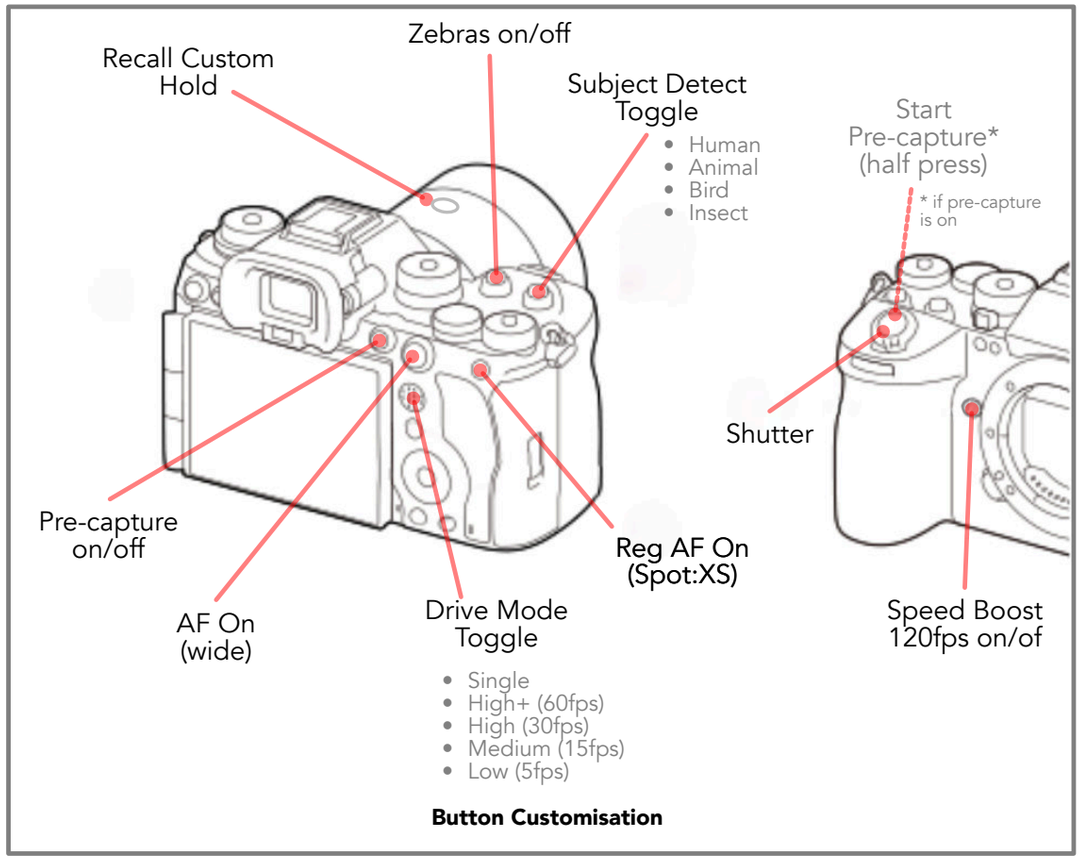
Customisation for New Features

The A9 III has a number of new features such as Speed Boost, Pre-Capture and Drive Mode Toggle that requires some customisation of camera dials and buttons in order to be a able to take advantage of these features.

The basic dial and button customisation I recommend is shown on the right. Further explanation of the reasoning behind this configuration is given in the following pages.



Dial Customisation



Button Customisation

WARNING: This camera is an action BEAST !

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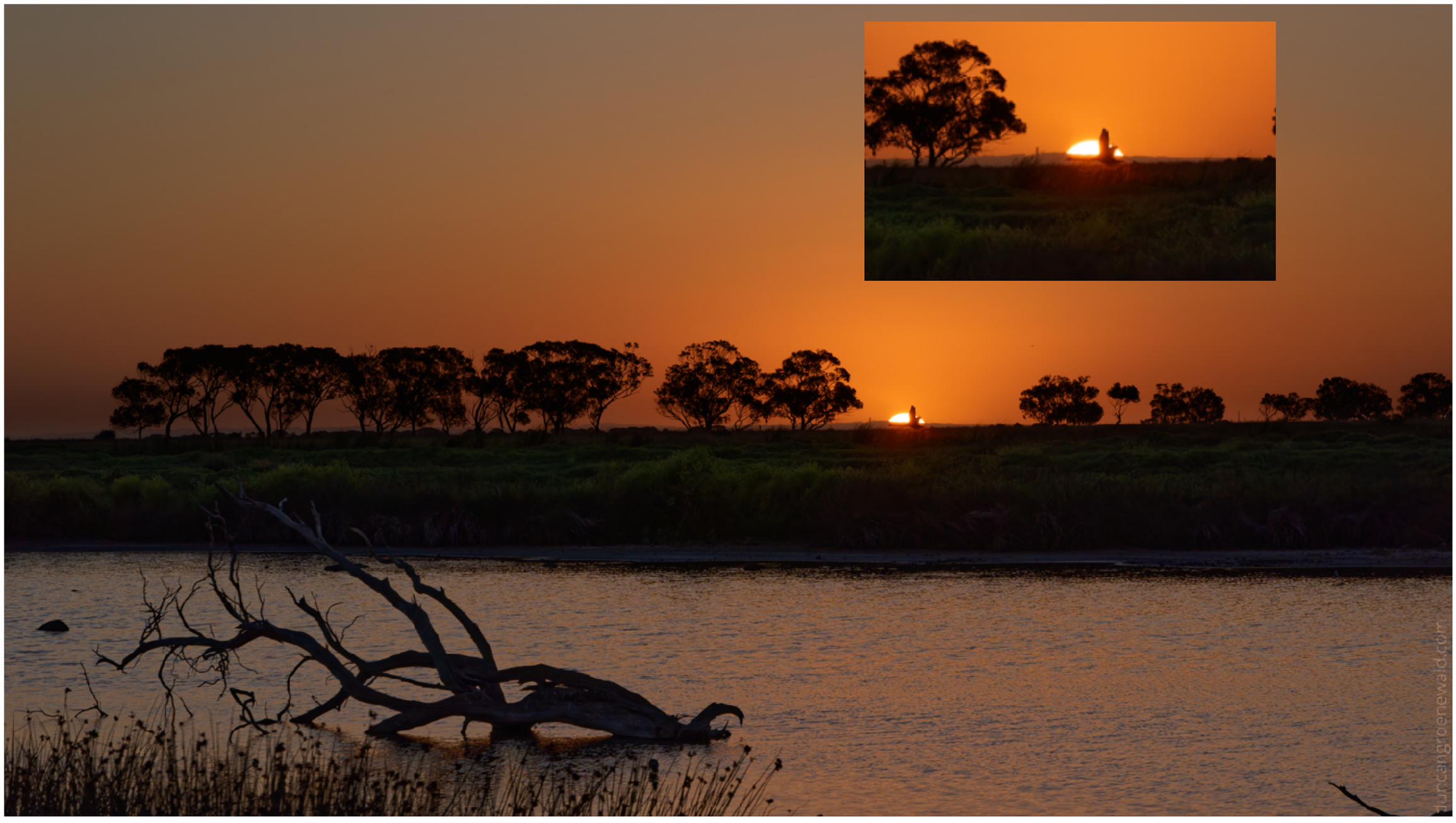
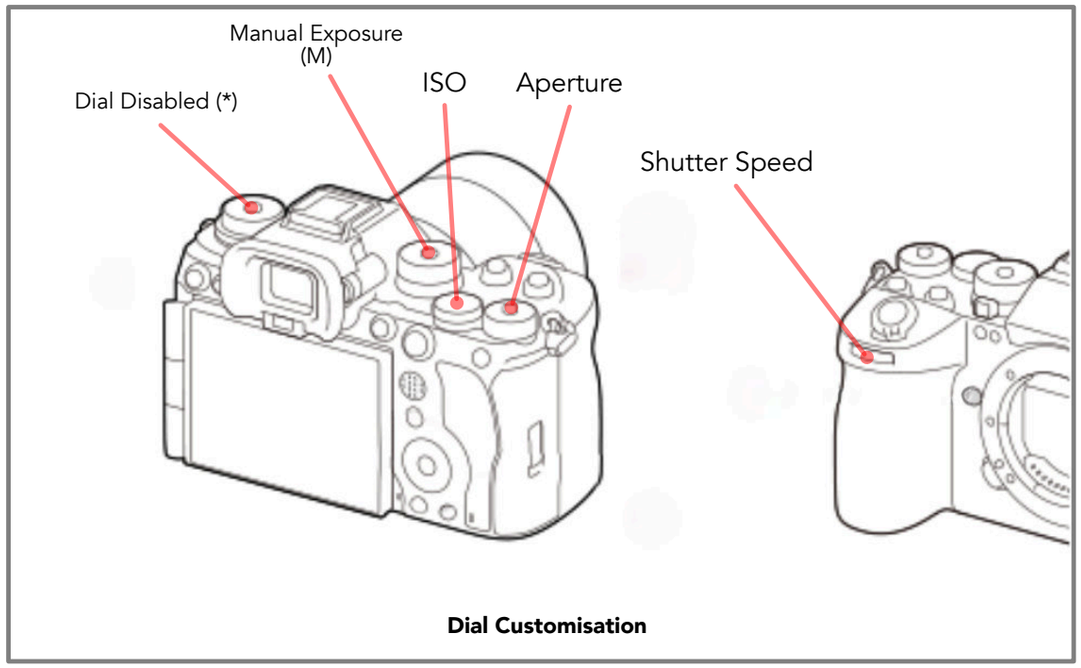
Not surprisingly it is even capable of capturing remarkable wildlife landscapes



Dial Customisation



Dial Customisation

Manual Exposure

When shooting wildlife and in particular birds the brightness of the scene can vary quite suddenly.

To further complicate things when shooting moving subjects the background can change quite suddenly from, for example a bright sky to a dark background of trees, bushes, rocks or hills and mountains.

The subject may also move suddenly from being in the shade to suddenly being in direct sunlight.

On overcast or partly cloudy days the sun may suddenly shine through and light up the previously dark scene.

Even the best cameras automatic exposure systems are unable to cope with such variation in the subject and background lighting and for best results I recommend using manual exposure.

Manual exposure means that you the photographer needs to manually adjust the shutter speed, aperture and ISO sensitivity depending on the subject and background lighting conditions.

Fortunately the Sony A9 III provides three perfectly positioned dials or wheels that can be assigned to each of the exposure settings allowing instant adjustment with a finger without needing to lift your eye off the view finder or hands of the camera.

A9 III Camera Configuration Overview

Zebras

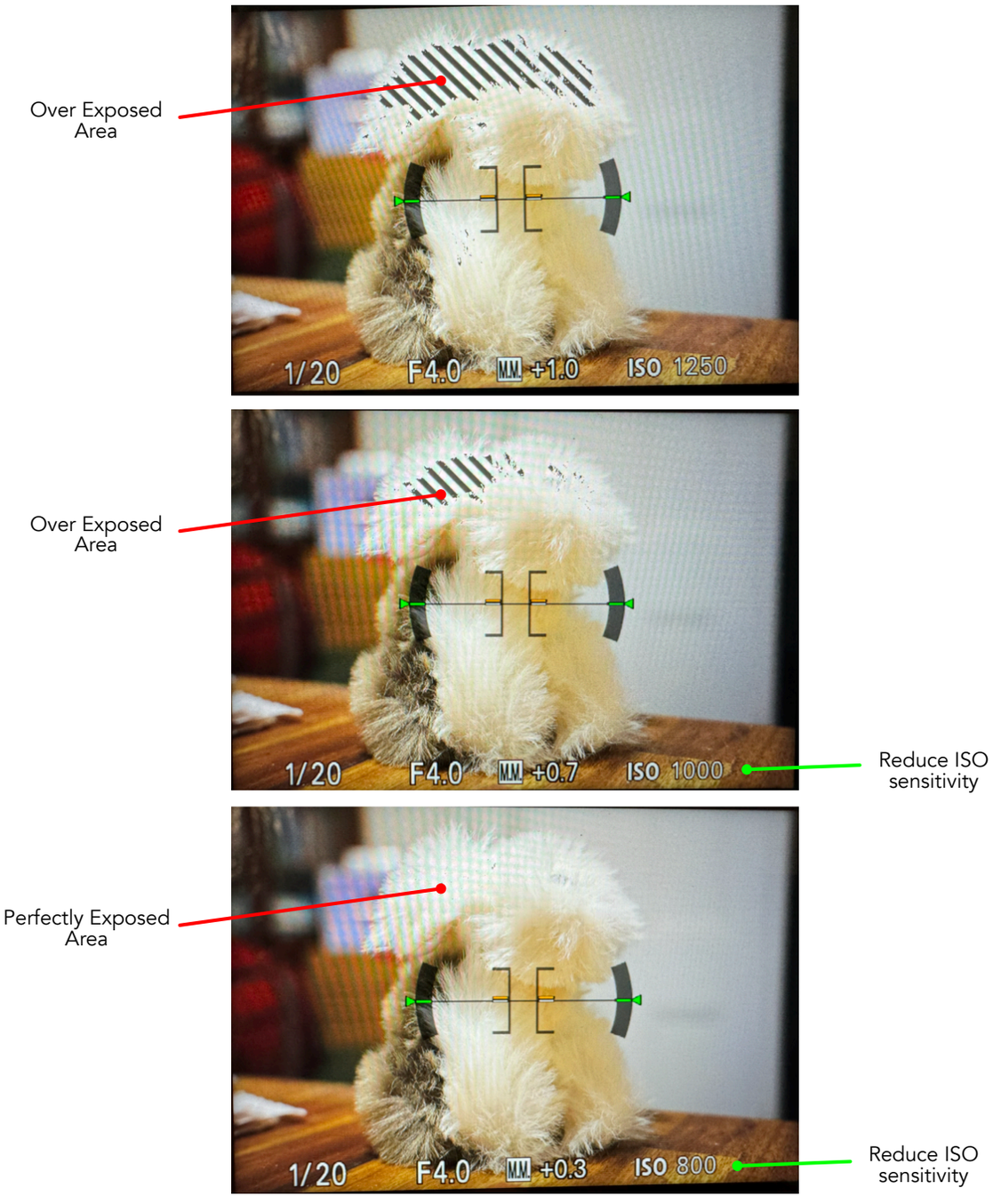
In addition to providing dials for adjusting the individual exposure settings Sony camera's also provide a visual means for determining when you have the perfect exposure on your subject.

Zebras are diagonal zebra stripes that show up in the view finders on parts of the subject that are either perfectly exposed or over exposed, according to the Zebra levels you have set in the camera.

Usually I set the Zebra mode to display stripes on parts of the scene that are overexposed, i.e. Lower Limit 100+.

With this setting you would adjust your exposure so that the brightest part of your subject is just no longer showing the Zebra stripes.

The other option is to use the Std+Range setting using say 56 ± 3 giving a range of 53 - 59 so that parts of the scene with mid level exposure between 53 and 59 show the zebra stripes. This is useful when there is a very bright background and you want to avoid being overwhelmed with zebra stripes such that you can't see the subject in the scene.



Adjusting Exposure while Shooting

Aperture - usually I will use the widest aperture available for the lens I am using. So for the Sony 200-600 shooting at 600mm I will use f/6.3.

Some lenses are not their sharpest when used with maximum aperture and so you might want to set the aperture to the widest setting that gives sharp images.

Shutter Speed - when shooting wildlife I typically will set the shutter speed based on the amount of light and amount of subject movement that might be expected.

The table below provides a rough guide of where to start.

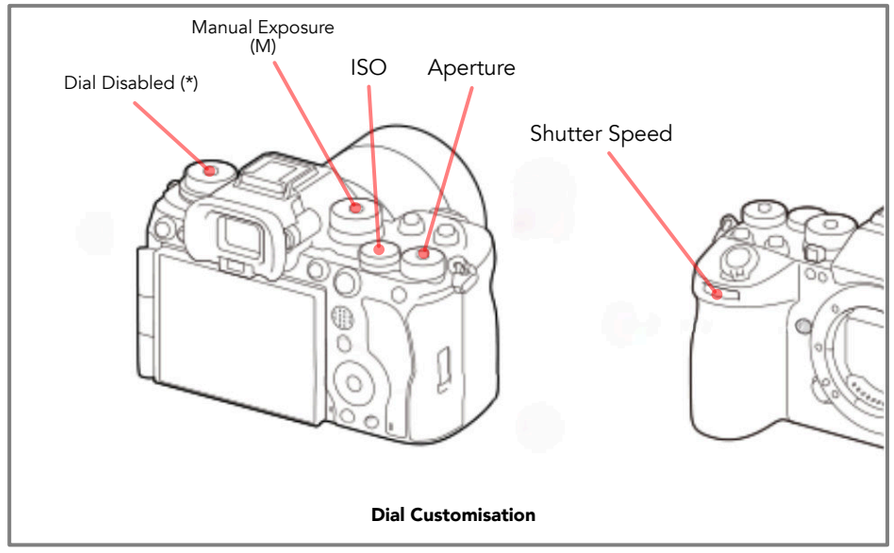
Amount of Light	Stationary	Slow Moving	Active	Fast Action (e.g. running, flying)
Low - overcast and raining	1/40	1/250	1/640	N/A
Medium - bright overcast or hazy sunlight	1/250	1/640	1/2000	1/3200
Direct - early morning levening direct sunlight	1/640	1/1600	1/2600	1/4000
Harsh - late morning afternoon sunlight	1/2000	1/2000	1/4000	1/8000

Note that very slow shutter speeds of 1/40s require camera/ lens stabilisation to be turned on when shooting handheld or use of a tripod.

When shooting handheld I shoot a burst of images at 30fps to try and ensure at least one or two images with no subject or lens movement induced motion blur.

ISO Sensitivity - once I have decided on the appropriate shutter speed I will adjust the ISO sensitivity until perfect exposure is obtained on the subject as shown on the previous page.

So exposure is primarily controlled during shooting using my thumb on the rear dial configured with ISO Sensitivity.



Dial Customisation

A9 III Camera Configuration Overview

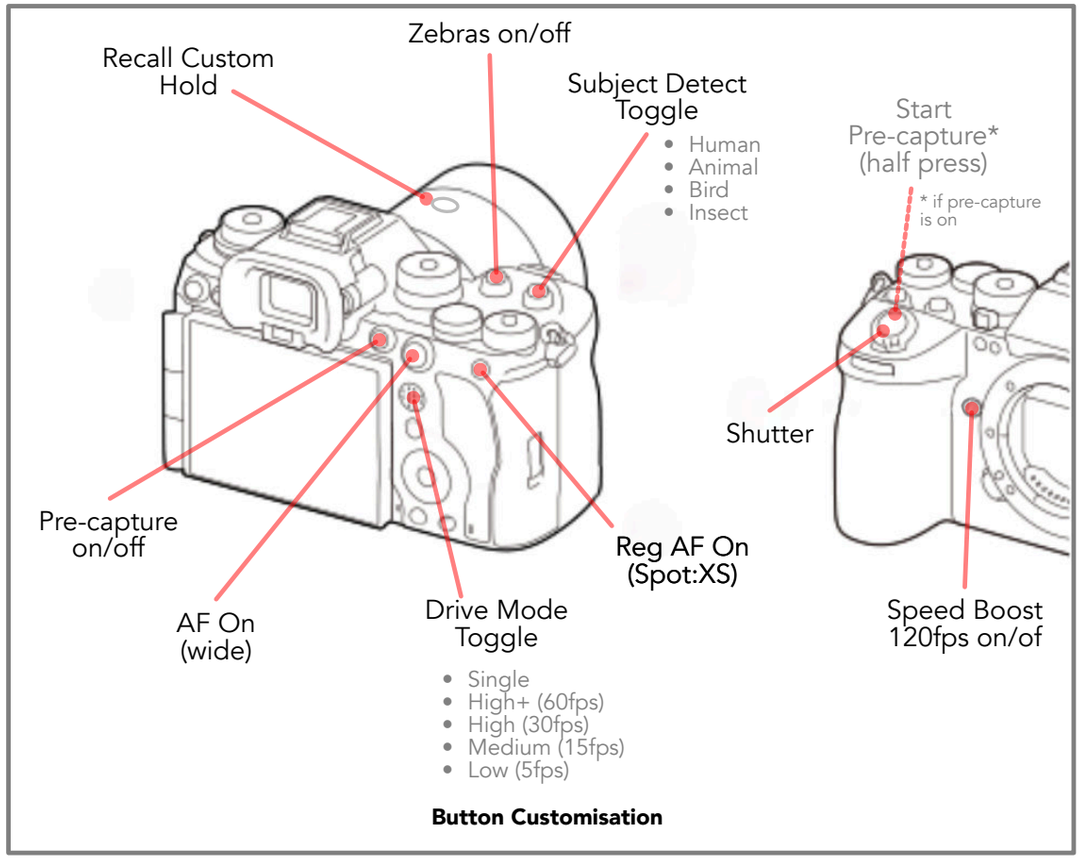
Button Customisation

Shutter Button - the shutter button is configured to function only as the shutter down button. It is not configured to also set AF ON.

Focus Buttons - two back focus buttons are used instead and are associated with two different focus modes, Wide Area and extra small Spot.

Spot is used when picking out the subject requires a very precise point, for example when there are multiple birds in the frame or when a bird is partially obscured by bushes, leaves or branches.

Wide focus area is used in conjunction with one of the subject detection modes to allow the camera to automatically detect the subject in the frame and focus on the eye of the subject. I use this mode 99% of the time and in particular for birds in flight where the subject may be anywhere in the frame.



Button Customisation

This combination of shutter and focus buttons allows for the focus to be locked in position and for shooting to continue when using AF-C by simply no longer pressing either focus button.

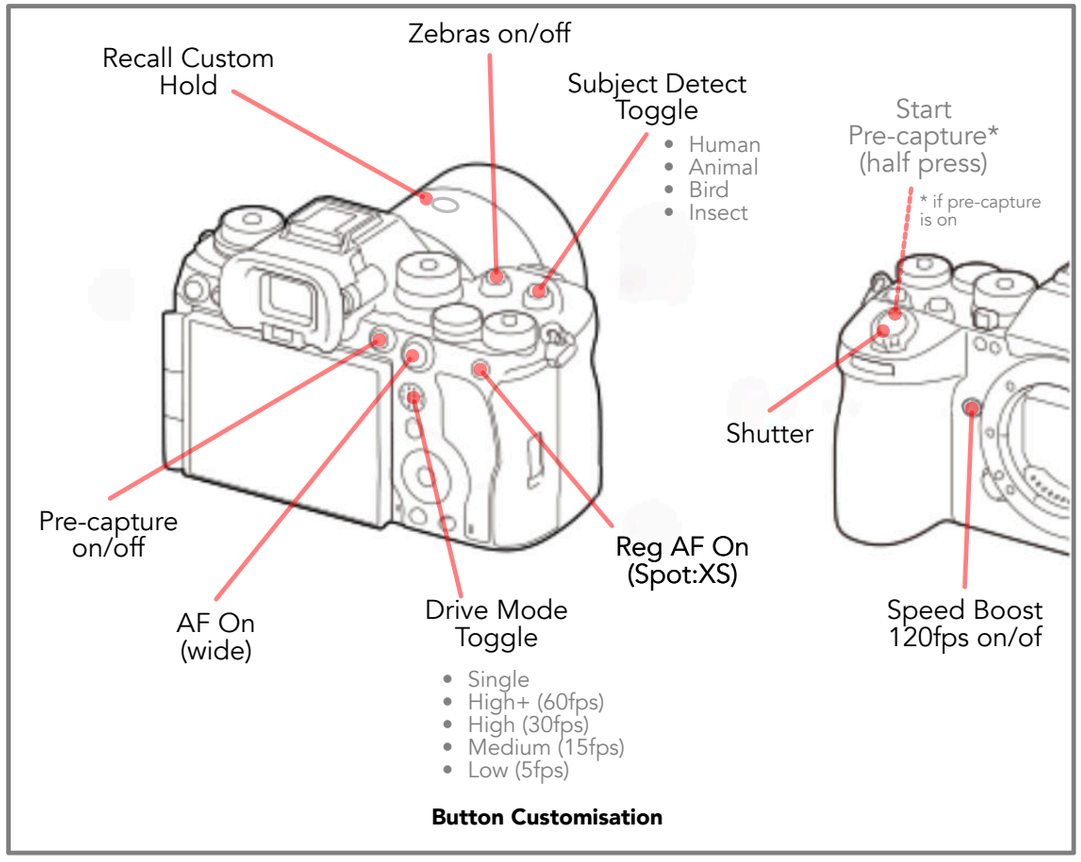
This is useful in some situations, such as low light conditions, where the focus may hunt continually if in AF-C and if a focus button if being pressed.

Button Customisation

Zebras on/off Button - usually I will leave zebras on but occasionally with brightly lit backgrounds zebras can make it hard to see the subject. This button can be used to immediately toggle zebras on/off.

Subject Detect toggle Button - the individual subject type detection modes generally provide the fastest and most accurate performance so I prefer to use them. However this means that if a different subject suddenly appears you will want to quickly change the subject detection mode. This toggle button will scroll through the configured modes for quick selection of the required model.

Drive Mode toggle Button - during shooting you may want to change the shooting frame rate. This button allows you to instantly toggle through and select the desired frame rate without needing to use the Drive Mode dial.



Pre-capture on/off Button - when situations arise where you are expecting a sudden start to action that you want to capture you might want to use pre-capture to ensure you don't miss the action. Using this button you can toggle it on or off instantly.

Pre-capture can be initiated in different ways but my preferred method is by **half-pressing** the shutter button. Alternately this can be triggered by one of the focus buttons.

A9 III Camera Configuration Overview

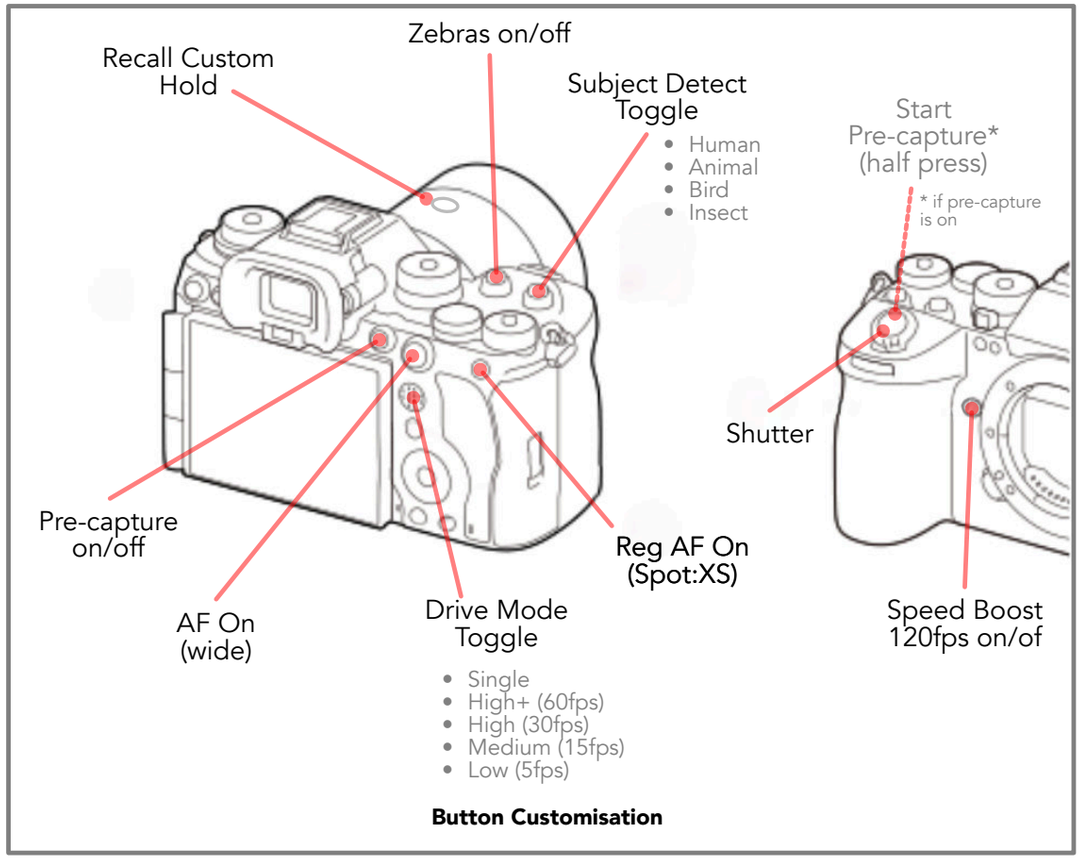
Button Customisation

Speed Boost on/off Button - the speed boost button toggles speed boost on or off and is used in conjunction with setting the Speed Boost speed to 120fps.

When combined with the drive mode toggle button you have access to the full range of shooting frame rates without needing to use any dials on the camera.

Depending on the type of subject typical use might be as follows:

- Select the Drive mode to suit the type of subject. For large slow subjects you may only want 15 fps, for large birds like pelicans and egrets or eagles you may want 30fps and for fast subjects like ducks or kestrels you may want 60fps.
- When shooting faster subjects such as falcons, swallows or small birds in flight or other sudden high speed action then toggle Speed Boost on to get 120fps.



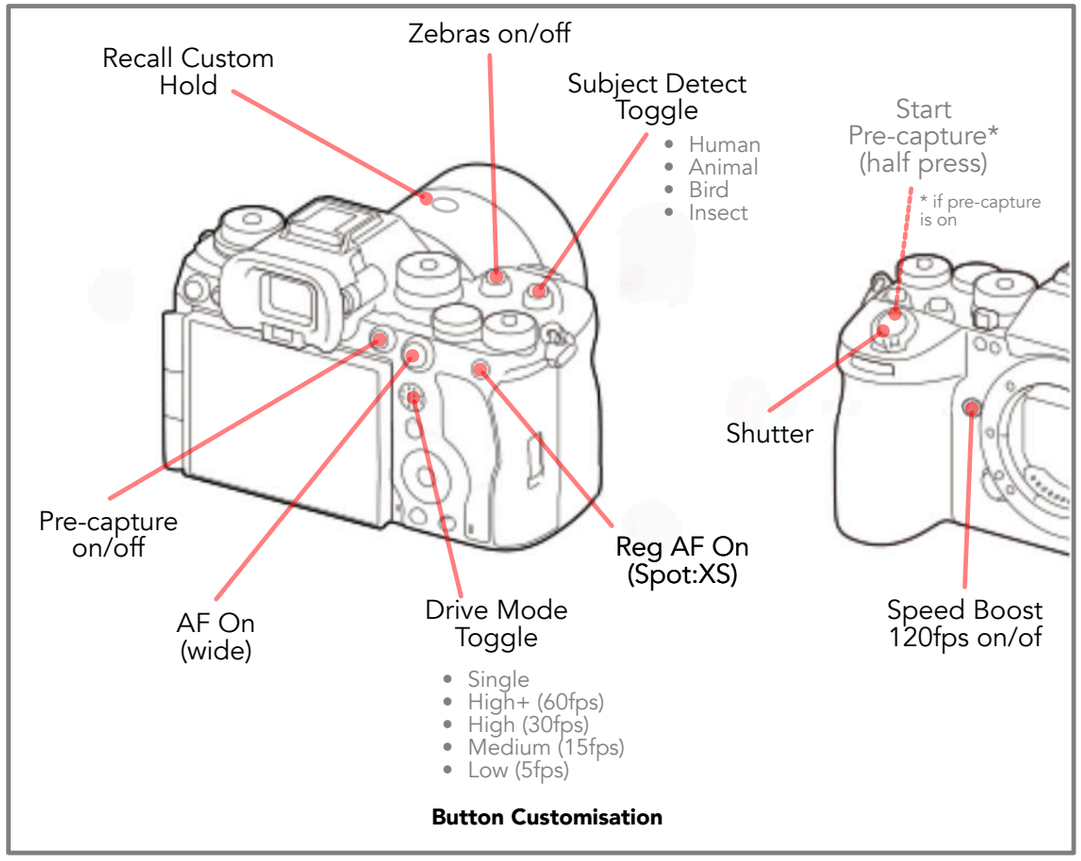
Button Customisation

Button Customisation

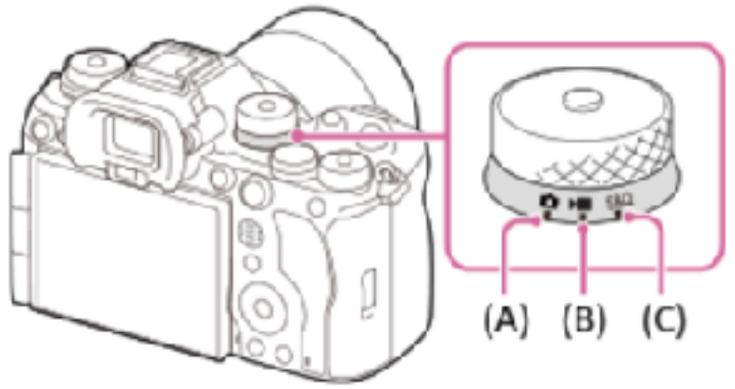
Recall Custom Hold Button - the recall custom hold button will override the current settings while the buttons is pressed. I have this assigned to the lens button.

This is particularly useful in situations where you want to quickly change to a predefined set of camera settings - for example you may wish to capture some low ISO still images while waiting for action to start.

For example while waiting for a bird to take off you would usually have the camera set for action with a high shutter speed and high ISO and so to quickly take a few images with a low shutter speed and low ISO simply press and hold the Recall Custom Hold Button and the camera shutter speed, ISO and aperture will change to the values set for the Custom Hold option.



Shooting



(A) Still image shooting mode
(B) Movie recording mode
(C) Slow-motion/quick-motion shooting mode

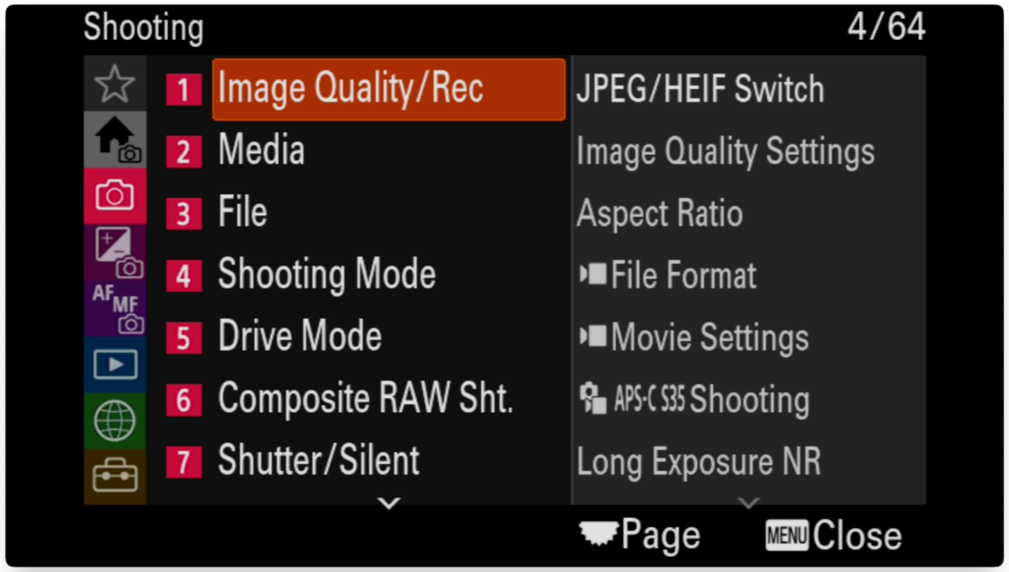
Key Settings

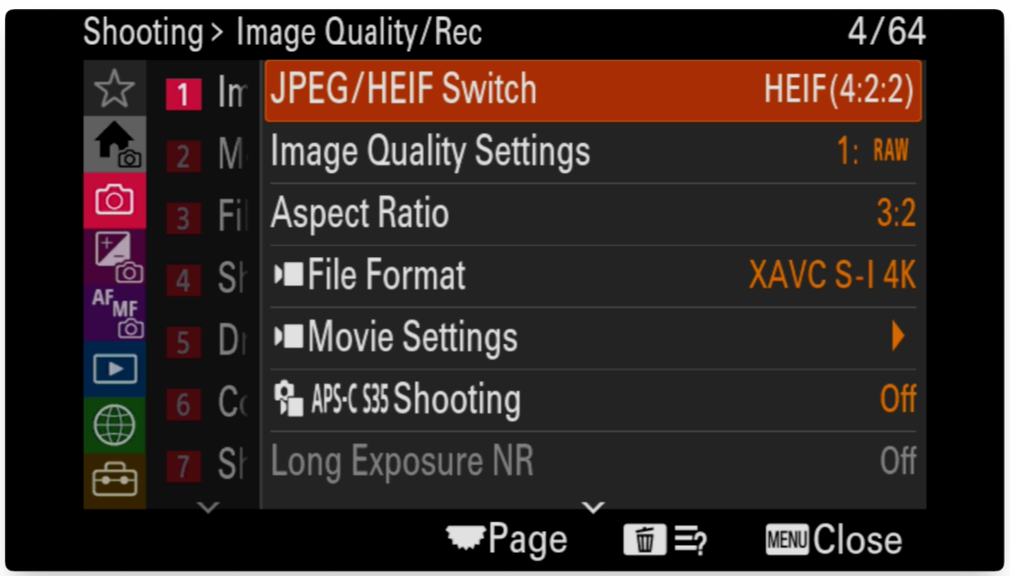
JPEG/HEIF: HEIF

IMAGE FORMAT: RAW ONLY

RAW COMPRESSION: COMPRESSED

Set the cameras shooting mode dial to Photo mode (A) now.

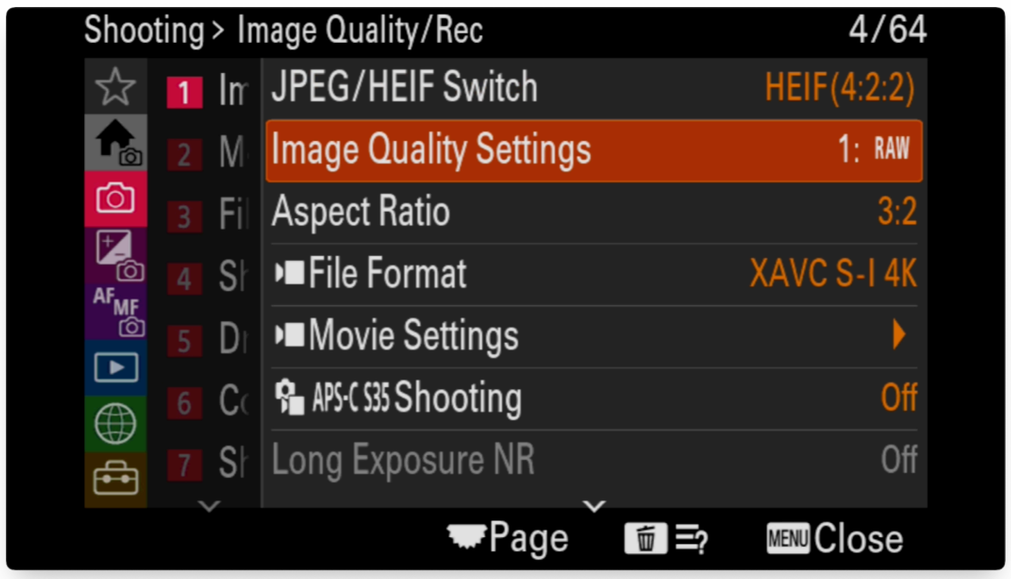




Shooting Menu - Image Quality

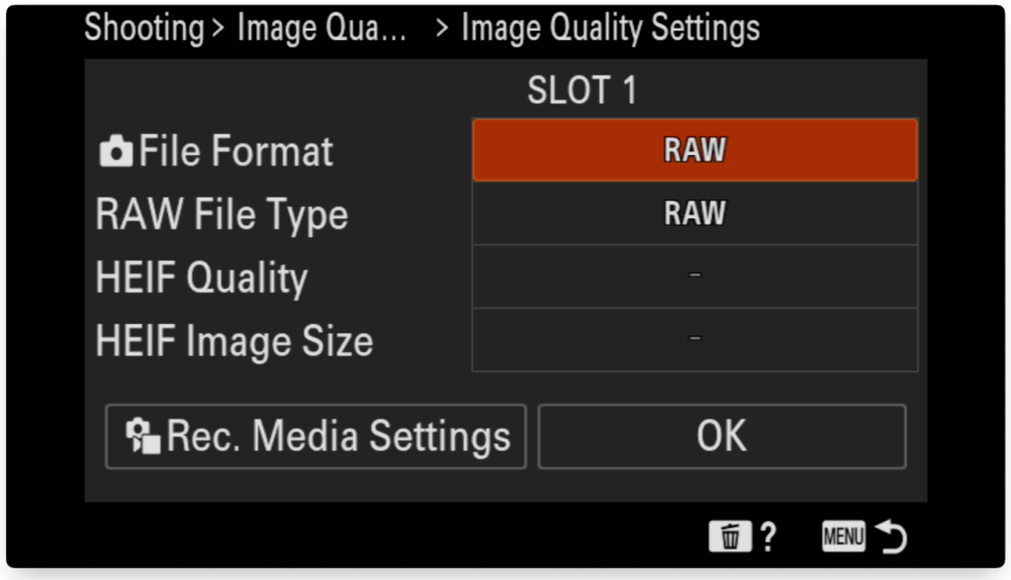
JPEG/HEIF

- JPEG is universally compatible
- HEIF offers better quality and compression but may not be supported by all software and platforms. In particular HEIF supports 10 bit colour while JPEG only supports 8 bit colour. 10 bit colour means smooth gradients on areas such as the evening or morning skies.



File Format

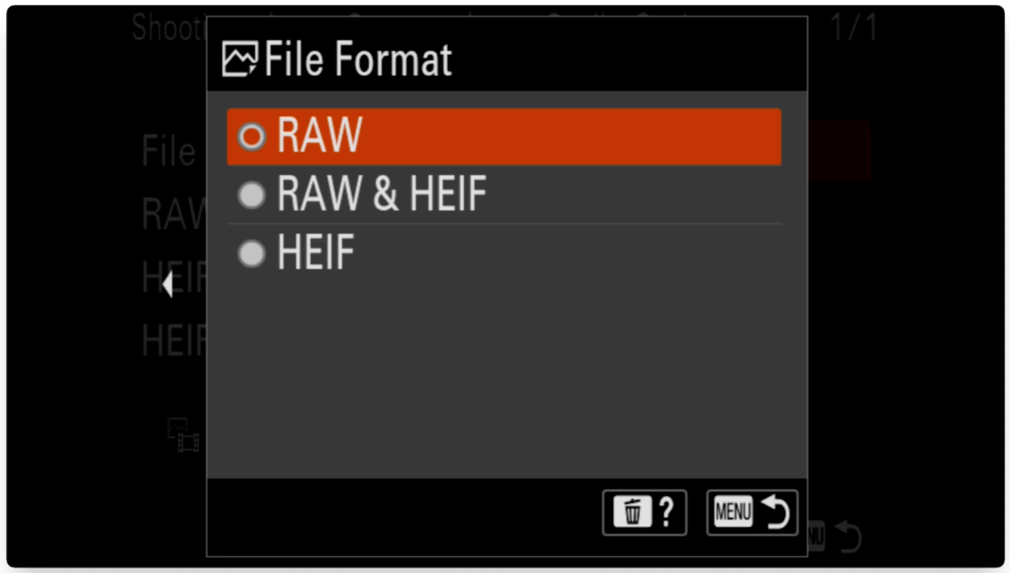
- RAW only to reduce the required storage capacity
- If you wish to download full resolution images to your phone during shooting you may need to also record in JPEG/HEIF if your phone does not support RAW files.

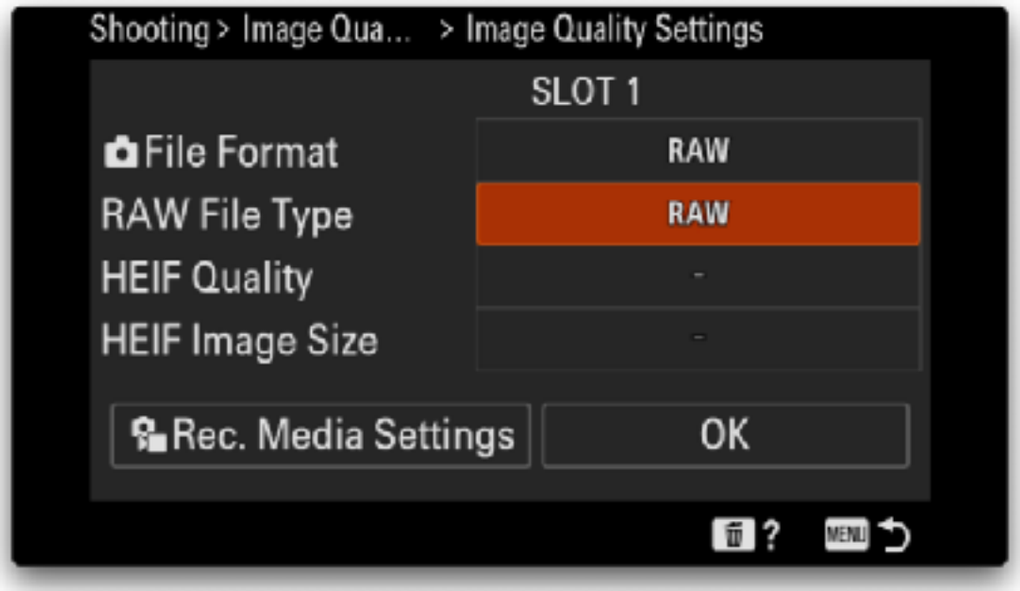


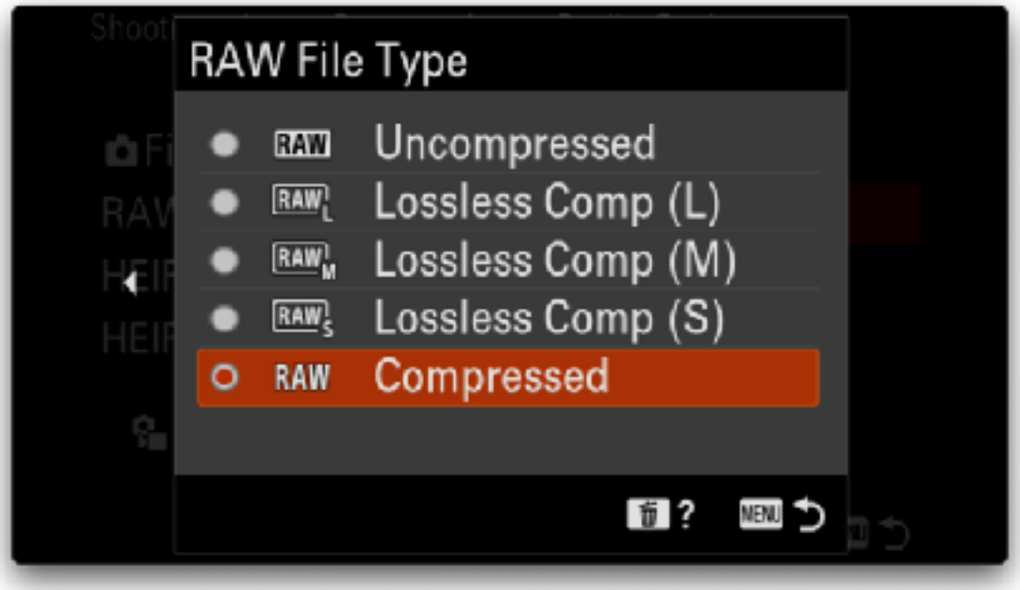
Shooting Menu - Image Quality

Photo RAW File Type

- **Compressed** - the number of images that can be stored in the A9 III buffer is reduced if uncompressed or lossless compressed is used. The buffer can hold around 190 compressed RAW files and around 100 uncompressed files.
- Use **Lossless Compressed** if possible when large buffer capacity is not required, such as when shooting still images or when using low frame rates.



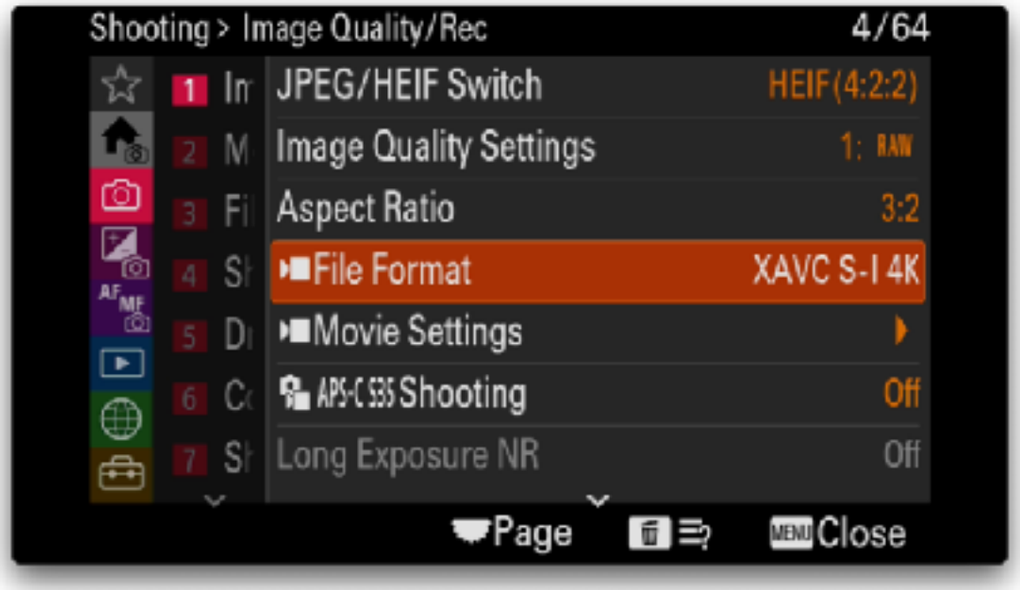


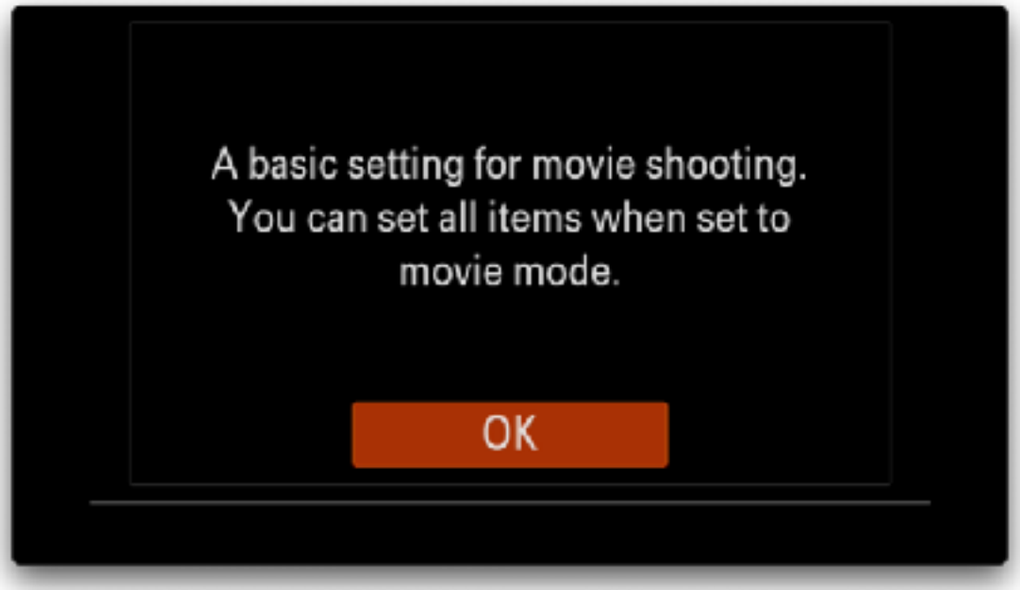


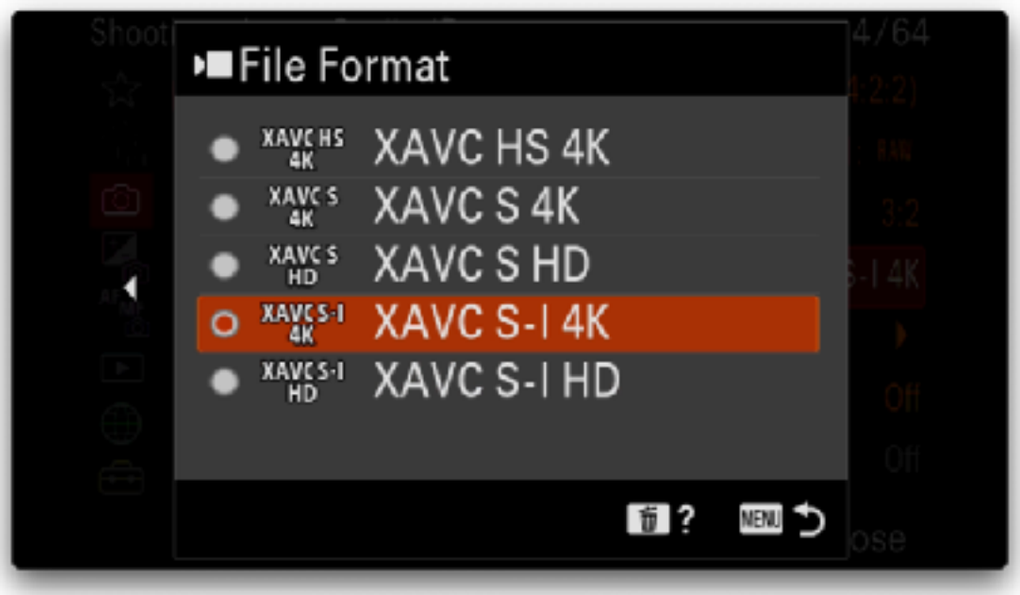
Shooting Menu - Image Quality

Video File Format

- The XAVC HS format uses the long GOP compression for movies.
- The XAVC HS format uses the HEVC codec, which has high compression efficiency. The camera can record movies with higher image quality than XAVC S movies but the same data volume. Long GOP compression is used for movies.
- The **XAVC S-I** format uses Intra compression for movies. This format is more suitable for editing than Long GOP compression.
- For wildlife video **4K 60p** or 120p is recommended for smoother action playback.
- 120p will allow 4x slow motion and required S&Q mode.
- For super slow motion (10x slo mo) record using HD 240p which also required S&Q mode.
- The A9 III can be configured with separate Video and S&Q settings but when using S&Q you will need to set recording to either 4K 120p or HD 240p. Custom settings can be used to switch between these modes quickly.



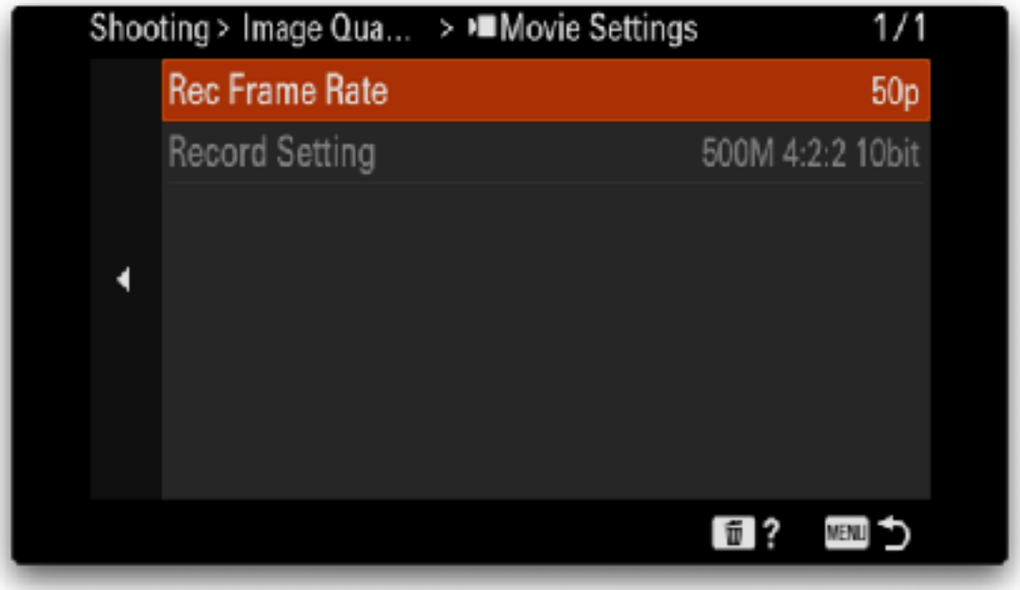


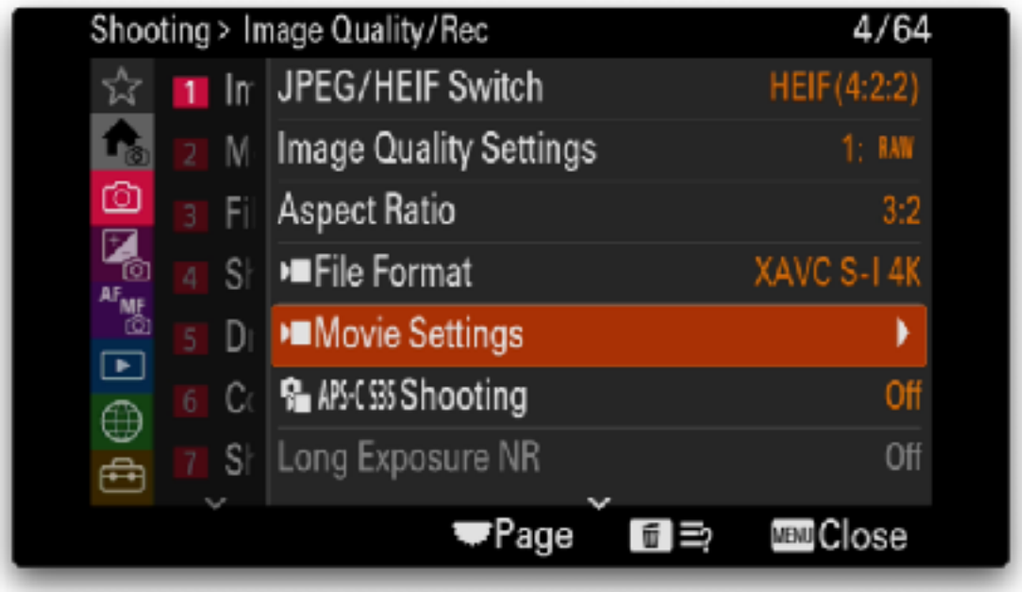


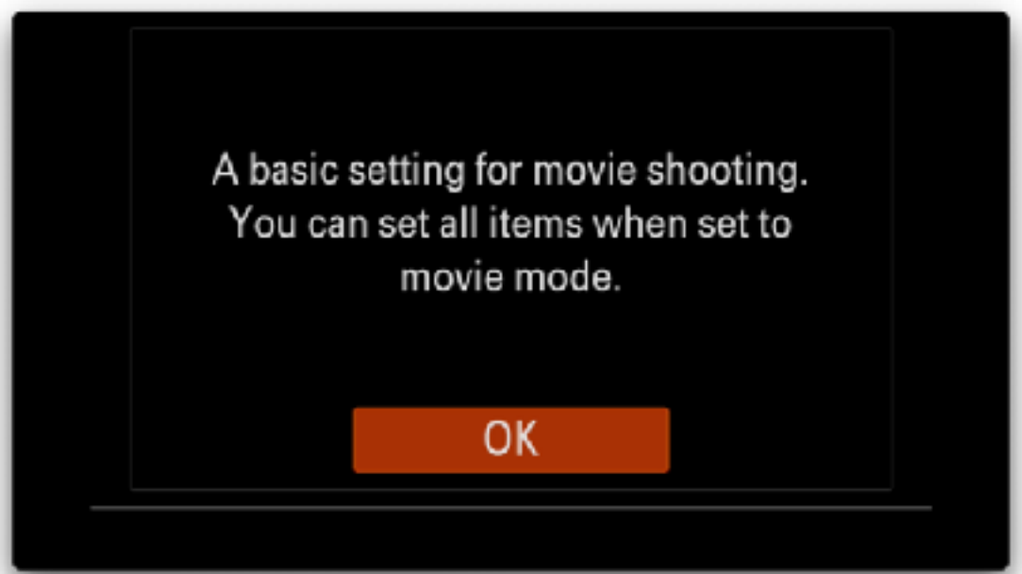
Shooting Menu - Image Quality

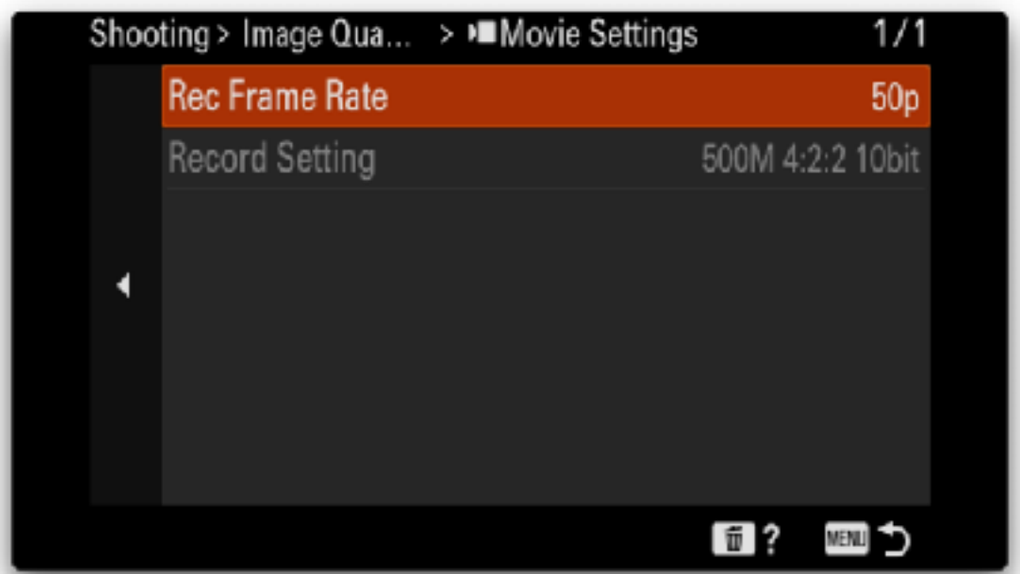
Video Movie Settings

- Set the default frame rate to 50p for video.
- When the camera mode is set to video or S&Q mode additional options are displayed - see sections that follow.



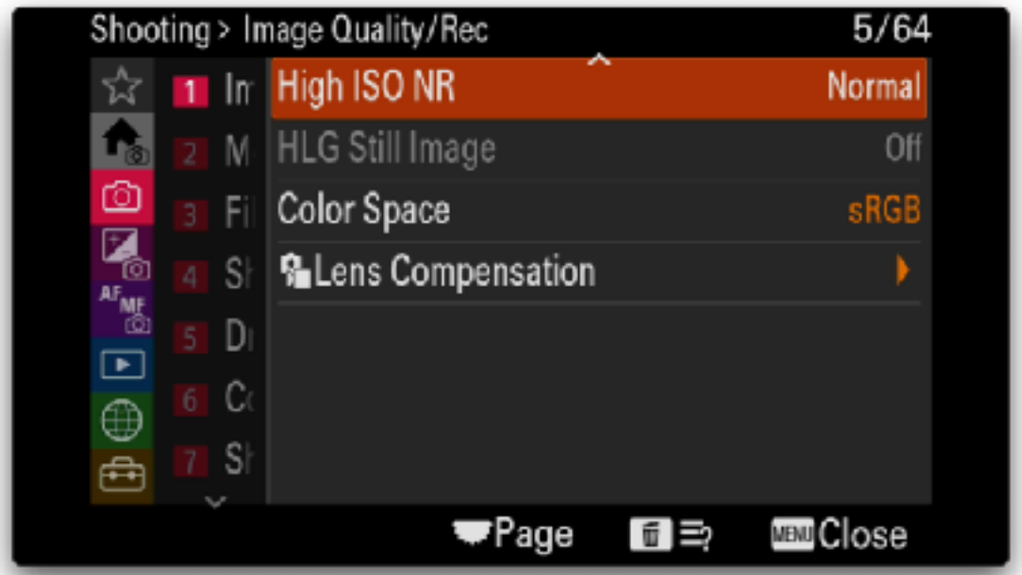


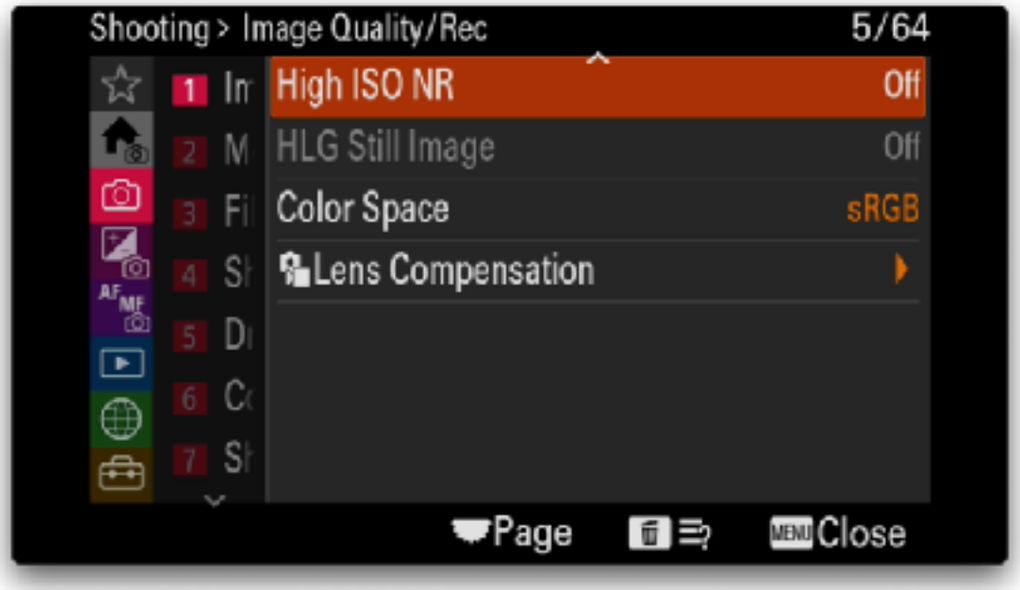


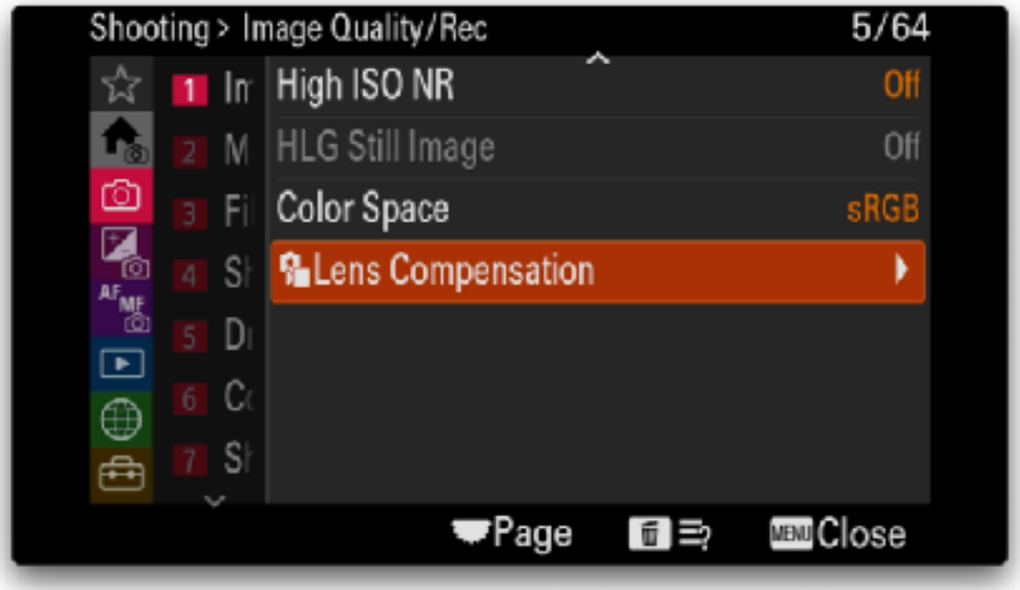


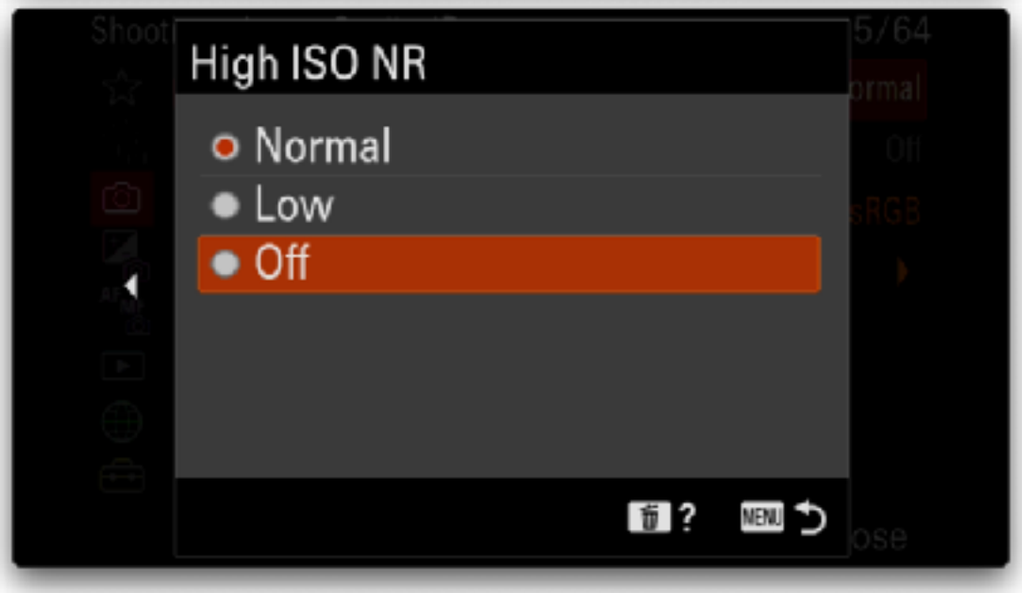
High ISO Noise Reduction

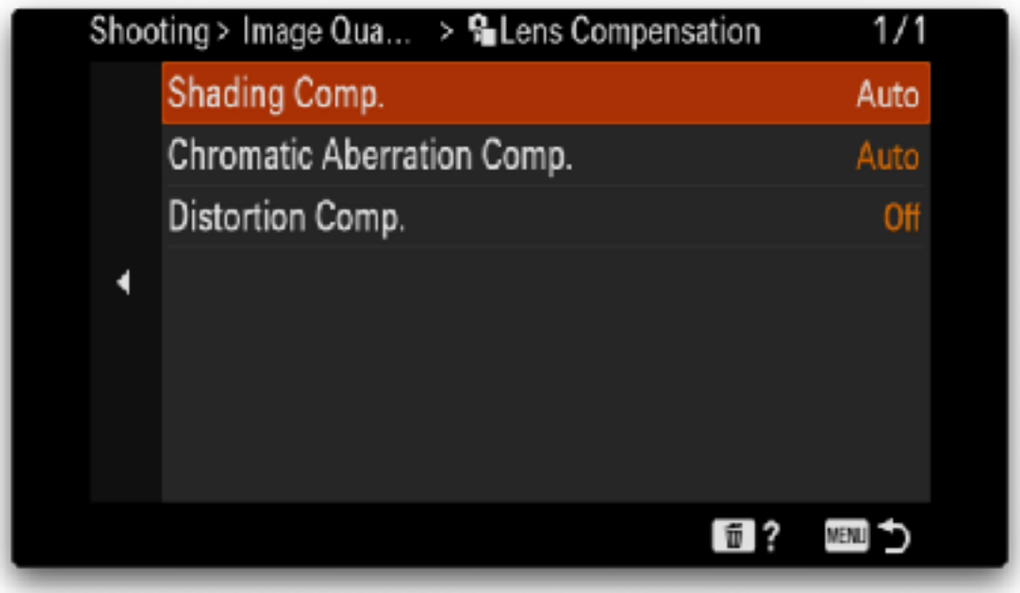
- Turn off High ISO NR UNLESS you are not using RAW image processing software to denoise your images.
- In general software such as DxO PhotoLab will produce better denoise results than in-camera denoise processing.







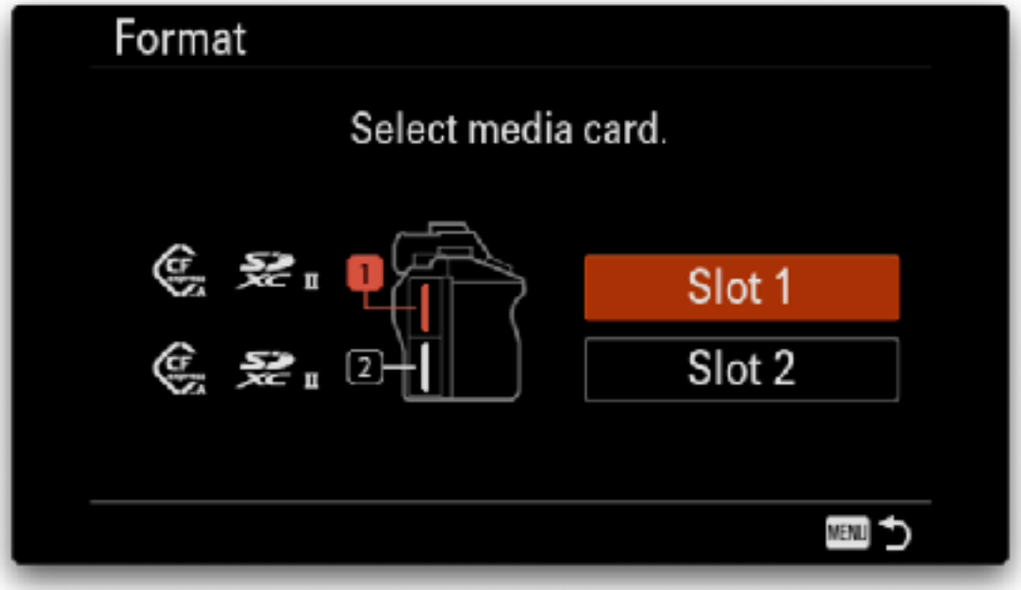


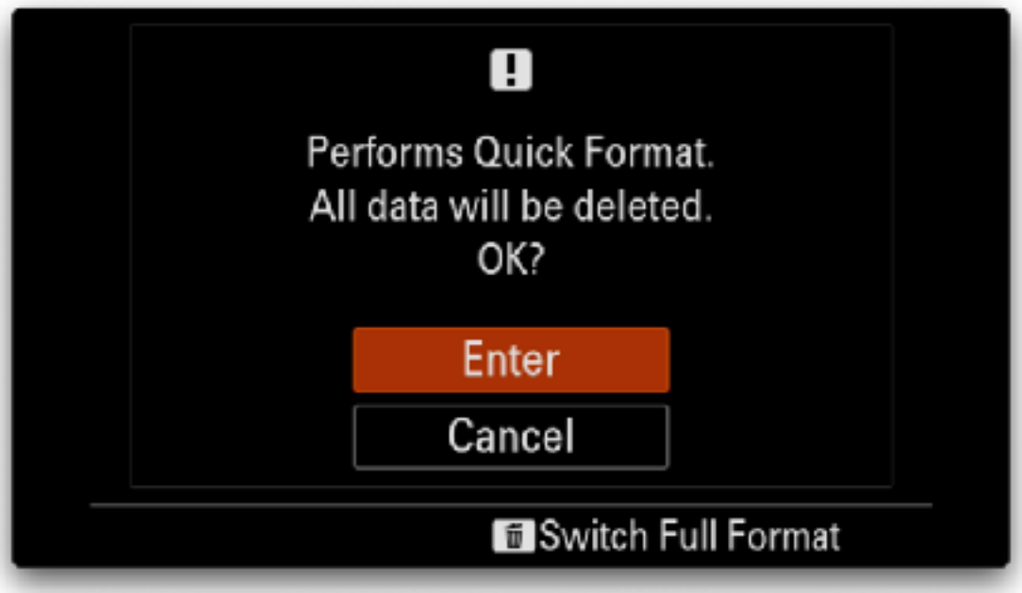


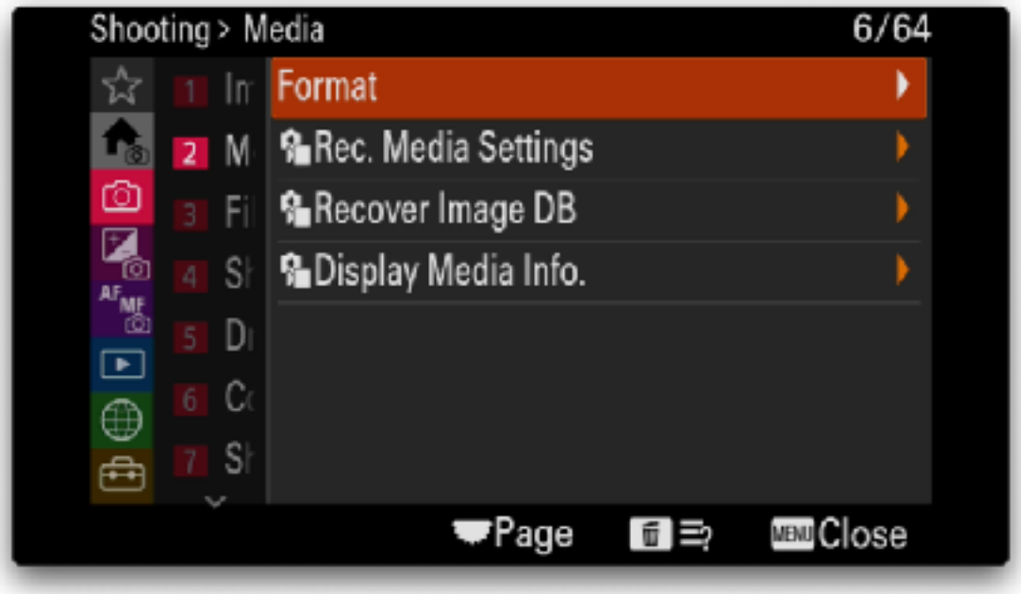
Shooting Menu - Media

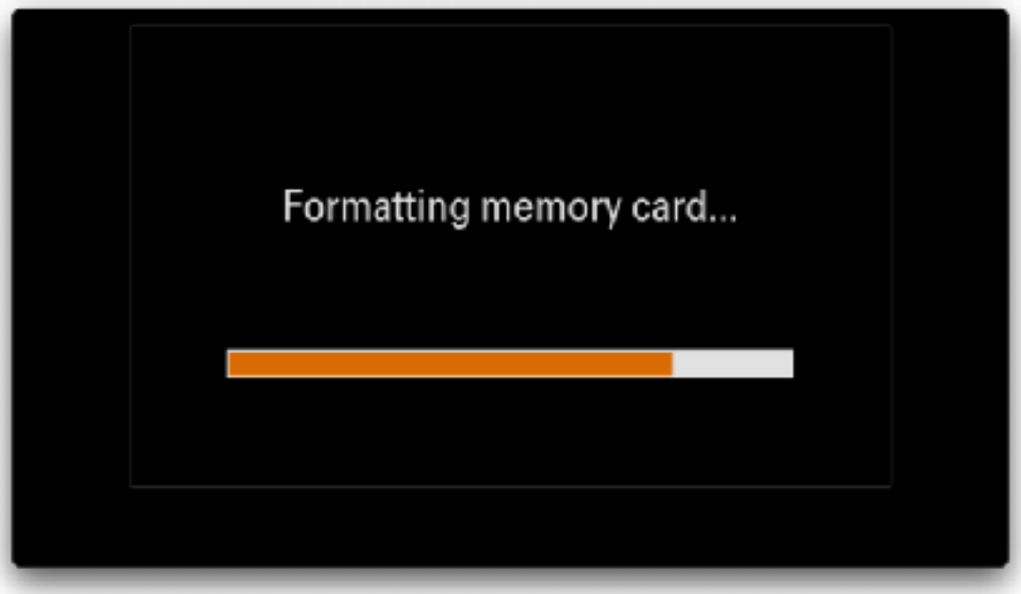
Media Format

- Use this to format memory cards





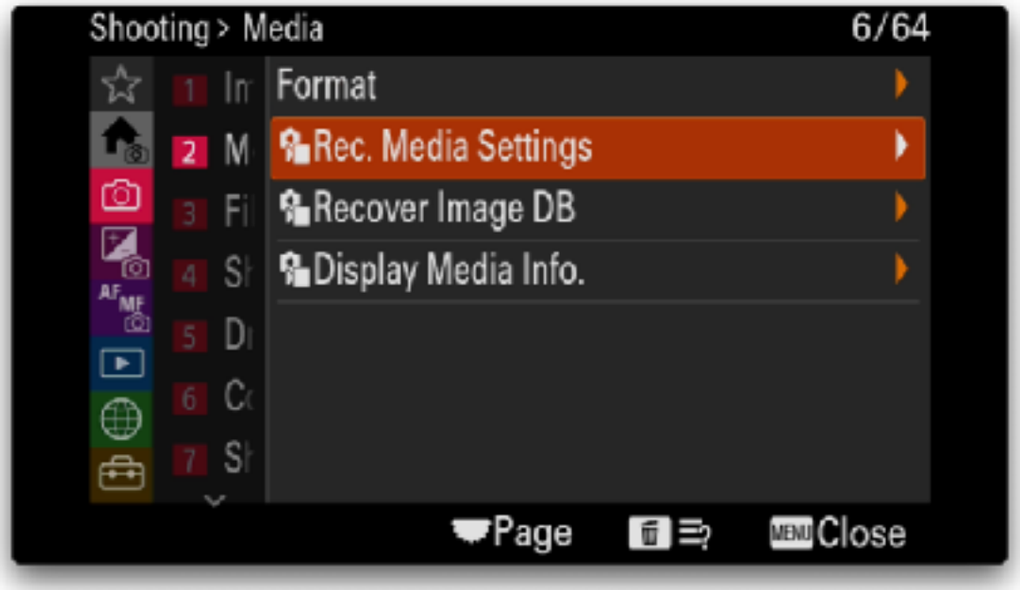




Shooting Menu - Media

Recording Media Settings

- Record Images to Slot1
- Record Video to Slot1 - note that I use 320GB CFE Type A cards so running out of recording space is generally not an issue
- Set Auto Switch to On so if Slot1 becomes full the camera will automatically start using Slot2



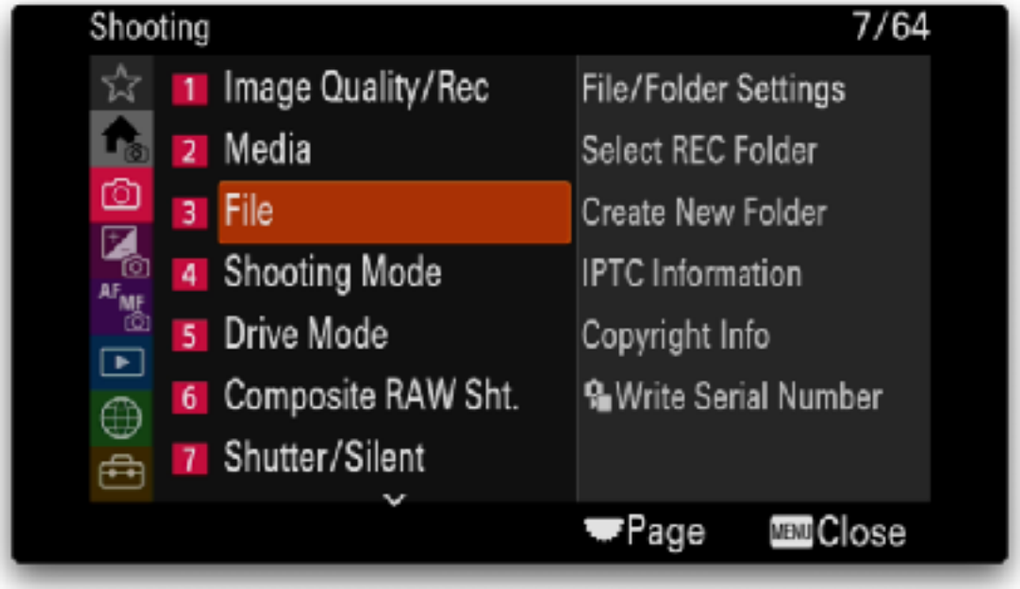
Shooting Menu - File

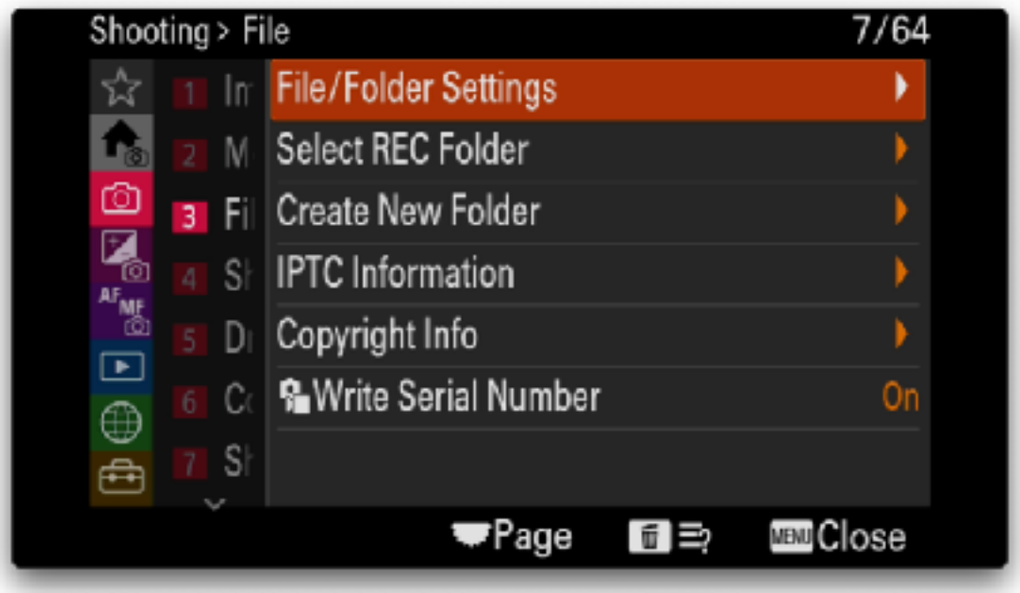
File/Folder Settings

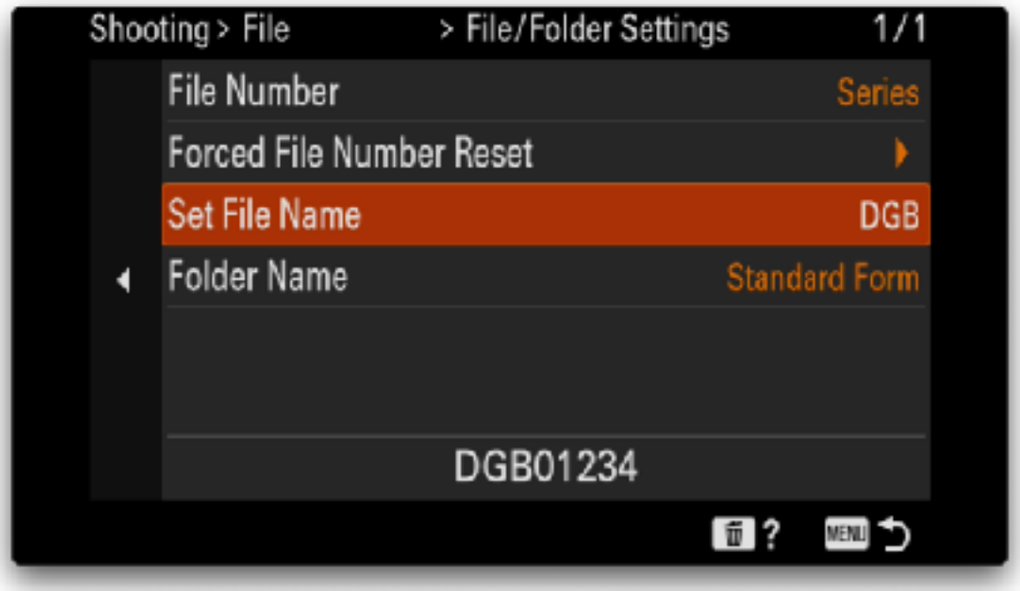
- I customise the folder and file names to make it easier to identify which camera the images originate from.
- Set the File Name prefix to DGB - where DG are my initials and B indicates the A9 III.

File name prefixes I use are as follows:

- DG1 - Sony Alpha 1
- DG9 - Sony Alpha 9
- DGB - Sony Alpha 9 III
- DG5 - Sony Alpha 7r V







Shooting Menu - File

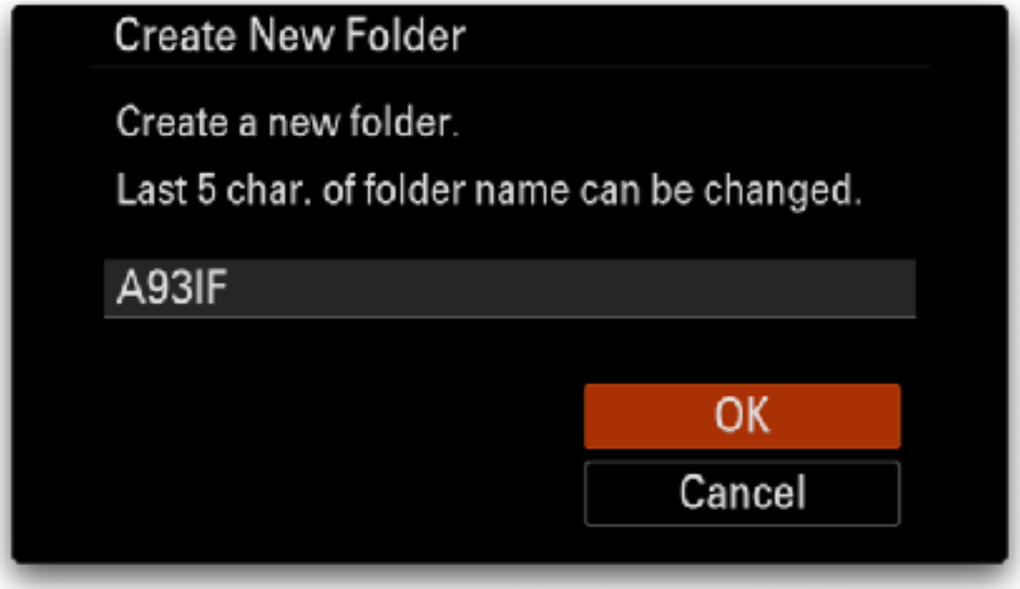
File/Folder Settings

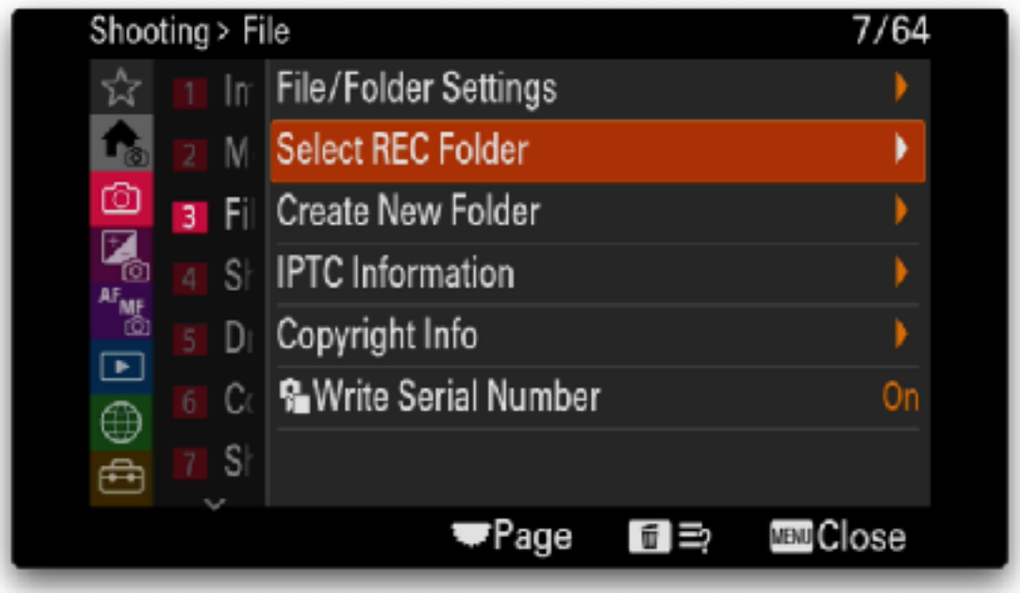
- In addition to changing the image file name prefix I customise the generated folder names suffix to make it easy to copy RAW files from the camera to computer without any risk of having the same folder names from two different cameras.

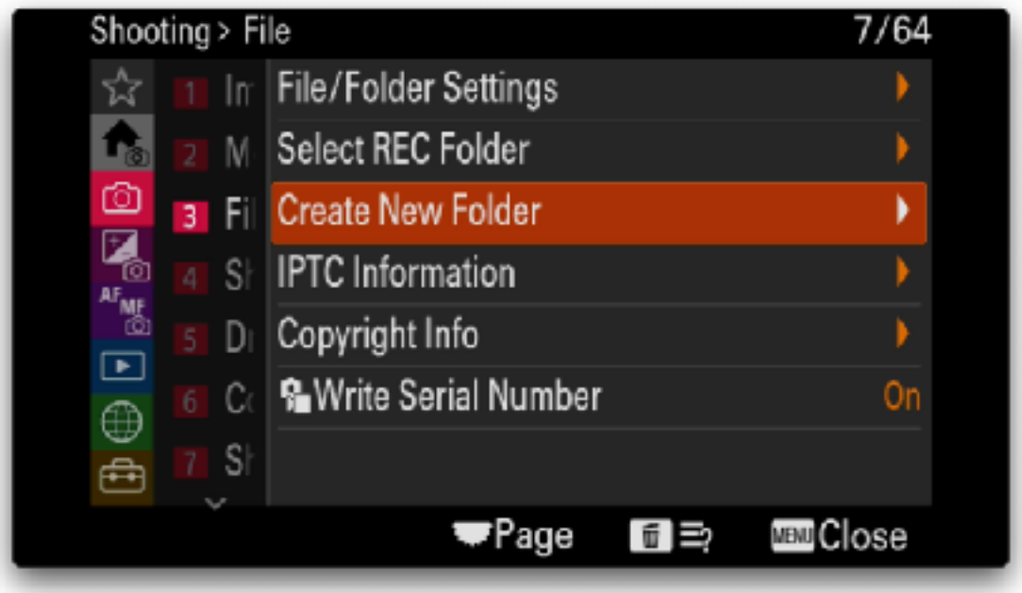
Folder naming I use is as follows:

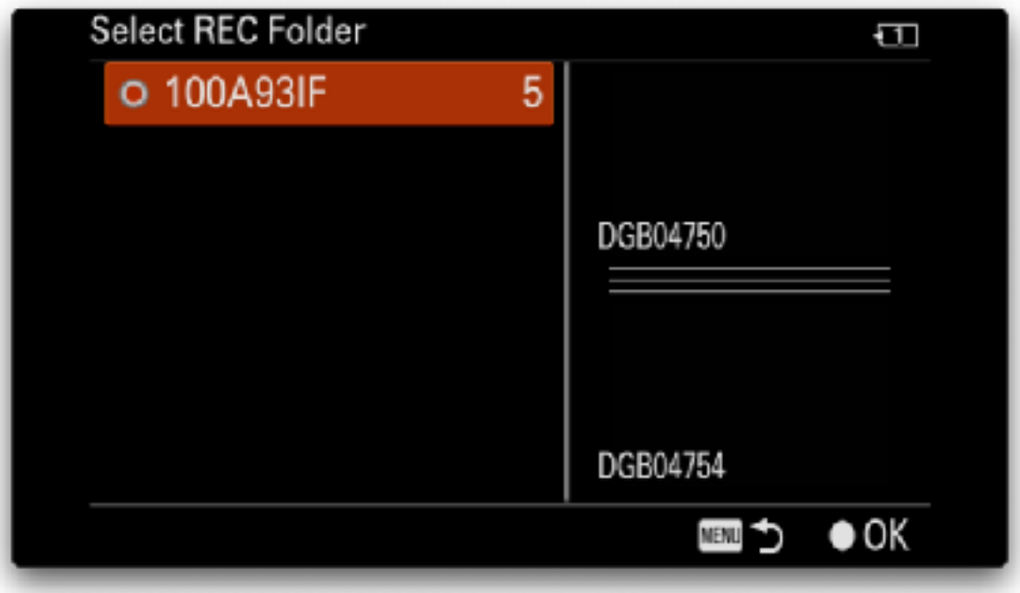
- A1_IF - Sony Alpha 1 images folder
- A93IF - Sony Alpha 9 III images folder

Check that Select REC Folder now shows your customised folder name suffix





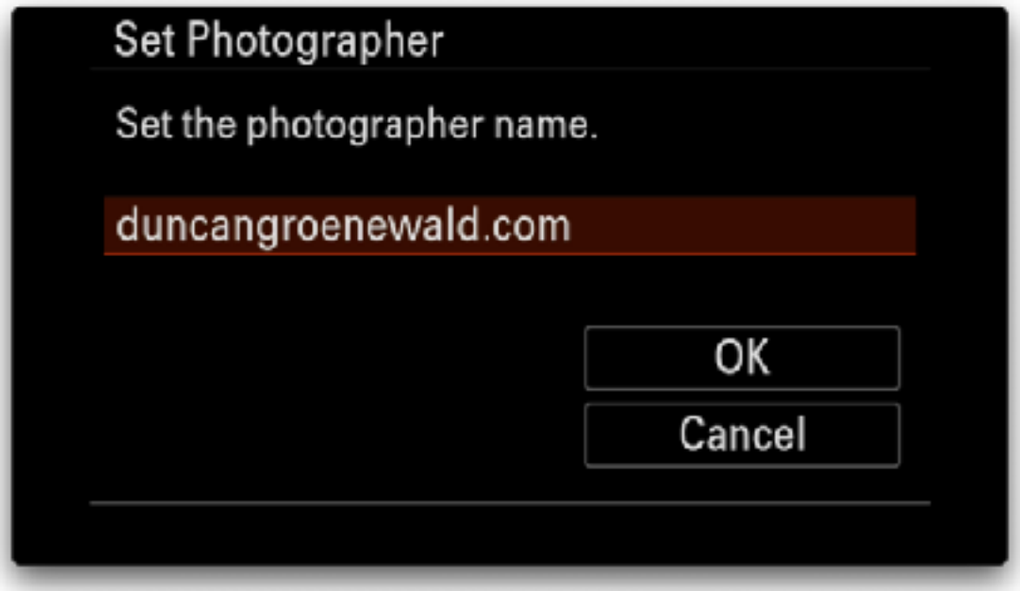


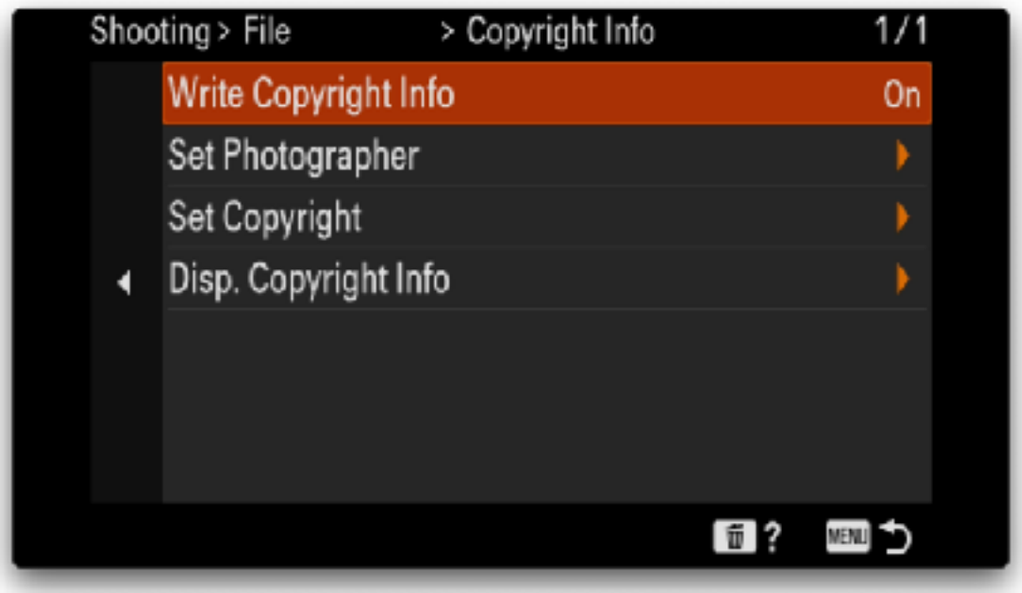


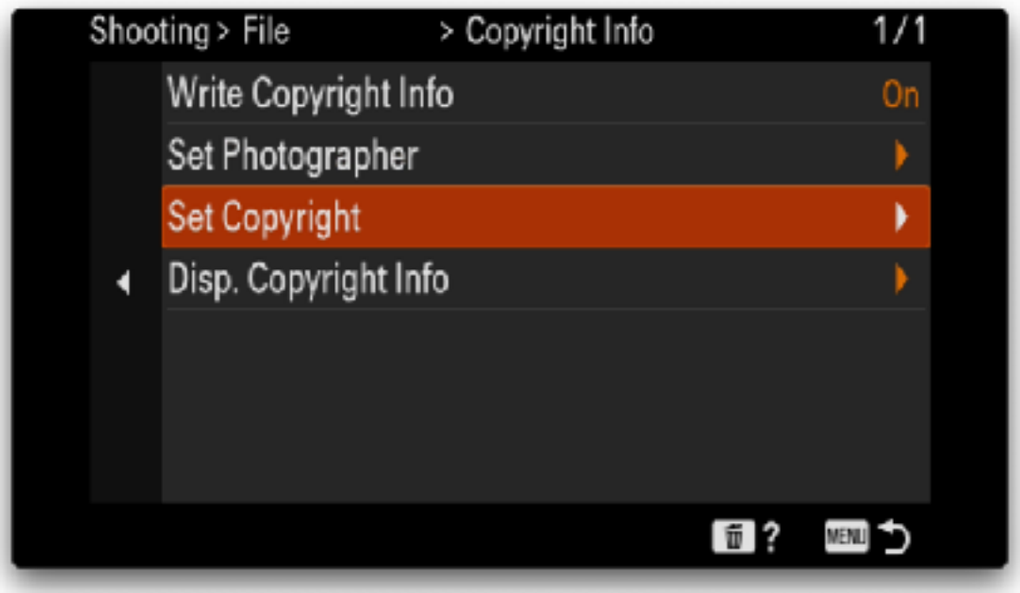
Shooting Menu - File

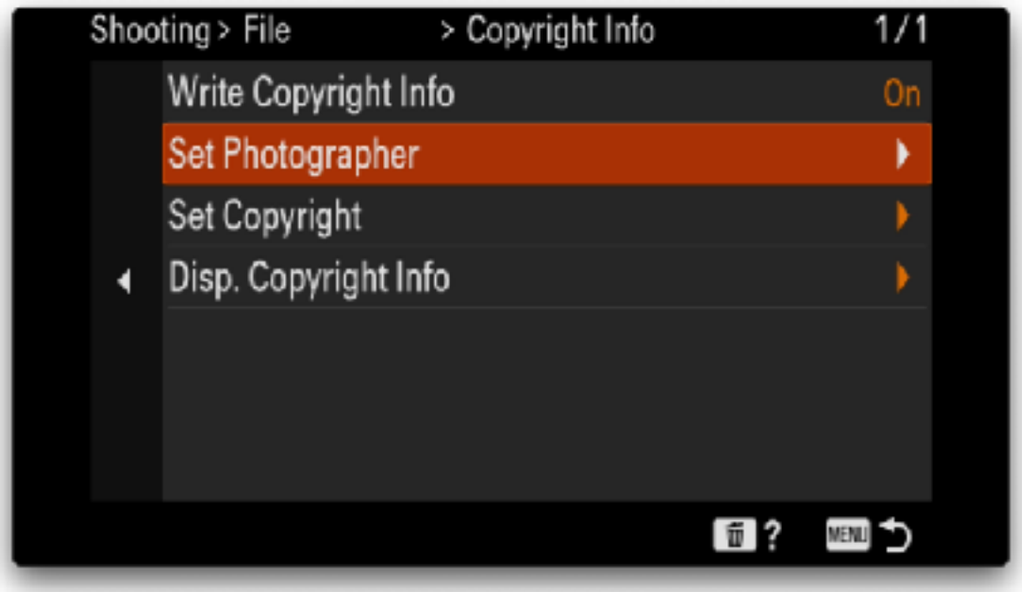
Copyright Info

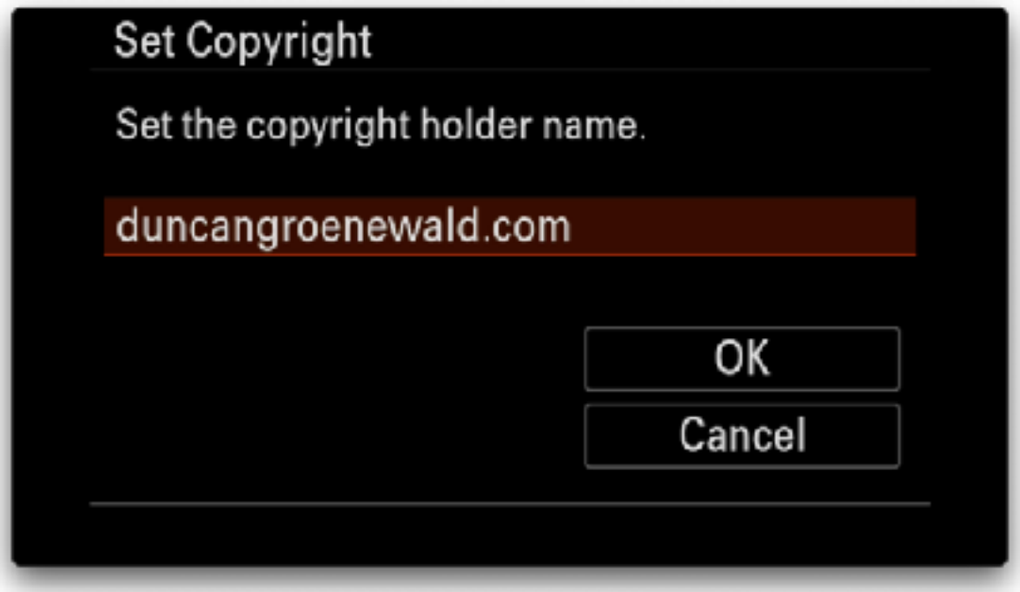
- If you wish to have your name or other copyright information recorded with the images set the photographer name and copyright information.







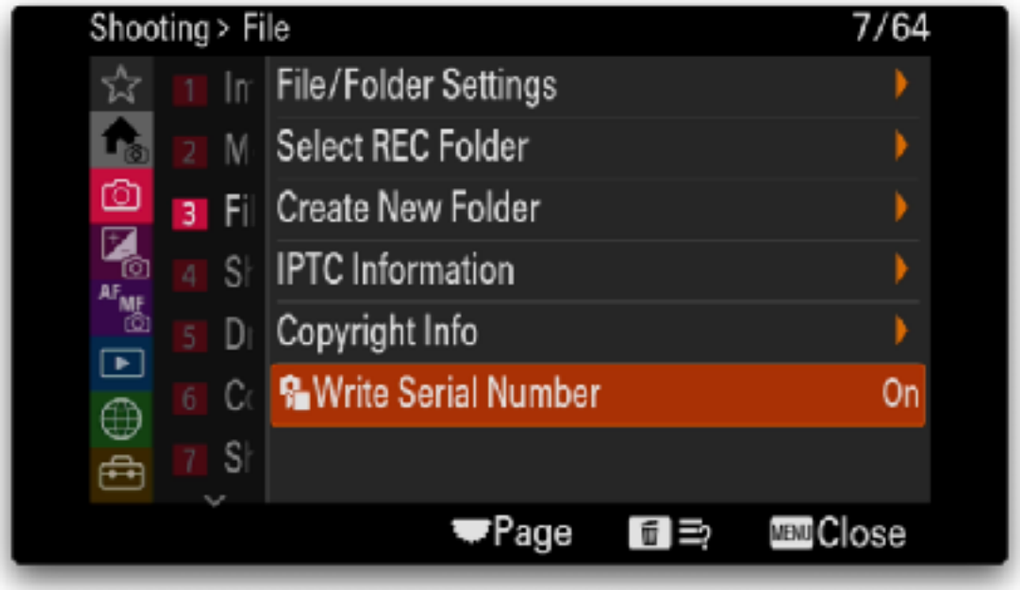




Shooting Menu - File

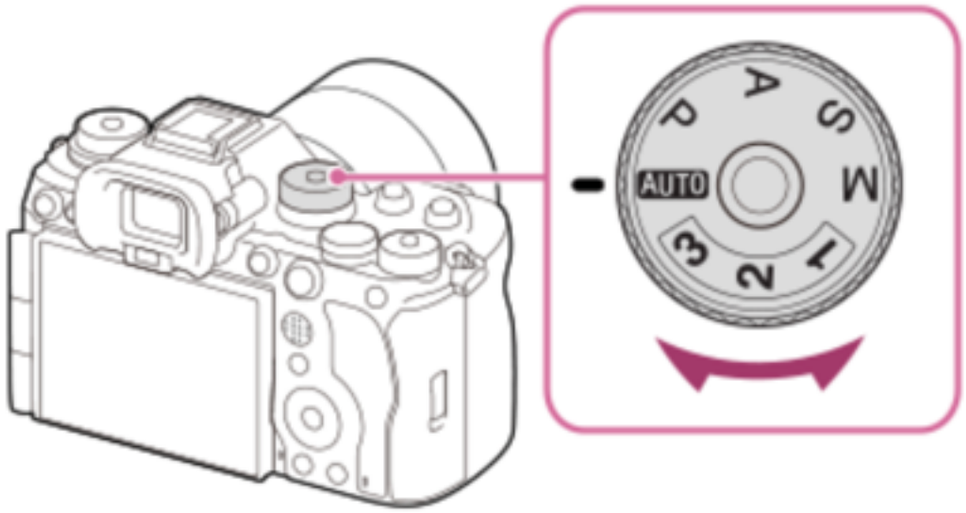
Write Serial Number

- To record the cameras serial number in the image files enabled this setting



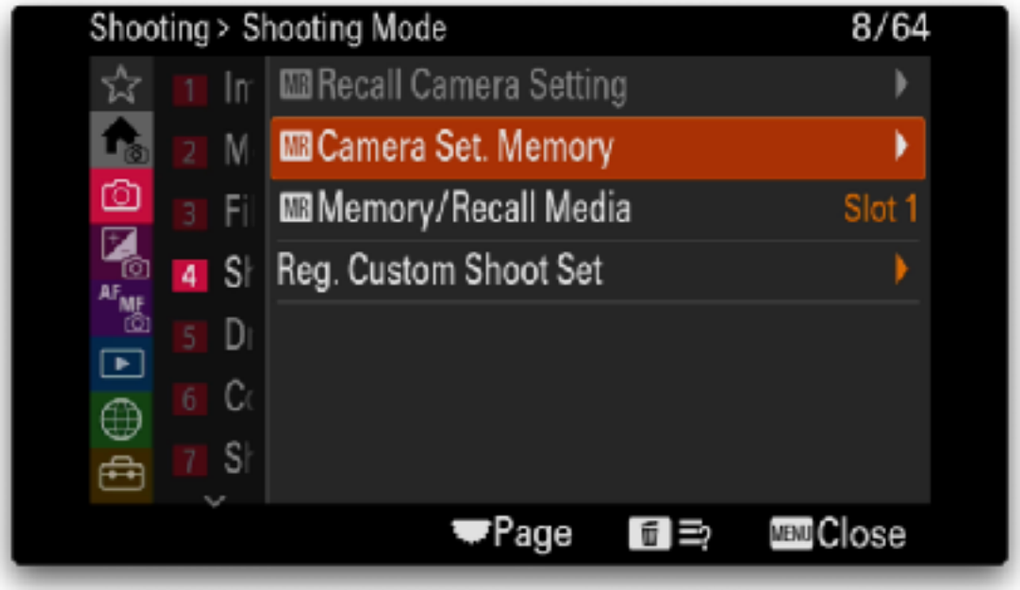
Shooting Mode Settings

- The A9 III allows you to save 3 sets of camera settings to memory for each shooting mode (stills, video, S&Q)
- These modes (1,2,3) are available via the top shooting mode dial



To save settings to one of the camera memory settings do the following:

- Set up the camera focus mode, shutter speed, aperture, iso, etc. to the setting you want to save
- Use the Camera Set. Memory option and select the memory setting number 1,2 or 3.

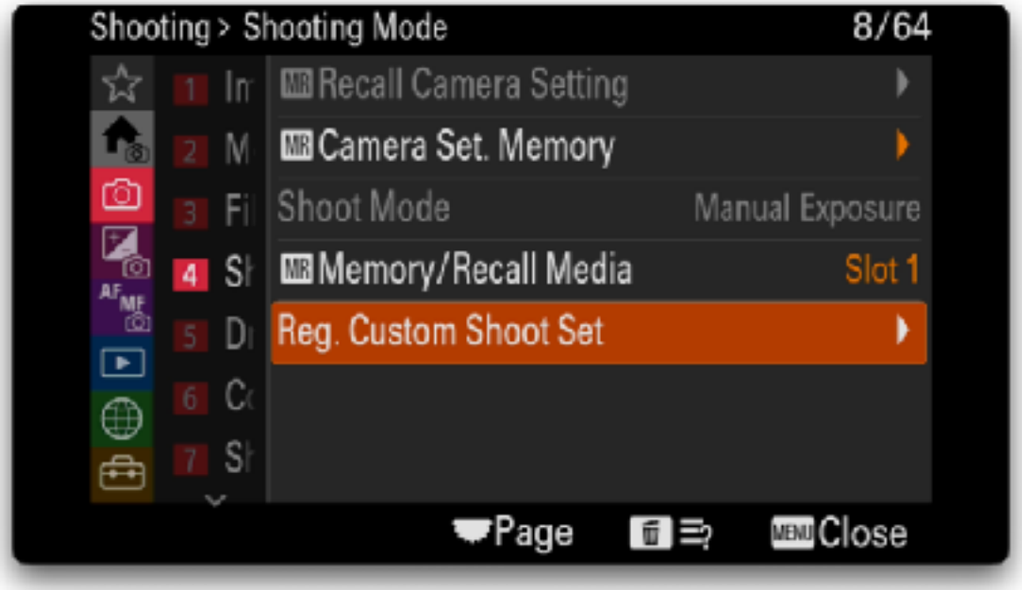


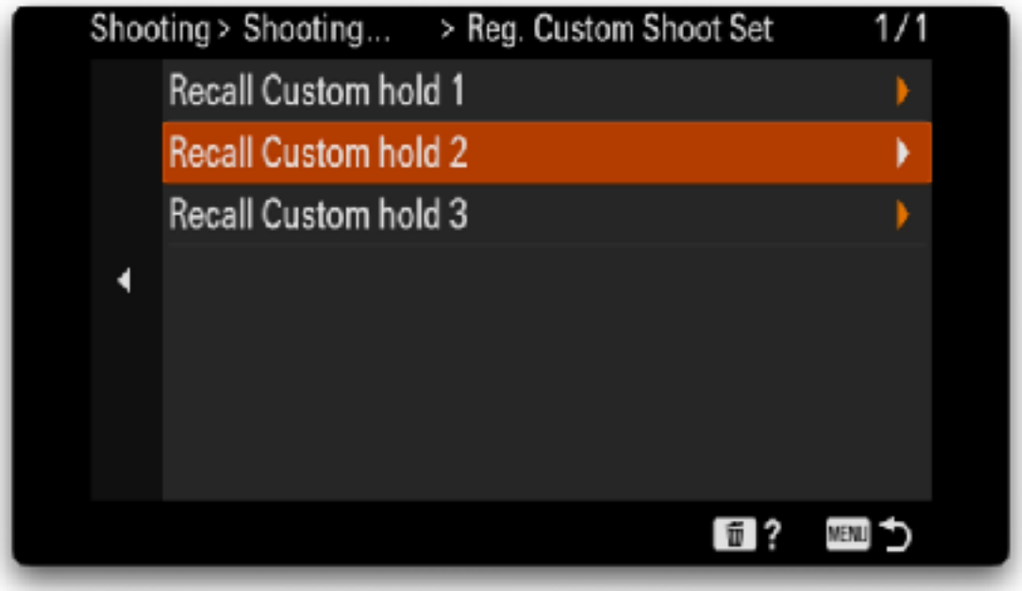
Shooting Mode Settings

- The A9 III also allows you to configure 3 custom shooting settings that can be used to override the current settings when assigned to a Recall Custom Hold button and when that button is depressed.

To save settings to each of the custom hold options do the following:

- Select Reg. Custom Shoot Set
- Select the Custom Hold 1,2 or 3
- Select the settings to be overridden by setting the checkbox
- Set the value of each selected setting that you want to override. I use the following set for taking low ISO stills:
  - Shutter Speed 1/640
  - ISO 400
  - Aperture 2.8

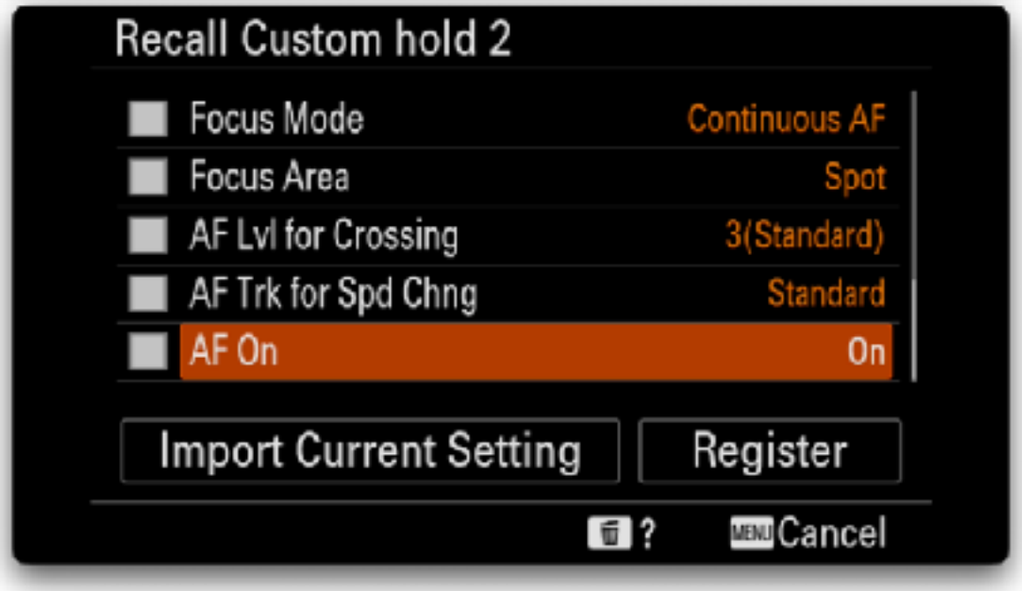




Shooting Mode Settings

Set the values for Aperture, ISO and Shutter Speed by selecting the setting label and pressing the centre button on the rear wheel.

Make sure all the other settings are disabled.

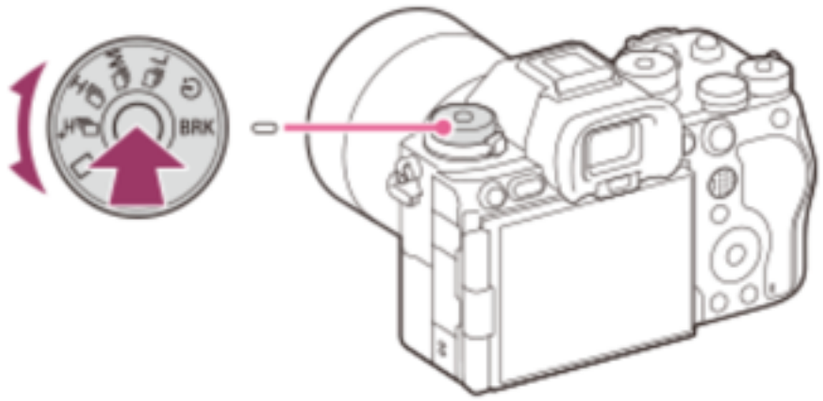


Shooting Menu - Drive Mode

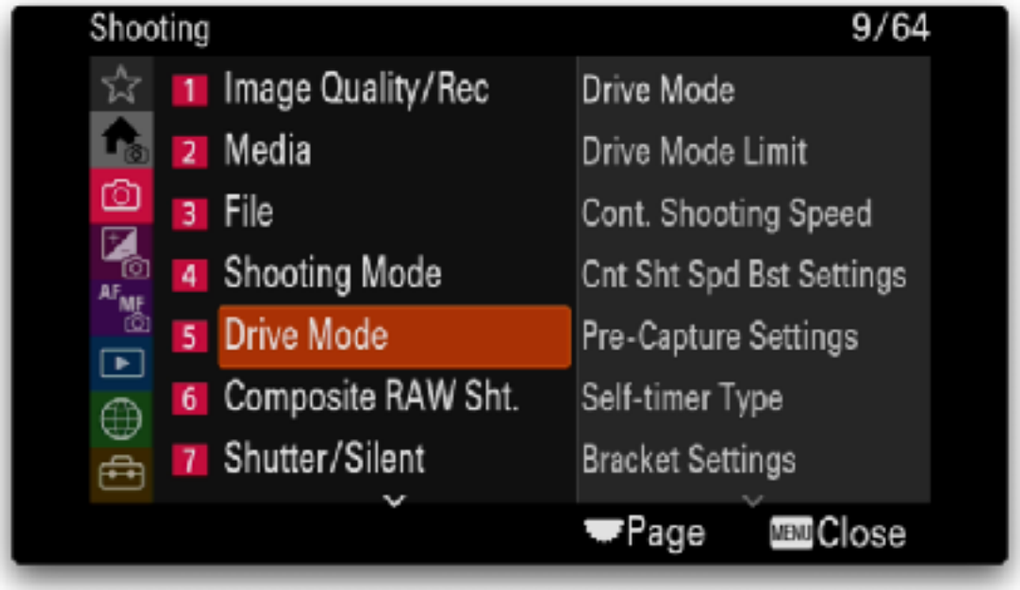
Drive Mode

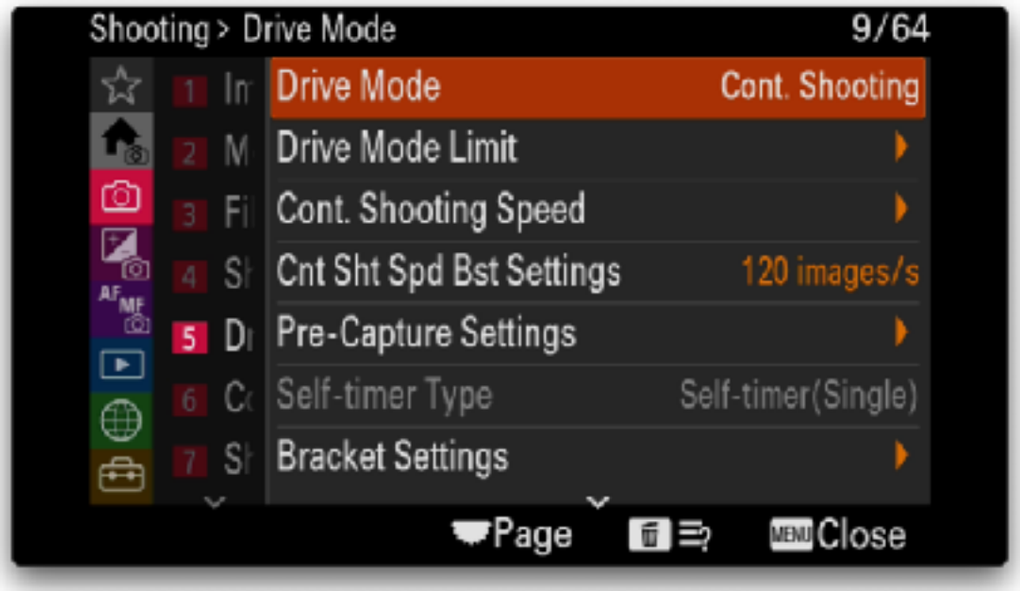
- New to the A9 III is the option to disable the drive mode dial and use the menu to select the drive mode or via and assigned toggle button to avoid having to use the top left dial.

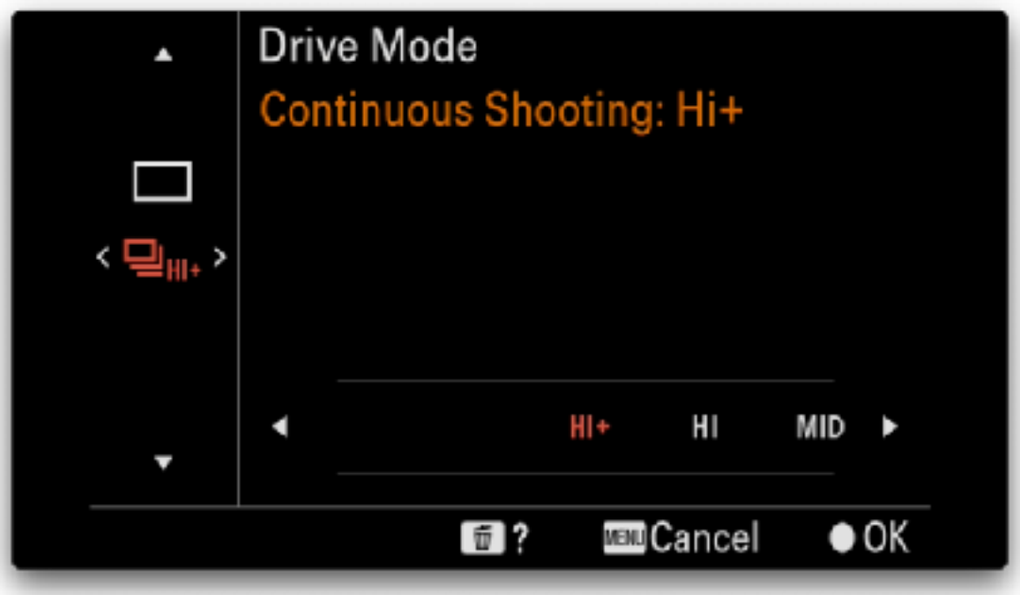
- Set the camera shooting mode dial to *



- Set the drive mode to Continuous Shooting: H+







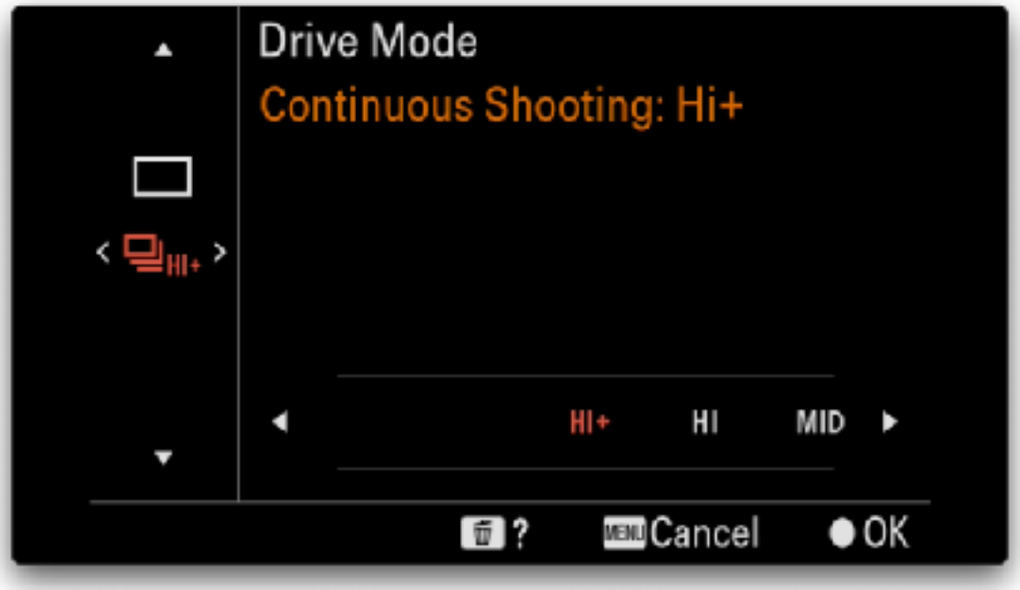
Continuous Shooting Speed

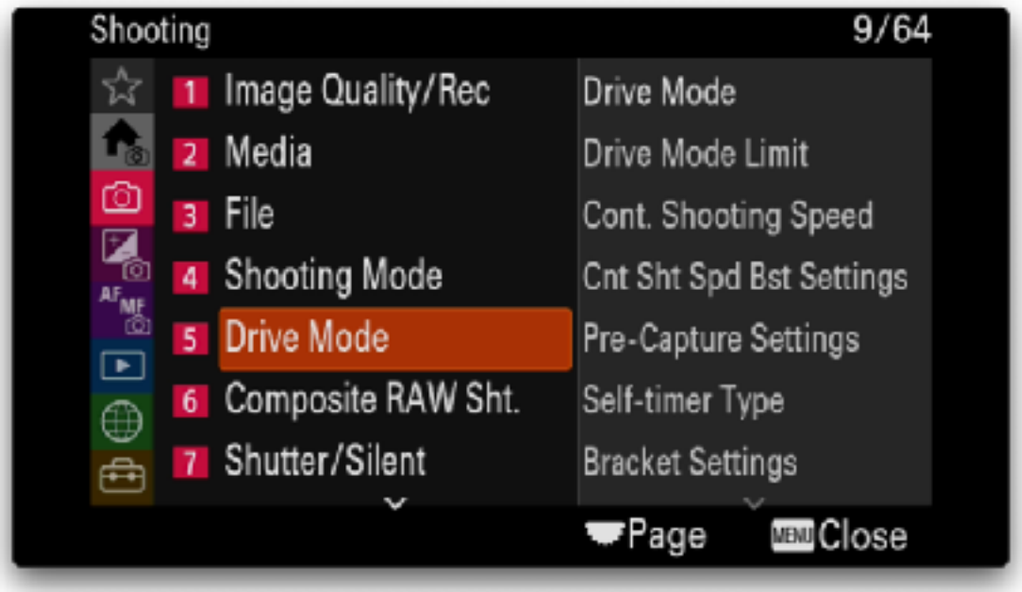
- Set the FPS for the dial settings - leave as default

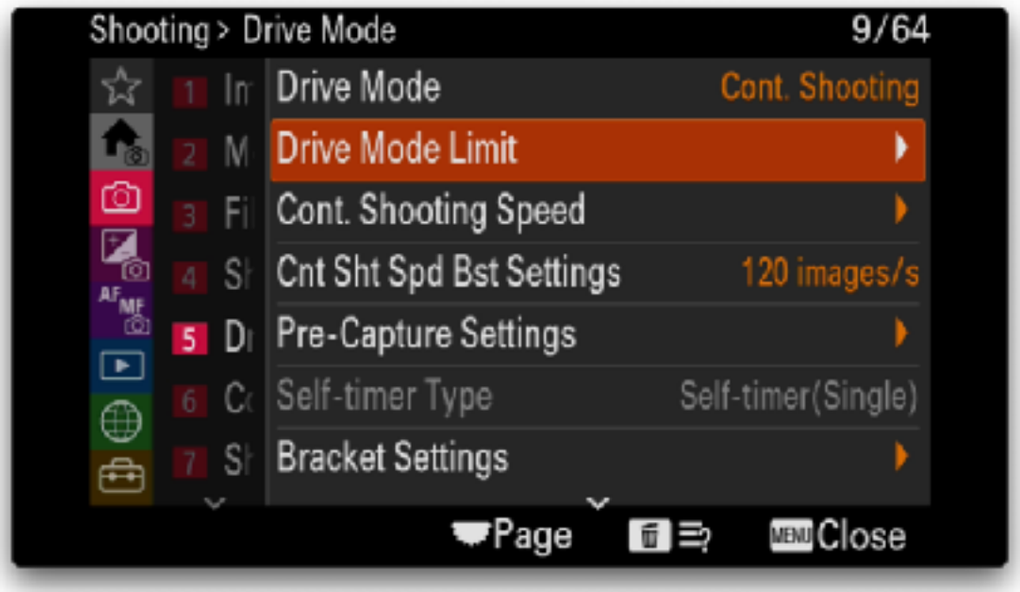
Shooting Menu - Drive Mode

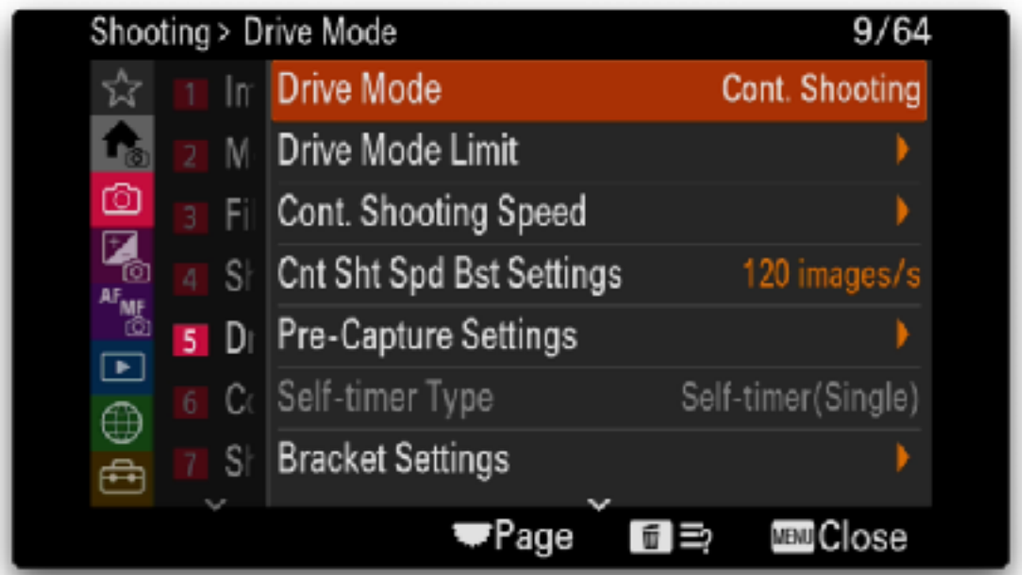
Drive Mode Limit

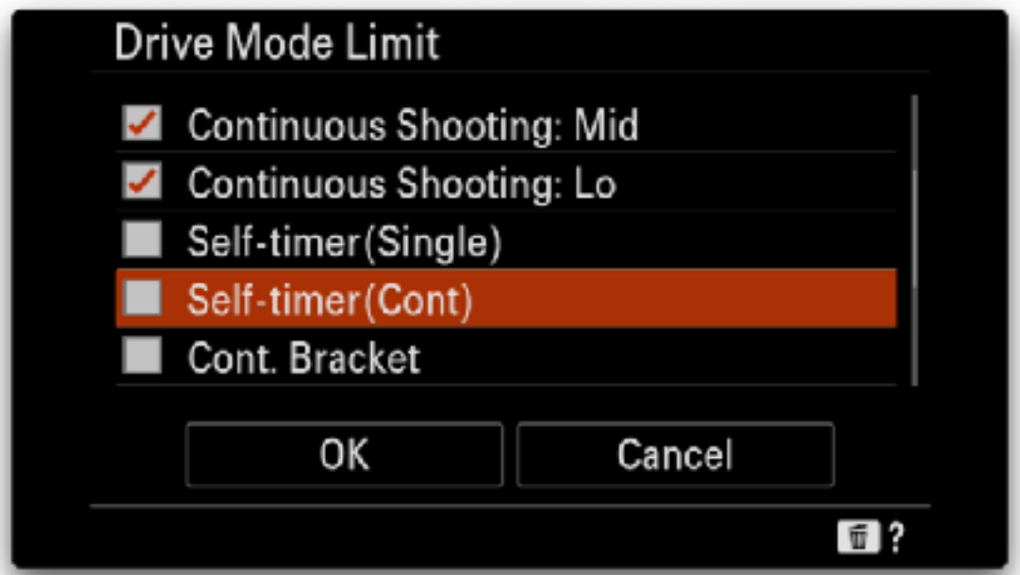
- Drive Mode will be assigned to a toggle button to avoid needing to use the dial to switch between H+, H
- Limit the toggle to the single and continuous modes only.







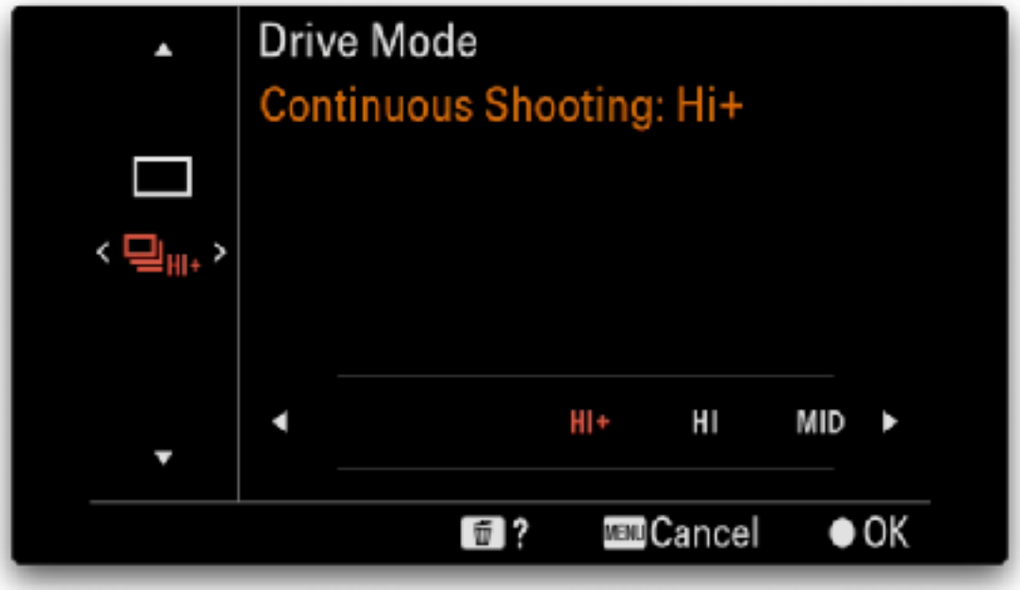


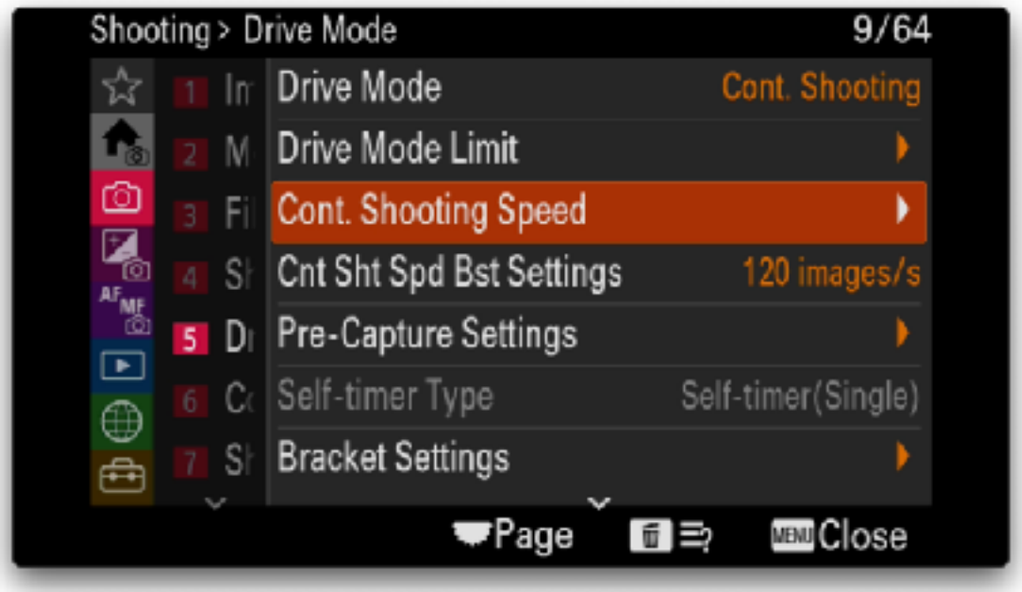


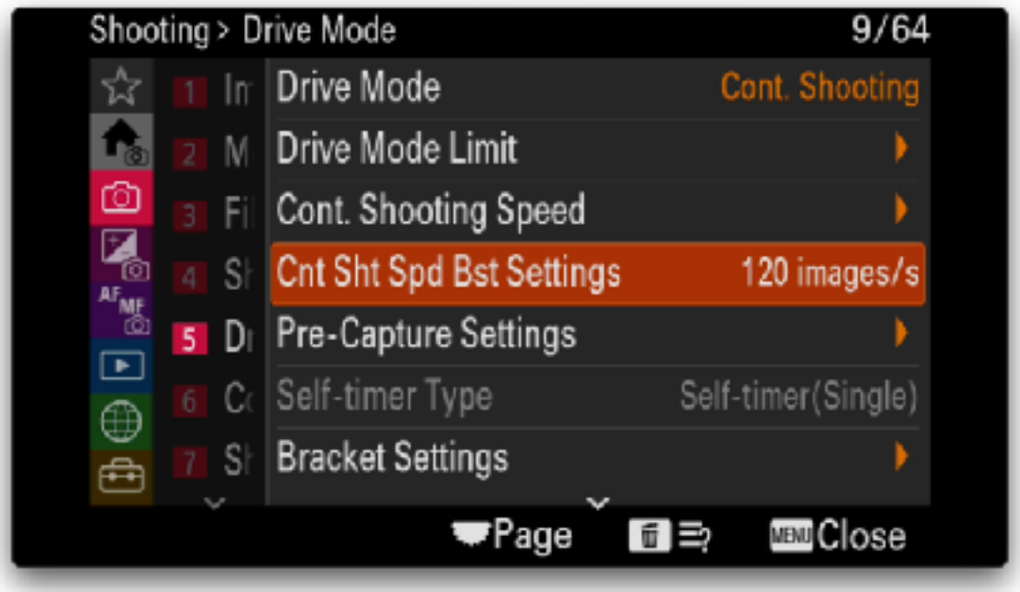
Shooting Menu - Drive Mode

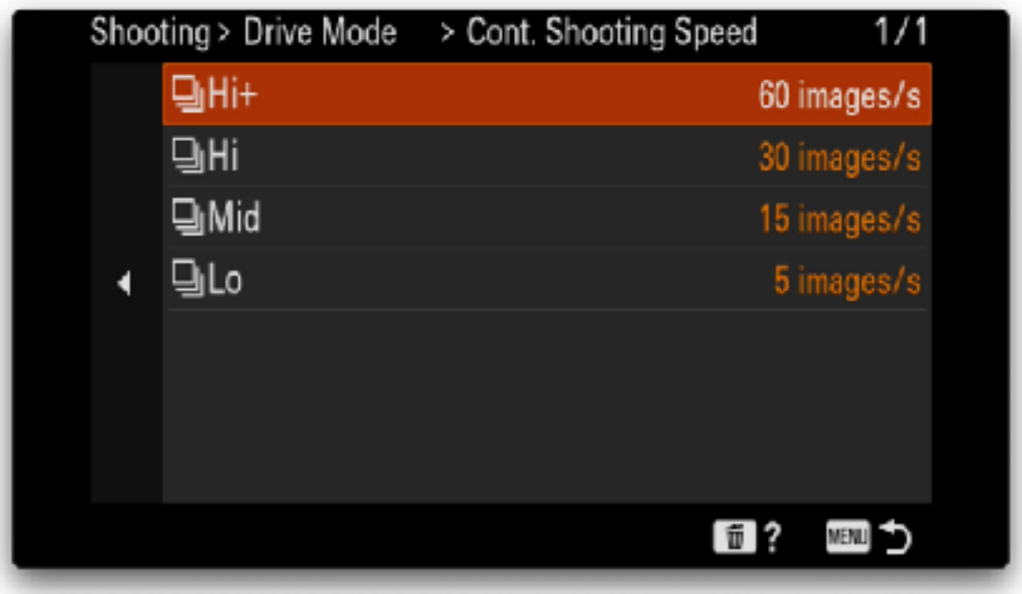
Continuous Shooting Speed

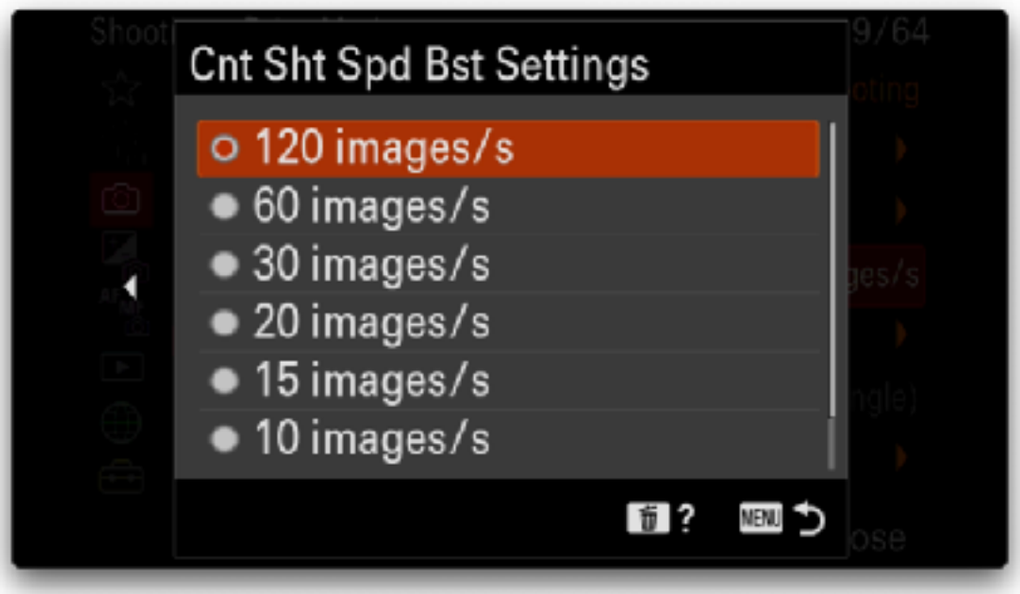
- To have access to all the shooting speeds we set the default H+ shooting speed to 60 fps andaccess 120 fps via a toggle button with Speed Boost speed to 120fps.









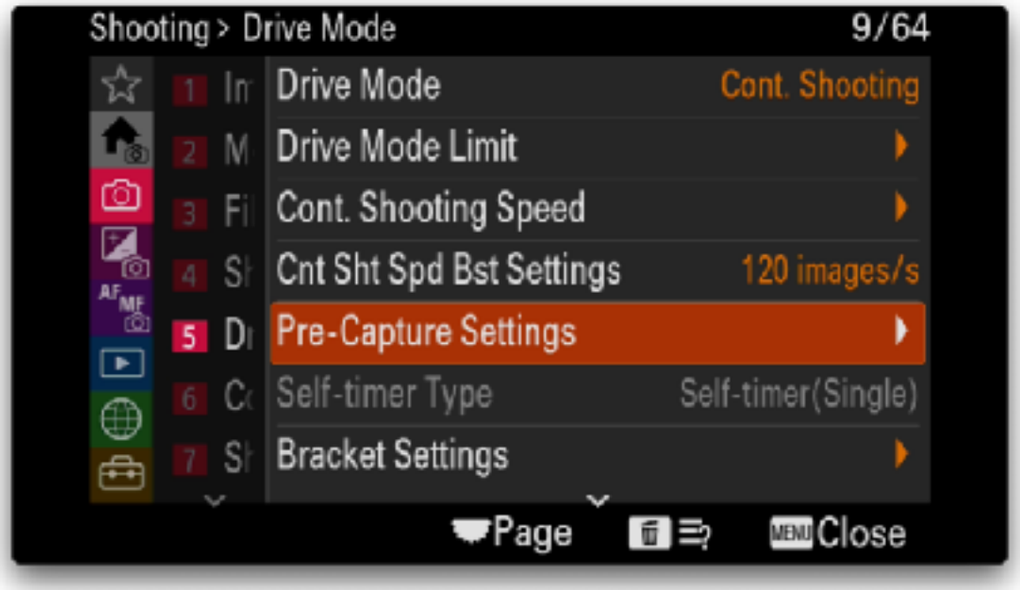


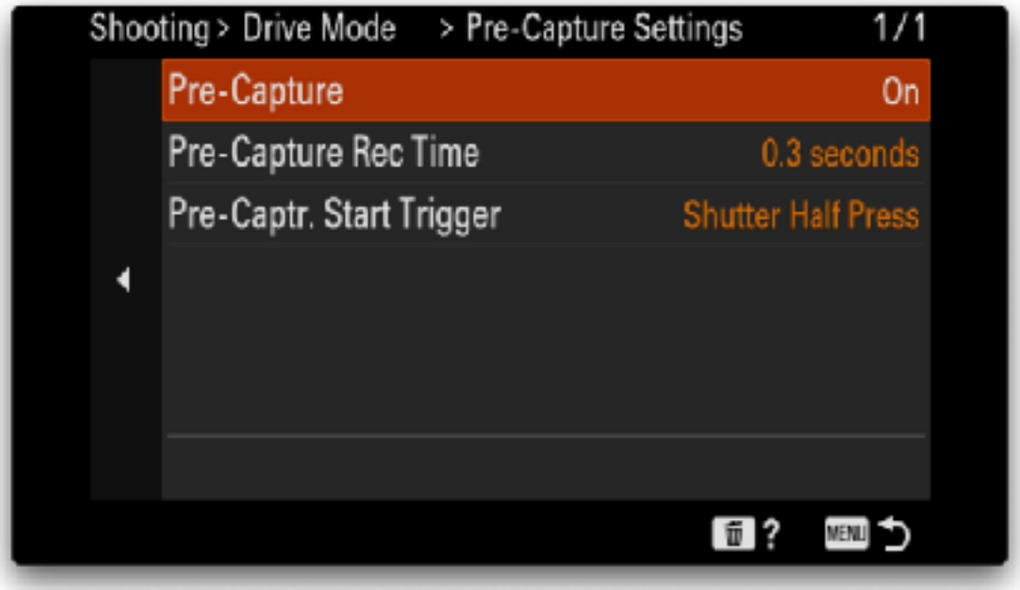
Shooting Menu - Drive Mode

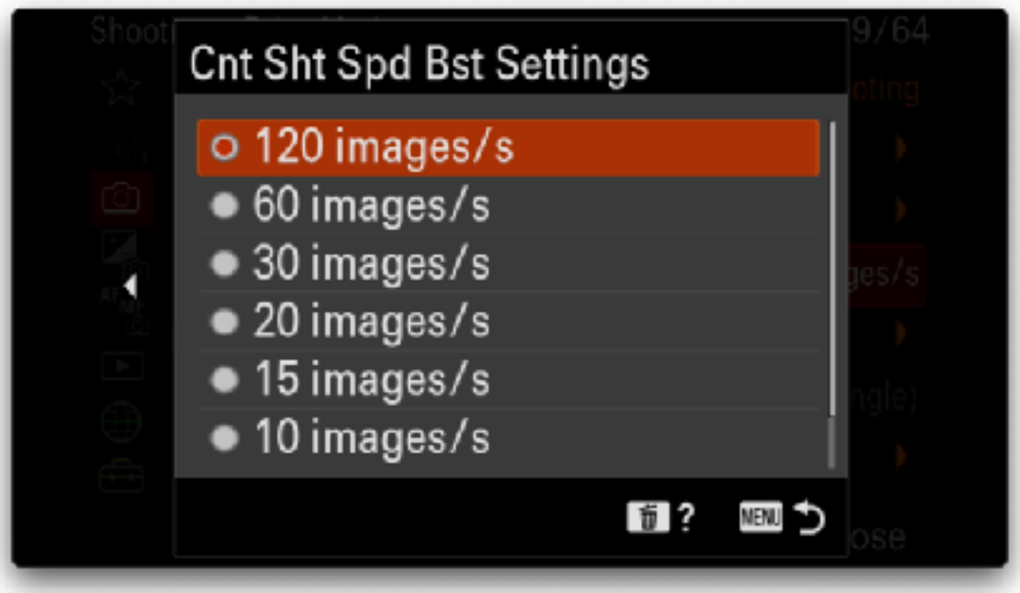
Pre-Capture Settings

- Set the pre-capture recording time to 0.3 seconds. The average human reaction time is 0.25 seconds so 0.3 seconds will usually be enough to ensure you capture images from the start of the action.
- Set the pre-capture start trigger to Shutter Half Press
- Bear in mind that the buffer will accomodate about 1.6 seconds of compressed RAW files when shooting at 120fps and the longer the pre-capture time the less time is available for capturing action after the shutter button is pressed.
- Reduce the capture frame rate for capturing extended periods of action if necessary

Frame Rate	Number of Seconds
120	1.6 s
60	4 s
30	14 s
15	30+ s



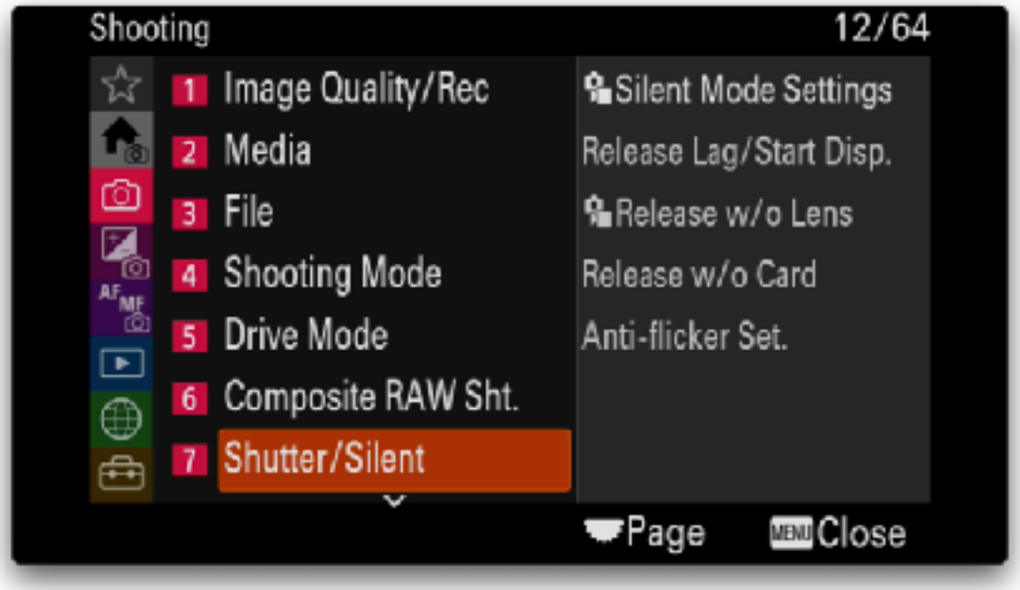


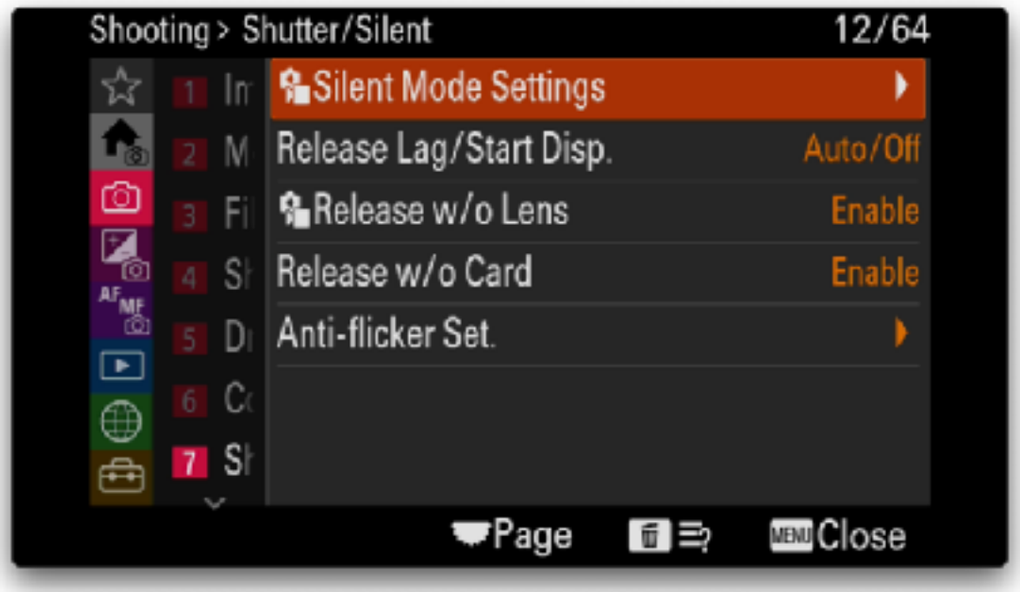


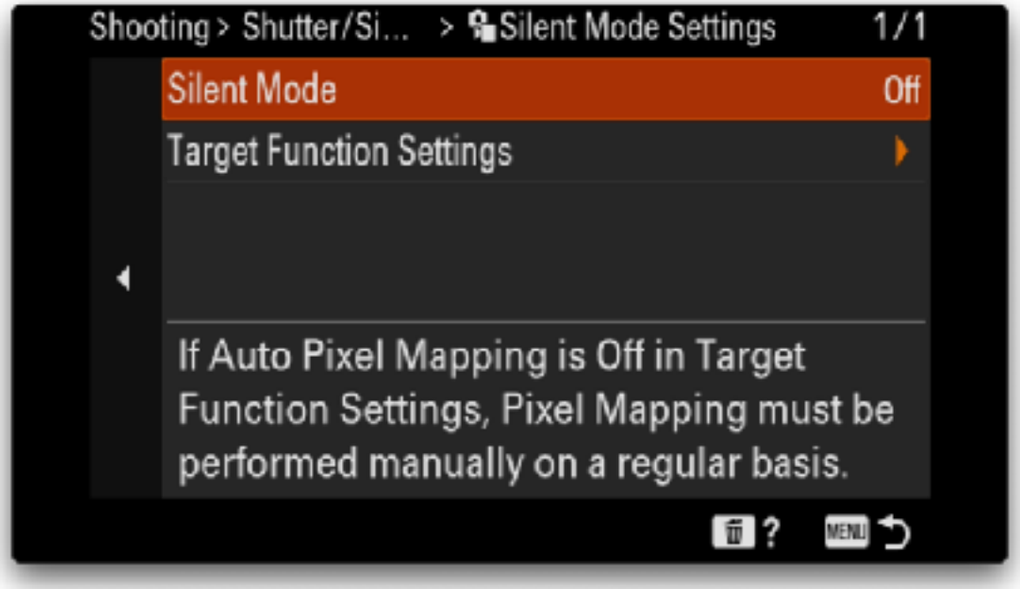
Shooting Menu - Image Quality

Shutter/Silent Settings

- The A9 III has no mechanical shutter so these settings can be ignored. Leave them as default values.



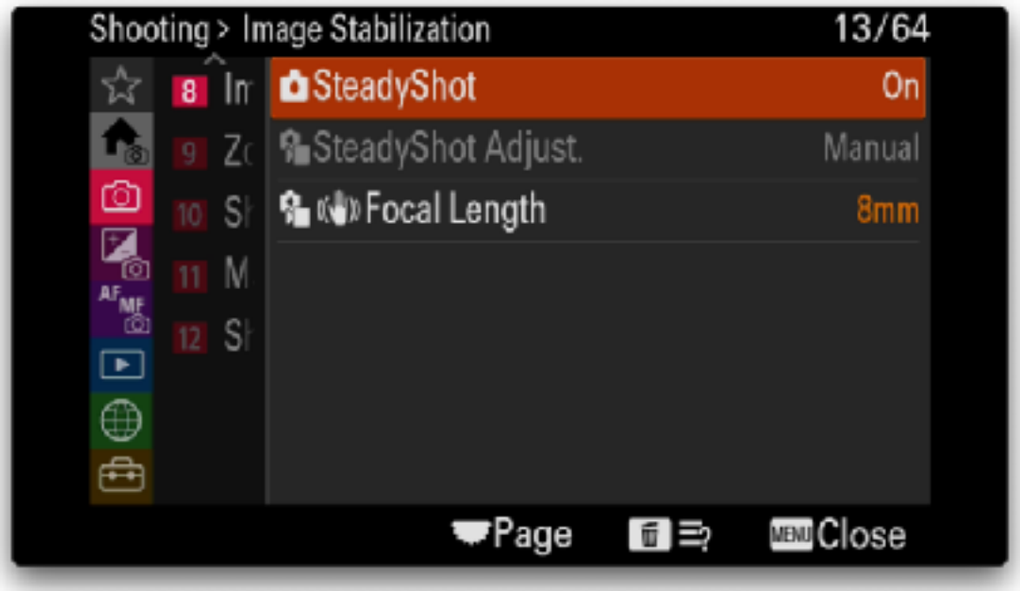


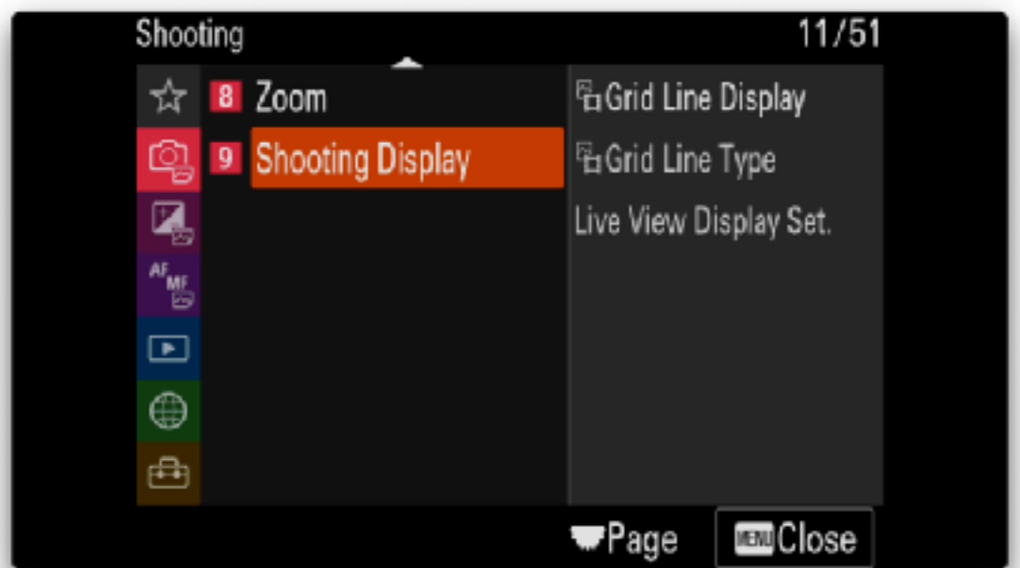


Shooting Menu - Image Quality

Image Stabilisation Settings

- SteadyShot on.
- Leave other settings as default.





Exposure/ Color

Key Settings

Metering Mode: Spot, Focus Link

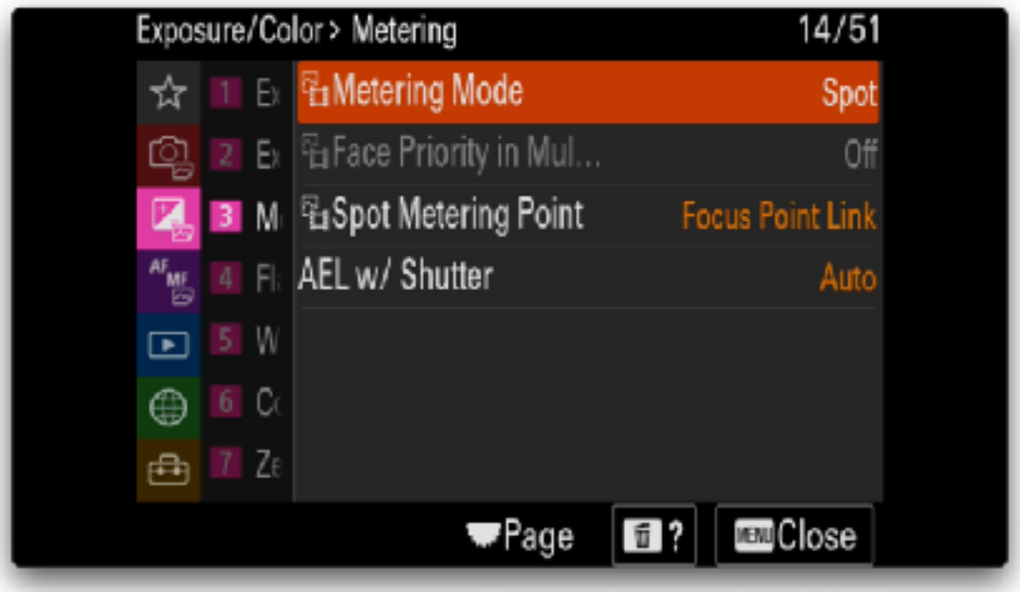
Zebra Display: On

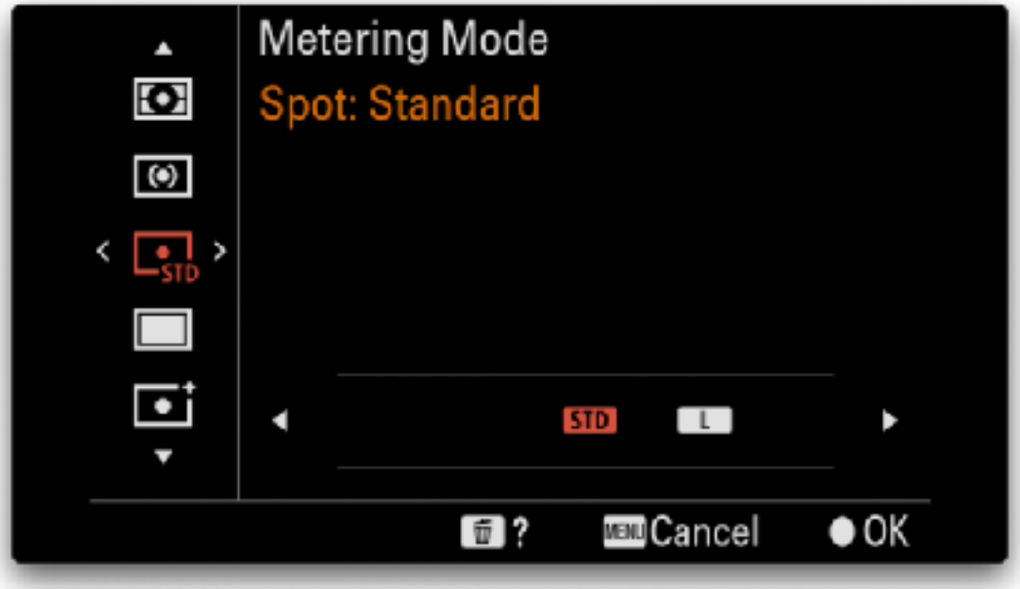
Zebra Level: Custom 100+ or Custom Std+Range 56+-3

Exposure/Color Menu - Metering

Metering Mode

- **Spot Metering** - adjust the ISO using spot metering measurement. For birds and animals ideally we want the focus point to be correctly exposed and not have the exposure affected by the background that may be darker or lighter than the subject. See Spot Metering Point below.

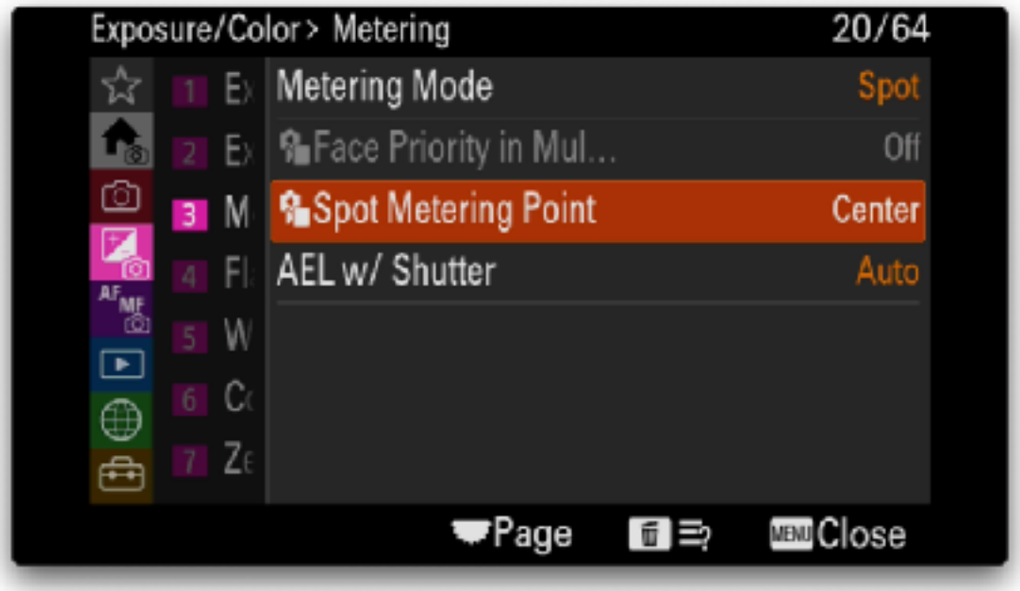


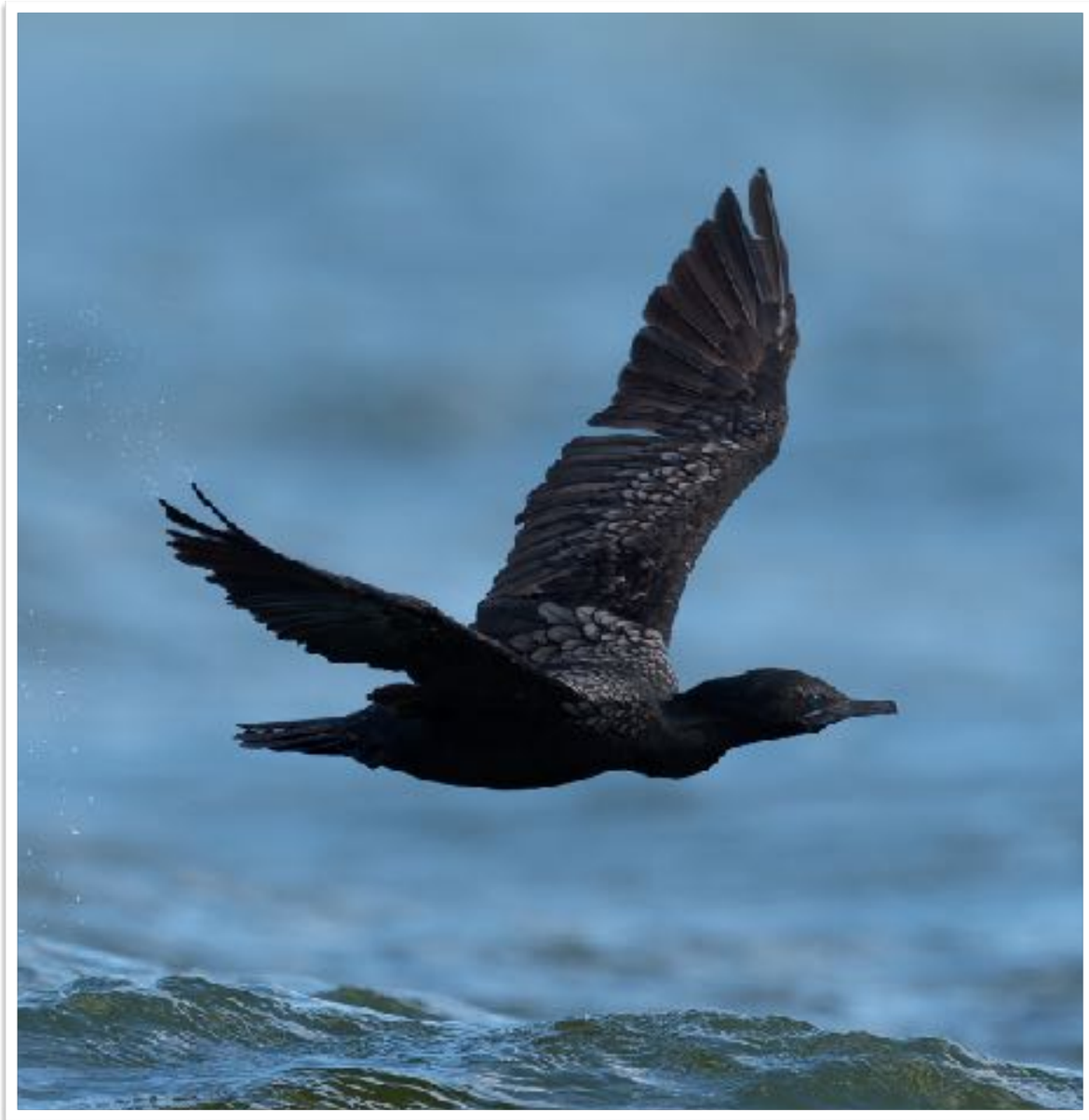


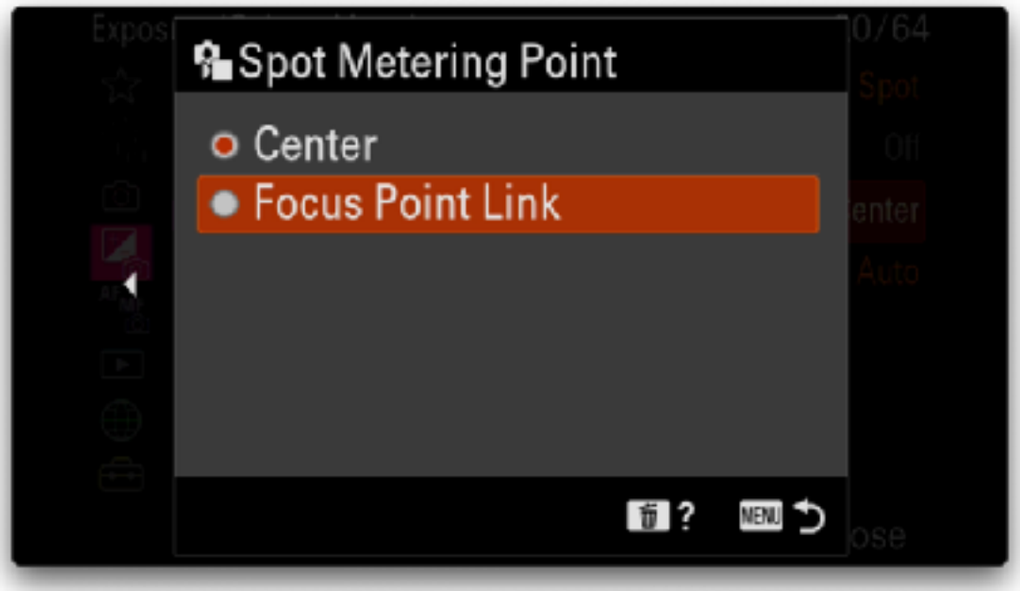
Exposure/Color Menu - Metering

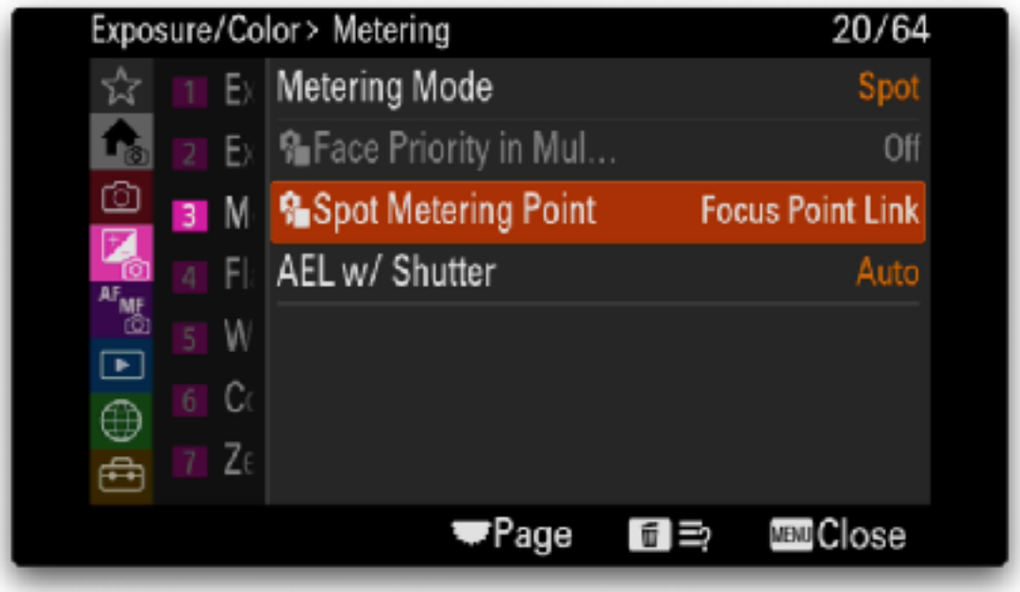
Spot Metering Point

- **Focus Point Link** - use the focus point as the point for spot metering. Here we link the spot metering point to the focus point. See Metering Mode above.





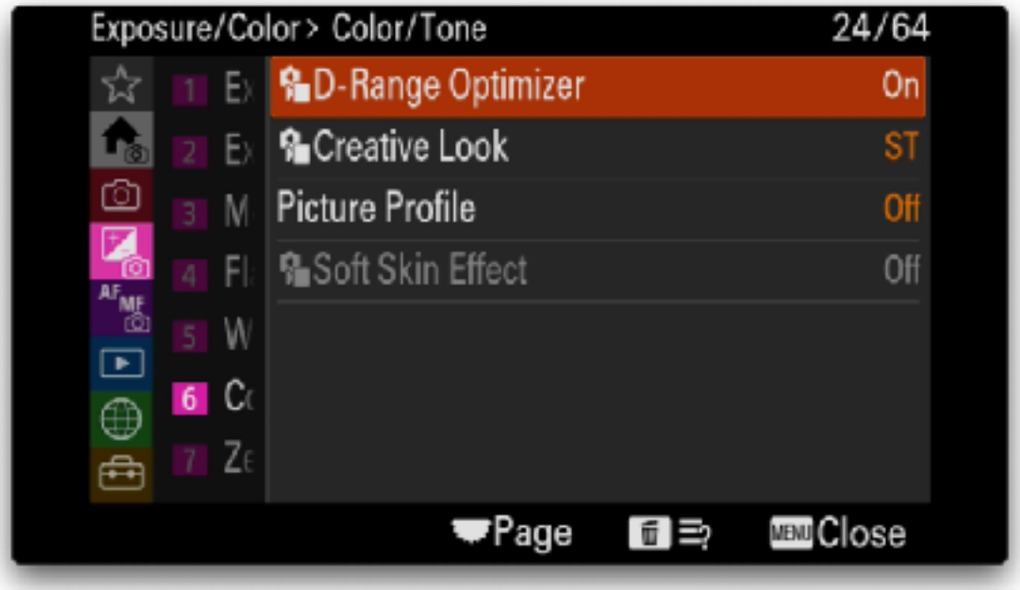


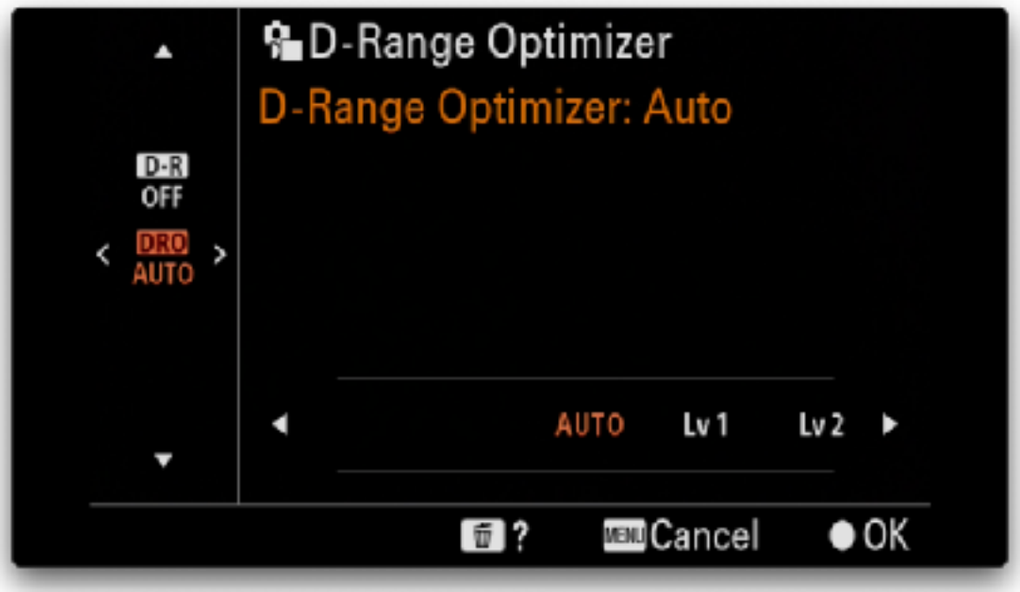


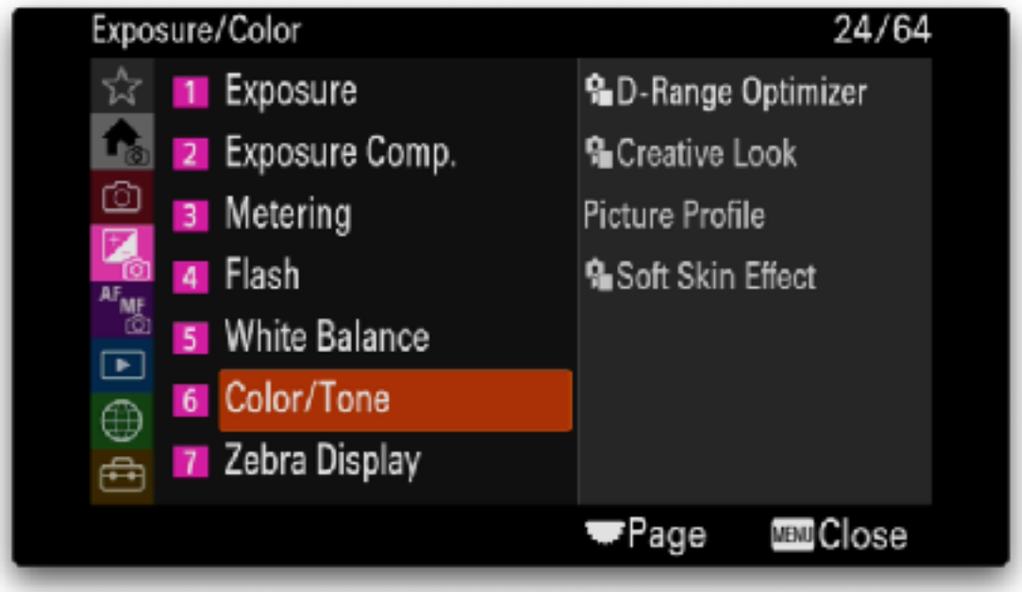
Exposure/Color Menu - Other

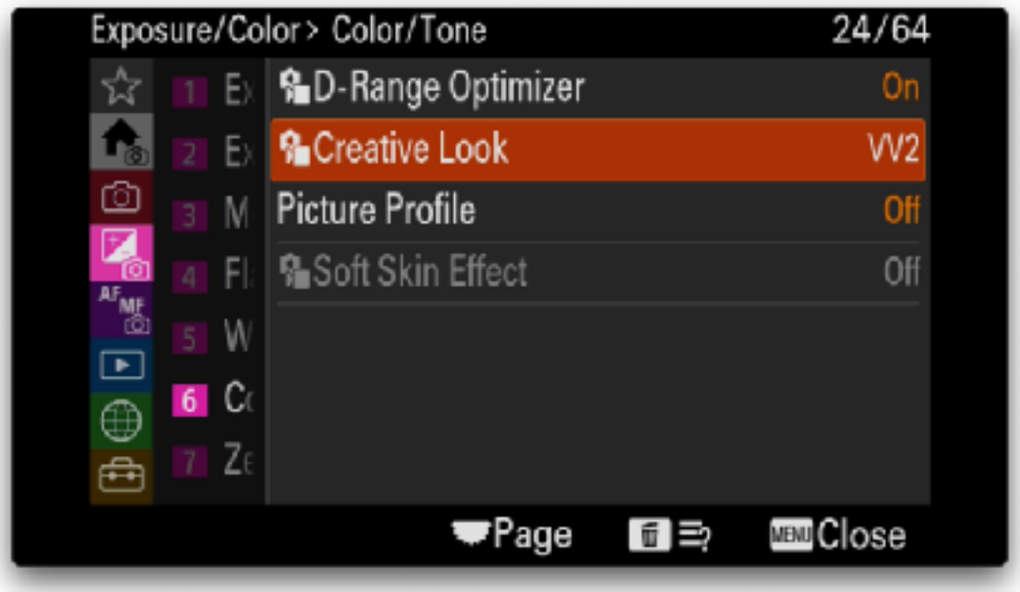
Color/Tone

- **D-Range Optimiser** - set this to Auto
- **Creative Look** - set this to VV2





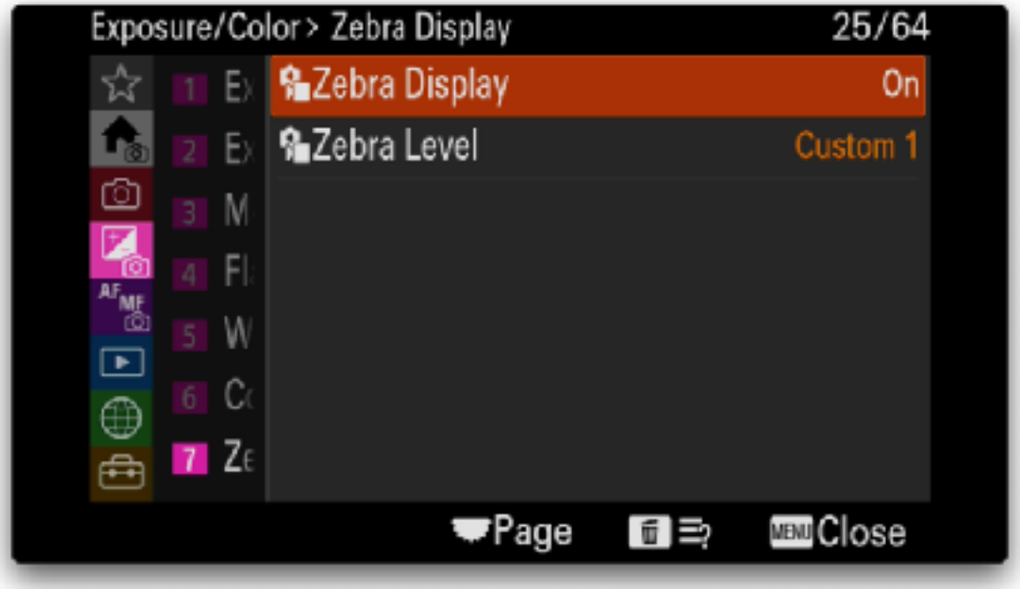


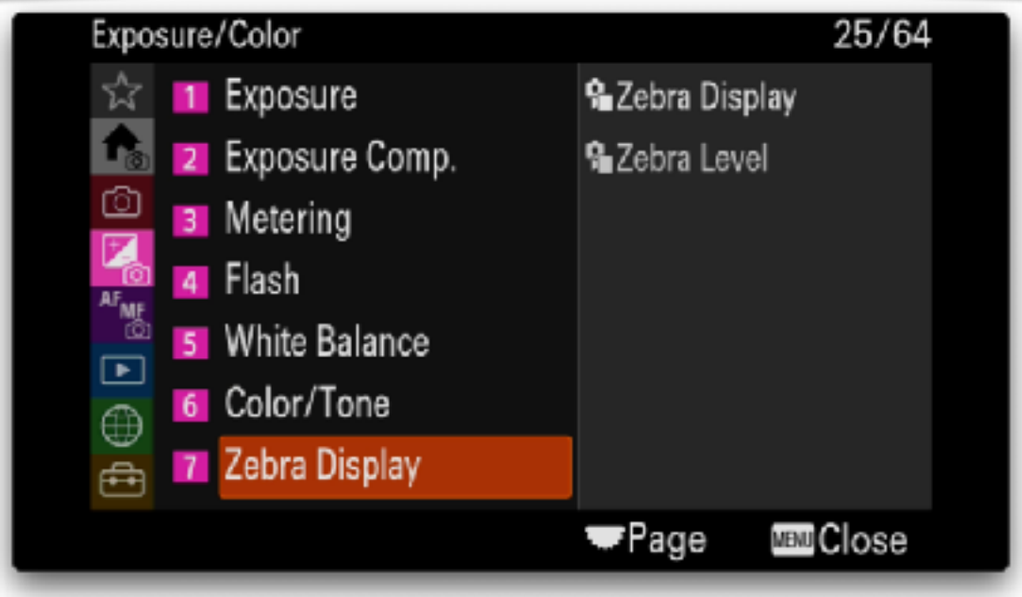


Exposure/Color Menu - Zebra Display

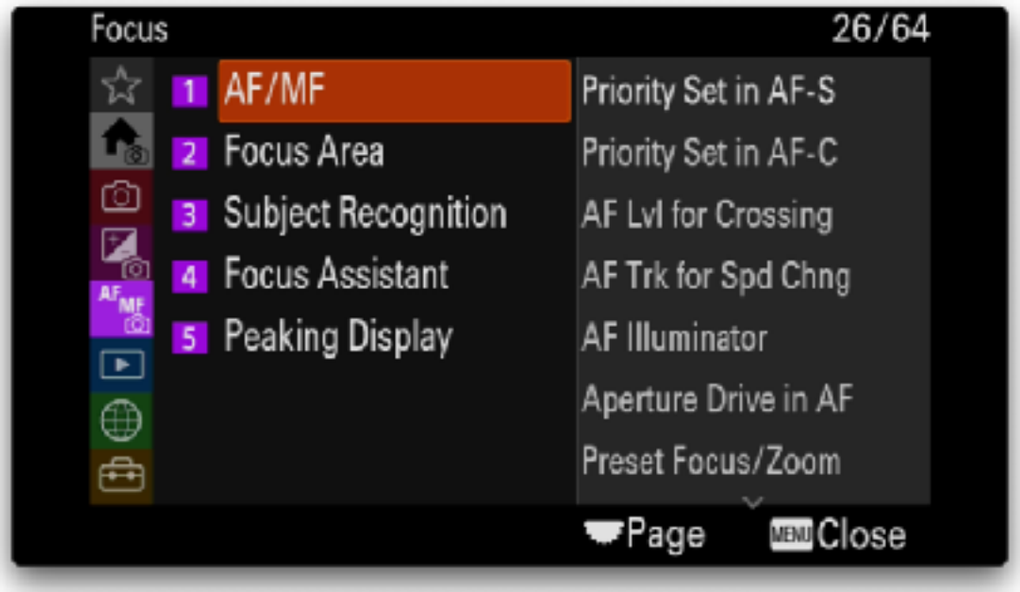
Zebra Display

- Turn this on to get zebra striped in the view finder for over exposed areas of the image.
- Set Custom 1 as Lower Limit 100+
- Set Custom 2 as Std+Range 56 ± 3
- Now select Custom 1 to set Zebra Level





Focus



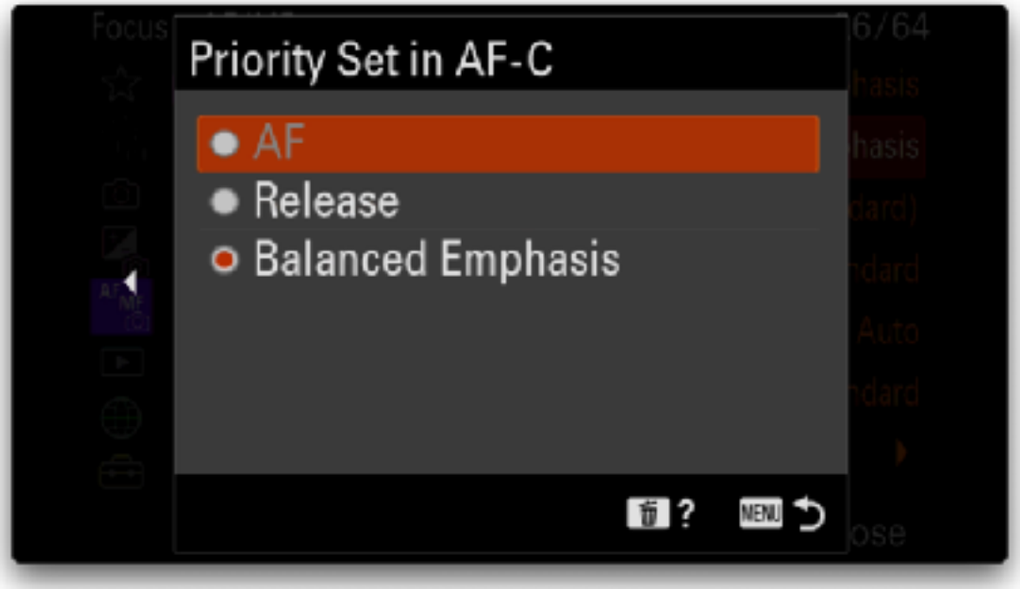
Key Settings

Priority Set in AF-C: AF

Focus Area Limit: Wide, Zone, Spot (small), Tracking Expandable Point

Focus Menu - Auto/Manual Focus

AF/MF Settings



Priority Set in AF-C - select AF to ensure the camera will only fire the shutter if it is in focus.

Use this to avoid large numbers of out of focus images if shooting at high FPS e.g. Birds in flight. Some prefer to set this to Release so the camera will fire the shutter regardless of whether it is in focus or now claiming that they get more usable shots.

Note that if Pre-Capture is on then AF mode is not available.

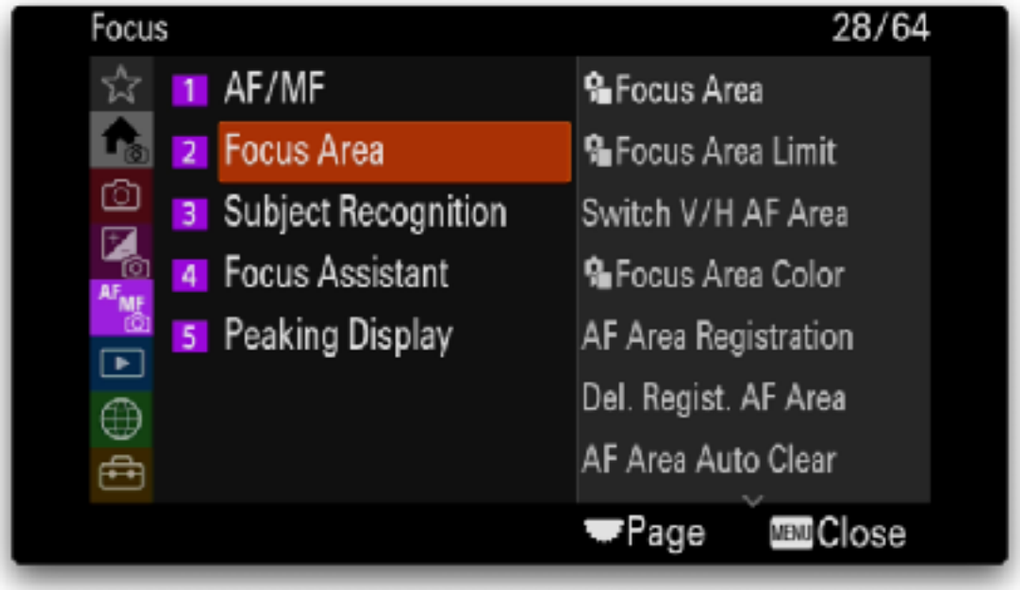
AF w/Shutter - turn this off to prevent shutter button focussing. We will configure Back Focus Buttons for focussing.

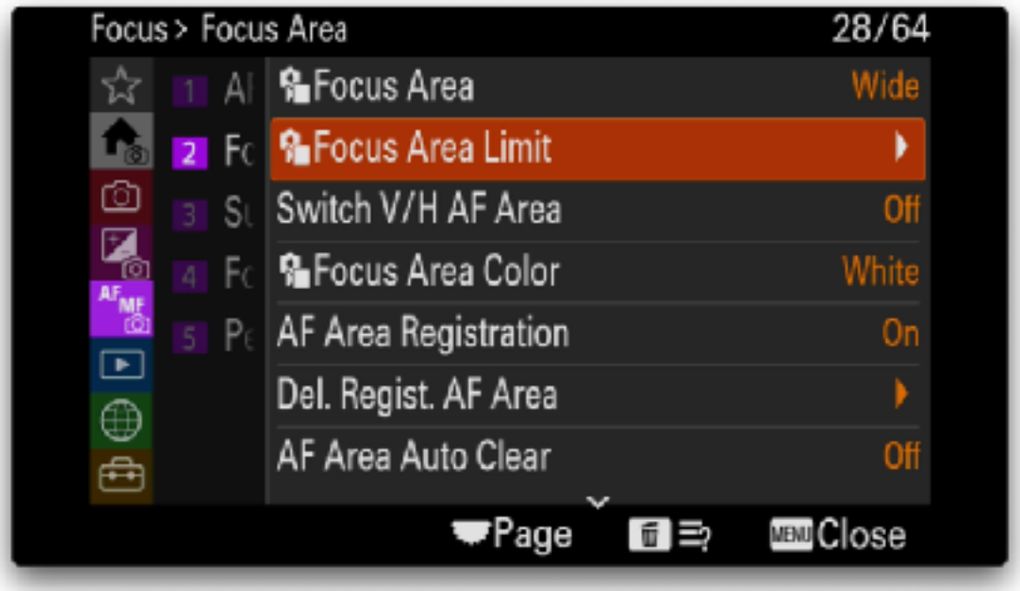
Focus Menu - Focus Area

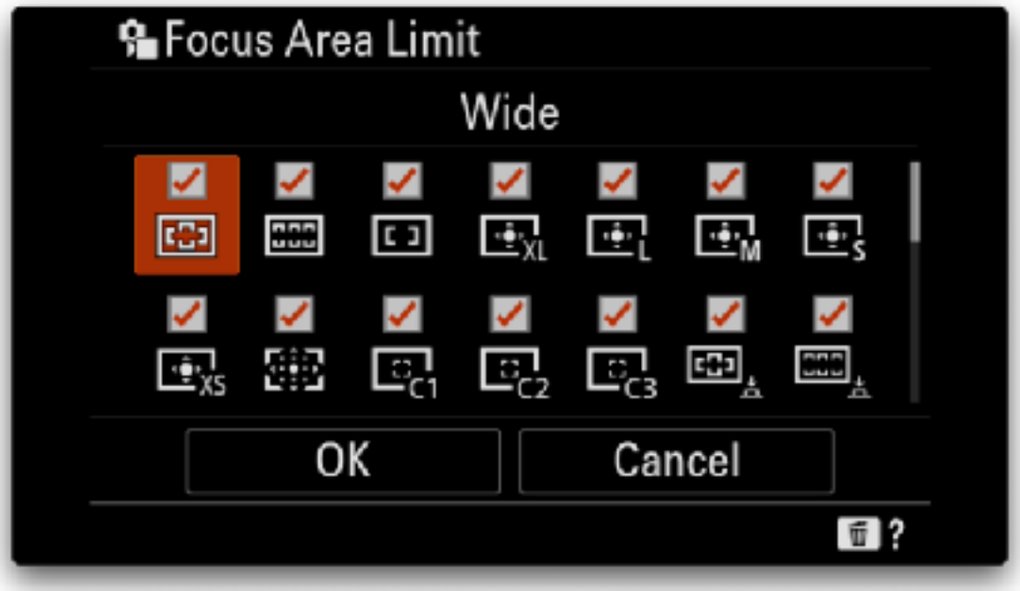
Focus Area Settings

- **Focus Area Limit** - to limit the number of focus area options that will appear in the Quick Menu (fn button) or programmed custom button. Disable modes that are seldom used.

- Select Wide, Zone, Spot:XS, Tracking Expand Spot







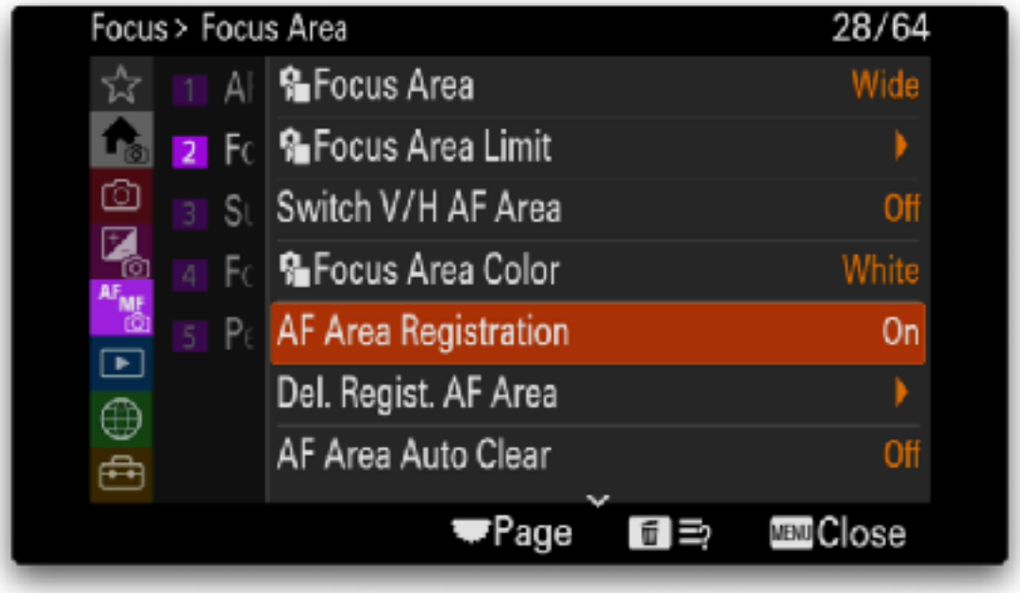
Focus Menu - Focus Area

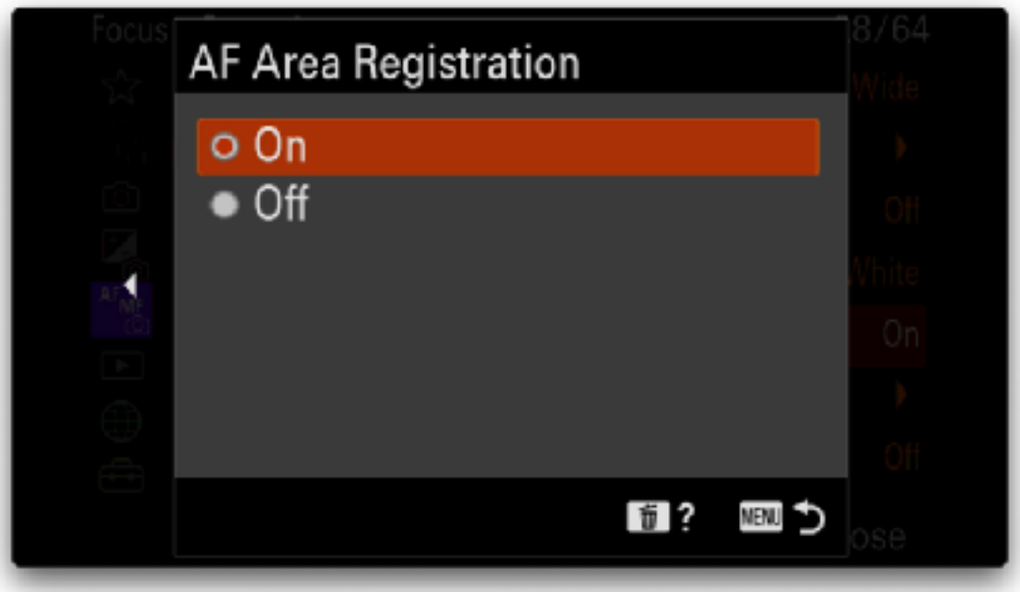
AF Area Registration

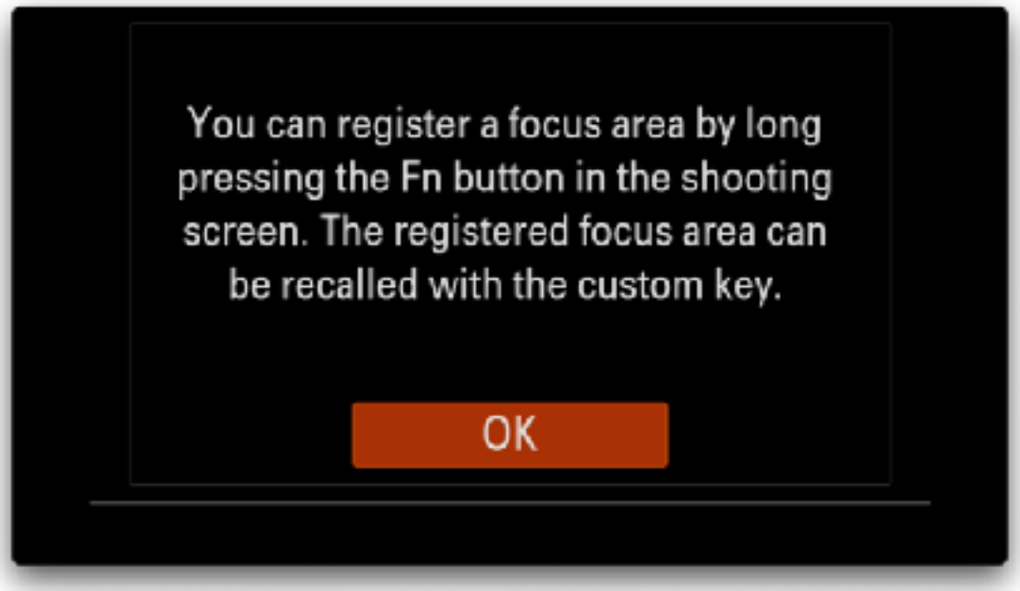
The Sony A9 III allows you to configure to focus buttons and associate focus area modes to each of these buttons by using the Registered Focus Area mode.

To do this we need to first register a focus area mode by doing the following:

- Enable AF Area Registration



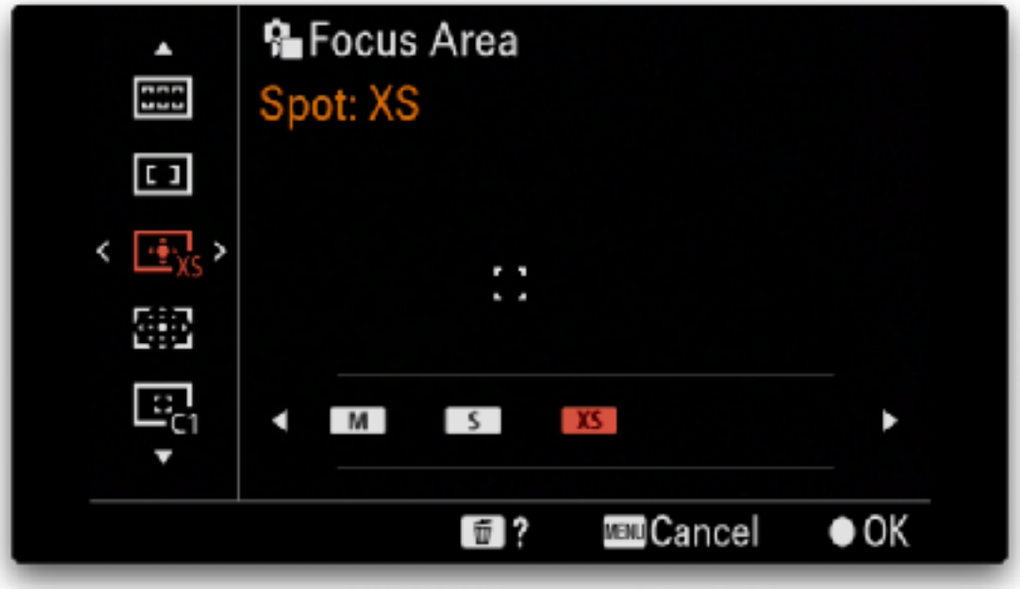


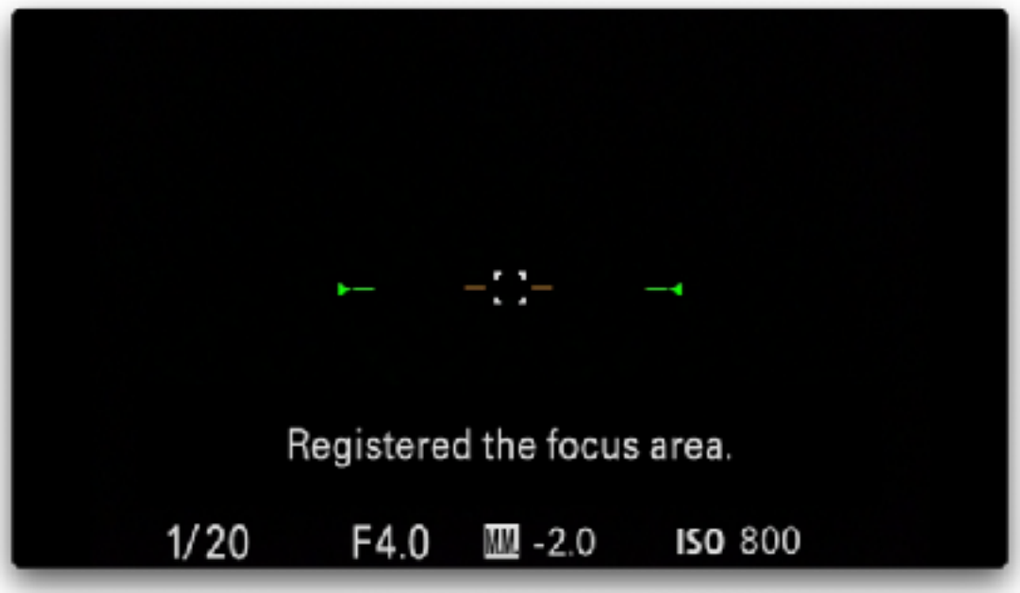


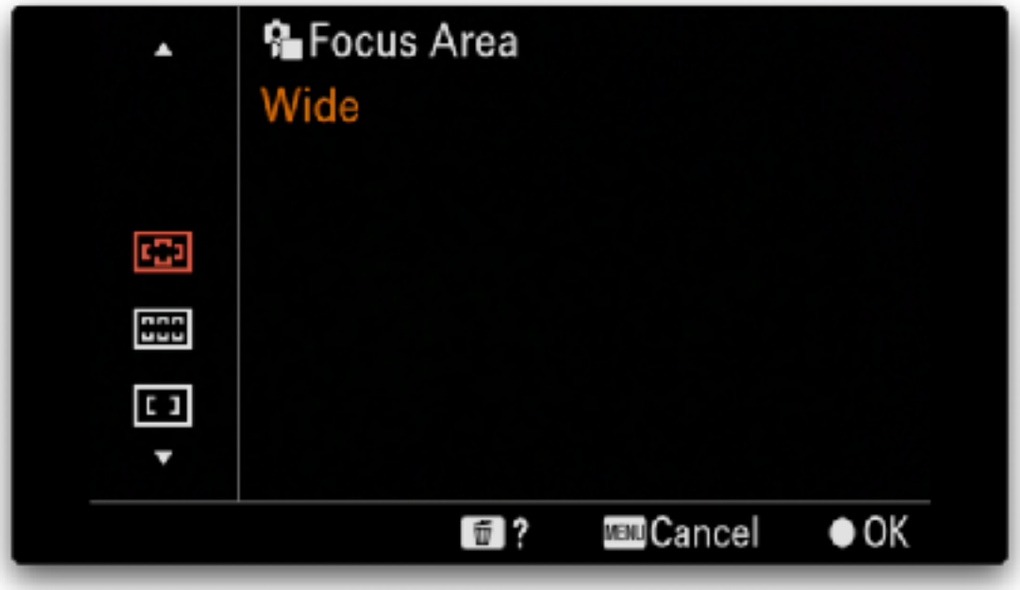
Focus Menu - Focus Area

- Get out of Menu mode
- Use the Fn button to select the Spot: XS or Tracking Expand Spot mode.
- Now press and hold the Fn button until a message pops up indicating that the mode has been registered.
- Now use the Fn button to select Wide mode again.

In the next steps we will program the AEL button as a second back focus button using the Registered Focus Area mode. So by simply pressing either AF-ON or AEL button you get the different focus mode instantly.







Focus Menu - Subject Recognition

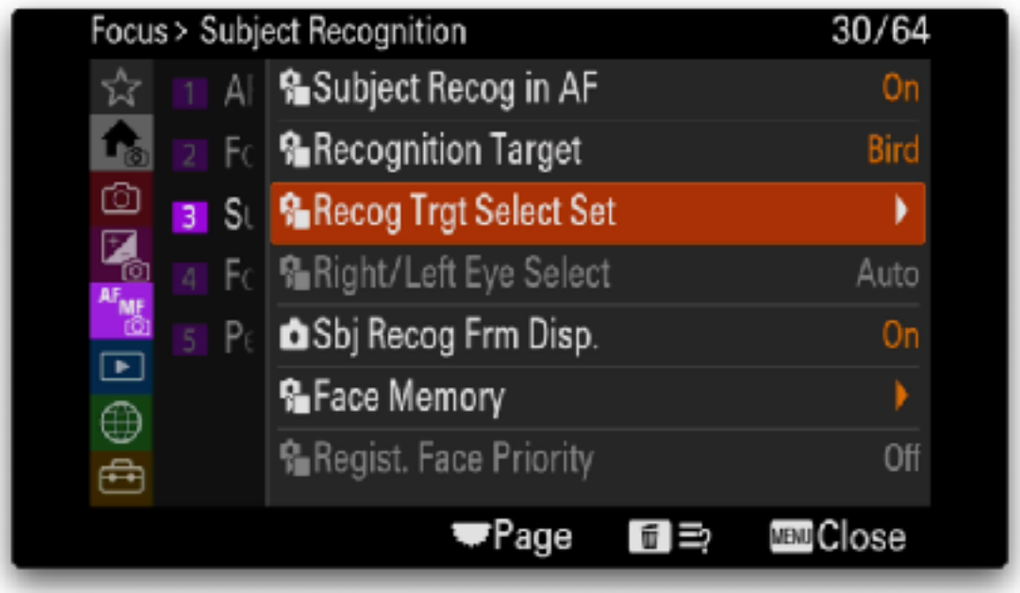
Subject Recognition

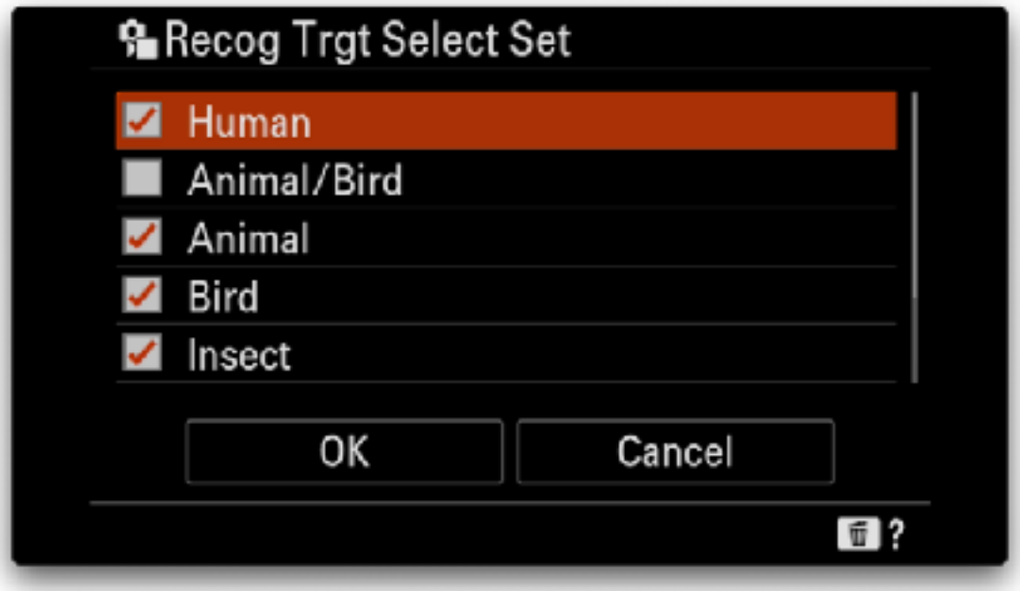
Subject Recog in AF - set On

Recognition Target - this will be selected via the toggle button

Recognition Trgt Select Set - select the subject types you want to be able to toggle through with the custom button assignment. Select Human, Animal, Bird, Insect and/or other subjects you might use.

I avoid using Animal/Bird since that will likely have worse performance than the Animal or Bird specific modes.

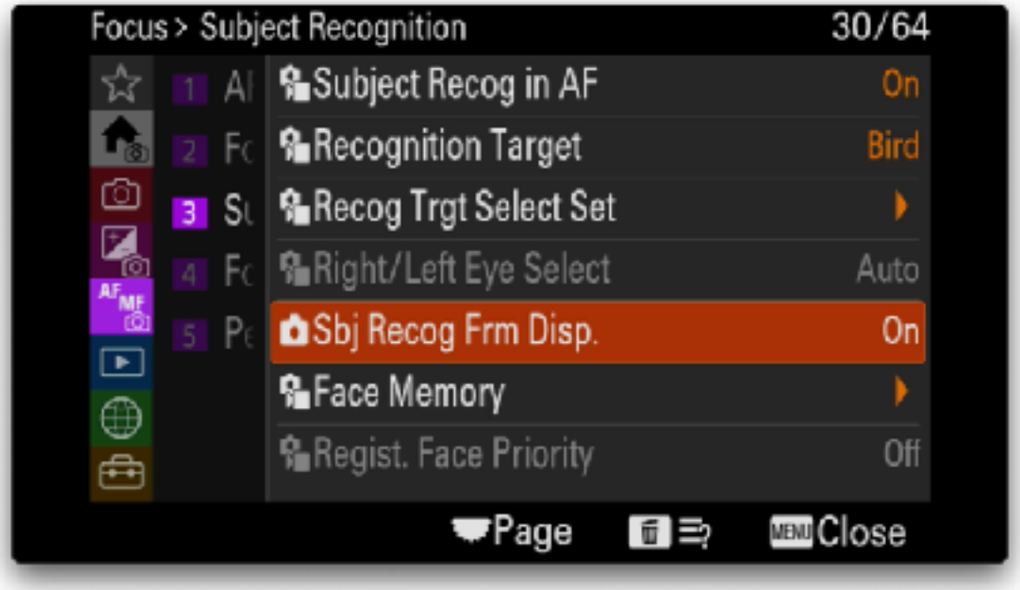




Focus Menu - Subject Recognition

Subject Recognition

Sbj Recog Frm Disc - turn on to display the subject recognitions form in the view finder.



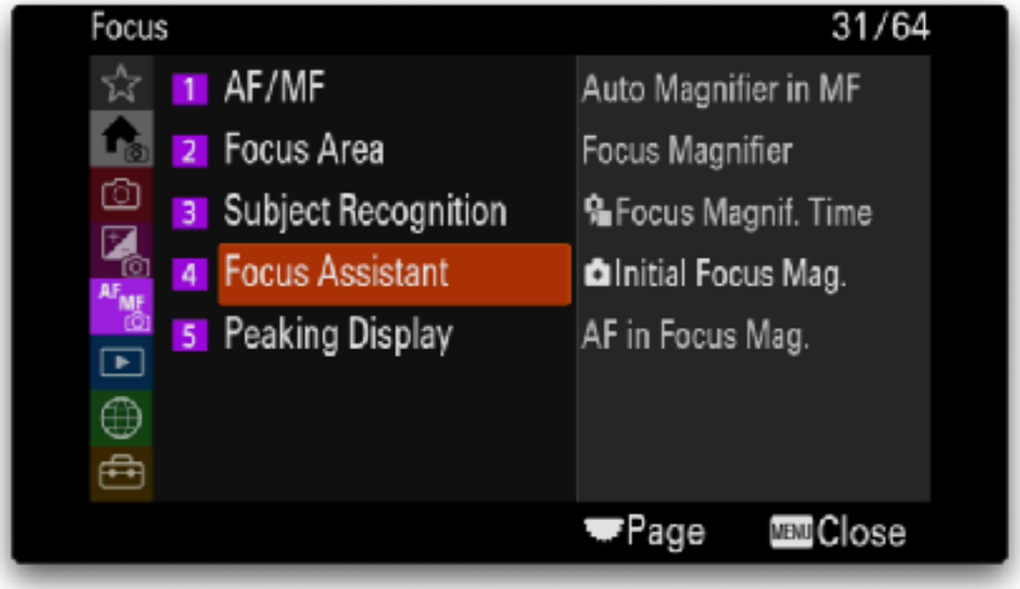
Focus Menu - Focus Assistant

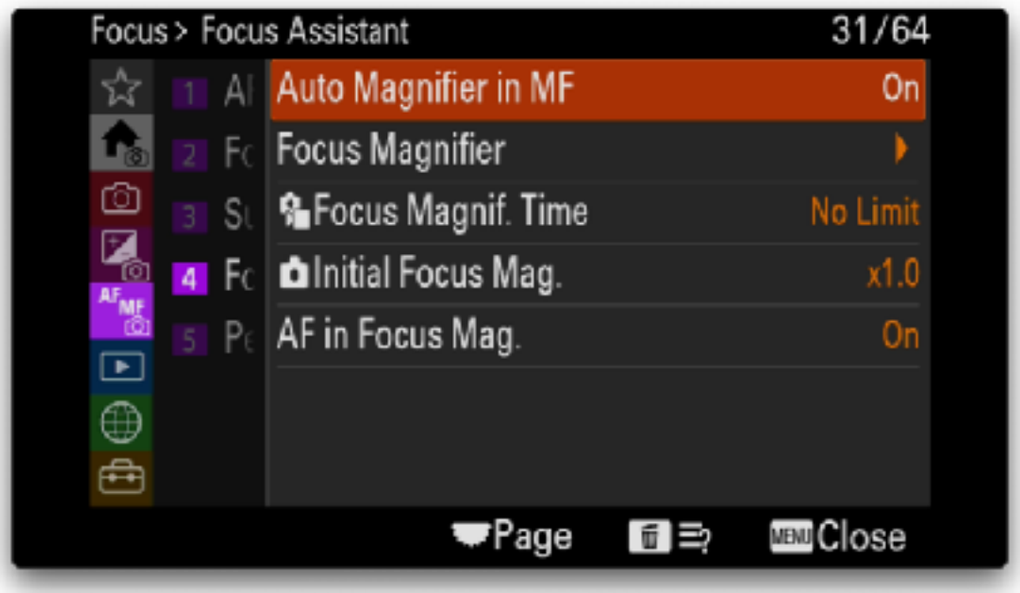
Focus Assistant

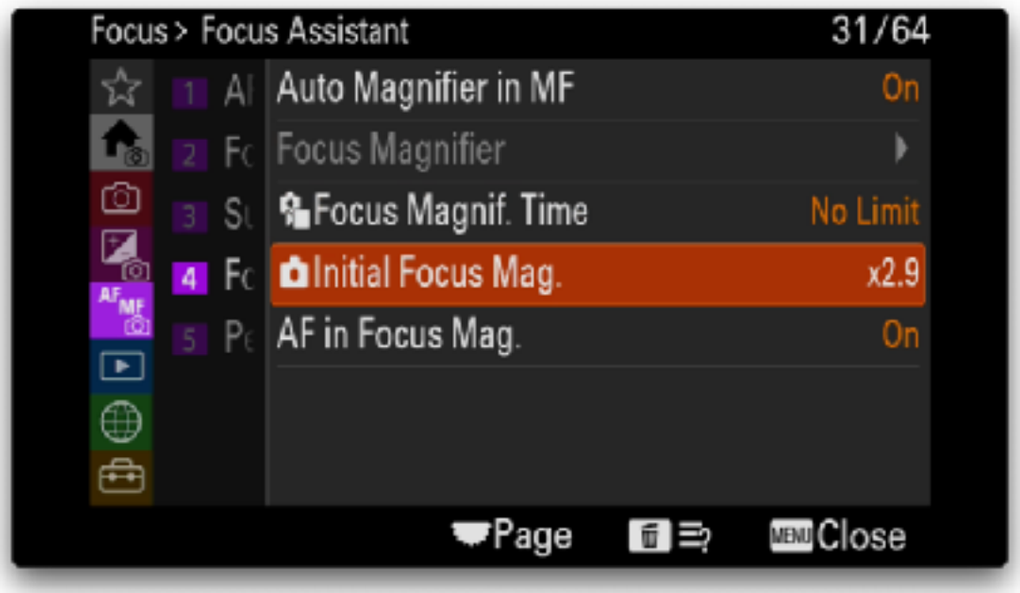
Auto Magnifier in MF - On to automatically digitally zoom the image to show the precise focus points when manually focussing.

Initial Focus Mag. - x2.9 times magnification. This will zoom in 2.9x when using the AF/MF Hold button on the lens in conjunction with a slight turn to the focus ring.

Other settings as shown.







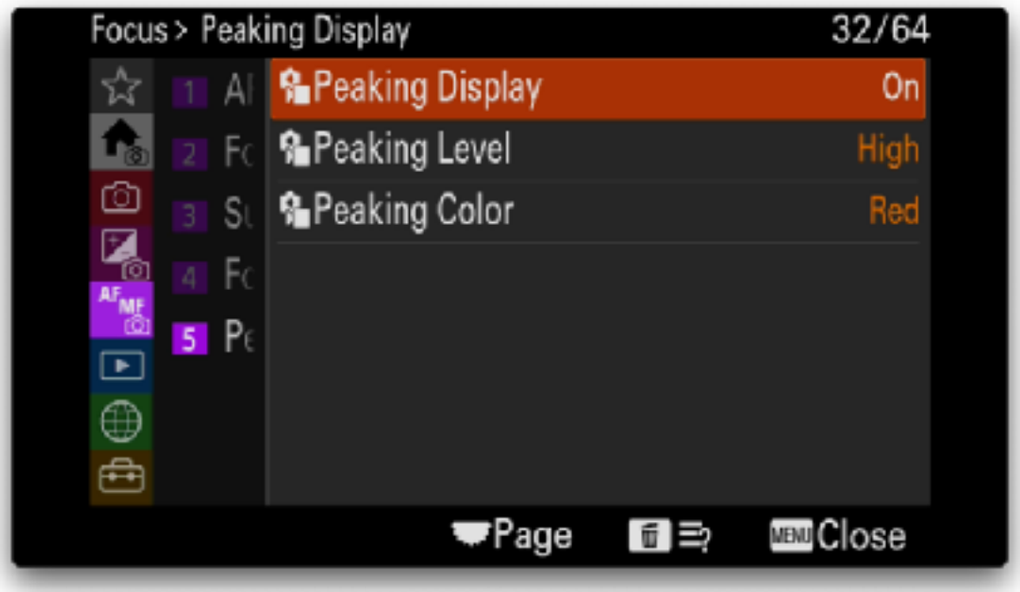
Focus Menu - Peaking Display

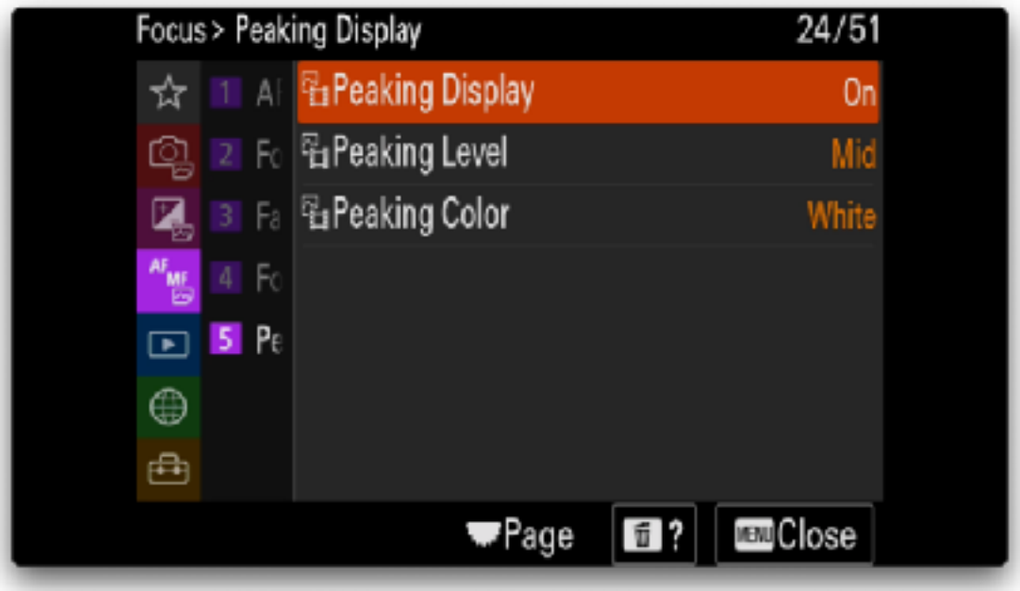
Peaking Display Settings

Peaking Display - set this to on to show the areas in focus in the EVF.

Peaking Level - set this to High.

Peaking Color - set this to your preferred colour so it is visible against the background.

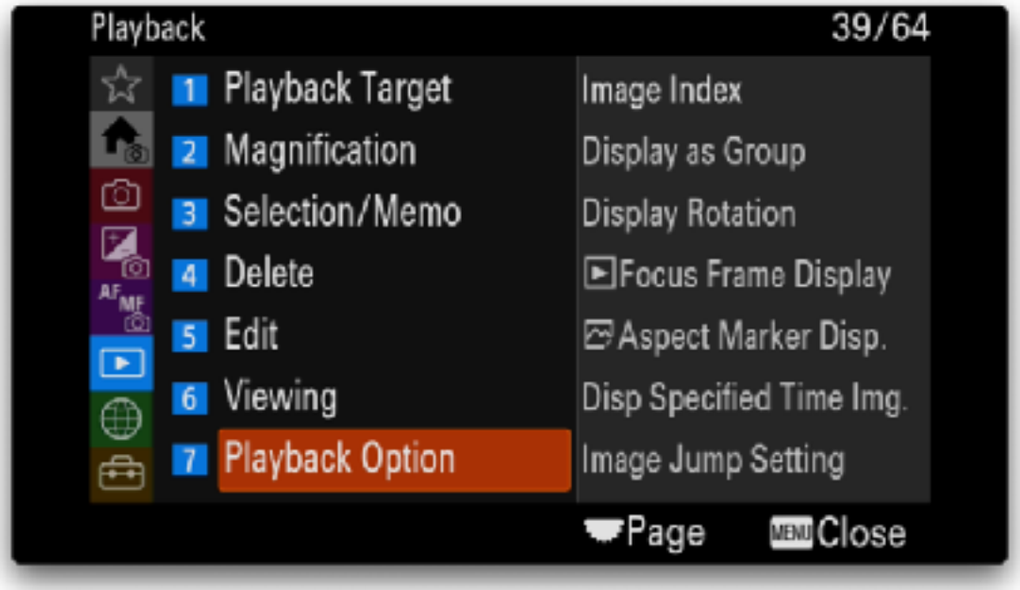




Playback

Key Settings

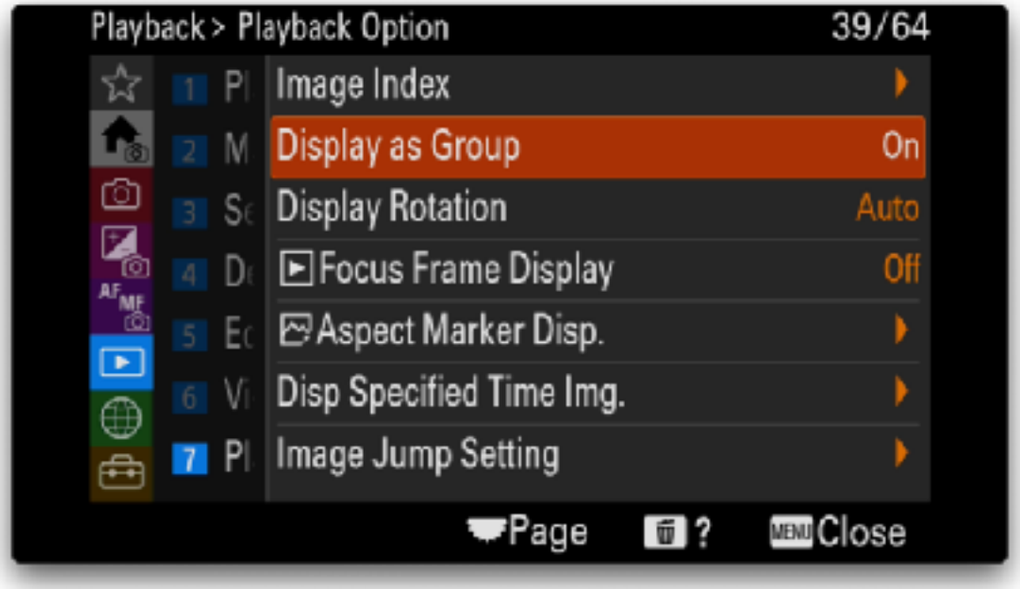
Playback Option: Display as Group, Focus Frame Display

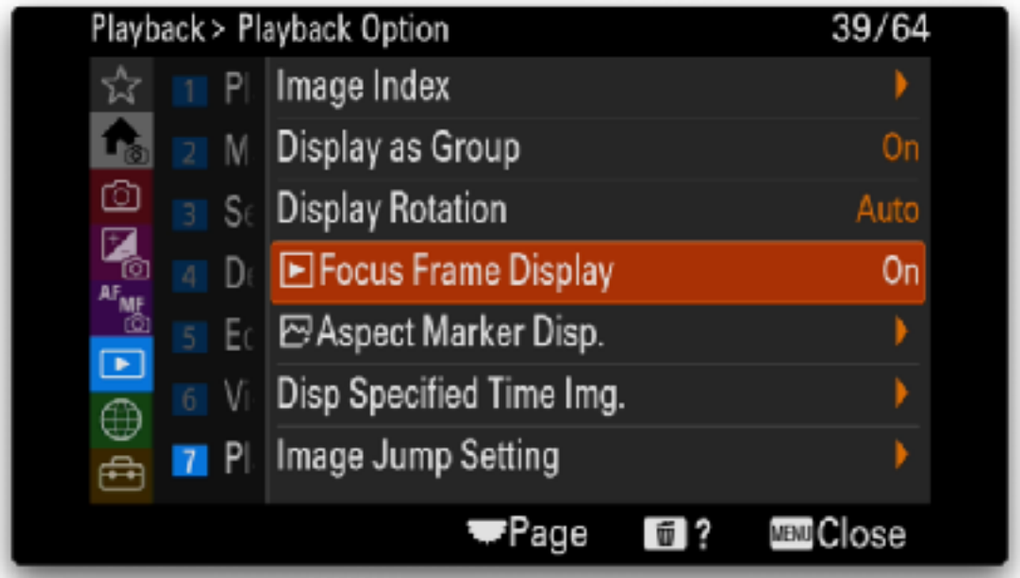


Playback Option

Display as Group - turn this on so that all shots in a sequence as shown as a Group. With high shutter speeds this helps make browsing the images on the camera much easier.

Focus Frame Display - turn this on so that the focus frame gets shown during playback to allow you to confirm the point of focus.



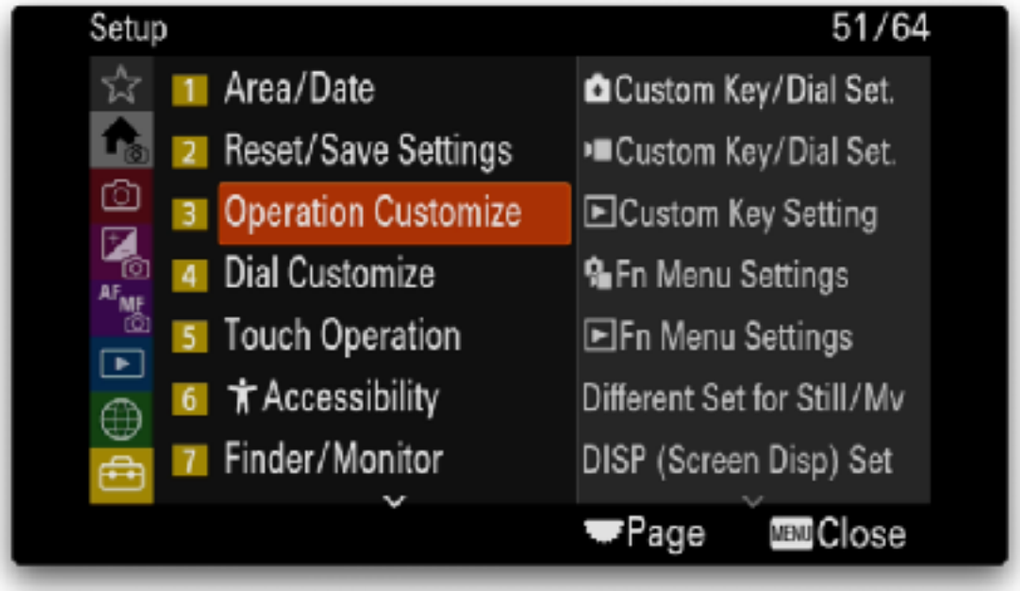


Network

Key Settings

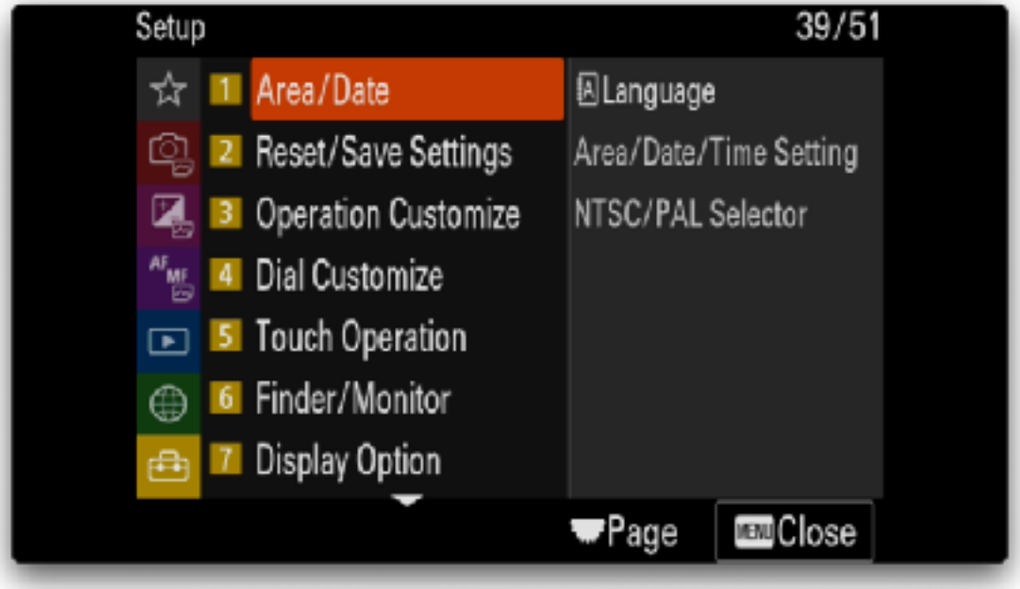
Install Creative Cloud Mobile App

Setup



Key Settings

Custom Key/Dial Assignments - program the cameras buttons and dials for specific functions.



Setup Menu - Operation Customise

Stills Custom Key/Dial Settings

Assign functions to the cameras buttons as shown on the screens on the right.

Thee buttons and dials allow you to quickly switch models without needing to lift your eyes from the view finder.

Rear1

1 - Registered AF Area + AF On

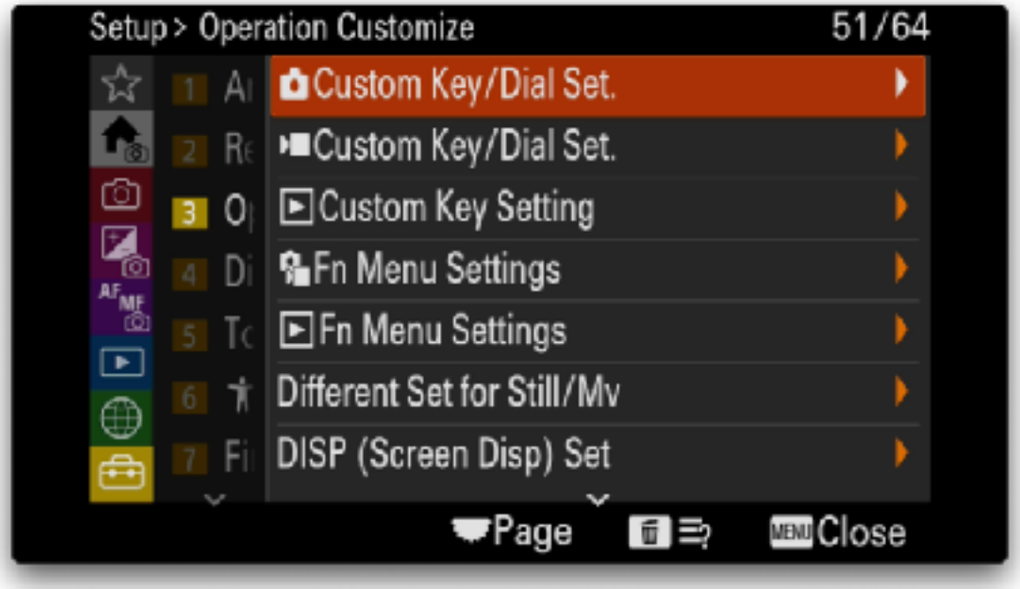
2 - AF On

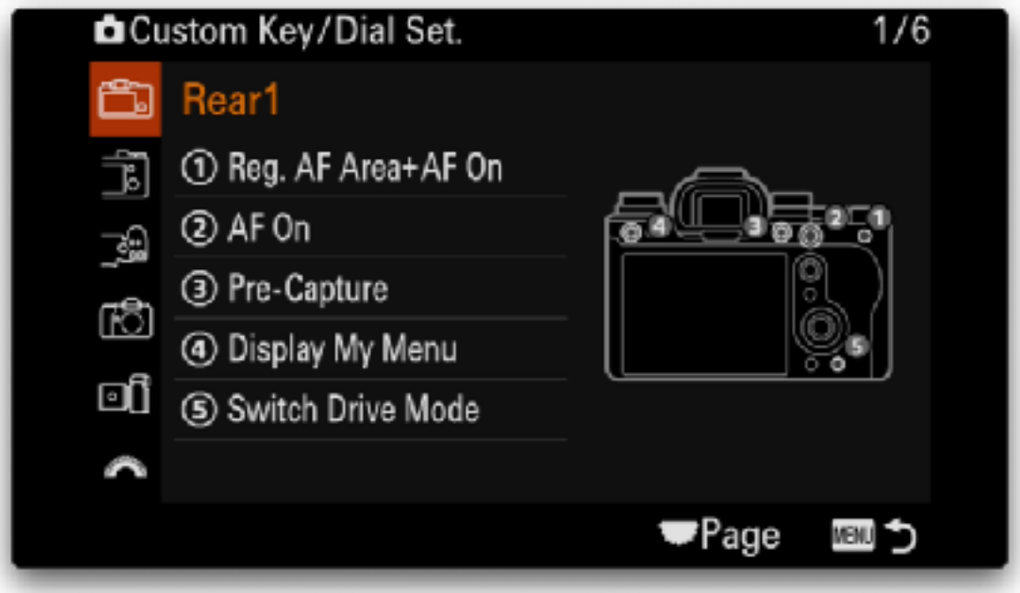
3 - Pre-capture

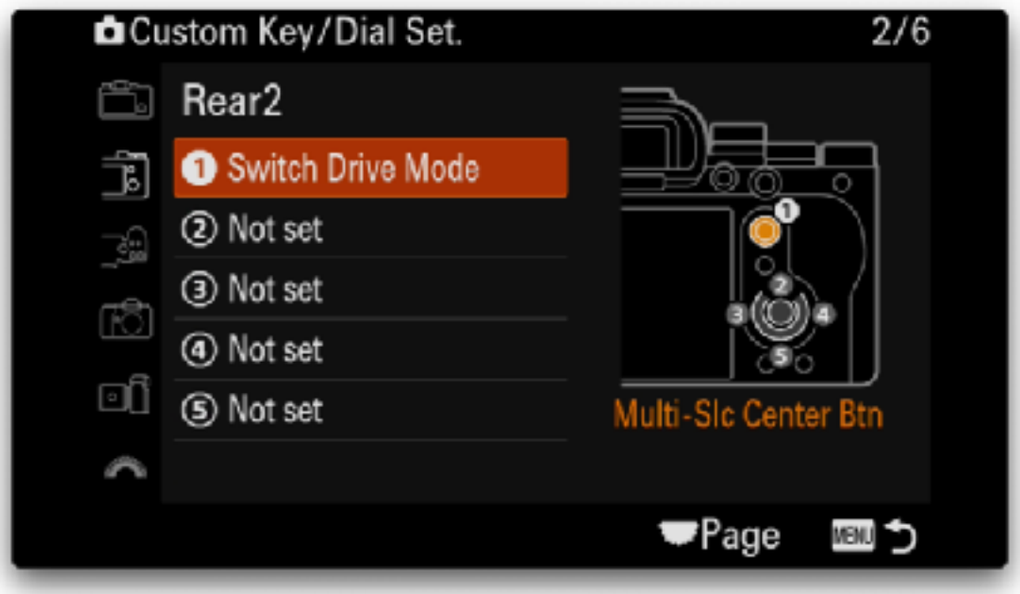
4 - Display My Menu

Rear2

1 - Switch Drive Mode







Setup Menu - Operation Customise

Top

1 - Recog. Target Select

2 - Zebra Display Select

Front

1 - Continuous Shooting Speed Boost Toggle

Dial/Wheel

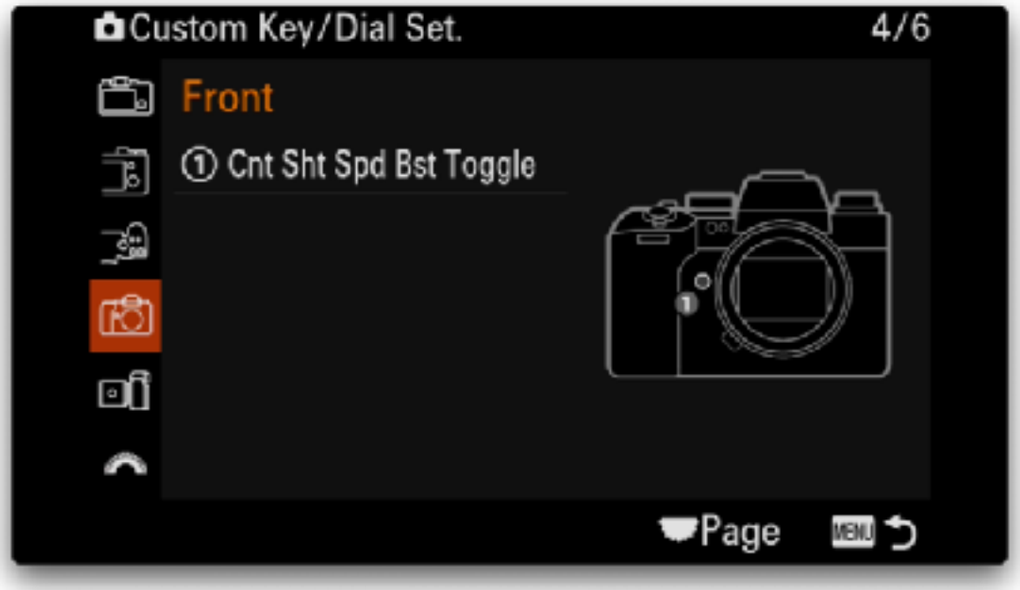
1 - Tv (shutter speed)

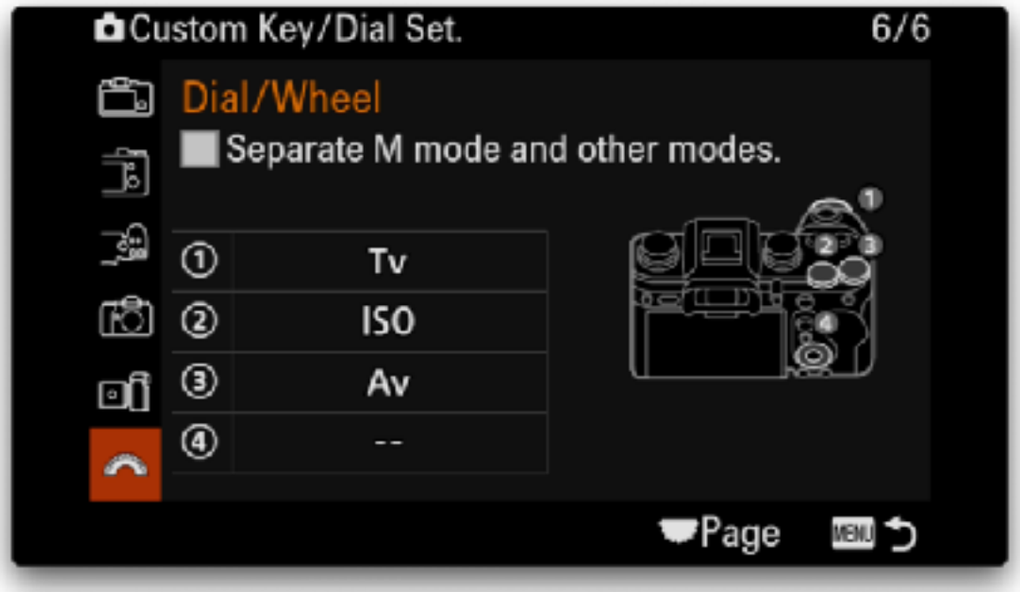
2 - ISO sensitivity

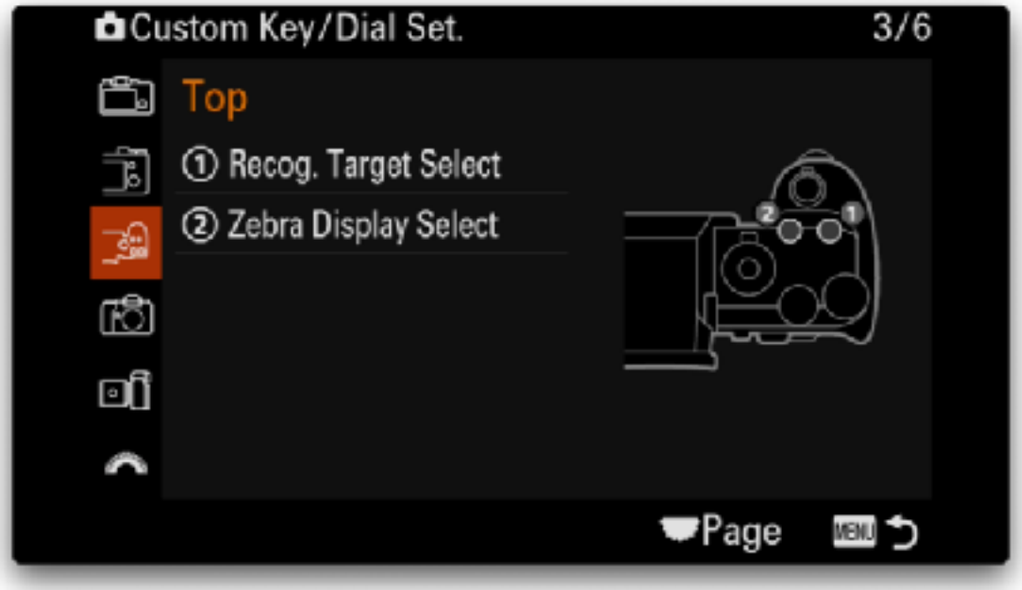
3 - Av (aperture)

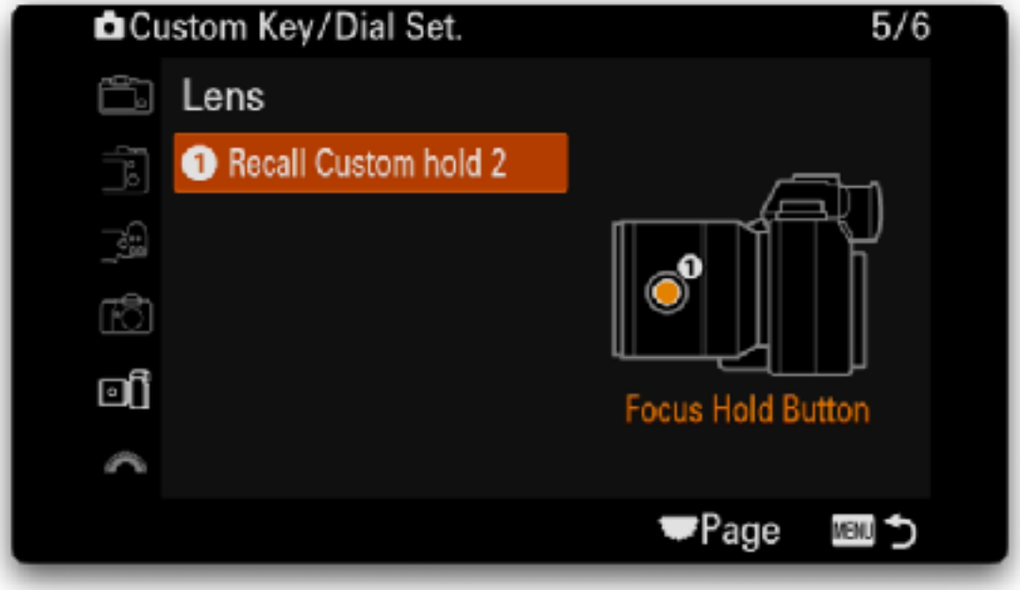
Lens

1 - Custom Hold 1





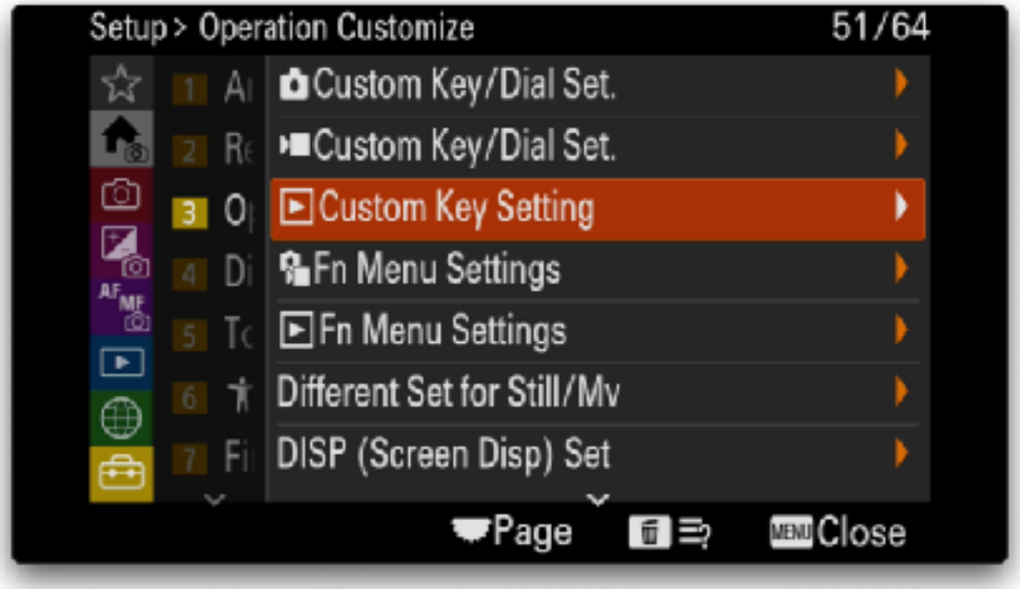




Setup Menu - Operation Customise

Playback Custom Key Setting

Set playback buttons as shown.

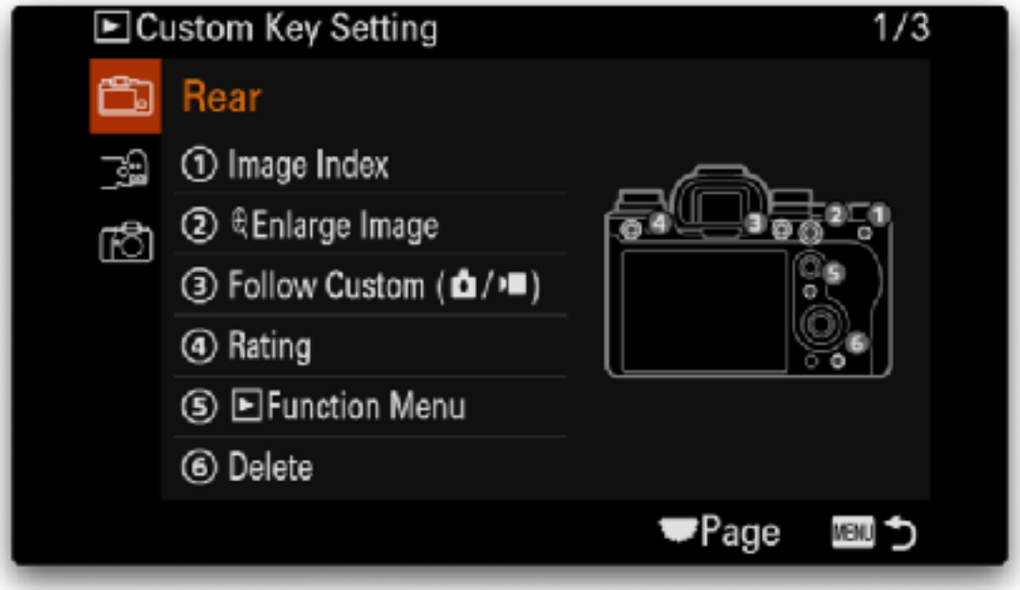


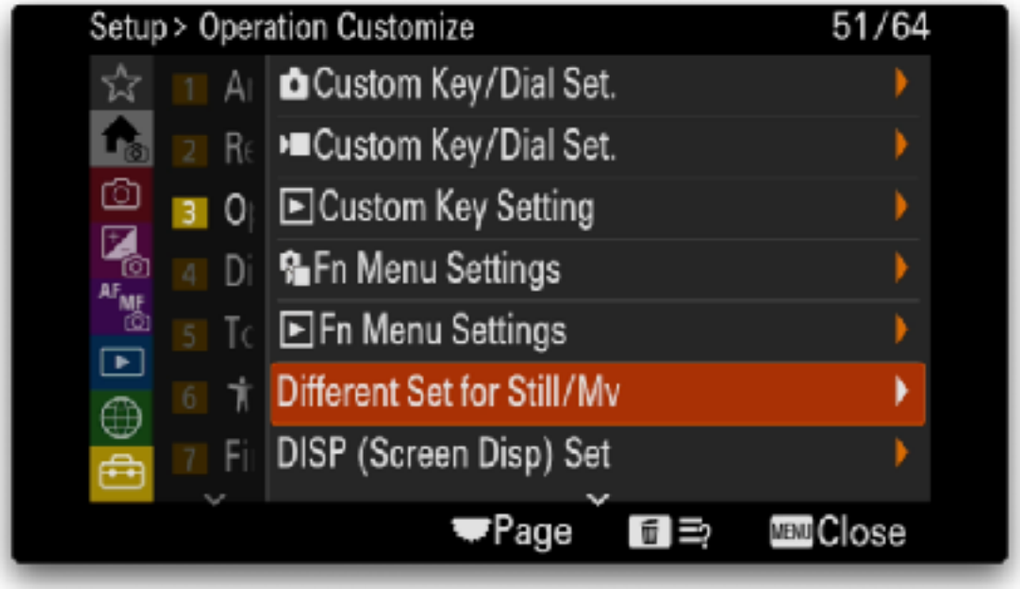
Different Set for Stills/Movies

These settings allow you to make certain settings specific to Stills and Movie mode. This means that changing a setting while in Stills mode will not result in a change to the same setting in Movie mode.

Generally you will need to have different Stills and Movie settings.

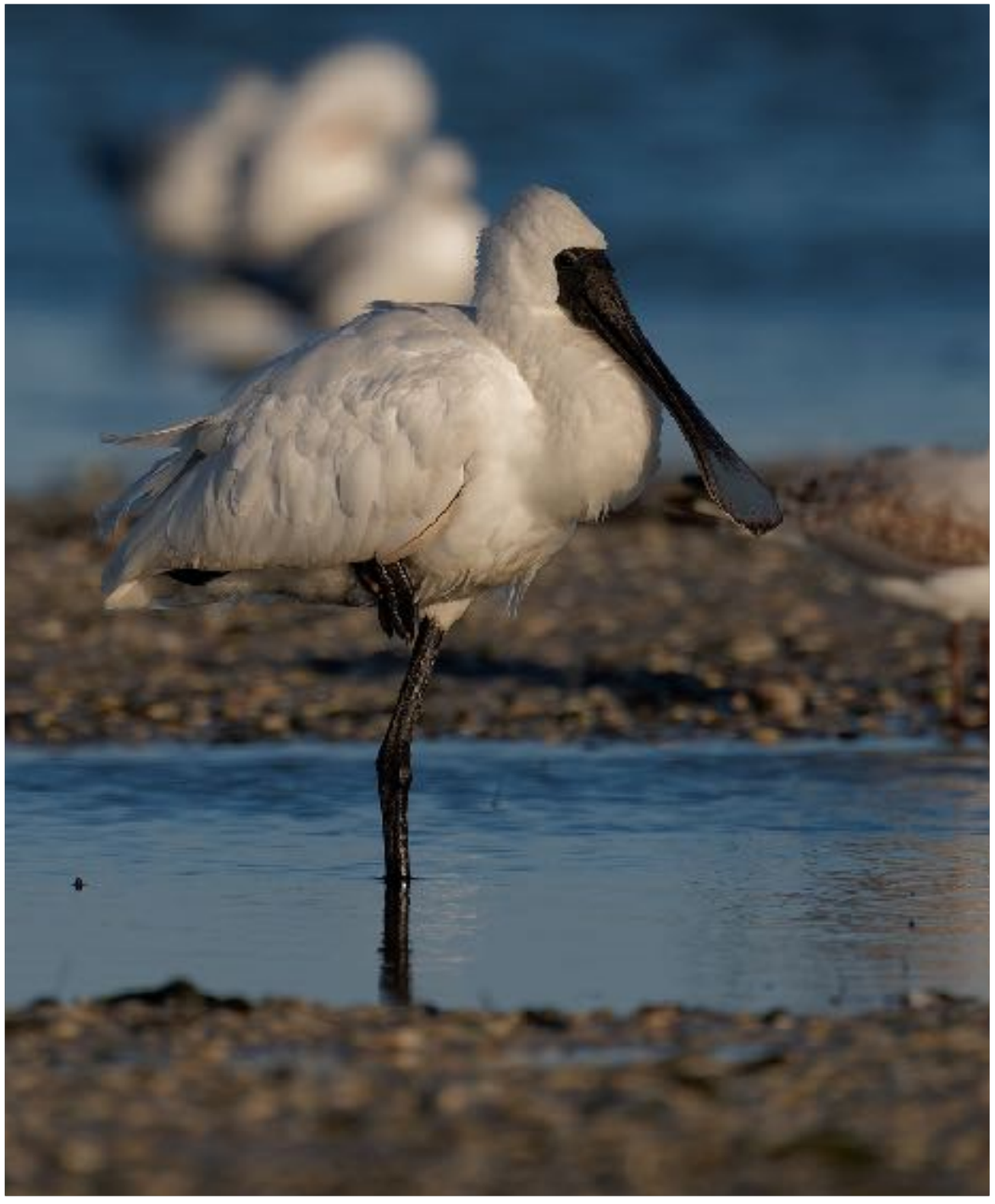
Currently it is not possible to make the Focus Area modes independent. So is you are using Wide area mode in stills and switch to Movie mode and change to Spot then when you switch back to Movie mode the focus area mode will also be Spot.

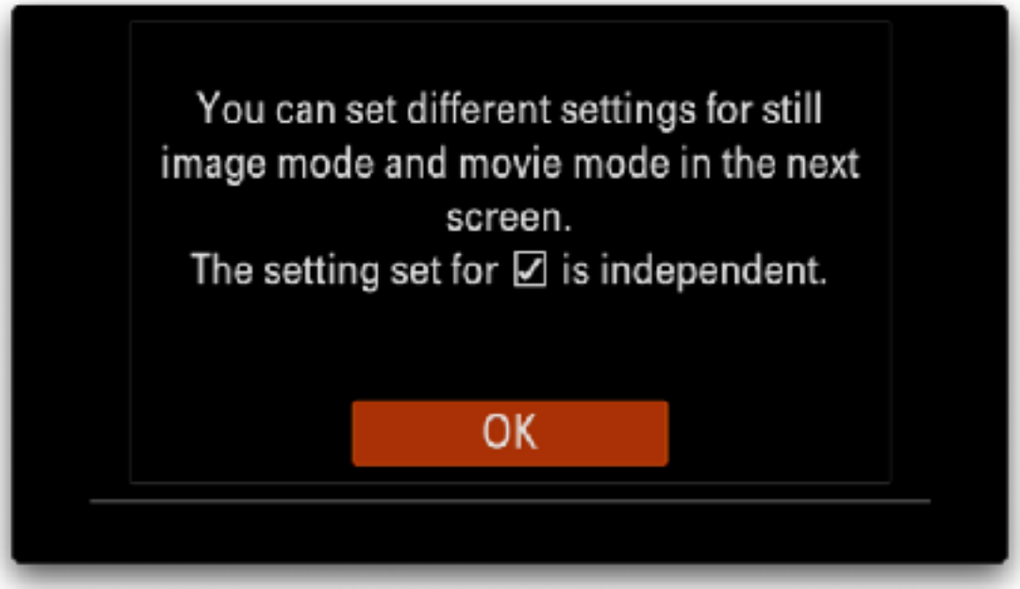


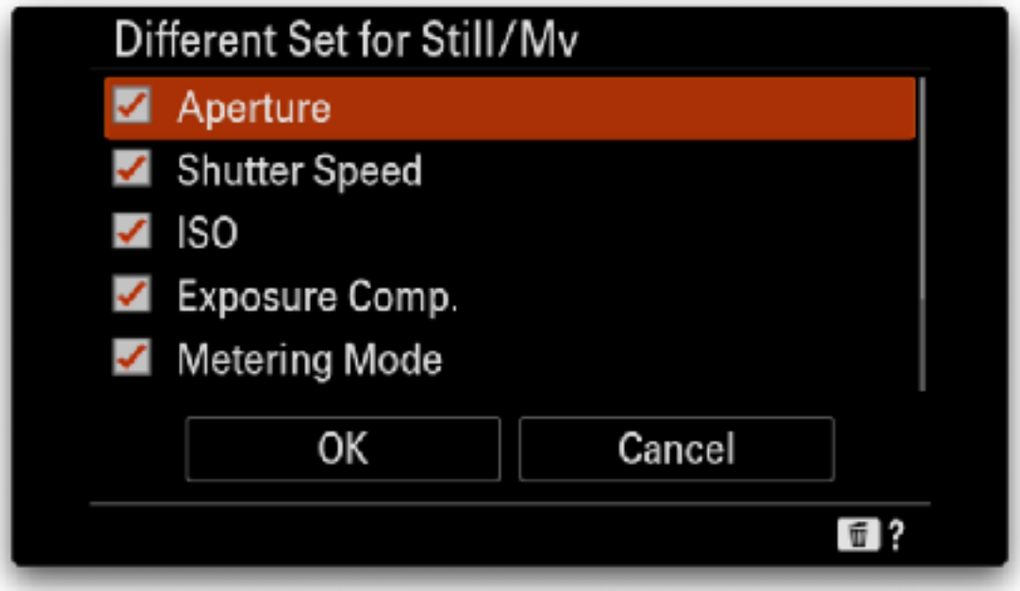


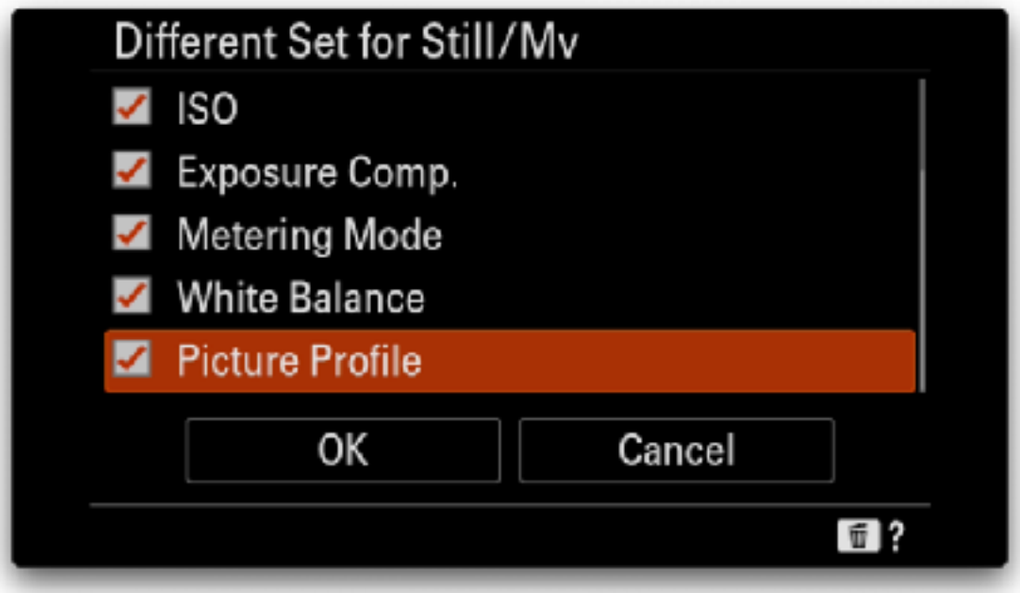
Setup Menu - Operation Customise

Select all the settings making them independently adjustable in Stills and Move mode.





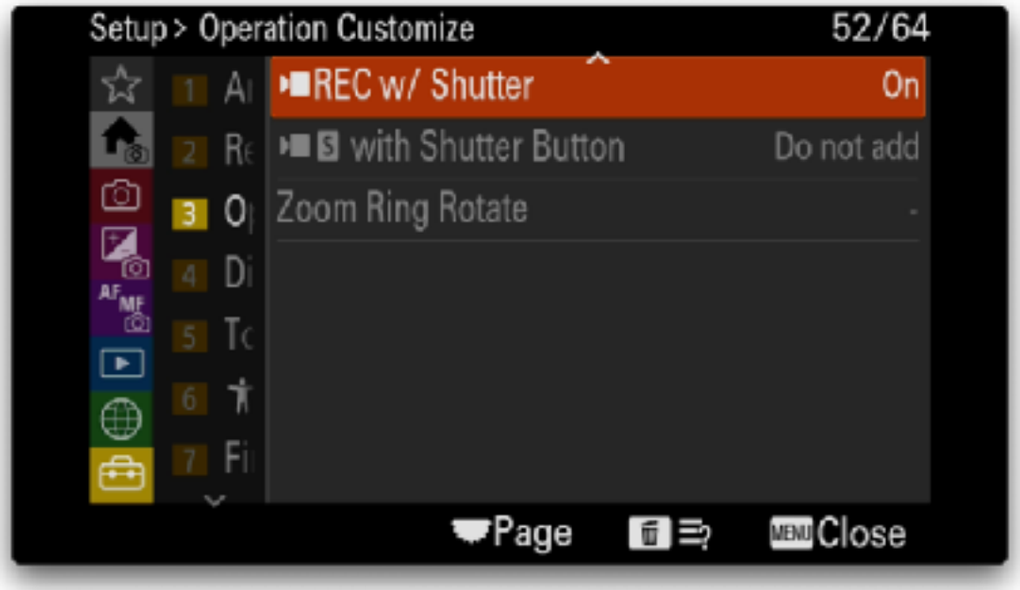




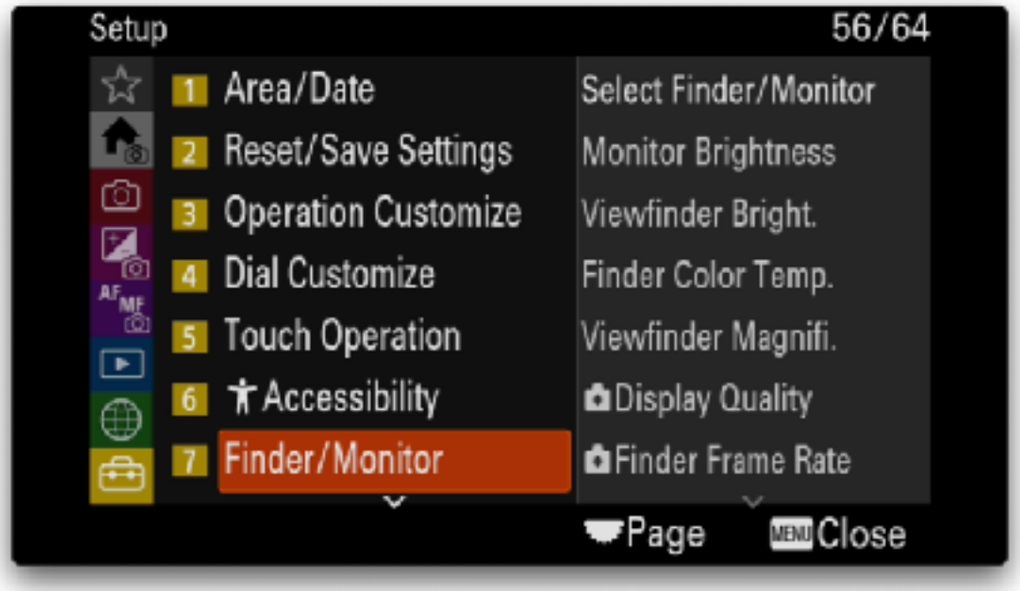
Setup Menu - Operation Customise

REC w/Shutter

Set the movie record button to be the Shutter Button



Setup Menu - Finder/Monitor



Display Quality

Set the display quality to High for highest resolution when viewing images.

Finder Frame Rate

Set the finder frame rate to highest for 240 refresh rate and smoothest viewing when following fast action or when panning.

Note that when set to Highest the Display Quality will be set to 5mp and the EVF viewing area will become smaller.

END OF CONFIGURATION GUIDE

A9 III Camera Configuration - Sample Images

A9 III Camera Configuration - Sample Images

A9 III Camera Configuration - Sample Images

A9 III Camera Configuration - Sample Images

A9 III Camera Configuration - Sample Images

A9 III Camera Configuration - Video Links

A9 III Camera Configuration - Video Links

Additional Information

- Tips for Managing Files
- Tips for Sharp Images

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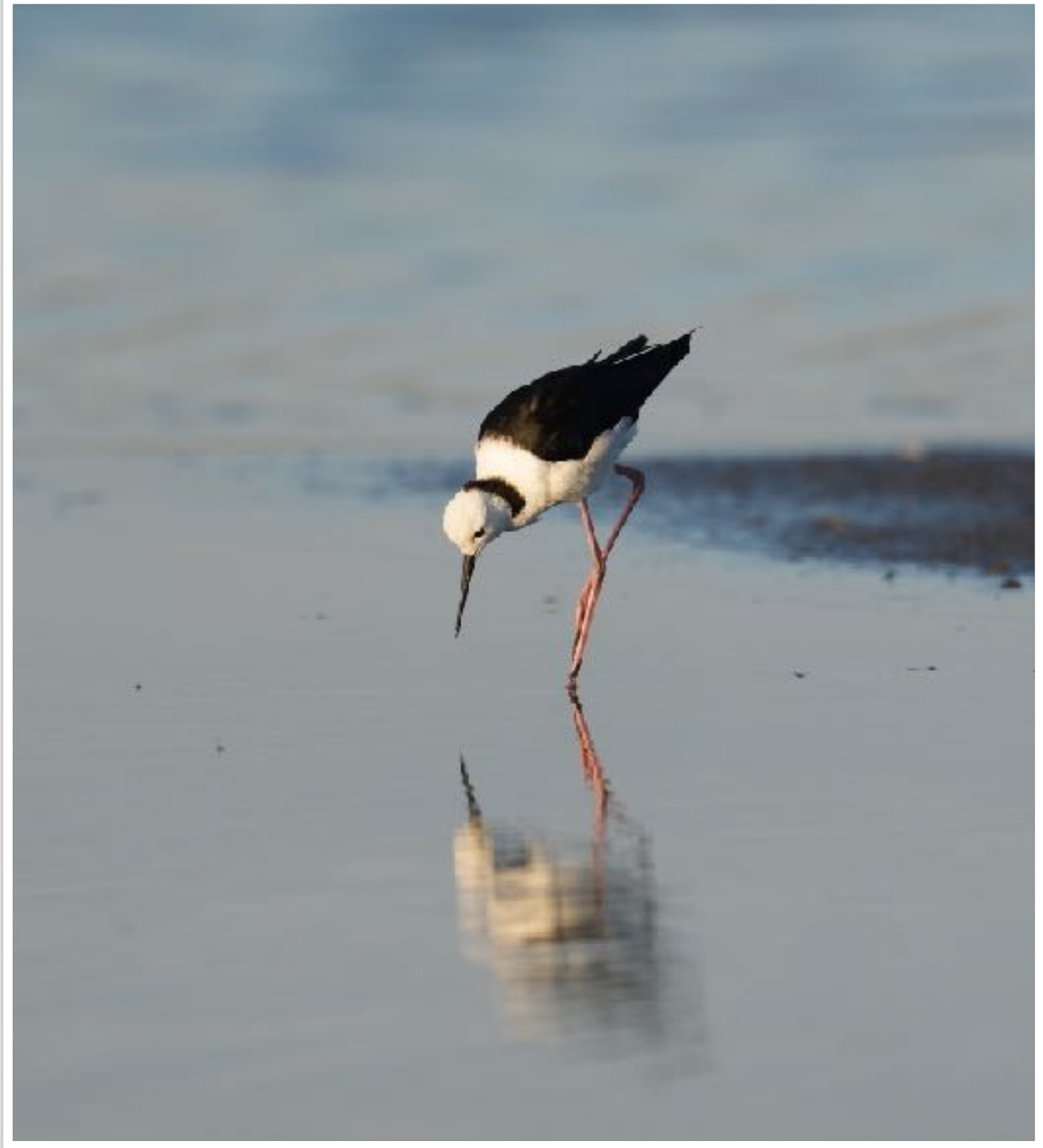
Tips for Managing Files



The Sony Alpha 9 III automatically numbers captured files from 0001 to 9999 and then it creates a new folder and starts numbering from 0001 again.

As a result it is quite possible to end up with files with the same name on your computer and there is some risk that you inadvertently overwrite a different file if you copy a file to a folder containing a different image that has the same file name.

To avoid any chance of this I rename imported files to ensure the filename is always unique.

File Management Procedure

This is the procedure I use to avoid problems with duplicate file names.

Camera File Naming

I have set my camera's up to use different files names, as follows:

Sony Alpha 1: DG1

Sony Alpha 9: DG9

Sony Alpha 9 III: DGB

Sony A6400: DG6

It seems the 4th digit in the Sony files names is unused and is always '0'.

So off the camera my file names appear like this:

DG100001.ARW

DG109999.ARW

DGB00001.ARW

DGB09999.ARW

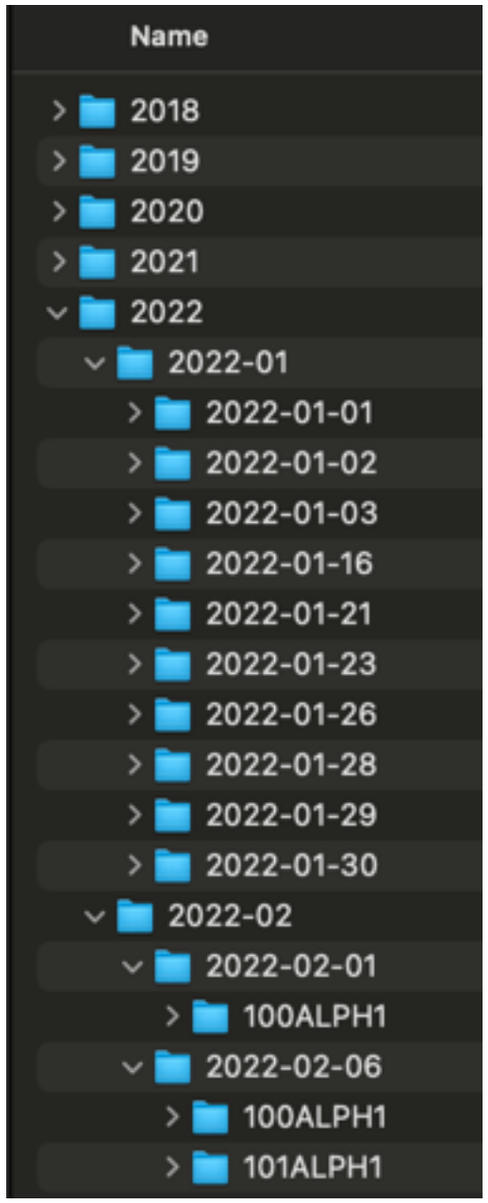
In addition the camera creates new folders when the file sequence number reaches '9999'. Earlier firmware versions allow a maximum of 4000 files per folder so a new folder is created after 4000 files.

Computer folder management

On my computer I store images in folders by year/month/day as shown on the right to keep the folder structure manageable.Within each days folder there may be one or more subfolders which are the folders copies directly from the camera memory cards.

Depending on the camera folder naming it may be necessary to rename these folders to avoid conflicts. Newer firmware allows the camera folder names to be customised - see the settings above.

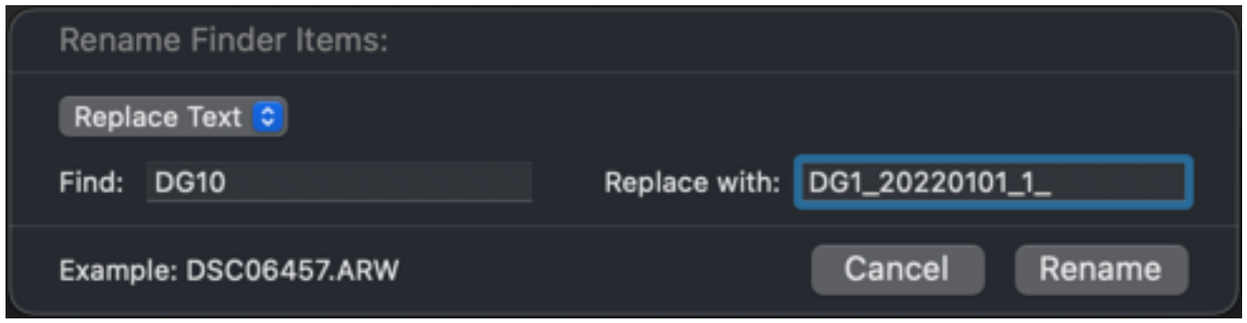
Typically I try and make sure the folders are numbered in the order in which the images were taken. With two cameras sometimes this would not make sense in which case I will try and make sure the folder indicates which camera the folder comes from.



Renaming image files to avoid duplicate

To avoid duplicate files names I rename the files once they have been copied to the computer. Fortunately on macOS it is quick and easy to rename the files by performing the following steps:

1. Select all the files in the folder once they have been copied to the computer
2. Right click on the selected files and select the “rename” popup menu option
3. Select the “Replace Text” option
4. Enter the first 4 characters of the file names in the **Find:** field as shown on the right (A1 example)
5. Enter the first 3 characters of the file names, the date in YYYYMMDD format, and the folder sequence number in the **Replace with:** files as shown below.



The files will now be renamed from **DGB09999.ARW** to **DGB_20220101_1_9999.ARW** thereby ensuring that even if two files numbered 9999 taken on the same day by the camera end up being copied to the same folder they will not have the same file name.

For example when shooing 16,000 swallow in flight images 6,000 files ended up with the same file name so I could never copy all swallow files to the same location without the risk of overriding some other files.

Tips for Sharp Images

Finding it hard to get tack sharp images?

There are many reasons for blurry images but the main reason is technique. Camera's and lenses can only do so much, the rest is up to the user.

The following tips might help you diagnose why your images are not as sharp as you would like.

Note: ***This section is not specific to any camera brand and features primarily Sony Alpha 1, Sony Alpha 9 and Nikon D850 images.***

Sony Alpha 9 III 600 f/4 TC1.4 @840mm 1/2000s f5.6 iso2500 handheld

Step 1: Make sure your 'equipment' is working - and I don't mean the camera or lens, we'll get to them later

Step 2: Determine how sharp your camera and lens combination can be - this will set the 'benchmark' for what you should be able to achieve

Step 3: Analyse your images - to determine whether there is room for improvement in technique or whether you are being limited by your equipment

Step 4: Determine why your images are not as sharp as they could be - now you can work on improving things

Nikon D850 500PF @500mm 1/2500s f9 iso1000 is:panning handheld from 3+km

Step 1: Establishing how good your technique is

Before we worry about equipment let's first establish how well we can take images of fine detail from a long way away.

We do this by finding a static subject on a clear day, preferably in the morning before the sun gets too high in the sky. The perfect subject to use are buildings where there is some construction work underway.

Sony Alpha 9 III FE 100-400 @100mm 1/100s f5.6 iso250 is:mode 1 handheld from 2.5+km

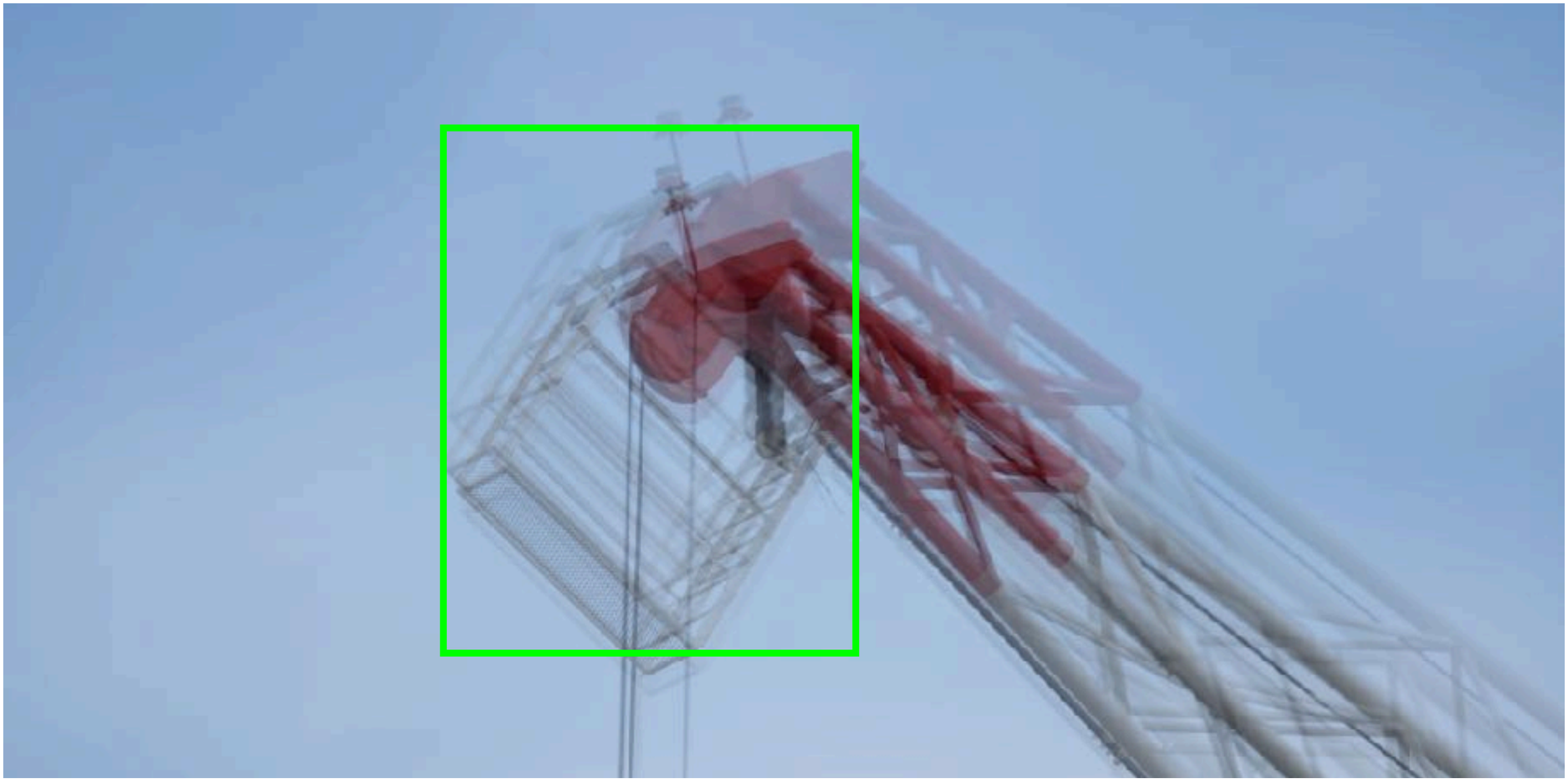
Use camera settings similar to those in the image on the previous page and whatever the maximum reach of your longest lens is (without any adapters on for now) and capture a number of images as quickly as you can in single shot.

Nikon D850 500PF @700mm 1/100s f8 iso64 is:panning handheld from ~100m

How steady are you

So while the single image on the previous Page is very sharp and shows no signs of blurring the image on this page shows a number of consecutive images merged on top of each other.

What this shows is the amount of camera movement occurring between each image which gives some idea of the amount of movement the camera image stabilisation system needs to deal with. Now do the same exercise in continuous shooting mode and establish just how much lens movement is going on. Test it out with image stabilisation on and off.



Nikon D850 500PF @700mm 1/100s f8 iso64 is:none handheld from ~100m

Image Stabilisation

This image shows the amount of movement with no image stabilisation turned on

As you can see there is quite a bit more vertical movement, bearing in mind that the previous images were taken using Panning(or sports mode) which stabilises vertical movement only since the camera expects you to be tracking horizontally and so no point trying to counter that motion.

Regardless of whether you have image stabilisation on or off you will encounter some movement of the image unless you are using a tripod and even then it is worth checking.

1

2

3

Taking a closer look at the individual images taken without image stabilisation we can see that we still managed to get one sharpish(!) image.

So we know that our equipment is at least capable of doing better than what is showing in the other 4 images.

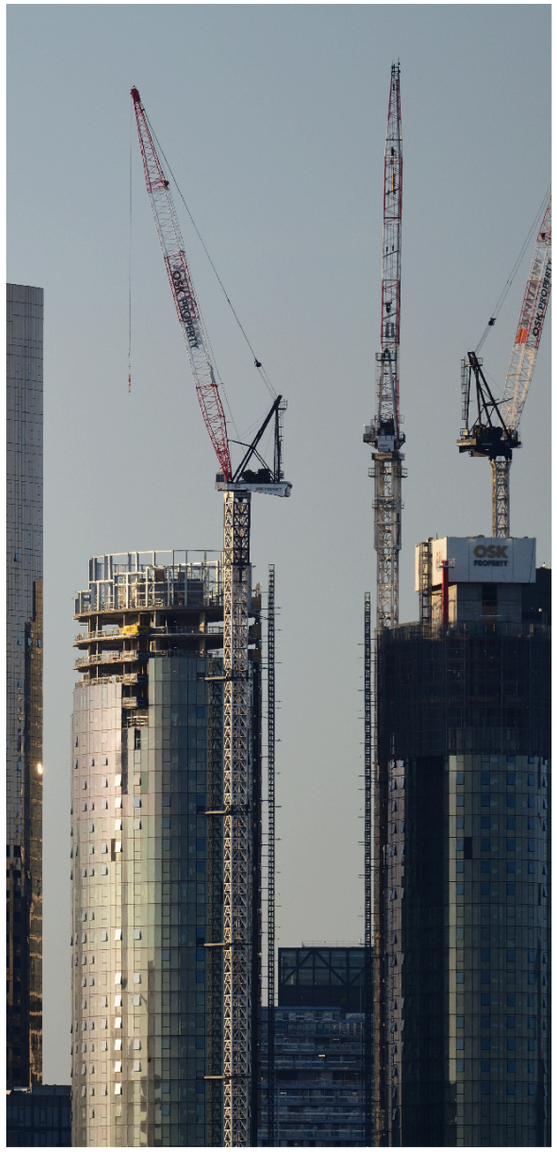
Bear in mind that these images were taken with a slow shutter speed of 1/100s and at a focal length of 700mm so without the help of image stabilisation or a stable tripod it will be near impossible to get sharp images.

At a minimum you should be getting A.

1

2

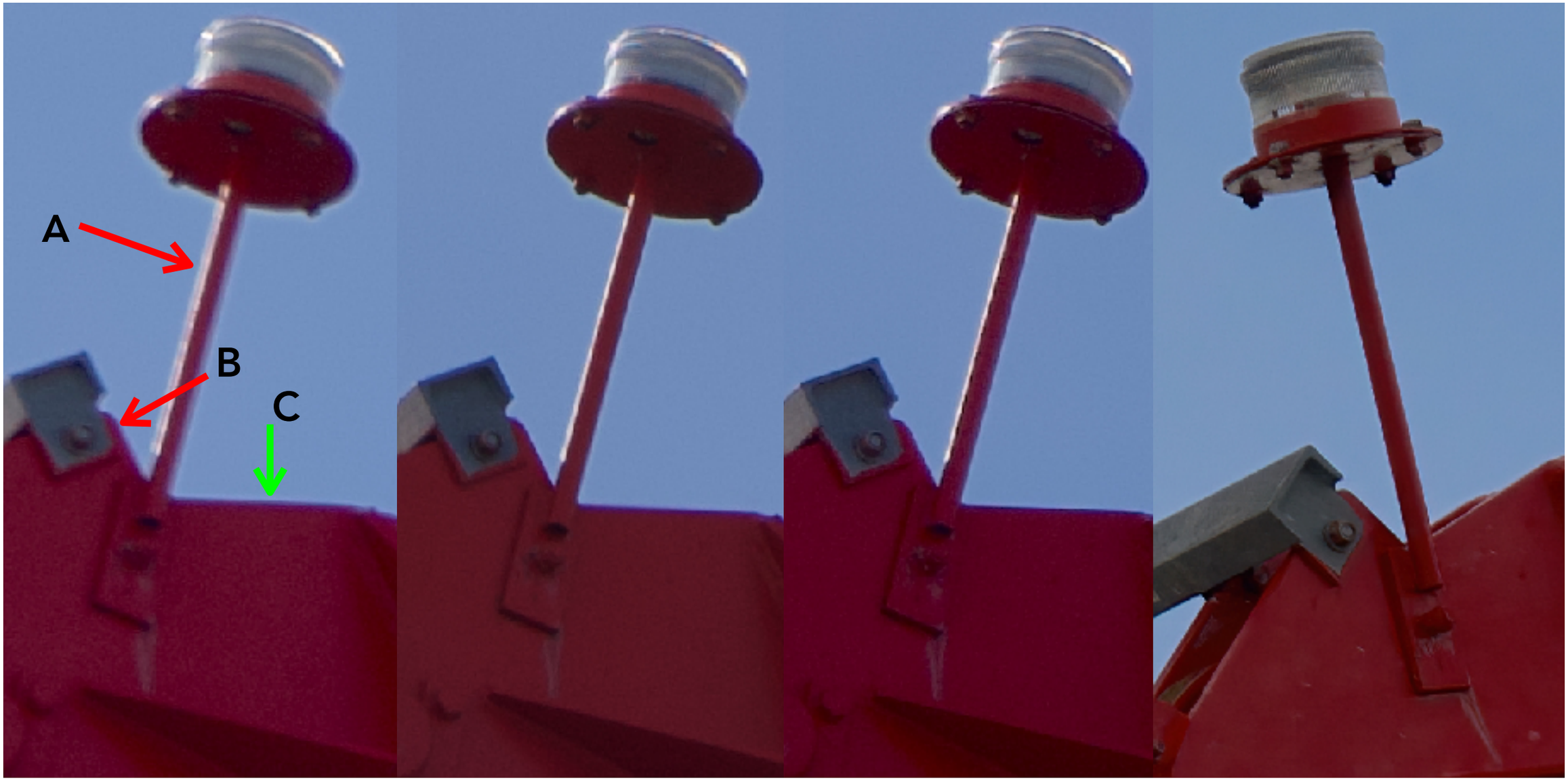
3



4

Let's take a closer look at the images to see what we can find.

1. Clearly the main image is tack sharp with the cables, crane structure and building lines showing as fine detail.
2. Zooming right in to 100% shows the same
3. And zooming in even further until we see some pixelation we can see there is no evidence of any vertical or horizontal blurring or double lines.
4. In this image we can see the same subject from two other cameras were there is noticeably less sharpness but still no evidence of any horizontal or vertical blurring.



1 2 3 4

So what does it mean if there is vertical or horizontal blurring evident in the images ?

1. Here we can see the vertical lines appear to have double images while the horizontal lines, while not sharp don't show double artefacts
2. In this image there is no sign if any such artefacts
3. And in this image the lines are even sharper. In addition the definition in the light is starting to become more evident
4. And a processed image from a ultra-sharp prime lens

Sony Alpha 9 200-600 @600mm 1/2000s f6.3 iso5000 is:standard handheld at 6m

FAQ:

1) Why not lossless compressed?

I do explain that lossless compressed means you can't get 30fps - so if you don't need 30fps definitely use lossless compressed.

Take a look at the videos on the following pages to see how many compositions you would miss shooting at slower FPS.

I would rather the best wing positions/compositions than a barely noticeable improvement in dynamic range.

A sequence of 44 images with many great shots of the outstretched wings to choose from from 1.5 seconds of ‘action’.

If you are shooting at 5 frames per second you would be lucky to get any of the wings in a good position.

At 20 fps there is 30% less chance of getting that perfect pose where everything lines up.

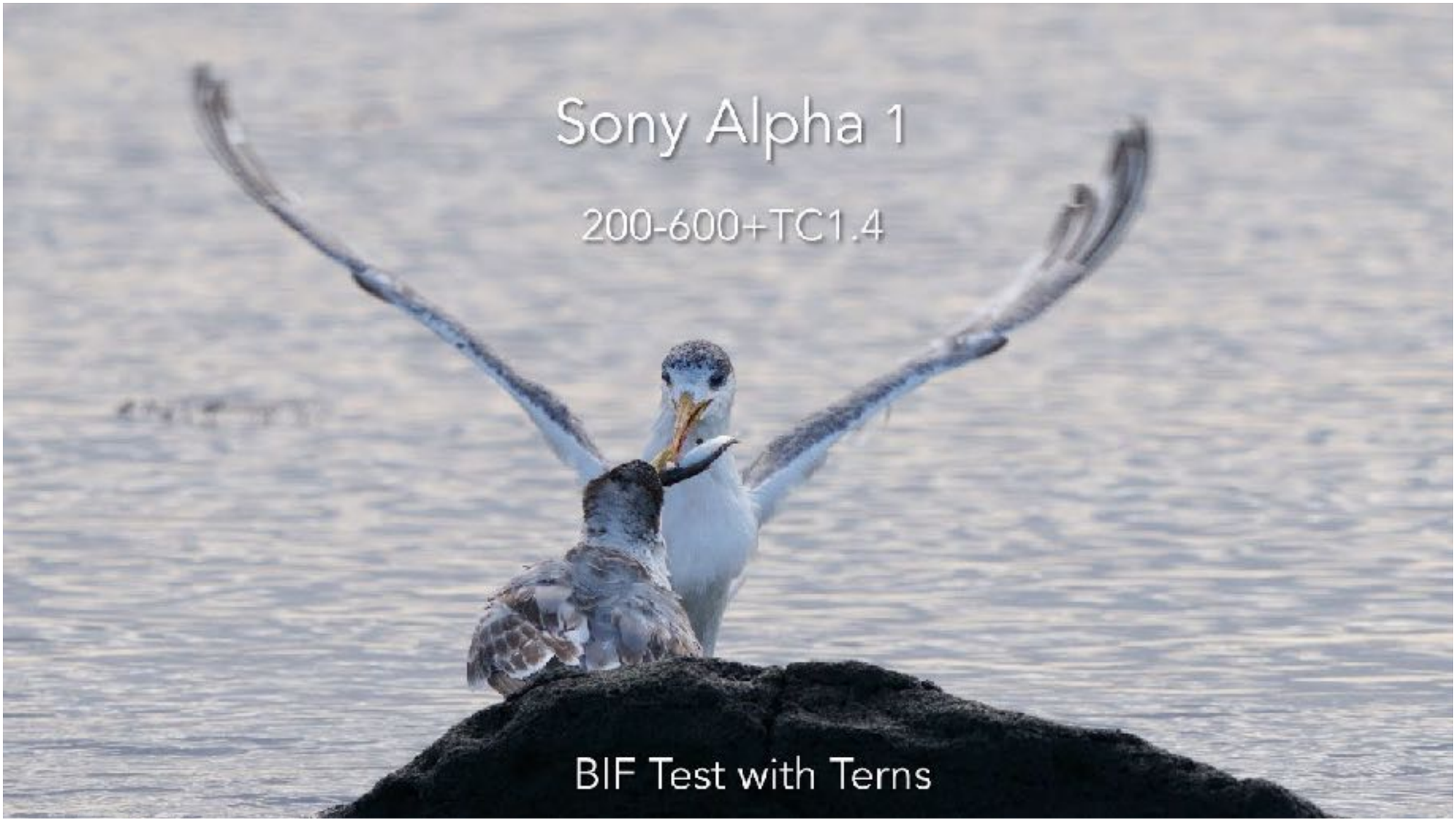
This was a test in the back yard so the background is not ideal for keepers.

Another much longer sequence of a New Holland Honeyeater catching bugs.

Who would have know they stack them up in their beak like a guinea-pig filling its cheeks.

Out of the hundred odd images there are a number of great images where the bug and the bird is in focus and in a good position.

Reducing the shutter speed substantially reduces the chance of getting a great image with the fast little birds.



And finally a sequence of shots of a tern catching a fish, dropping it and diving to retrieve it again, then nearly loosing it as it breaks apart - *not for fish lovers* - and finally flying in to feed its chick.

Once again without the high frame rate many of the little subtle movements would not be picked up. If you watch carefully you can see how the parent hand the fish to the chick and then does a quick little movement to rotate the fish so it is pointing head first into the chicks mouth.

Sony Alpha 1 200-600 TC1.4 @840mm 1/40s f9 iso250 is:standard handheld at 120m

2) Why not set minimum shutter speed along with auto ISO?

I only shoot in manual and control the shutter speed. Mostly just shooting aperture wide open for wildlife to get the most light on the sensor with the best light is morning/evening so it's a pinch at the best of times anyway.

Shutter speed could change from 1/40 to 1/8000 at a moments notice depending on what is happening out there.

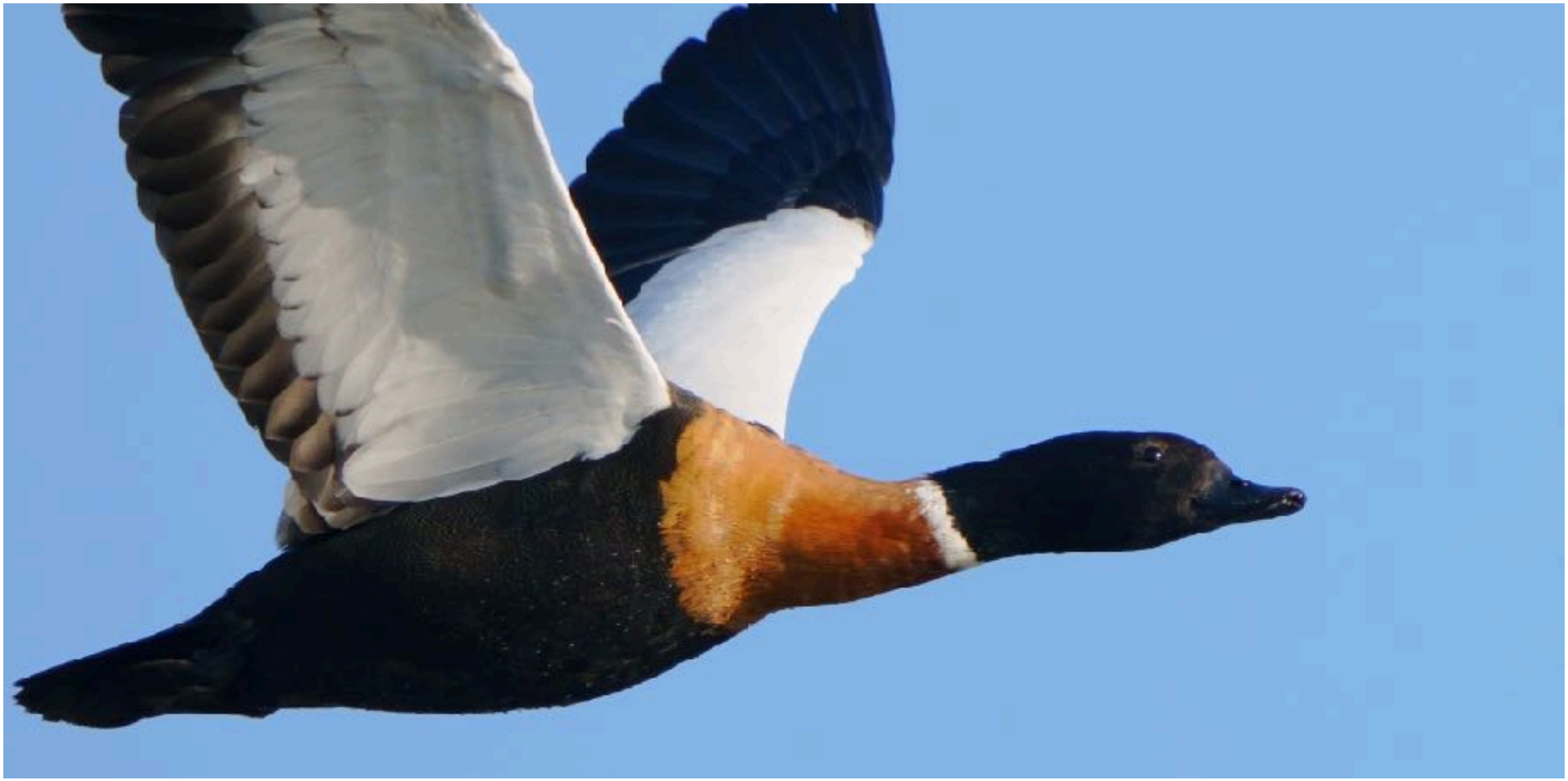
See this one above taken in very low light at 1/40s at 120 meters. But if the sun breaks through a second later...

Sony Alpha 1 200-600 TC1.4 @840mm 1/1600s f9 iso6400 is:standard handheld at 120m

Or the bird decides to take flight….

Note the low shutter speed in an unsuccessful attempt to get enough light on to the sensor to keep the iso level down.

Even with noise reduction the image is lacking any real detail.



Sony Alpha 1 200-600 TC1.4 @840mm 1/3200s f9 iso2500 is:panning handheld at 40m

In better light you can use a higher shutter speed and still keep the iso levels in a usable range.

If you look under the wings you can see signs of noise and lack of detail in the shadows but the rest of the image is pretty decent.

Sony Alpha 1 200-600 TC1.4 @840mm 1/4000s f9 iso2000 is:standard handheld at 20m

A blindingly sharp image at 1/4000s with perfect light.

Nikon D850 200-500@500mm 1/4000s f7.1 iso640 is:standard handheld at 30m

And the Nikon colour magic with a high shutter speed for a sharp image with great eye detail

Sony Alpha 9 III 600 f/4 + 1.4TC @840mm 1/4000s f5.6 iso500 is:standard handheld at ~30m

Despite only being 24mp the Sony A9 III delivers surprisingly sharp and detailed images.

Sony Alpha 9 III 600 f/4 + 1.4TC @840mm 1/4000s f5.6 iso400 is:standard handheld at ~30m

The Sony A9 III excels at action wildlife with lightning fast acquisition

Sony Alpha 9 III 600 f/4 + 1.4TC @840mm 1/4000s f5.6 iso400 is:standard handheld at ~30m

and incredibly high focus accuracy.

Sony Alpha 9 III 200-600@524mm 1/8000s f6.3 iso1250 is:standard handheld at ~4m

It is outstanding for capturing small fast birds, particularly with the Sony zoom lens.

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Incredibly sharp and detail images are possible even with swallows in flight.

Sony Alpha 9 III 200-600@382mm 1/8000s f6.3 iso6400 is:standard handheld at ~4m

And of course with 120fps the A9 III is in a class of its own when it comes to capturing the moment.

Sony Alpha 9 III 200-600@382mm 1/8000s f6.3 iso6400 is:standard handheld at ~4m

And then there is the problem of there being too many perfect images to choose from !

Sony Alpha 9 III 200-600@382mm 1/8000s f6.3 iso6400 is:standard handheld at ~4m

And then there is the problem of there being too many perfect images to choose from…

Sony Alpha 9 III 200-600@382mm 1/8000s f6.3 iso6400 is:standard handheld at ~4m

And for some strange reason this bug gets to live another day !

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

What the spiders legs careful in the following images…

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

We can even see the spider start raising it's legs as if to ward off the swallow

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Poor little spidy!

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Notice the ripple caused by the vortex coming off the birds beak

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

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Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Skipped a few frames…

Sony Alpha 9 III 200-600@600mm 1/4000s f6.3 iso800 is:standard handheld at ~4m

Skipping a few more frames…. “Ughh… salt water !!”