# The ULTIMATE FS5 Quickstart

# Power Button


- Yeah haha but I've seen students look for it for over 45 seconds.

# Using the LCD or the Viewfinder


- You gotta be able to see what you're doing innit
- • By default, the viewfinder is off when the LCD is on.
- • The power switch for the LCD is on the top of the LCD.

**Switching Between LCD and Viewfinder**

- Menu/ Display Set/ VF/LCD Panel/You have two choices in this menu setting:
  1. LCD Panel: this turns off the viewfinder (eyepiece).
  2. AUTO: this will turn off the LCD when you put your eye up to the viewfinder. You may(will) accidentally turn off the LCD using this setting

# SD Card Slots - 2 X 64 GB


- Slot Select Button shortcut: to determine which card to record to
- Menu Selections:
  Menu button and SEL/SET wheel

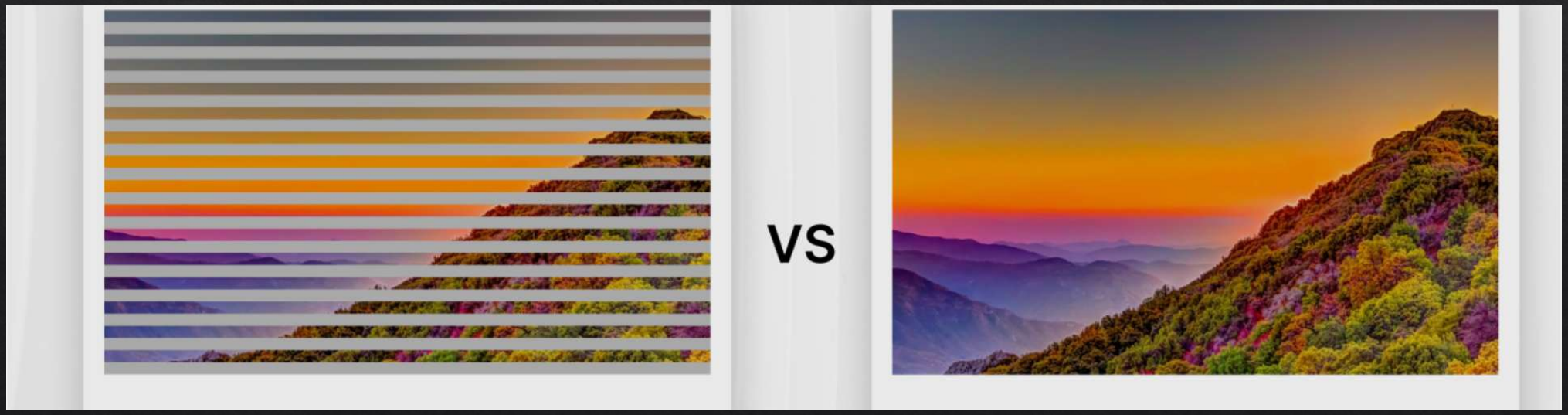


# Menu: first things first

- Go to System Menu/ Media Format and format both SD cards – this will erase all data from the previous user
- Go to System Menu/Initialize to – this sets all menu items back to the factory presets

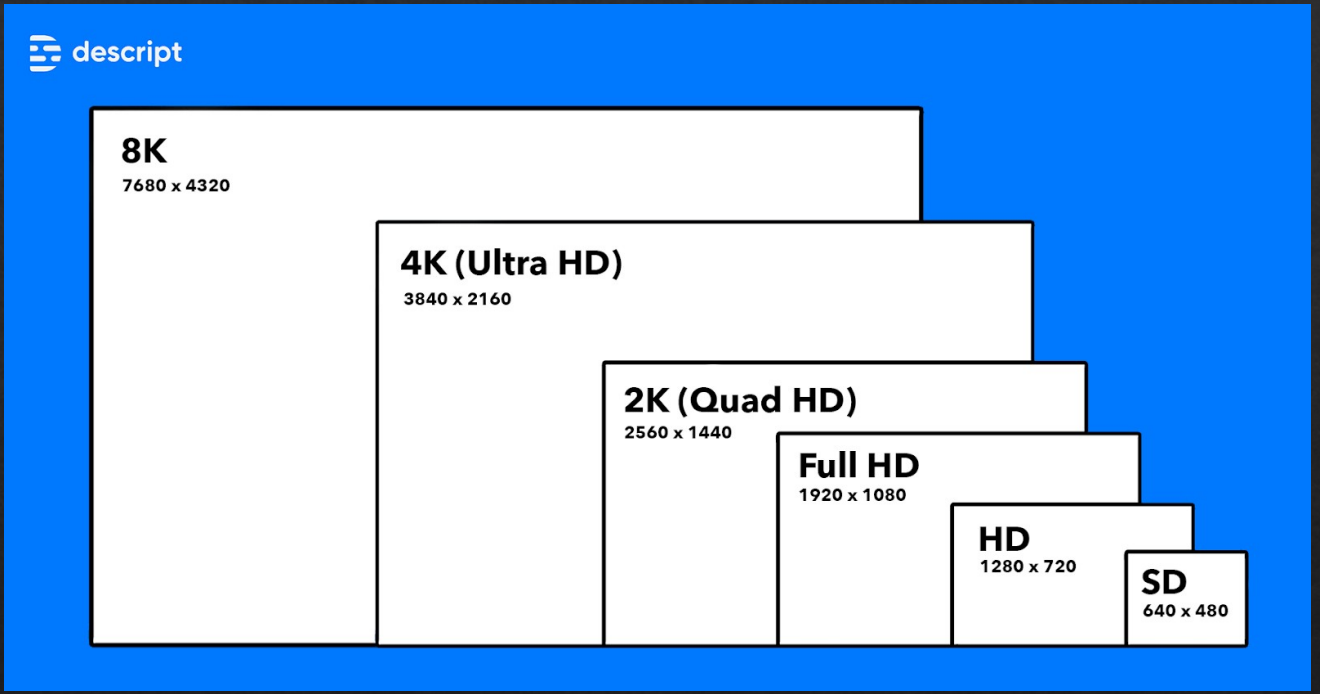
# FS5 Recording formats (ohmgsofun)

- Progressive NTSC (US):
  24p (23.98 fps), 30p (29.97 fps) or 60p (59.94 fps)
- Interlaced NTSC (US):
  60i (60 fields or 29.97 fps interlaced)
- Progressive PAL(EU): 25p, 50p
- Interlaced PAL (EU): 50i (50 fields or 25 fps interlaced)



# Choosing a framerate / common resolutions

- NEVER shoot interlaced frame rates unless explicitly asked. All display equipment is now progressive.
- 1080 50p = 1920 x 1080 50 fps progressive
- 1080 25p = 1920 x 1080 25 fps progressive
- 1080 50i = 1920 x 1080 25 fps, 50 interlaced fields (**AVOID THIS** or don't I'm not your boss)
- 2160 25p = 3840x2160 25 fps progressive



# Sony FS5: Three Recording Codecs

- XAVC HD, XAVC QFHD 4K, AVCHD (QFHD – Quad Full High Definition)
- **XAVC HD** 4:2:2 MPEG 4 Long Profile (10 bit)
- **HD** 1920x1080 60p, 50p, 25p at 50 mbps
  Slow motion HD in 1920x1080 up to 480p
  Slow motion HD in 1280x720 up to 960p
- **XAVC QFHD 4K UHD** 3840x2160
  4:2:0 MPEG 4 Long Profile (8 Bit)
  4K UHD 25p at 60 or 100 mbps
- **AVCHD**- lower quality HD format (DON'T USE THIS) – very lightweight and good for beginners

# When to use 4K

- You may assume that 4K video is the best quality recording format.
- 4K QFHD is a larger but lower quality image than XAVC HD. It has about half of the color information of XAVC HD, making it much harder to color correct. It is also more prone to image noise at higher ISOs.
- Your level of capability is directly tied into the resolution you choose.
  - Setting up the camera with the correct settings is a basic skill – 4K for recropping
  - If you intend to work off of the footage in post and grade it – 1080P
- Our delivery is always 1080p 25

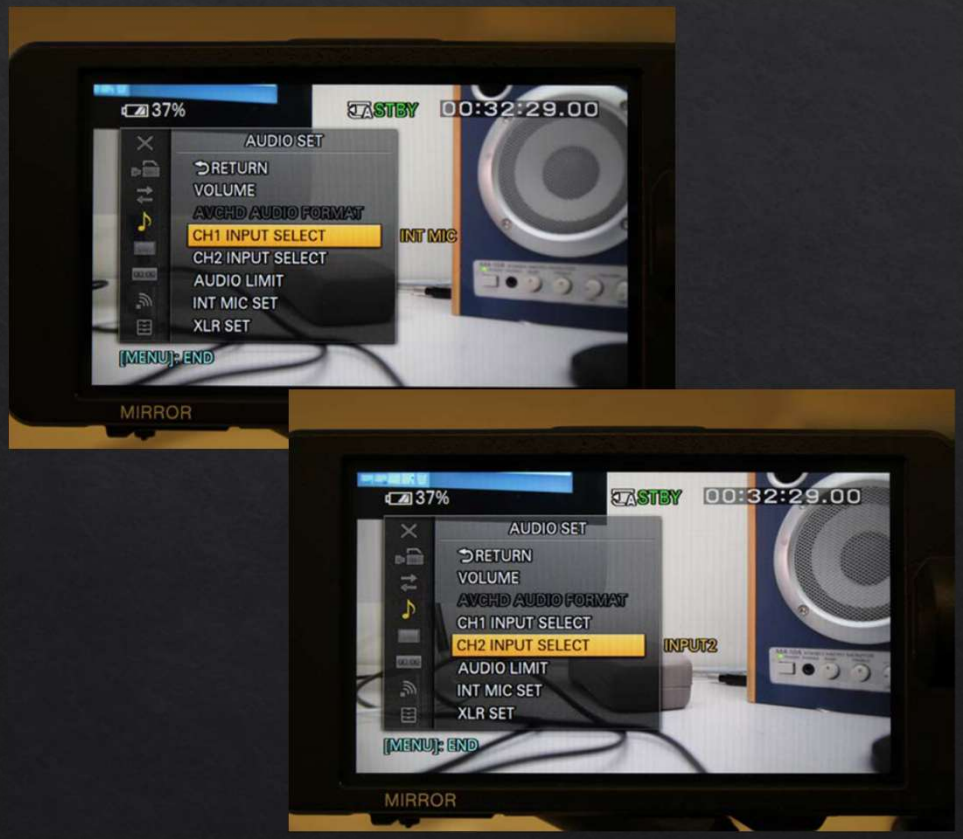
# Choosing a format / Card recording options


- Rec/Out Set Menu/ Rec Set
- Relay Rec will allow you to record between card A and B seamlessly (without gaps)
- Simultaneously Rec will record to both cards at once or you can assign different record buttons on the camera to each card

# Sony FS5: The audio


- The camera has a built-in stereo microphone on the handle which is a mic I guess (not amazing).
- It has also has two XLR inputs and a hot shoe.

# Choosing Audio Input




- When the external microphone is plugged in choose:
  Audio Set Menu/ CH2 Input Select/Input 2.
- CH1 Input Select can remain on Internal Mic if there is no other microphone– this is the stereo microphone on the handle and it's a good backup. You don't have to use this channel.

# Audio Controls- Auto or Manual

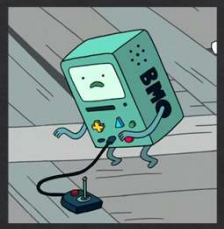


- Flip down the little door to adjust the audio volume levels manually.
- The problem with auto audio
- Monitor by plugging in headphones but ideally sitting at -12 (Headphone level is controlled in the Audio Set menu.)

# The Full Auto (no)


- Although the camera has many controls, you can operate it in FULL AUTO mode with AUTO exposure, AUTO white balance and AUTO focus.
- Toggle the button to go from Full Manual Exposure to Auto Exposure.
- FULL AUTO also adjusts white balance automatically but slowly (and noticeably).
- Notice the “A” symbol next to the IRIS, ISO and Shutter speed in the display.

# More Full Auto (no)





- The AE SHIFT menu item controls automatic exposure compensation. Every shot can be deliberately under or overexposed by the camera. This is more useful for when you are shooting log but in auto for some reason.
- If you are shooting in auto exposure but **not** using a SLOG picture profile then there should be no AE Shift ( 0 EV). Check this in the LCD display or menu setting.




# Focus.

- Auto/Manual Focus Toggle on Camera Side
- Focus Magnification button on Handle
- Control Focus with the smaller width ring
- For continuous Auto Focus, move the switch to AUTO (but don't)
- Focus Peaking is available if (when) you need it, in the DISPLAY SET/PEAKING menu.

# About the Lens.



- Sony E PZ 18-105mm f/4 G OSS Lens
- We have a Mediazone-only Lens kit for the Sony FS5 – some of the lenses use a Sony E Mount adapter
- This lense supports Steady Shot
- Keep Steady Shot on Normal
- It is advised to turn off Steady Shot when the camera is stationary on a tripod
- • CAMERA/PAINT MENU /STEADYSHOT

# Slow Motion Recording

- The camera has two possible slow motion speeds: a S&Q motion setting and a Super Slow Motion setting.
- In each of these settings, there is a REC FORMAT, the recording format that determines how the clip will be interpreted by editing software like Premiere, and a FRAME RATE, the actual frame rate that the camera is shooting in.
- When shooting slow motion, the REC FORMAT will always be fewer frames per second than the FRAME RATE.
- •These settings can be made in Menu/ Camera/Paint/ Slow&Quick
- S&Q settings can go up to 60 fps
- Super Slow Motion settings can go up to 960 fps (with restrictions on cache)


SONY PXW-FS5
SLOW MOTION
IMAGE QUALITY TEST
SONY
4K

# Slow and Quick (slow motion)

- Here the S&Q frame rate is 60fps and the recording format is 1080 30p.
- The camera will shoot at 60 frames per second.
- But the file will appear in Premiere as 1080 30p and play back on a 1080 30p sequence at 50 percent speed.

# Super Slow Motion

- Here the super slow motion frame rate is 120 fps and the REC FORMAT is 1080 30p.
- This means that the file will appear in Premiere and play back on a 1080 30p sequence at 25 percent speed.

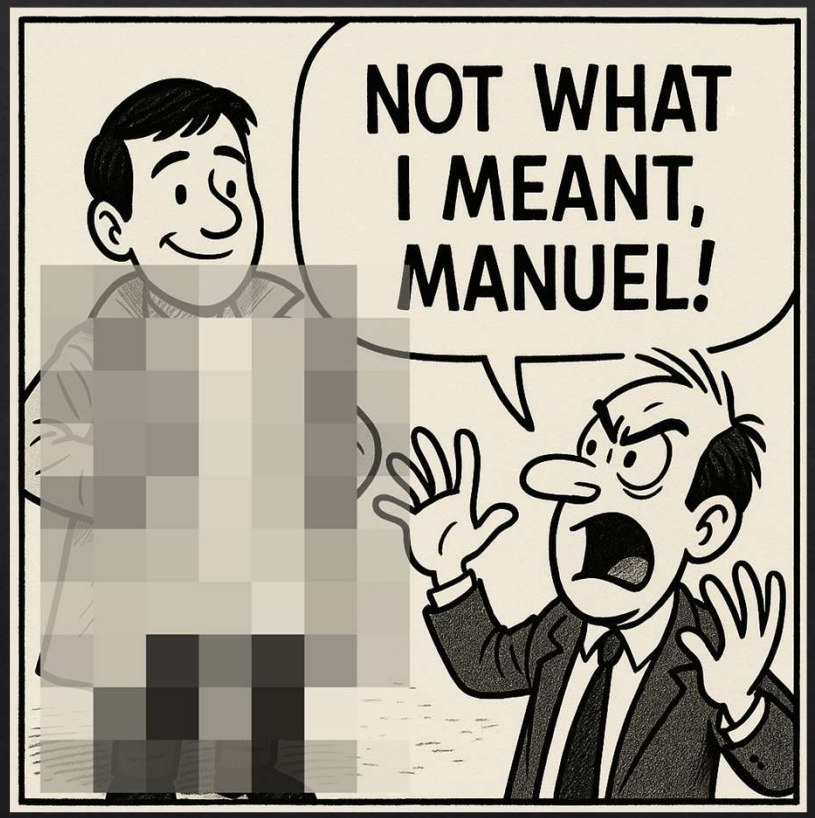
# Super Slow Motion Trigger

- You must set the Rec Timing for super slow motion frame rates (frame rates above 60p).
- It is not possible to shoot at High Frame Rates for long durations.
- Set the REC TIMING menu item for when to trigger the recording.
- START TRIGGER begins recording once you press the record button.

# Slow and Quick Shooting


- Press the S&Q button to toggle between the normal frame rate, the slow motion frame rate and super slow motion frame rate.
- The frame rate will appear in the LCD display.
- You cannot record sound in S&Q mode.
- The higher your frame rate, the higher the shutter speed that will be required to avoid motion blur.
- •Remember that the rule of thumb for shutter speed is double the frame rate

# Manual Exposure




- Manual exposure relies on the following things:
  - White Balance
  - Iris
  - Shutter Speed
  - ISO
  - And possibly ND filter settings

# Manual White Balance



- The camera will White Balance in FULL AUTO Mode but Manual White Balance is preferable. The WHT BAL button toggles between manual and auto white balance.
- To do a manual white balance, set the WHIT BAL switch on the side of the camera to either A or B (you can store two manual WB settings).
- Point the camera at a white card with light falling on it. Press the WB SET button on the front of the camera.
- The Preset Switch is controlled by the Camera Menu:

# White Balance Menu Settings


- CAMERA PAINT/WB PRESET. There are indoor/outdoor and color temperature presets.
- Manual White Balance does not work in SLOG. The white balance is set in the SLOG Picture Profile settings.
- On the WB toggle switch on the side of the camera, the last setting PRESET is determined by the WB TEMP SET in the CAMERA/PAINT menu.

# ISO/Gain Settings

- The ISO/Gain switches can be set to control either ISO or GAIN presets.
- There are three presets (L, M and H) set in the Camera/Paint menu under ISO/GAIN SEL.
- So you can have three GAIN or three ISO settings to choose from.
- 0dB gain is the native ISO of the camera. This will ensure that there is no noise in the image. If you need more light sensitivity, increase to the minimum amount of GAIN. Start with 3 dB.
- If you are shooting with a SLOG Picture Profile, then use ISO settings as your presets. 3200 ISO will give you the maximum dynamic range of the camera, and (when properly exposed) no visible noise.
- You may also wish to use ISO settings if you are judging exposure with a handheld light meter.



# Manual IRIS adjustments


- There are two wheels to adjust the IRIS.
- To use the wheel on side of the camera, select the IRIS switch next to the wheel.
- Or use the wheel on the hand grip.

# Manual Shutter Control

- Press the SHUTTER button to toggle between manual and auto shutter. In manual, move the
- SEL/SET wheel to adjust shutter speed and then press the SEL/SET wheel to maintain that speed.
- If the shutter speed falls below twice the frame rate, you will have motion blur.
- The faster the shutter speed the more staccato-like the motion.
- Don’t adjust shutter unless you want a motion effect.
- Keep it at twice the frame rate. (notable exceptions)

# ND Filters






- ND Filters cut light (make the image darker).
- By default the ND filter knob should always be in the CLEAR position.
- The ND filter knob functions like a normal ND preset toggle switch when the switch below is set to PRESET.
- You can set three ND levels in the CAMERA/PAINT menu.
- FOR VARIABLE: Move the ND filter knob to the highest (darkest) preset, turn the switch below to VARIABLE and then turn the switch below that to ND.
- The wheel will then adjust the ND level variably.
- The variable ND is useful if you want to maintain a consistent f stop (IRIS) in variable light conditions.
- It is a simple way to adjust exposure without affecting depth of field.

# Measuring ND Filters

- The presets are literally calculated by the **inverse fraction of transmission**:
  - ND **1/4** → lets **1/4** of the light through = **2 stops down**
  - ND **1/16** → lets **1/16** of the light through = **4 stops down**
  - ND **1/64** → lets **1/64** of the light through = **6 stops down**
- Each "stop" is just halving:
  1 → 1/2 → 1/4 → 1/8 → 1/16 → 1/32 → 1/6
- **Count how many times you divide by 2** to reach the relevant Stop - DUMB
  **1/32** > 1/16 > 1/8 > ¼ >1/2 = 5 Stops

# Histogram


- Keep the Histogram in the Display to judge overall contrast and whether areas are over or underexposed.
- Display Set Menu/ HISTOGRAM
- In a studio situation, you may plug in an external waveform monitor to judge exposure more accurately.

# System Menu/Assign Button


- Make life easier. Assign shortcuts.

# Picture Profiles

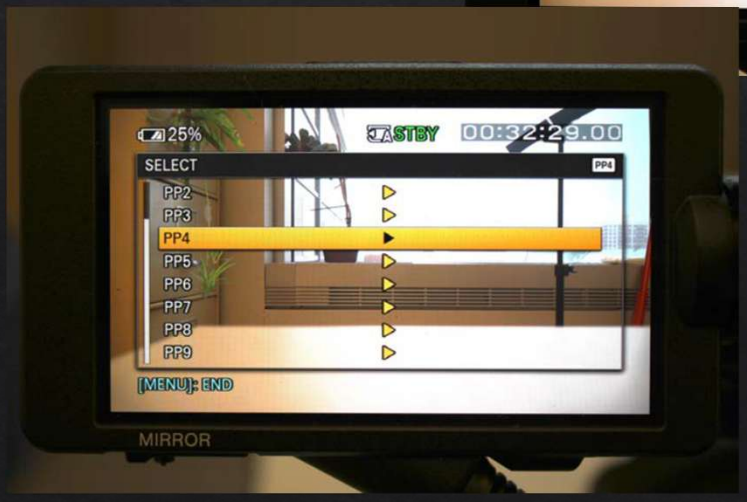
- This guide refers to the default settings in each Picture Profile.
- Each Picture Profile can be adjusted, therefore it is wise to initialize the menu settings of the camera before you begin shooting.
- Go to System Menu/Initialize to – this sets all menu items back to the factory presets
- As you become more familiar with the Profiles, you may wish to adjust them to suit your tastes.
- Graduation is a good example of using a custom picture profile

# Picture Profiles


- Picture Profiles determine the look of the image: they are presets that determine image contrast, color and dynamic range. They are similar to Picture Styles in a Canon DSLR camera, but more complex.
- The Picture Profiles may be OFF. You do not have to choose one.
- There are nine to choose from.
- There is a button on the camera that takes you directly to the Picture Profile choices.
- Understanding how to use them will directly affect your quality.

# Picture Profiles



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