

L e e m i n g L U T

ONE

Sony 4K Cameras - Setup Guide

Manual Version: v3.0

## INTRODUCTION

Thank you for purchasing Leeming LUT One™, the best Look Up Tables (LUTs) for Sony 4K capable cameras that support Picture Profiles.

The LUTs have been carefully developed to get the maximum dynamic range out of the various profiles, while minimising colour noise, fixing Sony's rather garish default colour science, and giving you pleasing, cinematic skin tones.

Use them in conjunction with this setup guide and ETTR shooting principles to get the highest possible quality images out of the camera.

I am confident you will find these the best LUTs for supported 4K Sony cameras. Anything less and I wouldn't have put my name on them!

Enjoy :)

A white handwritten signature on a dark background, appearing to be 'PL' or similar initials.

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## REQUIREMENTS

1. Sony 4K digital camera (currently tested cameras include the A7S, A7S II, A7R II, A6300, RX10 II). Make sure you are running the latest firmware.
2. Spectrally neutral white or grey card, for white balancing the camera (eg. the white balance side of the X-Rite Colorchecker Passport Photo is designed for this).
3. Leeming LUT One™ for Sony (Cine1 Pro, Slog2 Pro and/or Slog3 Pro).

CAMERA SETUP FOR SONY A7S II (representative only - your camera may not have all the same features but the basics will be the same across the range - adjust as necessary)

Due to the plethora of menus and sub-menus, the location of each setting will be referred to by their section number first, then the respective menu page within that section:

1 - Camera

2 - Custom

3 - Wireless

4 - Application

5 - Playback

6 - Setup

1. 6-6 Setting Reset - Restore defaults before continuing further, to ensure no buried settings changes will affect the image quality (especially in the Picture Profiles).
2. 6-3 NTSC/PAL Selector - As required, depending on your project. You may have to format your SD card after changing this so be sure you have backed up your footage!
3. Rotate the top dial to MOVIE mode and the EXPOSURE dial to 0.
4. 1-2 Change File Format to XAVC S 4K and Record Setting to 24p100M.
5. 1-4 Change ISO to the base ISO 3200 (this can be adjusted up or down later, depending on the scene).
6. 1-5 Change White Balance to Custom Setup and DRO/Auto HDR - OFF.
7. 1-5 Picture Profile Settings:

- a. Select Picture Profile - PP1 - right arrow to adjust individual settings within the profile (this will be referred to as the Cine1 Pro profile once set):

Black Level	0		
Gamma	Cine1 (for PP1)	Slog2 (for PP2)	Slog3 (for PP3)
Black Gamma	Range - Middle		
	Level - 0		
Knee	Mode - Auto		
Color Mode	Pro		
Saturation	0		
Color Phase	0		
Color Depth	0		
Detail	-7		

- b. Select Copy at the bottom of the profile adjustment menu, then choose PP2 to overwrite it with the same settings. Copy once more but choose PP3 as the target.
- c. Go back to the main Picture Profile section menu and select PP2 which we just created. Change Gamma to Slog2 and leave the rest as listed above. Select OK.
- d. Go back to the main Picture Profile section menu and select PP3 which we just created. Change Gamma to Slog3 and leave the rest as listed above. Select OK.
- e. We now have the three Picture Profiles set, which the LUTs are built around: PP1 is Cine1 Pro, PP2 is Slog2 Pro, and PP3 is Slog3 Pro.

8. 1-7 MOVIE/HFR to Movie/Manual Exposure.
9. 1-8 SteadyShot to OFF (if applicable) unless you are shooting handheld, and Auto Slow Shutter to OFF.
10. 2-1 Depending on the Picture Profile in use, you will need to adjust the ZEBRA as follows (using C2 Lower Limit) to accurately show the ETTR overexposure limit:
  - a. Cine1 Pro (PP1) C2 Lower Limit 109+
  - b. Slog2 Pro (PP2) C2 Lower Limit 107+
  - c. Slog3 Pro (PP3) C2 Lower Limit 95+

The above limits have been tested to show the edge of overexposure, but you may want to drop each by 1% to keep a slight safety buffer (eg: 108+, 106+ and 94+ respectively).

**\*\* Don't forget to adjust the Zebras each time you change Picture Profiles, otherwise the ETTR warning function of the zebras will not work as intended.**

11. 2-2 Set the Peaking Level to LOW and the Peaking Color to RED (or your preferred color).
12. 2-3 Choose how you wish to use the Finder/Monitor. I recommend Auto unless you prefer to always use one or the other.
13. 2-6 First set Lens Comp. to ALL OFF. For Custom Key Settings, I've found the following to be useful for video shooting, but you can adjust as you wish:
  - a. Control Wheel ISO
  - b. Custom Button 1 MOVIE (Start/Stop Recording)
  - c. Custom Button 2 White Balance
  - d. Custom Button 3 Focus Magnifier
14. 2-7 Dial Setup - FRONT DIAL to F/no. And REAR DIAL to SS (shutter speed).
15. 5-1 View Mode to XAVC S 4K View.
16. 6-1 Gamma Disp. Assist to OFF. (the zebras are designed to function with this set to off, and may not behave as expected with it set to on).
17. 6-3 HDMI Settings - as required depending on your external recorder or monitor.
18. 6-5 Copyright Info - you can set this as required, or you can leave it blank. Now format your SD card for the current settings.
19. Select your desired Picture Profile (menu 1-5) for shooting (Cine1 Pro is recommended for maximum tonality but Slog2 / Slog3 Pro can also be used, with greater risk of banding).
20. Adjust the Zebras (menu 2-1) to the relevant ETTR Lower Limit (see table above).
21. Rotate the TOP DIAL to M, press the C2 button (set earlier to Custom White Balance), choose Custom Setup and aim the target circle in the middle of the white balance card. Make sure the image is correctly exposed, then press OK to set the Custom White Balance. Rotate the TOP DIAL back to MOVIE. Get used to this white balancing process, as it's the key to maximum dynamic range across the three R G B channels. (Why Sony don't allow Custom White Balancing in Movie mode is beyond me, given it's a necessity to get the best image out of the 8 bit recording!)
22. Press the DISPLAY button (UP on the CONTROL WHEEL) until you see the mode that shows you the HISTOGRAM.
23. Using the histogram and zebras, ETTR (Expose To The Right) until you see the clipping point of the zebras, then adjust your exposure down until the zebras just disappear.

You are now ready to use Leeming LUT One™ with the maximum picture quality available. Be sure to visit the website to read up on how to use ETTR (Expose To The Right) principles to get the most dynamic range out of your sensor, as well as the associated Leeming LUT One™ Installation Manual on how to apply the LUT to your footage in post-production:

[www.LeemingLUTOne.com](http://www.LeemingLUTOne.com)

## LICENCE

You are granted a personal licence to use Leeming LUT One™ on a single desktop plus a single laptop (or any combination of two computers). For use with more computers, please contact Visceral Psyche Films for bulk discount pricing. All updates to the product are free of charge. You may not upload the LUT anywhere or share it with other people. Please respect the work that has gone into the LUT and support those supporting you. Thank you!

## COMPATIBILITY

Leeming LUT One™ is compatible with any NLE that uses the .cube LUT format. It has been successfully tested with Adobe Premiere CC 2015, Davinci Resolve 12, Final Cut X (with a LUT plug-in) and Sony Vegas 13 (with a LUT plug-in).

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