# Leeming LUT PRO

Camera Setup Guide: DJI Mavic 4 Pro

Colour Space: Rec709 gamma 2.4

Target Exposure: ETTR

LUT Version: Pro 4

Guide Version: 2025.09.04

## INTRODUCTION

Thank you for purchasing Leeming LUT Pro™, the most accurate and professional Look Up Tables (LUTs) for your camera.

The LUTs have been carefully developed to get the maximum dynamic range and colour accuracy out of the supported profiles, giving you unparalleled Rec709 precision as well as perfect camera matching with other supported cameras in the Leeming LUT Pro™ range. Use them in conjunction with ETTR shooting principles and you will get the highest possible quality images out of the camera every time.

I am confident you will find these the most accurate LUTs for your camera. Anything less and I wouldn't have put my name on them!

Enjoy:)

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## **LICENCE**

You are granted a personal licence to use Leeming LUT  $Pro^{TM}$  on three devices. For use with more devices, please contact Visceral Psyche Films for bulk discount pricing. You may not upload the LUTs anywhere, share them with other people or incorporate them into other LUTs for derivative use (i.e. making creative LUTs using Leeming LUT  $Pro^{TM}$  as the underlying base), whether they be for sale or not. Please respect the work that has gone into the LUTs and support those supporting you.

## **COMPATIBILITY**

Leeming LUT Pro™ is compatible with any software or hardware device that supports a 33x33x33 cube LUT.

## **REQUIREMENTS**

- 1. DJI Mavic 4 Pro series drone.
- 2. Spectrally neutral white or grey card, for white balancing the camera.
- 3. Leeming LUT Pro 4 DJI Mavic 4 Pro.

NOTE: Items highlighted in yellow have an adverse effect on LUT accuracy if changed away from the recommended values in this guide.

## **QUICK REFERENCE OF IMPORTANT CAMERA SETTINGS**

The settings below are recommended for the LUTs to work properly, in conjunction with an accurate white balance and using the ETTR zebras to show where the highlights of an image are clipping.

If you deviate from these settings, your colorimetry and luma curves won't match precisely to Rec709 and you may get other errors in your footage. You can find the details of how to set these in the next section.

	D-Log	D-Log M	HLG	Normal
Histogram	ON	ON	ON	ON
Overexposure Warning (Zebras)	ON	ON	ON	ON
Color Display Assist	OFF	OFF	N/A	N/A
Sharpness	-2	-2	-2	-2
Noise Reduction	-2	-2	-2	-2

#### **FULL CAMERA SETUP GUIDE**

Based on the Mavic 4 Pro, using the DJI Fly phone app interface. Your camera may not have all the same features so adjust as necessary.

- 1. Start the DJI Fly app, then press the Connect Aircraft button.
- 2. First tap on the film strip icon above the red Record button on screen on the right hand side, and select Video Mode, then exit.
- 3. Tap on the three dots top right of screen to enter the Menus.
- 4. Safety set your max altitude and distance as well the Auto RTH (Return to Home) Altitude. You can also calibrate your gimbal and compass here, as well as unlocking Geo Zones etc. I recommend setting Signal Lost to Return To Home (make sure your RTH Altitude considers local heights of objects to avoid the drone crashing into them when on autopilot!). Set Auxiliary LED to Auto (the downward facing LED).
- 5. Control Choose your flight mode etc and Units as desired.
- 6. Camera Set Color to D-Log (my recommendation) or D-Log M and Video Codec & Compression as desired (if you have the 512GB internal SSD version of the Mavic 4 Pro I recommend All-I internal SSD recording which gives you 10bit 4:2:2, as the H265 is only 10bit 4:2:0). Set Video Subtitles (provides a data stream of camera and drone position etc for post in a separate SRT file next to the movie file) as desired. Set Style Sharpness -2 and Noise Reduction -2 for best quality results.
- 7. Turn Histogram ON if desired and Overexposure Warning ON. If using Manual Focus, set your Peaking Level as desired. Turn Color Display Assist OFF when using D-Log M and D-Log as it gives a non-ETTR image result which will lead to underexposed shots when using Leeming LUT Pro.
- 8. Set White Balance to Manual and adjust to the correct Kelvin value. If you hold a white balance card in front of the drone when switching from Auto to Manual, the first custom value will be very close to neutral, so this is my recommended method for consistency and avoiding any colour shift during flight. You will need to tweak the white balance in post BEFORE applying the LUT, so I recommend shooting a few seconds of your white balance card before takeoff in the light you expect when flying, for best accuracy in post.
- 9. Set Storage to internal SSD for best quality video if you have it, SD otherwise, and Format it here if needed. You can also set custom filenames here if desired.

- 10. You can use Cache When Recording with your selected size, to record a low quality backup to your phone or tablet if desired.
- 11. Transmission Set as needed for your region to avoid interference.
- 12. About Set your drone's name if needed. You can also check for firmware updates in this screen, to ensure you have the latest versions.
- 13. Exit the Menus by tapping outside the settings box.
- 14. Tap on the film strip icon above the Record button to bring up the Camera functions.
- 15. Choose Video, then Normal mode (this is NOT the Color Mode, this is the type of video recording being shot, eg Normal, Slo-motion etc), then choose your desired resolution and framerate.
- 16. Tap on the little Auto camera icon bottom right of the screen to switch it to PRO mode (manual adjustment). Here you can set your ISO, white balance, iris and shutter speed manually for greater control over your exposure.

You are now ready to use Leeming LUT Pro<sup>™</sup> 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 Pro<sup>™</sup> LUT Installation Manual on how to apply the LUTs to your footage in post-production:

www.LeemingLUTPro.com

## HARDWARE / SOFTWARE QUIRKS AND BUGS

- 1. As of the release date of these LUTs, the drone's cameras are, for some inexplicable reason, all DIFFERENT for colorimetry! So I have provided LUTs for each of the four supported profiles, for EACH camera. So please be aware of which camera you are shooting with so that in post you can apply the appropriate LUT. The LUTs themselves note the camera they are designed for: 1x, 2.5x, 6x.
- 2. The D-Log M, HLG and Normal colour profiles all have issues in the magenta to blue range with colour fidelity. The only profile I've found to give clean colour consistency around the entire colour wheel is the full D-Log profile, so this is the one I recommend shooting in.
- 3. There are people out there recommending that you shoot D-Log M in Auto ISO mode for extra dynamic range, however in my testing I don't see that extra range; rather, the entire image just gets a small exposure boost offset for the equivalent manual ISO setting. It's a difficult one to test for as Auto ISO constantly moves the exposure (plus it's not ETTR unless you tell it to EV compensate), but if you successfully do the test you can see this yourself in post-production. The D-Log M profile also has colour issues as noted above, so for all these reasons I don't recommend using it over the full D-Log profile.
- 4. You can tap on a subject on the screen to have the camera focus on that subject. You can also drag a box around a subject to enable Active Track.

#### **GUIDE CHANGELOG**

2025.09.04 Initial release.