

GH4 SETUP GUIDE

Odyssey7Q+ Odyssey7Q



4K Apple ProRes 4096x2160 / 24p 3840x2160 / 23.98,25,29.97

HD Apple ProRes 422(HQ) 1080p23.98,24,25,29.97,50*,60* 720p50/60 *only supported on 7Q+





Updated February 23, 2015 | Firmware Release v5.10.100



NOTES ABOUT USING THE ODYSSEY WITH THE GH4

4K or 1080p50/60 over HDMI is only supported on the Odyssey7Q+, to record 1080p50/60 on an Odyssey7 or Odyssey7Q you must use an HDMI to SDI converter. Odyssey7/Odyssey7Q are limited to 1080p30 over HDMI due to a hardware constraint.

PRORES RECORD TIMES

		24	25	30	50	60
422(HQ)	4K to 4K ProRes	168	161	134		
	4K to HD ProRes	670	643	536	322	268
	HD ProRes	670	643	536	322	268
422	4K to 4K ProRes	220	221	176		
	4K to HD ProRes	1060	1016	848	508	424
	HD ProRes	1060	1016	848	508	424
422(LT)	4K to 4K ProRes	328	316	264		
	4K to HD ProRes	1516	1456	1212	728	604
	HD ProRes	1516	1456	1212	728	604

Typical Download Time (mins)					
Media	USB3.0	Thunderbolt			
256G SSD	20	10			
512G SSD	40	20			
1TB SSD	80	40			

Note: 4K and 1080p50/60 over HDMI is only supported on the 7Q+, to record 1080p50/60 on an Odyssey7 or Odyssey7Q you must use a HDMI to SDI converter, as 7/7Q are limited to 1080p30 over HDMI due to a hardware constraint.

Note: Odyssey 7 only has 1 SSD slot

FORMAT DETAILS				
4K Apple ProRes	3840x2160 10-bit log video, originated from HD 8-bit camera signal, recorded as Apple ProRes compressed 4K video .MOV			
4K to HD ProRes	1920x1080, 10-bit log video, originated from 4K RAW 12-bit camera signal, transformed and recorded as Apple ProRes compressed HD video			
HD Apple ProRes	1920x1080,1280x720 10-bit log video, originated from HD 8-bit camera signal, recorded as Apple ProRes compressed HD video .MOV			

FRAME RATE SUPPORT

The following rame rates are supported on the Odyssey from the GH4

- 4K 23.98-30
- Odyssey7: Not supported. Odyssey7Q: YAGH SDI Outputs 1-4 Odyssey7Q+: YAGH SDI Outputs 1-4 or HDMI • 1080p59.94/50 Odyssey7: Not supported. Odyssey7Q: YAGH SDI or HDMI to SDI converter Odyssey7Q+: YAGH SDI or HDMI
- 1080i50/59.94 : HDMI or SDI
- 1080p25/29.97 : HDMI or SDI
- 1080p23.98 (24p output and 3:2 pulldown) : HDMI or SDI
- 720p50/59.94 : HDMI or SDI

CAMERA SETTINGS (SECTION 1 - HDMI OUTPUT)

1. SWITCH CAMERA TO VIDEO MODE

ROTATE THE MODE DIAL TO THE MODE DIAL TO THE



2. SET INTERNAL RECORDING

MENU » F (5) » SYSTEM FREQUENCY » (59.94/50/24)

MENU » 🔚 (1) » REC QUALITY » (4K 100MB**/FHD 60/** FHD 30/FHD 24)

Note: 4096x2160 (C4K) can only be selected with 24p.

3. SET HDMI OUTPUT

MENU » T (4) » HDMI REC OUTPUT » BIT MODE » (4:2:2 10-BIT*/4:2:2 8-BIT)

* Note when set to 4:2:2 10 bit, the camera will not record internally

**When wish to record 4K you must first plug a 4K rated HDMI cable into the odyssey to get the 4K output menu, and ensure 4K Down Convert is OFF.

MENU » T (4) » HDMI REC OUTPUT » 4K DOWN CONVERT » (AUTO/OFF)

4. SET HDMI TIMECODE/CAMERA TRIGGER

Note: HDMI Timecode/Camera Trigger requires GH4 firmware version 2.1 or higher.

MENU » TIMECODE (2) » HDMI TIME CODE OUTPUT » ON

This will output timecode to the Odyssey, which will be recorded with your video signal.

MENU » 🔚 (4) » HDMI REC OUTPUT » HDMI RECORDING CONTROL » ON

This allows you to start/stop recording on the Odyssey with the record button on the GH4.

5. SET CLEAN HDMI OUTPUT

MENU » T (4) » HDMI REC OUTPUT » INFO DISPLAY » OFF

** Note that 4K and 1080p50/60p over HDMI is only supported on the Odyssey7Q+ 1080p50/60 is supported on any Odyssey with the use of a HDMI to SDI converter.

CAMERA SETTINGS (YAGH OUTPUT)

This section covers the use of the GH4 with the YAGH Interface (Panasonic DMW-YAGH).

1. CONNECT THE YAGH TO THE CAMERA

2. CONNECT THE ODYSSEY TO THE YAGH

VIA HDMI

Connect the HDMI output from the YAGH to the HDMI input of the Odyssey.

VIA SDI

Connect each of the four BNC outputs on the YAGH to the SDI ports on the Odyssey

SDI OUT 1 » SDI A IN SDI OUT 2 » SDI B IN SDI OUT 3 » SDI A IO SDI OUT 4 » SDI B IO

3. SETUP THE YAGH FOR TRIGGERING VIA SDI

MENU then Motion Picture then Interface unit and set SDI Remote Recording to ON

MENU » The face unit and the memory of the m

4. SET 4K DOWN CONVERT (IF YOU ARE RECORDING HD)

When using the YAGH for HD Recording you must set the 4K down convert to 1080p.

MENU » 🚛 (4) » HDMI REC OUTPUT » 4K DOWN CONVERT » 1080P

5. SWITCH CAMERA TO VIDEO MODE

ROTATE THE MODE DIAL TO THE MOSITION.

(See diagram in Section 1)

6. SET INTERNAL RECORDING

MENU » **F** (5) » SYSTEM FREQUENCY » (59.94/50/24)

MENU » T (1) » REC QUALITY » (4K 100MB**/FHD 60/** FHD 30/FHD 24)

7. SET HDMI OUTPUT

MENU » T (4) » HDMI REC OUTPUT » BIT MODE » (4:2:2 10-BIT*/4:2:2 8-BIT)

* Note when set to 4:2:2 10 bit, the camera will not record internally

**When wish to record 4K you must first plug into the odyssey to get the 4K output menu, and ensure 4K Down Convert is OFF.

MENU » T (4) » HDMI REC OUTPUT » 4K DOWN CONVERT » OFF

8. SET HDMI TIMECODE/CAMERA TRIGGER

Note: HDMI Timecode/Camera Trigger requires GH4 firmware version 2.1 or higher.

MENU » TIMECODE (2) » HDMI TIME CODE OUTPUT » ON

This will output timecode to the Odyssey, which will be recorded with your video signal.

MENU » 🚛 (4) » HDMI REC OUTPUT » HDMI RECORDING CONTROL » ON

This allows you to start/stop recording on the Odyssey with the record button on the GH4.

9. SET CLEAN HDMI OUTPUT

MENU » T (4) » HDMI REC OUTPUT » INFO DISPLAY » OFF

** Note that 4K and 1080p50/60p over HDMI is only supported on the 7Q+ 1080p50/60 is supported on 7Q/7 with the use of a HDMI to SDI converter.

ODYSSEY CONFIGURATION

1. SET ODYSSEY RECORD MODE

HD RECORDING

☆ » SETUP » CAMERA » PANASONIC » HD->HD PRORES(.MOV)

4K PRORES RECORDING (ODYSSEY7Q+) ☆ » SETUP » CAMERA » PANASONIC » 4K/UHD PRORES(.MOV)

4K HDMI TO 2K PRORES RECORDING (ODYSSEY7Q+) ☆ » SETUP » CAMERA » PANASONIC » 4K HDMI TO 2K PRORES(.MOV)

Camera must be set to 4096x2160

UHD HDMI TO HD PRORES RECORDING (ODYSSEY7Q+) ☆ » SETUP » CAMERA » PANASONIC » UHD HDMI TO HD PRORES(.MOV)

Camera must be set to 3840x2160

2. MAKE GH4 THE RECORD TRIGGER

Note: Camera Record Trigger requires GH4 firmware version 2.1 or higher.

☆ » SETUP » RECORD TRIGGER » CAMERA

3. SET TIMECODE SOURCE

Note: HDMI/SDI Timecode requires GH4 firmware version 2.1 or higher.

☆ » SETUP » TIMECODE SOURCE » SDI/HDMI

The HDMI input is automatically detected when connected to the Odyssey.

** Note the HDMI input is on the right side of the unit, on the Odyssey7Q+ but is at the bottom of the unit for Odyssey7 and 7Q.

4. SELECT CODEC

☆ » SETUP » VIDEO CODEC » (PRORES HQ | PRORES 422 | PRORES LT)

5. FORMAT SSDs

☆ » ODYSSEY » SSD'S » FORMAT BOTH

(or FORMAT SSD1 if you do not have a second SSD drive installed.)

6. CONNECT TO CAMERA AND VERIFY STATUS INPUT

CONNECT GH4 HDMI OUTPUT TO ODYSSEY HDMI INPUT

The status on your Odyssey will display your camera's output.

Example:



7. SET HDMI CADENCE

Connect HDMI input, and verify the camera internal record rate matches the input indicator on the Odyssey. If it does not a Cadence may be needed to correctly reflect the format in which you wish to record.

☆ » SETUP » VIDEO CADENCE » PROGRESSIVE

PROGRESSIVE

Use this setting for 720p50/60, 1080p24**, 25*,30*

*Note typically the camera will need to be set to record 1080p25/30 internally, and the output is set to 1080i.

**Note that when wishing to record 1080p24, HDMI output can be set to "Auto" or 1080i, therefore Progressive should be used when auto is selected.

INTERLACED

Use this setting for 1080i50, 1080i59.94 recording

3:2 PULLDOWN*/**

Use this setting for 1080p24 recording when the camera only has a output setting of 1080i, also note the camera must be set to record 1080p24 or 1080p23.98 internally,

**Note that when wishing to record 1080p24, HDMI output can be set to "Auto" or 1080i, therefore 3:2 pulldown should be used when 1080i is selected.

O D Y S S E Y OFF-LOADING DATA

COPYING FILES TO YOUR COMPUTER

1. CONNECT SSD DRIVE TO ADAPTER

Connect the Convergent Design 2.5" Premium SSD Media to any off-the-shelf 2.5" SATA adaptor (example: Seagate GoFlex Thunderbolt Adaptor or USB 3.0 Adaptor)

2. CONNECT ADAPTER TO COMPUTER

The SSD will mount within 10-20 Seconds. (You will see this mount on the desktop or within finder on MAC, or within My Computer on Windows machines).

3. COPY FILES FOR PLAYBACK/EDITING

All Clips or Takes are located within the "Clips" directory, navigate to this and copy all of your files to a local or external drive or RAID for playback and/or editing.

SOFTWARE UTILITIES (FREE DOWNLOAD FROM WEBSITE)

CD CLIP MERGER (RAW/DPX)

Use the Clip Merger for any Raided Record (ie if your recorded clip required more than one SSD).

CD APPLE PRORESS TRANSFER TOOL (FREE DOWNLOAD FROM WEBSITE)

Use to combine clips into a single file Use to copy all files to a single directory without folder structure. Required in order to transfer markers to your NLE.

CD DATA UNPACKER (DPX)

Use CD Data Unpacker to convert "packed" files to "unpacked" data.

ALL UTILITIES CAN BE DOWNLOADED FROM THE FIRMWARE/DOWNLOADS AREA OF OUR WEBSITE: <u>Convergent-Design.com/support/firmware-downloads.html</u>

ATTENTION MAC OSX USERS

Before installing Convergent Design Software on Mac OSX You must first change the following settings.

1) Navigate to Applications » Utilities » System Preferences

2) Select Security and privacy

3) Under General » Allow applications downloaded from: Select Anywhere.

Apple ProRes 422 (HQ/422/LT)

The Odyssey 7 and 7Q records in Apple ProRes HQ, 422 or LT which are 10 bit 4:2:2 compressed codecs. This will allow for high quality recording while avoiding high data rates of working with uncompressed video. (DPX)

APPLE PRORES BITRATES

 Apple ProRes 422 (HQ):
 220Mb

 Apple ProRes 422
 140Mb

 Apple ProRes 422 (LT)
 100Mb

NATIVE APPLE PRORES 422 SUPPORT

Adobe CC 2014 Apple FCP X, Aperture Cineform Studio

FILE STRUCTURE

Final Cut Pro 7 Black Magic DaVinci Resolve The Foundry Nuke Autodesk Smoke Sony Vegas

WORKING WITH RECORDED FILES

There are numerous post systems and NLEs that can read natively the various file formats recorded by the Odyssey. Some NLEs may require plug-ins in order to read certain file formats. Blackmagic Design Resolve software is available for free and can read all formats recorded by the Odyssey.

CLIPS ODYSSEY < ▶ 资 - 一 1 Q CLIP0000575)CLIPS FAVORITES ODYSSEY CLIP0000576 Þ 📇 All My Files CLIP0000577 Þ AirDrop CLIP0000578 Þ CLIP0000579 Þ Applications CLIP0000580 Þ Desktop Þ CLIP0000581 Documents CLIP0000582 Þ CLIP0000583 Þ Downloads Þ CLIP0000584 Moulos

Note: To combine files into a single directory use our ProRes Utility.

