

PROFESSIONAL MONITOR/RECORDER **MANUAL**

ODYSSEY 7



convergent
design

Updated June 2, 2015 | Firmware Release v2105.5

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

ProRes

ProRes 422 (HQ)
ProRes 422
ProRes 422 (LT)



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BEFORE YOU BEGIN USING THE ODYSSEY7, WE STRONGLY SUGGEST YOU REVIEW THE INCLUDED QUICK START GUIDE. WE ALSO STRONGLY RECOMMEND THE FOLLOWING:

1. Always record to the INTERNAL MEDIA OF THE CAMERA; this is critical for proper timecode and ideal for dual media / backup.
2. DO NOT REMOVE THE FOUR SCREWS FROM REAR OF CASE. This may result in damage to the OLED panel. Such damage is not covered by warranty.
3. Power and Cabling: Make sure you have PROPER POWER (6.5-34VDC), plugged in to the proper power port (left side of recorder), and that 3G-rated SDI cables are used.
4. Power source must be able to provide up to 24 watts at all times to the Odyssey7.
5. When powering the Odyssey7 from an ARRI ALEXA camera, we recommend using the 24V R/S Fischer-3 output from the ALEXA using the optional Convergent Design cable.
6. Familiarize yourself with the equipment and test prior to shooting.
7. Before using the SSDs it is IMPERATIVE TO FORMAT them in the Odyssey7. Formatting SSD media is a DESTRUCTIVE PROCESS; any existing data will be lost during format.
8. Ensure that the camera's viewfinder data is not being recorded; IF YOU SEE VIEWFINDER DATA ON THE ODYSSEY7 monitor, then it will be recorded! In a future update, if your camera can provide both clean and data-overlaid video feeds, it will be possible to monitor one while recording the other.
9. NEVER DELETE ANY FILES OFF AN SSD FROM A COMPUTER, except when going through a firmware update procedure.
10. While we recommend that you always maintain the latest firmware on your Odyssey7, WE DO NOT RECOMMEND UPDATING FIRMWARE IF YOU ARE IN THE MIDDLE OF A SHOOT (unless specifically instructed to do so by our Technical Support staff).
11. When offloading media, ALWAYS MAKE A BACKUP COPY, ideally to a RAID1 drive.
12. Be sure to allow the Odyssey7 to finish closing a Record file before taking any further action.
13. Always safely eject SSD Media by pressing the  button before removing SSD media from the Odyssey7.



Odyssey7 box contains one (1) Odyssey7 monitor/recorder and one (1) Universal Power Supply.



MEDIA AND ACCESSORIES SOLD SEPARATELY!

**ProRes**ProRes 422 (HQ)
ProRes 422
ProRes 422 (LT)

ODYSSEY7 FEATURES

MONITORING

PROFESSIONAL MONITOR: 7.7" 1280x800 OLED panel featuring true blacks, and accurate color with a full range color gamut for Rec709 or DCI-P3 viewing.

IMAGE ANALYSIS TOOLS: Waveform, Vectorscope (in future update), Histogram, False color exposure view, Zebra, three-mode Focus Assist, Pixel Zoom (1:1 & 2:1), LUTs, and Frame Guides.

FLEXIBLE I/O: One dedicated 3G-SDI input, one dedicated 3G-SDI output, one HDMI input, one HDMI output. Active cross-conversion means that both outputs are always active no matter which input is used.

RECORDING

HIGH-CAPACITY RECORDING. A high-speed Solid State Drive (SSD), available in 256GB, 512GB and 1TB capacities allows for extended recording.

Apple ProRes up to 1080/60p, 1080/60i and 720/60p. Additional frame rates and popular compressed codecs will be available at a later date via free firmware update.

OTHER FEATURES

VERSATILE POWER. Wide voltage range (6.5-34v) and low draw (8-15w, depending on mode) for great flexibility of battery and other power options.

LIGHT WEIGHT. A magnesium case and efficient board design means only 1.25lbs for the basic unit.

SMALL SIZE. even with a 7.7" screen, the Odyssey7 is approximately 8"x6"x1", making it easy to use on cameras, mounted in tight spots or held in one's hand.

MOUNTING

The Odyssey7 features three ¼-20 threaded sockets, one on the lower rear of the case and one each on the left and right sides of the case. Do not exceed 11mm of depth when inserting a bolt, otherwise damage may occur to the Odyssey7. Additionally, there are four M3 threaded socketson the rear of the case and two M4 sockets on each of the sides of the case.



ODYSSEY7 SPECIFICATIONS

Display	7.7" OLED, 1280x800, RGB 8-Bit Panel, ~ 16 million colors, wide gamut, 3400:1 Contrast, 176° Viewing, True Blacks
SDI Video I/O	HD-SDI/3G Support: Single Link, 1-Input, 1-Output, Full-size BNCs, Up to 1080p60 4:2:2 10-bit
HDMI Video I/O	HDMI I/O Version 1.4a support, Up to 1080p30 4:2:2 8-bit
LUT Support	ARRI Log-C, Canon C-Log, Sony S-Log, S-Log2, S-Log3 LUTs (No Custom LUT Support)
Focus Assist	Video + Edges (Peaking), Edges Only, Enhanced Edges, user choice of color: Red, Green, or Blue
Zebra	Dual adjustable zebra exposure indicators, selectable colors
False Color	False Color with 6 programmable levels & adjustable ranges
Waveform Monitor	Luma only, RGB Parade, Red only, Blue only, Green only
Histogram	Luma only, RGB Parade, Red only, Blue only, Green only
Vectorscope (future)	Color vectorscope with 2X zoom
Pixel Zoom	1:1 and 2:1 Image Magnification with frame drag
OLED Frame Reference	Vertical Auto-Flip (defeatable), Aspect Ratio Guides
Digital Audio I/O	2-Channel Embedded Audio (48KHz, 24-bit)
Analog Audio I/O	3.5mm stereo unbalanced input up to -10dB (future), 3.5mm stereo headphone output
Remote and Timecode	RS-232 I/O (future), programmable GPIO (future). Timecode: LTC I/O (BNC) or embedded SDI / HDMI
User Interface	Capacitive Touchscreen, Two mechanical keys
DC Power Input	6.5 to 34 VDC with built-in reverse polarity protection; locking power connector, built-in power switch
Power Draw	8 Watts (monitor only), 9-12 Watts (simultaneous monitor/record mode)
Weight and Size	560 grams / 1.2 lbs., 7.9" x 6.1" x 1.0" (200 x 155 x 25 mm), -10 to +40°C (Operating), -20 to +70°C (Storage)
Operating Temperature	"-10 to +40°C (Operating) -20 to +70°C (Storage)"
Record Triggers	Touchscreen, SDI record trigger (ARRI, Canon, Panasonic, Red, Sony), Optional Remote Control Cable
Recording Media (Single SSD Slot)	Convergent Design Premium 2.5" SSDs with power-loss protection, in 256GB, 512GB and 1 TB sizes, 420Mb/sec write, 500Mb/sec read speed, compatible with USB 3.0 and Thunderbolt Adapters. SSDs and adapters sold separately.
Recording Formats	Compressed Formats - Apple ProRes 422 (HQ) / Apple ProRes 422 / Apple ProRes 422(LT) up to 1080/60p, 1080/60i, 720/60p



RECORDING CAPABILITIES

The Odyssey7 is a single channel HD video recorder that records onto Convergent Design Odyssey SSD Media from HD-SDI or HDMI inputs.

HD VIDEO	The Odyssey7 records HD video as Apple ProRes
	3G-SDI: accepted 1080p/psf / 23.98, 24, 25, 29.97, 30, 50, 59.97, 60, 720p50, 60
	HDMI: accepted 1080p/psf / 3.98, 24, 25, 29.97, 30, 50i, 60i, 720p50, 60
	Compressed Apple ProRes 1080p/psf / 23, 24, 25, 29 50, 60; 1080i 50, 60; 720p 50, 60
	Future free firmware updates will include additional compressed video codecs with expanded frame rates.

APPLE PRORES RECORDING

Odyssey now supports recording Apple ProRes 422 (HQ), Apple ProRes 422 and Apple ProRes 422 (LT). Files are saved in .MOV format.

PRORES 422 (HQ)	<p>The Apple ProRes 422 (HQ) codec offers the utmost possible quality for 4:2:2 or 4:2:0 sources (without an alpha channel) and provides the following:</p> <ul style="list-style-type: none"> • Target data rate of approximately 220 Mbps (1920 x 1080 at 60i) • Higher quality than Apple ProRes 422
PRORES 422	<p>The Apple ProRes 422 codec provides the following:</p> <ul style="list-style-type: none"> • Target data rate of approximately 145 Mbps (1920 x 1080 at 60i) • Higher quality than Apple ProRes 422 (LT)
PRORES 422 (LT)	<p>The Apple ProRes 422 (LT) codec provides the following:</p> <ul style="list-style-type: none"> • Roughly 70 percent of the data rate of Apple ProRes 422 (smaller file sizes than ProRes 422) • Higher quality than Apple ProRes 422 (Proxy)

NOTE

Convergent Design also manufactures the Odyssey7Q and Odyssey7Q+ that are designed for recording in 2K, 4K, RAW, MultiStream and other formats. Please see our website or talk to your dealer for details.



RECORD TIME CAPACITIES

The Odyssey7 can record several video formats and frame rates. Record time varies based on format and frame rate. The chart below indicates maximum record time in minutes based on the use of one 512 GB SSD. For 256 GB, divide in half, for 1TB, multiply by two.

RECORDING FORMAT	24fps	25fps	30fps	50fps	60fps
Apple ProRes 422 (HQ) (Included FREE with Odyssey)					
1080p Apple ProRes 422 (HQ)	335	321	268	161	134
1080i Apple ProRes 422 (HQ)				322	268
720p Apple ProRes 422 (HQ)				362	302
Apple ProRes 422 (Included FREE with Odyssey)					
1080p Apple ProRes 422			424	254	212
1080i Apple ProRes 422					424
720p Apple ProRes 422				462	386
Apple ProRes 422(LT) (Included FREE with Odyssey)					
1080p Apple ProRes 422 (LT)				368	302
1080i Apple ProRes 422 (LT)					606
720p Apple ProRes 422 (LT)					606



2.5" PREMIUM SSD MEDIA

To enable recording on the Odyssey, you must use Convergent Design Odyssey Premium SSD media. Only Convergent Design Odyssey SSDs will work in the Odyssey. These SSDs, available in 256GB, 512GB and 1TB capacities and must be purchased separately. Firmware updates must be completed only with Convergent Design Odyssey SSD or Convergent Design SSD Utility Drives.

256GB Odyssey SSD
512GB Odyssey SSD
1TB Odyssey SSD

[CD-SSD-256GB](#)
[CD-SSD-512GB](#)
[CD-SSD-1TB](#)

ODYSSEY UTILITY DRIVE

The Odyssey Utility Drive is designed as a lower cost alternative to the Odyssey Premium SSD media for secondary tasks. The Odyssey Utility Drive can be used for Odyssey firmware updates and future functionality such as 3D-LUT files.

The Convergent Design SSD Utility Drive *will not record video files*. It is intended for Odyssey owners who do not wish to tie up an SSD with utility features, or for Odyssey owners who use their devices as monitors and do not need to purchase the more expensive recording media.

Utility Drive for Odyssey

[CD-SSD-UTILITY](#)



ODYSSEY7 - BOTTOM

There are seven connector ports on the bottom side of the Odyssey7 (left to right)



PWR on	Power input socket to Odyssey7 (see Getting started – power). Just in front of the pwr On port is a button, which is a Force power On/Off control. Hold button five seconds to force power off. This is only to be used if standard power on or off procedures fail (see Getting started – initializing).
SDI in	BNC connector for 3G-SDI input
LTC io	BNC connector for linear Timecode input/output
HDMI in	HDMI 1.4 input from HDMI video source.
HDMI Out	HDMI 1.4 output to external monitor or other device
SDI Out	BNC connector for 3G-SDI output
AUDIO in	3.5mm mini-phone stereo socket for analog audio in. <i>This input will be enabled in a free future firmware update.</i>
AUDIO Out	3.5mm mini-phone stereo headphone socket.

ODYSSEY7 - TOP

There is a single Solid State Drive (SSD) slot on the top of the Odyssey7



Only Convergent Design 256GB, 512GB and 1TB Odyssey SSDs can be used to capture video on the Odyssey7. The Odyssey Utility Drive can be used for firmware updates and other future functions, but not to record video files.

To mount SSD, insert connector-end first with the label facing forward and the handle near flush with the back of the Odyssey7. Push gently but firmly until the handle flange is flush with the top of the Odyssey7. It is a snug fit, but the SSD should insert smoothly.



ODYSSEY7 - LEFT SIDE

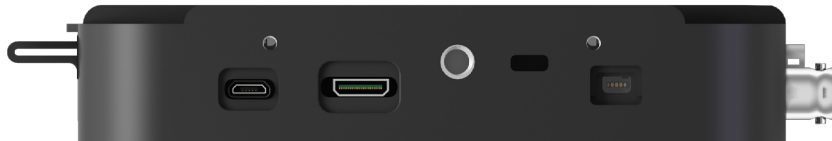
There are two Function buttons, F1 LOCK and F2 SHUT DOWN.



- F1 LOCK** Lockout control for the Odyssey7 touchscreen. Push to engage and SCREEN LOCK will appear in the center of the touchscreen's Upper Tool Bar. Push F1 again to disengage. Engaging F1 also re-calibrates the touchscreen.
- F2 SHUT DOWN** Preferred method to power down the Odyssey7. Properly closes files on the SSDs and performs other maintenance functions (see Getting Started -- Powering Down). Push to activate prompt asking SAFELY POWER DOWN UNIT? *In a future free firmware update it will be possible to program these buttons for additional functions.*

ODYSSEY7- RIGHT SIDE

There are three connector ports, (top to bottom) USB, HDMI OUT and RMT.



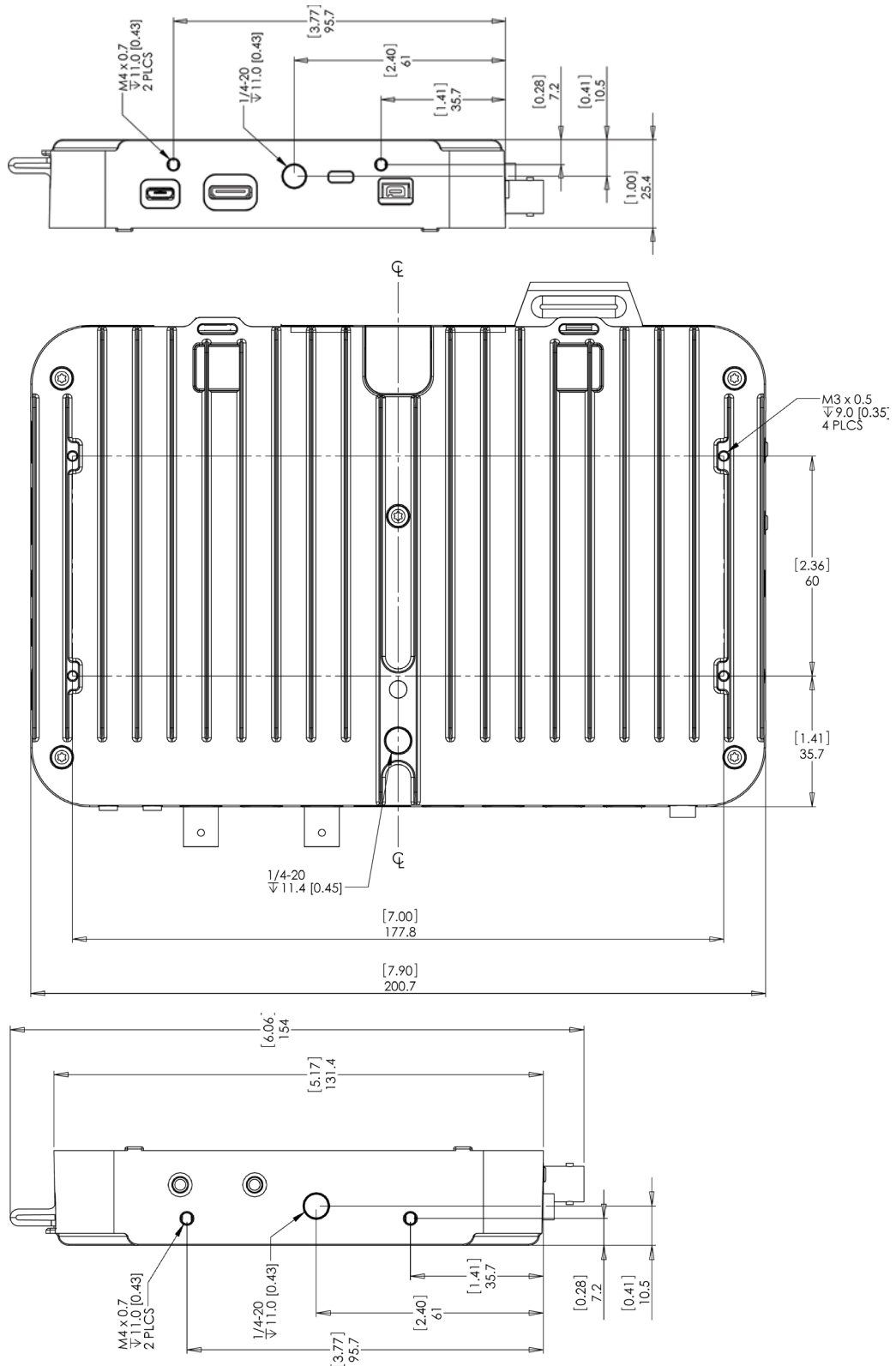
- USB** An access point for servicing by Convergent Design.
- HDMI OUT** Output to an HDMI compatible device
- RMT** A remote control connection to the Odyssey7 supports remote trigger and tally. A future firmware update will allow control interface with functions of the Odyssey7.
- KENSINGTON LOCK PORT** A rectangular hole above the RMT port is for accepting a Kensington Security Lock.

MOUNTING

The Odyssey7 features three 1/4-20 threaded sockets, one on the lower rear of the case and one each on the left and right sides of the case. Do not exceed 11mm of depth when inserting a bolt, otherwise damage may occur to the Odyssey7. Additionally, there are four M3 threaded sockets on the rear of the case and two M4 sockets on each of the sides of the case.



MECHANICAL DRAWINGS



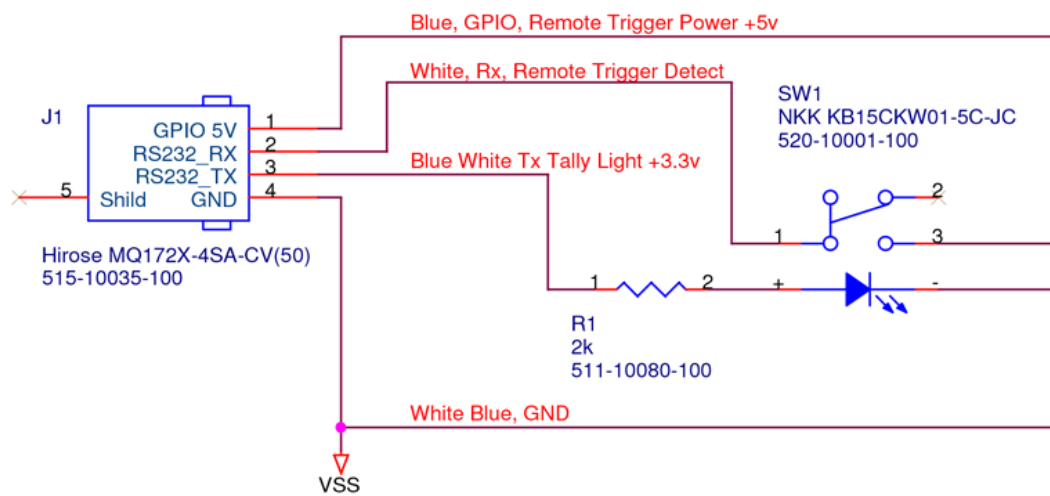


The Convergent Design Odyssey Remote Trigger is a pushbutton active remote start/stop trigger for Odyssey monitor/recorders. Remote Trigger feature has been enabled in firmware version 5.10.100 in HD ProRes recording only. The trigger button illuminates while recording. The trigger plugs into the RMT port on the left side of the Odyssey and comes in a six foot standard cable length.

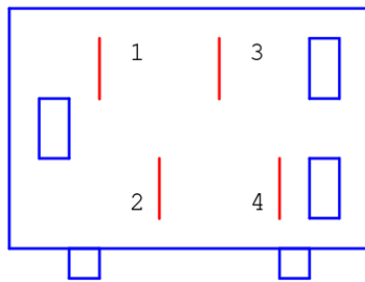


Contact your dealer about ordering part number CD-OD-REMOTE. Custom cable lengths and breakout cables for triggering multiple Odysseys are available for special order.

You may also have a custom cable made if you need a special length or would like to trigger multiple units with one remote. Please see the wiring diagram and other information below.

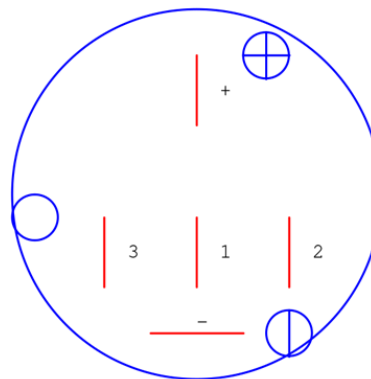


J1 Pin Positions Plug Backside



Hirose MQ172X-4SA-CV(50)
515-10035-100

SW1 Pin Positions Button Backside



NKK KB15CKW01-5C-JC



ODYSSEY7 ACTIVATION

Convergent Design requires each Odyssey7 to be registered via our website. This is so that we can provide notices of free firmware updates, issue alerts for critical issues, and track rentals or purchases of record options.

Upon first initializing of the Odyssey7 (see below), a prompt will appear asking if the device is to be Activated at this time or if it is to be used in DEMO mode. In DEMO mode the Odyssey7 is fully functional, however a blue or pink bar “watermark” will appear in any recorded video.

In order to Activate the Odyssey7 after initial purchase, go to Convergent-Design.com to register and activate your unit. When you have registered a new account (or logged into your existing account) you will be able to Add a Device to your account at which time you will be provided the Basic Activation Key for your device.

The Activation prompt will appear upon every initialization of the Odyssey7 until the device is Activated. When Activate is selected, follow the prompts to Activate the Odyssey7 using the Basic Activation Key you were given on the website.

Also, make sure your Odyssey7 has the latest firmware, posted here:

Convergent-Design.com/support/firmware-downloads.html

INITIALIZING

Plug in power to the Odyssey7. It should take about 5-10 seconds to initialize, depending on the mode it is set to. If the Odyssey7 does not self-initialize, push the **PWR ON** button next to the power socket on the lower left corner of the Odyssey7.

As part of the initializing process, SMPTE color bars may appear briefly on the screen. If there is a signal input into SDI A IN that matches the record format the Odyssey7 is set to, then the image should appear on the screen. If there is an SSD mounted in the Odyssey7 then a DETECTING SSD message will appear on the lower left of the screen. If the SSD needs to be re-initialized or formatted, a second message may appear. If the Trigger Button in the Upper Tool Bar appears as a red box surrounding a white circle, then the Odyssey7 is ready to record.



POWERING DOWN

While it may seem an odd time to note this, it is important to know that there is a preferred method to shutting down the Odyssey7. On the left side of the case, the F2 SHUT DOWN button should be pressed. This prompts a confirmation to “SAFELY POWER DOWN UNIT?”

Powering down in this fashion properly closes the files and directory system on the SSDs, preventing corruption. If the Odyssey7 should ever suffer a failure and the F2 SHUT DOWN sequence does not function properly, the unit can be Force Power Off by holding the PWR ON button by the power socket on the lower left corner of the Odyssey7, or simply by pulling the power connector out of the power socket.

If the Odyssey7 is ever powered down in this fashion, it is important to run a recovery on the SSDs in the Odyssey menu:

⚙️ » ODYSSEY » SSDs » REBUILD SSD1

THE ODYSSEY7 TOUCHSCREEN

The touchscreen of the Odyssey7 features all of the device’s controls in a straightforward, easy to navigate structure. Each box is a “virtual button.” Tap it briefly to activate/deactivate it, or hold it for a few seconds to open up the menu defining its function. The controls at the top of the display (Upper Tool Bar) are the recording, playback and formatting administration. The controls at the bottom of the display (Lower Tool Bar) are the image analysis adjustments.

THE ODYSSEY7 MENU

Starting on the left, tapping the ⚙️ button brings up the initial setup menus for the Odyssey7. Don’t be intimidated by the number of selections in the ⚙️ section. This is by far the most in-depth section of the Odyssey7 touchscreen menus. More information about the Odyssey7 Menu System is available on the following pages.


DEMO MODE


Out of the box the Odyssey7 is in DEMO MODE and must be owner-registered with Convergent Design. On the Odyssey7a watermarking blue bar will appear on the lower third of the image both on the OLED and in the recording while in DEMO MODE.

To activate the Odyssey7 after initial purchase, go to [Convergent-Design.com](https://www.convergent-design.com), create a user account and add the device to your account. When you add a device to your account you will be provided with the Basic Activation Key for that device.




ODYSSEY MENU

The ODYSSEY Menu allows you to access basic device settings. This is where you can view device info, set date, time & metadata, format & recover SSDs and view information about the device such as the firmware version and serial number. It is accessed by tapping  then tapping **ODYSSEY**.

ODYSSEY →		Option	Description	Notes
ACTIVATION	UNIT	Enter Key or 'OK'	For activating Odyssey7 (required)	Tap to reveal a key code prompt. To activate the Odyssey7 after initial purchase, go to Convergent-Design.com, create an account and add the device.
	<p>DEMO MODE: ALL AVAILABLE RECORD OPTIONS ARE FUNCTIONAL IN A DEMO MODE, BUT IF THE OPTION HAS NOT BEEN ACTIVATED THE IMAGE FOR THAT OPTION WILL APPEAR WITH A LARGE BLUE BAR "WATERMARK" ON SCREEN WHEN RECORDING. THIS BAR IS RECORDED IN THE IMAGE FILE.</p>			
SSDS	ERASE & FORMAT SSD1		Permanently erases everything on SSD1.	FORMATTING IS A DESTRUCTIVE PROCESS AND WILL ERASE ANY FILES CURRENTLY ON THE SSD. BE SURE TO DOWNLOAD ALL FILES BEFORE FORMATTING.
	REBUILD SSD1		Non-destructively recovers / rebuilds file system of SSD1	Use only in extreme cases (such as if a computer corrupts the SSDs file system).
		<p>PLEASE NOTE: Formatting should be performed at the start of use of any new SSDs and the start of any new project. Recovery is for when the SSD was not properly dismounted from the Odyssey7. This includes physically removing the SSD without running the eject sequence, sudden loss of power to the Odyssey7 or improper powering down of the Odyssey7. The Recover process accesses any incomplete files on the SSD and, when possible, properly closes them. NOTE: FORMATTING OF SSDs SHOULD ALWAYS BE PERFORMED ON THE ODYSSEY7.</p>		
TIME		Set the appropriate time.		IMPORTANT FOR RECORDING OPTION RENTALS
DATE		Set the appropriate date.		
RESET	MENU		Restore all default settings.	Does not effect firmware version or record options.
	METADATA		Resets metadata fields	
	ALL (FACTORY DEFAULTS)		Resets all settings	
ABOUT		Displays the firmware version, serial number, warranty status, and which Options are activated. Check our website regularly to ensure you are running the current firmware.		



The remainder of the  menu replicates controls available on the Upper Tool Bar when the Odyssey7Q+ is in RECORD mode.



└─ **SETUP** **INPUTS** **OUTPUTS** **AUDIO**

SETUP

Controls for Camera Type, Recording Format, and Trigger. Replication of RECORD STATUS button controls (for details see page 26)

INPUTS

Controls for video and timecode inputs. Replication of INPUT/OUTPUT STATUS button (Input Control Settings) (for details see page 24)

OUTPUTS

Controls for video outputs. Replication of INPUT/OUTPUT STATUS button (Output Control Settings) (for details see page 25)

AUDIO

Controls for Audio settings. Replication of AUDIO STATUS button (for details see page 28)

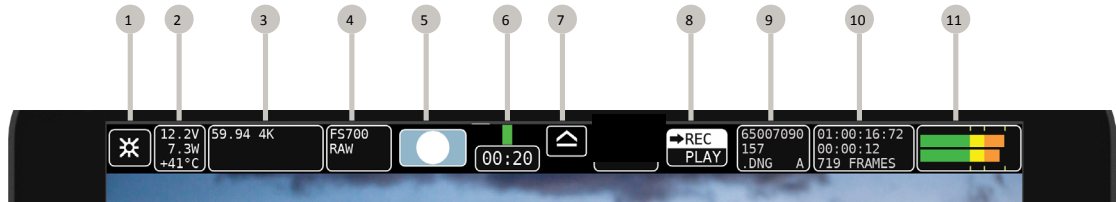
Congratulations! You are through the  menu. Everything gets easier from here. Please note that many of these controls are also available in the rest of the Upper Toolbar.



UPPER TOOL BAR (RECORD MODE)

Tapping the REC/PLAY Button toggles the Upper Tool Bar between Play mode and Record mode. Upper Toolbar selections are different in Play Mode than in Record Mode. Some buttons appear in all modes while others will only appear in a certain mode.

UPPER TOOL BAR CONTROLS (RECORD MODE)



- | | |
|---|--------------------------|
| 1 MENU BUTTON | 7 SSD SAFE EJECT |
| 2 SYSTEM STATUS | 8 REC/PLAY TOGGLE |
| 3 INPUT STATUS (REC MODE ONLY) | 9 CLIP METADATA |
| 4 RECORD STATUS (REC MODE ONLY) | 10 LAST TAKE |
| 5 TRIGGER BUTTON (REC MODE ONLY) | 11 AUDIO |
| 6 SSD STATUS | |



SYSTEM STATUS (ALL MODES)

12.2V
8.1W
+40°C

```

SYSTEM STATUS
VOLTS: 12.1V (6.5-34V)
POWER: 10.0W
TEMP: +31° (<60°C)
2014 AUG 21 08:42:58
ODYSSEY70 ABOUT
FIRMWARE: 2.20.10 OCT 2014
SERIAL: 20-00000
WARRANTY: 1010
KEYS ACTIVATED:
BASIC FS700RAW CANONRAW
POWERED: 41 DAYS 19 HRS
RECORD: 9 DAYS 4 HRS
    
```

Displays critical specs of Odyssey. Input voltage, Current wattage draw of Odyssey (varies with mode), current temperature of main processor. Tapping button brings up more detailed information including the ABOUT menu of the Odyssey.

The Odyssey has a wide internal operating temperature window, up to 65° Celsius (149° Fahrenheit). The Odyssey uses its magnesium case to passively shed excess heat.

There are no vents or fans in the Odyssey. Even under most harsh conditions, the Odyssey should not suffer any operational issues due to heat. However, if the internal temperature of the Odyssey rises high enough there are a series of warnings and safeguards in place to protect the device and the recorded files.

TEMPERATURE WARNINGS AND SAFEGUARD

Temp	System Status Text & Warning	Operational Protection
59° C	Yellow text	No change to operation
61° C	Red text & flashing warning	New recordings prevented
65° C	Red text & flashing warning	Current recording stopped

The Odyssey has a wide range of acceptable voltage for incoming power, from 6.5 volts to 34 volts. The total wattage draw from the Odyssey varies depending on the operational mode it is set to, but is always within a very modest range from less than 8 watts to no more than 15 watts. This allows a variety of battery options to be used with the device. While there are file recovery parameters in place, it is never a good idea to lose power while in the midst of recording. If the incoming voltage to the OdysseyQ drops low enough there are a series of warnings and safeguards in place to protect the device and the recorded files.

LOW POWER WARNINGS & SAFEGUARDS

Voltage	System Status Text & Warning	Operational Protection
6.7v	Yellow text	No change to operation
6.5v	Red text & flashing warning	New recordings prevented
6.0v	Red text & flashing warning	Current recording stopped



INPUT/OUTPUT STATUS (RECORD MODE ONLY)

29.97 4K
S-LOG2

Displays current video input signal type. Tapping button brings up detailed information on Input and Output signals, record mode and frame rates.

INPUT CONTROL SETTINGS

VIDEO CADENCE:

This identifies the cycling of the signal coming into the Odyssey and how it is to be recorded.

AVAILABLE CADENCES:

PROGRESSIVE/PSF: For video signals structured as True Progressive (p) or Progressive Segmented Frames (PSF).
 INTERLACED: For HD video signals structured as interlaced fields (i). Records a 1080i50 or 1080i60 video signal without alteration. Note that some cameras carry progressive video embedded within an interlaced signal. See 3:2 Pulldown below.
 REMOVE 3:2 PULLDOWN (TO 24P): For 24p video signals striped within a 60i signal. Extracts the 24p video, records it as 1080p24 and discards the excess fields for greater efficiency and smoother post.

TIMECODE SOURCE:

Allows selection for origination of timecode. Note that some video sources do not carry timecode data and at high frame rates some cameras do not generate timecode. In these cases the Odyssey will generate a Record Run timecode from its internal clock. LTC not supported when recording ARRIRAW.

AVAILABLE TIMECODE SOURCES

SDI/HDMI (embedded in incoming signal)
 LTC (input from external source to LTC port)
 TIME-OF-DAY NDF (Odyssey internal clock, non-drop frame counting)
 TIME-OF-DAY DF (Odyssey internal clock, drop frame counting)
 SEED/RECORD RUN (Set timecode counter, increments while recording)

TEST PATTERN:

Displays reference image on OLED and video outputs. Current available test pattern is SMPTE color bars.

ANAMORPHIC DESQ:

Horizontally stretches image to correct for use of optical anamorphic lenses. Does not effect recording. Options for de-squeezing the image are OFF, 1.33x, 1.5x, and 2x.

LEGALIZE HDMI:

Adjusts for incoming video signals that may extend beyond the broadcast-legal range of 0-100 IRE.



OUTPUT CONTROL SETTINGS

The settings of the OUTPUTS menu allow adjustments to the video outputs of the Odyssey7Q+. The OUTPUTS menu is accessed by tapping * then tapping OUTPUTS.

VIDEO PSF OUT:

On/Off control to switch video outputs from True Progressive (p) to Progressive Segmented Frames (psf) signal structure. This improves compatibility with some third-party equipment.

RECORD TALLY:

On/Off control to activate Tally record status indicator over SDI and HDMI outputs. Tally appears as colored bar at bottom of image. Green Tally indicates ready to record and Red Tally indicates recording in progress.



RECORD STATUS (RECORD MODE ONLY)

4K->4K
PRORES

Displays current recording format. Tapping button brings up detailed information on recording format and frame rates as well as controls for setting monitoring and recording modes. *If a rented Record Option is in use, the remaining time is noted here.*

MODE/RECORD OPTIONS

CAMERA:

Tapping status boxes brings up a list of selections for each. Choice of CAMERA determines MONITOR -> RECORD selections for that camera. CAMERA also determines Trigger, Timecode and LUT integration.

AVAILABLE CAMERAS:

- Sony FS7/FS700
- Sony (F3, F5 and F55 and others)
- Canon (C500 and others)
- ARRI (ARRI Alexa)
- POV RAW (IndieCam and IO Industries)
- Other (sundry HD video sources)
- Panasonic
- RED
- Multi-Stream (up to 4 HD video sources, monitoring only)

MONITOR ->RECORD

Displays options for the currently selected camera
(See the [MONITOR-->RECORD OPTIONS chart in APPENDIX \(p59\)](#) for full list of options in this menu selection)

VIDEO CODEC

Displays current recording format. In compressed recording, tap status box for list of options. Currently available compressed video formats include Apple ProRes 422 (HQ), Apple ProRes 422 and Apple ProRes 422 (LT).

RECORD TRIGGER:

Allows selection of record trigger mechanism for Odyssey7Q. Note that some cameras do not output trigger signals over SDI or HDMI.

AVAILABLE RECORD TRIGGERS

- RECORD BUTTON** (Tap Record Button on Upper Toolbar to start/stop recording)
- CAMERA** (Use camera's trigger to stop/start recording -- trigger output must be enabled on camera)
- TIMECODE** (Use detection of timecode incrementing to start/stop recording -- Odyssey7Q TIMECODE must be set to SDI/HDMI or LTC and timecode source set to Record Run)
- REMOTE** (Use the Convergent Design Remote Trigger accessory to start/stop recording. Currently only available for HD Apple ProRes recording.)



PROJECT RATE:

Determines playback frame rate from the SSDs. Note that all incoming frames are always recorded, Project Rate only determines the intended playback speed, which can always be changed in post. The Project Rate can follow the incoming source frame rate or be set to a specific rate for faster or slower than real time playback.

FOLLOWS INPUT is the default setting, automatically aligning to the incoming framerate at speeds 60p and below. At higher incoming frame rates, 100/200p signals have a default Project Rate of 25p and 120p/240p signals default to 24p. This allows an even division of frames for smooth playback.

AVAILABLE PROJECT RATES

- FOLLOWS INPUT (default setting)
- 23.98 FPS
- 24.00 FPS
- 25.00 FPS
- 29.97 FPS
- 30.00 FPS
- 48.00 FPS
- 50.00 FPS
- 59.94 FPS
- 60.00 FPS

TRIGGER BUTTON (RECORD MODE ONLY)



Displays status of recording mode. When button is Red with a white circle it is ready to record. When Gray there is no signal available to record. While recording, the button is Blue with a white square and the background of the entire top menu is Red. If REC Button is selected as the trigger then tapping button triggers record start/stop

⚙️ » **SETUP** » **RECORD TRIGGER:** » **RECORD BUTTON**

or tap on Record Status » **RECORD TRIGGER:** » **RECORD BUTTON**

SSD1 STATUS (ALL MODES)



Displays record time available given current settings (HH:MM). Tapping button brings up detailed information on SSD1 status. Formatting and rebuilding options are also available here.

SAFE EJECT (ALL MODES)



Prompts a confirmation to Safely Eject one or both of the SSDs. This is the proper method for dismounting and ejecting SSDs so that the files and directories can be closed properly.



REC/PLAY (ALL MODES)



Displays current status as to whether Odyssey7Q is in RECORD or PLAY mode. Tapping button toggles between modes. NOTE: Playback Mode changes the upper and lower tool bars. See Play Mode, below.

CLIP METADATA (ALL MODES)



Displays current recording format. Tapping button brings up detailed information on recording type and frame rates. *If a rented Record Option is in use, the remaining time is noted here.*

LAST TAKE BUTTON (RECORD MODE ONLY)



Displays timecode start and elapsed time of last recorded take. Tapping button brings up detailed information of the last take recorded.

AUDIO STATUS (ALL MODES)



Displays audio levels. Tap button for Audio Display/Control settings.

AUDIO METERS SETTINGS

- SHOW** (display audio levels as BARS or numerical VALUES)
- BAR COLORS** (set yellow level to -20 or -18 dB)
- METERS** (turn ON or OFF audio levels display)

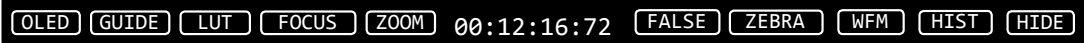
AUDIO OPTIONS

- AUDIO CHANNELS:** Currently locked to two channels. Future firmware updates will allow up to eight audio channels.
- AUDIO SOURCE:** Allows selection of audio input source.
SDI/HDMI (embedded in incoming signal)
ANALOG (analog 2-channel input via AUD IN port)
Currently available only for HD Apple ProRes recording.
- HEADPHONE OUT(dB):** Volume adjustment of AUD OUT port.
- ANALOG MIX IN:** For analog audio input via AUD IN port, select between STEREO UNBALANCED (two discreet channels) or MONO BALANCED (one source to record over both channels).
- ANL GAIN IN(dB):** Adjust analog audio input levels for AUD IN port.



LOWER TOOL BAR (RECORD MODE)

In addition to being a high quality recorder of multiple formats, the Odyssey is also a full-featured production monitor. The Lower Tool Bar activates and controls the monitoring tools and image analysis functions.



OLED

OLED

Tapping button brings up OLED monitor settings. Controls are for the Odyssey7Q+ OLED panel only and will not affect the recorded signal or the signal from any of the device's outputs. The Odyssey7Q+ display is capable of presenting the full contrast and color gamut of both the REC709 and DCI-P3 standards.

Assuming a standard, properly attenuated video signal from the camera source, the display defaults are 100% for SATURATION, CONTRAST, BRIGHTNESS, Red/Green/Blue GAINS and R/G/B BIASES. Adjustable ranges are 50%-140%. BASE standard is Medium and COLOR GAMUT is REC.709. Unless otherwise noted, any standard video source accepted by the Odyssey7Q+ should be a REC709-compliant signal, not DCI-P3, which is for digital cinema displays.

ORIENTATION controls the vertical orientation of the image on the OLED display. TEST PATTERN replaces the video signal with SMPTE color bars. This is the only control that also affects the video outputs. MORE TOOLS alternates the button on the Lower Tool Bar to the right of the timecode display between the FALSE COLOR tool and the MONOCHROME DISPLAY tool (for details see page 32).

GUIDE

GUIDE

Tapping button activates Frame Guides. Holding button brings up the Frame Guides settings. Presets available are 1.33:1, 1.85:1 and 2.39:1. Press CREATE CUSTOM GUIDE to bring up the Custom Guide menu. Name and save up to four custom frame guides. Left/Right control sets frame sides. Top/Bottom control sets frame lids. Linking adjusts Left/Right or Top/Bottom together. Rectangle eliminates lines outside inner box. Select colors between White | Black | Red | Green | Blue | Yellow. Up to four custom frame guides plus one preset frame guide can be displayed at the same time.

LUT

LUT

Tapping button activates the chosen LUT on the OLED display. Holding button brings up the LUT menu.

A Look Up Table (LUT) is a set of exposure, contrast and color offsets to adjust an image. Originally designed as a tool to indicate on one display how an image would appear on a different type of display, LUTs have expanded to also become tools to preview color grading decisions. The Odyssey7Q+ includes numerous 3D-LUTs for previewing the LOG video outputs of several popular cameras in standard REC709 contrast and color. The RAW record options also feature monitoring LUTs.



SELECTING LUTS

Holding LUT button brings up the LUT menu. LUTs can be selected from an SSD, the PRESET LUTS folder, or one of three custom LUT folders (for details see below). A list of available LUTs from each source will appear in the menu and a LUT can be selected by tapping on it. Additional LUTs can also be downloaded from the Convergent Design website.

LUT RANGE

A signal can exist in a video brightness range from 0 to 100% or in a data range from -7 to 109%. In a data format this can be represented in bit values between 64-940 or 0-1023, and are sometimes (but not always) indicated with an EE or an LL notation). These ranges are referred to as Extended or Legal, and a LUT can be based off of either range. The LUT RANGE control allows the selection of either EXTENDED or LEGAL so that the applied LUT matches what was intended when the LUT was created.

FOCUS

FOCUS

Tapping button activates Focus Assist. Holding button brings up the Focus Assist settings. There are three styles of Focus Assist available.

PEAKING

Edge detection based on contrast, with variable sensitivity. Image can be displayed with edges highlighted in red, green, blue, black white or yellow. Or only detected edges can be displayed as white, with other image elements in black.

REVEAL

A more aggressive, complex focus detection system. Sharper objects highlighted, with a variable sensitivity control. Can be combined with Peaking under that control's menu.

ENHANCE

Simple edge enhancement display. Allows for easier judging of focus by artificially augmenting sharpness on the OLED display.

ZOOM

ZOOM

Pixel Zoom enlarges a section of the image on the OLED panel to better judge focus and other aspects of the image. The native resolution of the HD image area on the OLED panel is 1280x720. Pushing the Pixel Zoom button once enlarges the image to fit a 1280x720 window within an HD 1920x1080 frame. Pushing the Pixel Zoom button again enlarges the image so that a 1280x720 window is cut from that native resolution of the image if greater than HD (ie, 1280x720 window within 4096x2160) or doubles up pixels to make the image larger in an HD frame.

The Odyssey Pixel Zoom offers the unique function of allowing the enlarged window to be moved within the image frame simply by dragging a finger or stylus on the OLED screen. The movement can be selected to follow move (drag image) or oppose move (drag window).

Tap anywhere inside the ZOOM area box to center the image. Coordinates are remembered until powered off.



TIMECODE

00:12:16:04

At the center of the Lower Tool Bar is a counter displaying timecode. This counter displays hours, minutes, seconds and frames in the format 00:00:00:00.

FALSE COLOR

Tapping button activates False Color. Holding button brings up False Color settings. False Color is an exposure reference tool, attributing different colors to various brightness portions of the image. Available colors are Red, Yellow, Pink, Green, Blue and Purple. A video signal is measured in a scale from -7 to 109, often marked as a % or with the suffix IRE.

Brightness range for each color can be individually selected with a high and low setting or that color can be switched off. Ranges can overlap, and any exposure value not selected will be indicated in a monochrome brightness. There is a reference bar at the bottom of the image indicating the exposure range each color represents.

TOOLS: LUT OPTIONS

The False Color tool can be set to measure the source video signal or the video with a LUT applied to it. This is a replication of a control in the LUT menu and adjusting it affects all Monitoring Tools. The Monitoring Tools (False Color, Monochrome, Zebras, Waveform, Histogram) can always read the original input signal (LUT OFF), always read the LUTted image (LUT ON), or switch between them depending on what is displayed on the OLED (MIRROR OLED). A green bar connects the buttons for the monitoring tools to indicate when they are reading the LUTted image.

MORE TOOLS

This setting alternates the button on the Lower Tool Bar to the right of the timecode display between the FALSE COLOR tool and the MONOCHROME DISPLAY tool.

MONOCHROME

Tapping button activates Monochrome. Holding button brings up the Monochrome settings. Monochrome represents the individual color channels (Red/Green/Blue) or the overall brightness (Luma) in a gray scale image.

TOOLS: LUT OPTIONS

The Monochrome tool can be set to measure the source video signal or the video with a LUT applied to it. This is a replication of a control in the LUT menu and adjusting it affects all Monitoring Tools. The Monitoring Tools (False Color, Monochrome, Zebras, Waveform, Histogram) can always read the original input signal (LUT OFF), always read the LUTted image (LUT ON), or switch between them depending on what is displayed on the OLED (MIRROR OLED). A green bar connects the buttons for the monitoring tools to indicate when they are reading the LUTted image.

MORE TOOLS

This setting alternates the button on the Lower Tool Bar to the right of the timecode display between the FALSE COLOR tool and the MONOCHROME DISPLAY tool.



ZEBRA

ZEBRA

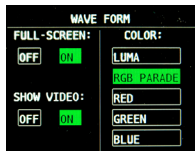
Tapping button activates Zebras. Holding button opens Zebras settings. A Zebra stripe (////) is an exposure tool to indicate any part of the image that is at a particular brightness. There are two Zebra stripe patterns, //// and \\\\. Each Zebra pattern can be represented in Black, White, Red, Green, Blue, Yellow, Cyan, or Magenta colored stripes, and the underlying image is visible in between the stripe lines. Brightness range for each Zebra pattern can be individually selected with a high and low setting or that Zebra pattern can be switched off. Ranges can overlap, and any exposure value not selected will be represented as it appears in the underlying image. There is a reference bar at the bottom of the image indicating the exposure range each Zebra pattern represents.

TOOLS: LUT OPTIONS

The Zebras tool can be set to measure the source video signal or the video with a LUT applied to it. This is a replication of a control in the LUT menu and adjusting it affects all Monitoring Tools. The Monitoring Tools (False Color, Monochrome, Zebras, Waveform, Histogram) can always read the original input signal (LUT OFF), always read the LUTted image (LUT ON), or switch between them depending on what is displayed on the OLED (MIRROR OLED). A green bar connects the buttons for the monitoring tools to indicate when they are reading the LUTted image.

WAVEFORM

WFM



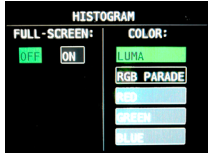
Tapping button activates Waveform. Holding button brings up Waveform settings. A Waveform is an exposure tool used for measuring the brightness of the image throughout the frame. It can be set for overall brightness (Luma), with the three color channels separated (RGB Parade), or as the individual color channels only (Red, Green, or Blue). The Waveform display aligns left-right to the image on the OLED display. In Multi-Stream mode, if two images are displayed side-by-side then the Waveform can be used to compare the signals.

The Waveform can be displayed across the majority of the OLED screen or in the lower right corner. In the large display, the RGB Parade shows three individual waveforms side-by-side in their appropriate colors, while in the small display the three colors overlap. The Waveform background can be switched between translucent and opaque to allow the video image to be visible behind the Waveform display for reference. A graticule overlay indicates exposure value references in 10% increments in the large display and 20% increments in the small display, both with an additional reference for 109%. The full range displayed is from -7% to 109%.



HISTOGRAM

HIST



Tapping button activates Histogram. Holding button brings up Histogram settings. A Histogram is an exposure tool indicating brightness by volume of image across a horizontal plane. The brighter the image the farther it is to the right. The more of an image registering at a particular brightness the taller the line graph at that brightness. It can be set for overall brightness (Luma), with the three color channels separated (RGB Parade), or as the individual color channels (Red, Green, or Blue).

The Histogram can be displayed across the majority of the OLED screen or in the lower right corner. In the large display, the Histogram can display Luma, RGB Parade (as color overlaps), or the individual color channels (Red, Green, or Blue). In the small display Luma and RGB Parade (overlap) can be displayed. On the large display, graticules indicates exposure value references in 10% increments with an additional reference for 109%. The full range displayed is from -7% to 109%.

TOOLS: LUT OPTIONS

The Histogram tool can be set to measure the source video signal or the video with a LUT applied to it. This is a replication of a control in the LUT menu and adjusting it affects all Monitoring Tools. The Monitoring Tools (False Color, Monochrome, Zebras, Waveform, Histogram) can always read the original input signal (LUT OFF), always read the LUTted image (LUT ON), or switch between them depending on what is displayed on the OLED (MIRROR OLED). A green bar connects the buttons for the monitoring tools to indicate when they are reading the LUTted image.

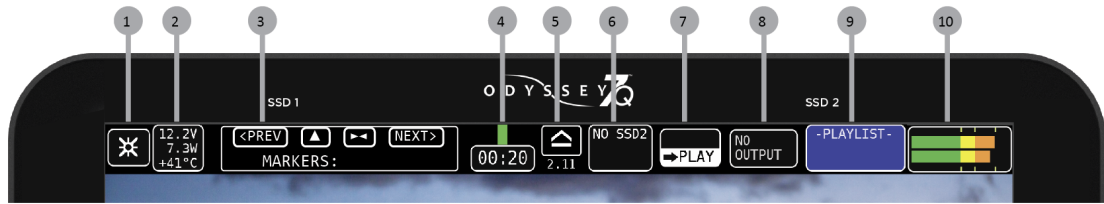
HIDE (HIDE MENUS & SCREEN OVERLAYS/ VIDEO)

HIDE

While the Odyssey's OLED screen provides an excellent image with intuitive touch screen controls and information displays, sometimes one does not want to see it all. The Hide function can be set to make either the controls & displays disappear or the video image go black. A tap anywhere on the screen brings the full display back.

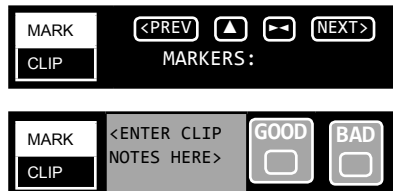


UPPER TOOL BAR (PLAY MODE)



- 1 MENU BUTTON
- 2 SYSTEM STATUS
- 3 MARKER CONTROLS (PLAY MODE ONLY)
- 4 SSD1 STATUS
- 5 SSD SAFE EJECT
- 6 SSD2 STATUS
- 7 REC/PLAY TOGGLE
- 8 CLIP METADATA
- 9 PLAYLIST
- 10 AUDIO

MARKER CONTROLS (PLAY MODE ONLY)



Clip Notes such as "Good Take" can be made for each clip. Text plus Good or Bad notes. Markers are flagged reference points within a file. Single flags as well as in/out points can be marked. Used in conjunction with the Convergent Design Apple ProRes Transfer Utility (1.4 or above) markers are translated into Final Cut 7 and FCPX .XML files. These can be imported into Final Cut 7, FCPX and Adobe Premiere. Up to 16 In and 16 Out points can be marked in a single clip, but more than one pair of In and Out points can only be read by FCPX.

INPUT-OUTPUT STATUS



Displays current SDI/HDMI output status and settings. Tapping button brings up detailed information on the Input/Output Status and allows selection of input and output settings.

Replication of INPUT/OUTPUT STATUS button from RECORD mode (for details see page 24).



PLAYLIST (PLAY MODE ONLY)

PLAY SINGLE
65007090232
FRAME 240

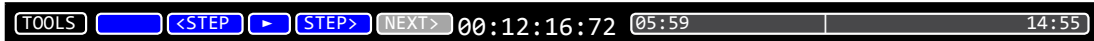
Tapping button displays a list of recorded files. Files can be selected for playback and can be continuously played back in a Loop.

				TYPE	FORMAT	INPUT	PROJECT	TIMECODE	TIME OF DAY
08	<input type="checkbox"/>	65007090223	14:55	.MOV	1080I	29.97	29.97	00:00:00:02	08-JUL-14 06:48
09	<input checked="" type="checkbox"/>	65007090224	00:24	.MOV	1080I	29.97	29.97	00:00:00:00	23-JUL-14 11:34
10	<input type="checkbox"/>	65007090225	00:32	.MOV	1080I	29.97	29.97	00:00:00:02	23-JUL-14 11:35
11	<input type="checkbox"/>	65007090226	00:01	.MOV	1080I	29.97	29.97	00:00:00:00	24-JUL-14 07:25
12	<input type="checkbox"/>	386PR000492	00:19	.MOV	1080I	29.97	29.97	00:00:00:00	24-JUL-14 12:45

MULTIPLE ALL LOOP

LOWER TOOL BAR (PLAY MODE)

A different tool bar will appear at the bottom of the screen in Play Mode.



TOOLS/SCRUB BUTTONS (PLAY MODE ONLY)

TOOLS **SCRUB**

Toggles Lower Tool Bar between PLAYBACK CONTROLS and IMAGE ANALYSIS TOOLS. For information on TOOLS, please see [LOWER TOOL BAR \(RECORD MODE\) on p. 28](#).

PLAYBACK CONTROLS (PLAY MODE ONLY)

<PREV ...

Playback controls are activated when TOOLS is selected. There are five deck-style play controls. <PREV and NEXT> skip to the previous or next file in a selected playlist.

<STEP and STEP> move a paused video file to the previous or next frame. ▶ & || toggle between play and pause.

TIMECODE (ALL MODES)

00:12:16:04

At the center of the Lower Tool Bar is a counter displaying timecode. This counter displays hours, minutes, seconds and frames in the format 00:00:00:00.

SCRUB BAR (PLAY MODE ONLY)

Activated by toggling the TOOLS/SCRUB Button. The lower right tool bar is a bar that represents the full video file. The number on the left notes the time within the video file currently cued. The number on the right indicates the total time of the clip. A vertical line graphically represents the cue point within the file.



Drag a finger across the bar to move through the file. A finger dragged on the video image area itself is a more fine-tuned control. To play the file from the selected point, use the deck controls.



LOSS OF POWER DURING A RECORD

You should never power off the camera while recording. Many cameras, such as the ALEXA, disable the user from doing so while recording. Included in the Odyssey is a recovery mechanism. In case of power loss, you may lose the last few frames of the recording, but not the entire last take. You will receive several error messages due to the loss of source. If the unit fails to close the last clip and return to normal operation once the source has returned, you will need to remove the power from the unit, then re-power the unit.

After any failure of this type, the device will automatically mark the SSD as full, once power is restored to the unit. You will need to offload the footage before you will be able to continue recording in order to help ensure proper recovery of the previous recordings.

FILE STORAGE

The Odyssey SSDs support read rates of 500 Mbytes/sec. Keep in mind you will be limited by the slowest median in the transfer process. For example: eSATA 3GBps interface cards have a max performance of ~270Mbps, and eSATA 1.5GBps have a max performance of ~130Mbps. Typical Hard Drives (non-RAID) generally perform anywhere in the range of 80-130Mbps. For maximum performance, make sure you are using eSATA 6 GBps, USB 3.0 or Thunderbolt to a RAID configuration.

Video Format	Video Data Rate	Suggested RAID Configuration Real Time Playback/Edit
HD Compressed Apple ProRes 422	30MB/Sec.	100

DOWNLOADING MEDIA

Always make sure to properly Safe Eject to dismount SSDs before removing from Odyssey7.

While the Odyssey SSDs are exclusive Convergent Design products, they utilize a standard 2.5" SATA interface. No expensive proprietary download stations are required. Consumer card adapters such as Seagate GoFlex adapters (see *Third Party Accessories* in this manual) are available with Thunderbolt or USB 3.0 interface. Thunderbolt is fastest and USB 3.0 is most common and self-powering. Firewire 800 is not recommended as it will take a very long time to download files.

Convergent Design offers a USB 3.0 SSD Adapter (CD-SSD-USB3) through authorized dealers and distributors. This device allows you to access files on the Convergent Design SSDs on any computer with a USB 3.0 or USB 2.0 port. (Please note that USB 2.0 ports have much slower data transfer rates.)



CD Apple ProRes TRANSFER UTILITY

Copies Apple ProRes files recorded on the Odyssey and merges files within each clip. Also optimizes Apple ProRes clips for playback and editing. Version 1.5 supports Markers and Clip Notes functions in PLAY Mode. Markers and Notes are exported to a Final Cut XML file for FCP7, FCPX, Adobe Premiere and Resolve 10 & 11.

Note: While not required, offloading files from SSDs using this tool is a more efficient workflow than other methods.

INSTALLATION INSTRUCTIONS

1. Download the CD Apple ProRes Transfer Tool 1.5 installation files from the Convergent Design website on the SOFTWARE/UTILITIES page at Convergent-Design.com/support/firmware-downloads/software-utilities.html
2. Uncompress the zip file and open up the ProRes Transfer folder.
3. Run the ProResTransfer.jar application.

Note: The ProRes Transfer Tool uses Java. Mac users need to download and install Java JRE 1.6 from the Apple website here: <http://support.apple.com/kb/DL1572>

NEW FEATURES FOR CD PRORES TRANSFER TOOL 1.5

- Support for 47.95p and 48p files
- Ability for user to change Project Rate during .mov file transfer. Files default to recorded rate.
- Markers expanded to include Clip Notes and Good/Bad notation.

NOTES ABOUT VERSION 1.4.4

- FCP X, fix for 4k and UHD. Minor issue with the format string used in the import.
- FCP X, Added an Out marker to clarify the IN-OUT duration.
- FCP X, Made IN markers “green”, Out makers “red”, and Markers “blue” by using different marker states.
- Updated the doc to reflect the above changes.

NOTES ABOUT VERSION 1.4.2

- FCP 7 - Project, Bin, and Sequence removed. Just bare movies are imported in selected project.
- Added elements so you don't see the import pop up
- FCP X - Changed project/event name to clip name
Added project name to note
- FCP 7 - Project, Bin, and Sequence removed. Just bare movies are imported in selected project.
- Added elements so you don't see the import pop up
- FCP X - Changed project/event name to clip name
Added project name to note



Apple ProRes

The Odyssey can record in Apple ProRes 422 (HQ), Apple ProRes 422 and Apple ProRes 422 (LT) compressed codecs. This allows for high quality recording while avoiding high data rates of working with uncompressed video.

PRORES 422 (HQ)	The Apple ProRes 422 (HQ) codec offers the utmost possible quality for 4:2:2 or 4:2:0 sources (without an alpha channel) and provides the following: <ul style="list-style-type: none"> • Target data rate of approximately 220 Mbps (1920 x 1080 at 60i) • Higher quality than Apple ProRes 422
PRORES 422	The Apple ProRes 422 codec provides the following: <ul style="list-style-type: none"> • Target data rate of approximately 145 Mbps (1920 x 1080 at 60i) • Higher quality than Apple ProRes 422 (LT)
PRORES 422 (LT)	The Apple ProRes 422 (LT) codec provides the following: <ul style="list-style-type: none"> • Roughly 70 percent of the data rate of Apple ProRes 422 (smaller file sizes than ProRes 422) • Higher quality than Apple ProRes 422 (Proxy)

NATIVE APPLE PRORES SUPPORT

Adobe CC 2014*
Apple FCP X, Aperture
Cineform Studio

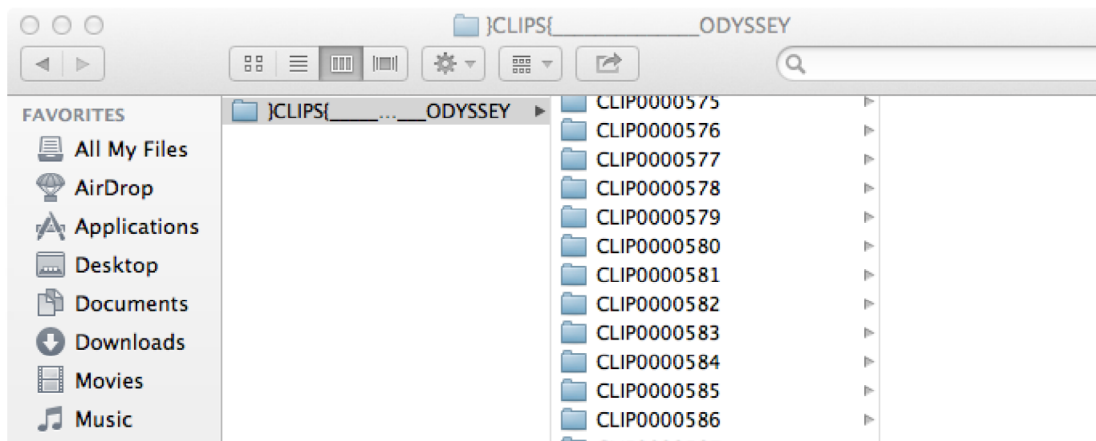
Final Cut Pro 7
Black Magic DaVinci Resolve
The Foundry Nuke

Autodesk Smoke
Sony Vegas

WORKING WITH FILES RECORDED BY THE ODYSSEY

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.

FILE STRUCTURE





CONVERGENT DESIGN ACCESSORIES

All Convergent Design products are available through our worldwide dealer network. Visit Convergent-Design.com/dealers to find our nearest authorized dealer

POWER SUPPLY OPTIONS

The Odyssey can accept DC power ranging from 6.5-34v. This means that small camcorder batteries, large camera bricks and even large block batteries or belts can be used to power the device. Depending on monitor and record modes, the power draw from the Odyssey can range from 8-15w. Even small camcorder batteries can power the Odyssey for several hours.

The Odyssey is supplied with a Convergent Design AC power supply. This is a universal switching power supply that can be used throughout the world, and comes complete with several interchangeable plug connectors. Only use a Convergent Design AC power supply on the Odyssey.

Odyssey Replacement AC Power Supply [CD-OD-AC-PS](#)

The Odyssey uses a *Neutrik 3-pin connector* for power input. Convergent Design has modified this connector for reliability, strength, and protection from shorting. Convergent Design supplies cables to 3rd party manufacturers of battery plates and other Odyssey accessories.

ONLY USE A CONVERGENT DESIGN POWER CABLE ON THE ODYSSEY.

OPTIONAL POWER CABLES

- Anton Bauer D-Tap 12v power cable to Odyssey (18")** [CD-OD-DTAP](#)
- XLR-4 (generic 12v) power cable to Odyssey (18")** [CD-OD-XLR](#)
- Fischer-3 (ARRI 24v) power cable to Odyssey (18")** [CD-OD-Fischer](#)
- Flying lead (bare wire pigtail) power cable to Odyssey (36")** [CD-OD-Flying](#)

<http://convergent-design.com/products/accessories.html>

BATTERY PLATE OPTIONS

Convergent Design offers a series of rear plates for the Odyssey that accept various manufacturers' small camcorder batteries.

- Odyssey battery plate for SONY L-Series batteries** [CD-OD-SLPlate](#)
- Odyssey battery plate for SONY U-Series batteries** [CD-OD-SUPlate](#)
- Odyssey battery plate for Canon BP-9x Series batteries** [CD-OD-CBPlate](#)
- Odyssey battery plate for Panasonic CGA-Series batteries** [CD-OD-PCGAPlate](#)
- Odyssey battery plate for JVC Camcorder-style batteries** [CD-OD-JVCplate](#)

<http://convergent-design.com/products/accessories.html>



TERADEK BATTERY PLATES

Convergent Design also makes battery plates that can also hold and power a pair of Teradek Bolt video receivers along with the Odyssey. Two camcorder batteries (one for the Odyssey, one for the Teradeks) are used or a single large battery. These plates are shipped in kits that include short SDI cables and power cables for the Odyssey and Teradeks.

Teradek battery plate for 2x Sony L-Series batteries	CD-OD-BOLT-SLPLATE
Teradek battery plate for 2x Sony U-Series batteries	CD-OD-BOLT-SUPLATE
Teradek battery plate for 2x Canon BP-9x Series batteries	CD-OD-BOLT-CBPLATE
Teradek battery plate for 2x Panasonic CGA-Series batteries	CD-OD-BOLT-PCGAPLATE
Teradek battery plate for IDX V-mount batteries	CD-OD-BOLT-IDXPLATE
Teradek battery plate for Anton Bauer 3-stud batteries	CD-OD-BOLT-ABPLATE

<http://convergent-design.com/accessories/50-teradek-battery-plate-kit.html>

ODYSSEY SUN HOOD

The Convergent Design Odyssey Hood is a sturdy, but flexible three-sided sunshade specifically designed for the Odyssey. The hood attaches to the side 1/4-20 mount sockets on the Odyssey. If there is another item such as a mount that uses these side sockets, the Odyssey Hood's bolts can be removed and the other item's bolts can be passed through the Hood into the Odyssey. The Odyssey Hood folds flat for storage and can rest atop the Odyssey within the Odyssey Case. When the Hood is folded the mounting bolts do not protrude long enough to make contact with any surface, so as not to scratch the Odyssey screen in transport.

Odyssey Sun HOOD [CD-OD-HOOD](#)

<http://convergent-design.com/accessories/88-odyssey7-7q-sun-hood.html>

ODYSSEY ALUMINUM TABLE STAND

The Convergent Design Odyssey Aluminum Table Stand attaches to the Odyssey. While only five ounces, it is tall enough to protect the cables and connectors attached to the bottom of an Odyssey. The design tilts back the screen for comfortable viewing while also centering the weight over the stand for balance.

The stand can support an Odyssey alone or with any Convergent Design battery mount with full clearance and stability. There is also a standard 5/8" socket with tie-down bolt to mount the stand onto a standard light stand or baby pin. The stand also functions as a "chest offset" when an Odyssey is worn with a neck strap so the operator doesn't have to look uncomfortably straight down.

Odyssey Aluminum Table Stand [CD-OD-AL-TS](#)

<http://convergent-design.com/accessories/36-odyssey7-7q-aluminum-table-stand.html>



ODYSSEY PROTECTIVE CASE

The Convergent Design Odyssey Case is based on a Nanuk 910 case with custom foam insert. The use of precision-cut rigid foam means less is needed for protecting the gear. The main cutout for an Odyssey includes removable layers of rigid foam to allow the Odyssey to fit snugly when bare or with a variety of battery plates and 3rd party accessory mounts. This includes all Convergent Design mounting plates, including the Teradek Bolt Adapter Plate, complete with wireless receivers mounted and all cables plugged in. An additional cutout is large enough to hold SSDs, cables, USB adapter, batteries, Teradek Bolt transmitters, etc.

Odyssey Protective Case

[CD-OD-CASE](#)

<http://convergent-design.com/accessories/37-odyssey-case.html>

ODYSSEY ULTRA-THIN SDI CABLE

The Odyssey Ultra-Thin SDI Cable is a flexible and lightweight cable for use with the Odyssey. The SDI cable is rated for 3G signals and is useful in camera-mounted installations where its thinness and flexibility will help keep it out of the way for operators. Despite its small size, the SDI Cable is quite rugged and can even be tied in knots without effecting performance. Standard lengths are 18" and 36" with custom lengths available by special order.

Odyssey Ultra-Thin SDI Cable

[CD-OD-SDI](#)

<http://convergent-design.com/accessories/51-ultra-thin-sdi-cable.html>

ODYSSEY UTILITY DRIVE

The Odyssey Utility Drive is designed as a lower cost alternative to the Odyssey Premium SSD media for secondary tasks. The Odyssey Utility Drive can be used for Odyssey firmware updates, Odyssey 3D-LUT files and other future functionality. The Odyssey Utility Drive will not record video files. It is intended for Odyssey owners who do not wish to tie up an Odyssey SSD with utility features, or for Odyssey owners who use their devices primarily as monitors and do not need to purchase large-capacity recording media.

Odyssey Utility Drive

[CD-SSD-UTILITY](#)

<http://convergent-design.com/accessories/75-odyssey-utility-drive.html>

ODYSSEY SSD TO USB 3.0 ADAPTER

To connect an Odyssey SSD to a computer for downloading files, the computer needs to be able to mount an eSata 2.0 connection. For computers without such connectivity, the Convergent Design SSD to USB 3.0 Adapter is an inexpensive cable-style adapter to allow the Odyssey SSD to connect to a USB 3.0 port. 6Ghz transfer speed. *NOTE: While the Convergent Design USB 3.0 Adapter can be connected to a USB 2.0 port, download speeds will be extremely slow, requiring many hours to offload an SSD.*

Odyssey SSD to USB Adapter

[CD-SSD-USB3](#)

<http://convergent-design.com/accessories/38-usb-3-0-ssd-adapter.html>



ODYSSEY RACK MOUNT KIT

The Convergent Design Odyssey Rack Mount Kit accepts one or two Odyssey units. Monitors face forward for easy viewing and tilt forward for access to SSDs. A pass through patch bay is included on the back along with short jumper cables for complete connectivity.

Odyssey Rack Mount Kit

[CD-OD-RACK](#)

ODYSSEY SCREEN PROTECTORS

The Convergent Design Odyssey Screen Protector is a stick-on/peel-off clear shield for the glass screen on the Odyssey. It includes the inked labeling for the connectors and controls on the device. This is a replacement item for the screen protector that ships installed on the Odyssey.

Replacement Odyssey7 Screen Protector

[CD-OD-SP7](#)

Replacement Odyssey7Q Screen Protector

[CD-OD-SP7Q](#)

<http://convergent-design.com/accessories/85-odyssey-screen-protector.html>

ODYSSEY MICROFIBER CLEANING CLOTH

Cloth for cleaning the Odyssey screen

CD-OD-MFC

For information on where to buy these accessories and other Convergent Design products please visit the Dealers section of our website at [Convergent-design.com/dealers](http://convergent-design.com/dealers).

ODYSSEY REMOTE TRIGGER



The Convergent Design Odyssey Remote Trigger is a pushbutton active remote start/stop trigger for Odyssey monitor/recorders. The trigger button illuminates while recording. The trigger plugs into the RMT port on the left side of the Odyssey and comes in a six foot standard cable length. Custom cable lengths and breakout cables for triggering multiple Odysseys are available for special order.

Odyssey Remote Trigger

CD-OD-REMOTE



THIRD PARTY ACCESSORIES

Convergent Design works with numerous manufacturers for additional support products for the Odyssey Monitor/Recorders. While we have provided information and support, Convergent Design makes no claim and accepts no responsibility in the use of these products. These products are available through these manufacturers' own dealers.

See the complete list with links to the manufacturers' websites at Convergent-Design.com.

SATA ADAPTERS

- THUNDERBOLT** Seagate GoFlex Model STAE128 or STAE129 We have measured 325-375MB/sec transfer rates to a fast RAID drive, depending on your configuration.

- USB 2.0 / 3.0** Seagate GoFlex Model STAE104 or Calvary USB 3.0 Adapter, Model CAUSM2001. An ExpressCard 34 to USB 3.0 adapter may be required for full USB 3.0 compatibility. However, USB 2.0 works fine to copy firmware updates to the SSD.



FIRMWARE VERSION 2015.5

Please note new naming convention for firmware updates, containing year followed by month.

NEW FEATURES (ODYSSEY7 / ODYSSEY7Q / ODYSSEY7Q+)

EXPANDED ODYSSEY LUT SYSTEM, INCLUDING CUSTOM 3D-LUTS

Improved & Expanded set of Preset LUTs
Support for user-loadable custom 3D-LUTs (up to 140, Odyssey7Q, Odyssey7Q+)
.CUBE LUTs translated for Odyssey using CD 3D-LUT Converter App
LUTs are currently for MONITORING only, not "baked in"
LUTs viewed during recording noted in XML file metadata
(new CD Apple ProRes Transfer Utility 1.7 required)
Extended and Legal Range LUTs Supported (EE vs LL)

LUT ROUTING TO TOOLS & OUTPUTS

Image Analysis Tools can measure "LUTTED" image or original source
Video outputs can independently turn ON/OFF LUT or Mirror OLED

ANAMORPHIC DESQUEEZE

2.0x, 1.5x, 1.33x Support
Corrected image sent to video outputs, recording unaffected

4K / 2K MONITORING MODES (ODYSSEY7Q, ODYSSEY7Q+)

17:9 Letterboxed within 16:9 image or Center-Cut to 16:9
Letterbox or Center-Cut image sent to video outputs, full frame recorded.

MONOCHROME MONITORING MODE

View Luma only or individual Red, Green, or Blue channel in grey tone

DUAL ZEBRAS

Set high & low for each, can overlap, separately selectable colors

EXPANDED FALSE COLOR MODE

Added Pink for Six colors
Each color set high & low, can overlap

EXPANDED OLED CONTROLS

Advanced Monitor Calibration Controls
Color channel bias controls, SMPTE color bars reference

IMPROVED MULTI-STREAM MODE SWITCHING

Switch between inputs without image flicker or glitch.

SAFE EJECT AT POWER DOWN

Automatically closes all file directories on shut down

IMPROVED SONY FS RAW COLOR REPRODUCTION

Improved image quality in CinemaDNG and Apple ProRes recording
FS700 Apple ProRes recording with S-Log2 or REC709(800%)
FS7 CinemaDNG & Apple ProRes require SGamut3.Cine Color Space



FIXES & IMPROVEMENTS

- FIXED AUD OUT (Headphones) unmute
- FIXED Audio gain settings when switching Analog to SDI
- FIXED Safe Eject process to remove OLED flashing during procedure
- FIXED FS700 4K RAW -> HD Apple ProRes detection
- IMPROVED 4K Apple ProRes playback
- IMPROVED 4K pixel zoom 1:1 and 2:1
- IMPROVED PSF output support in all modes
- IMPROVED Reduced overall power usage
- IMPROVED Interlaced playback support
- IMPROVED 4K -> HD Apple ProRes playback
- FIXED hdmi legalize input setting

SOFTWARE UPDATES

- CD Apple ProRes Transfer Utility 1.7
- LUTs viewed during recording noted in XML file metadata

KNOWN ISSUES

- 4K HDMI input, to HD HDMI output there are lines in the display. Note HD-SDI output does not have this issue. Recording is unaffected.
- When using FS7 / FS700 4K -> 4K Apple ProRes or 4K -> 2K Apple ProRes, enabling color bars with PSF on causes vertical stretching of color bars.
- When using color bars, do not power up the unit with a video source connected as this can result in a black screen. Disconnect SDU or HDMI to remedy.
- Pixel Zoom in 2:1 does not reach the corners of the image in 16:9 or 17:9
- When applying certain LUTs Legal / Extended may need to be selected to match the camera / NLE.
- SSD Detection is longer than previous 5-10 seconds.
- Loading of SSD LUTS can take up to 30 seconds.
- Deletion of Custom LUT Folders not enabled at this time.
- Loading of any LUTs go to LUT User folders only.
- Image Analysis Tool Overlays are slower than previous firmware (Lines on the display).
- When PSF output is selected OLED display is interlaced.
- Occasionally when viewing or recording 4K/UHD to 2K/HD SuperSample, lines can appear on the OLED display. Recorded files as unaffected.
- IN FS700 4K Raw Burst mode (100p/120p), ten extra frames are recorded at the end of each clip. Occasionally they are bad frames. This will be corrected in future firmware from 450 frames to proper 440 frames.
- IN FS700 4K Raw Burst mode (100p/120p) -> 2K/HD Apple ProRes, the amount of frames that are recorded may vary based on trigger type and clip to clip. Note the Odyssey always records 420+ frames in this mode.
- Graticules for Image Analysis Tools are not currently displayed on the SDI / HDMI outputs.
- Occasionally on startup the firmware version number located under the Safe Eject button will report "2015". Engage/disengage F1 Screen Lock to reset to display "15.05".
- Deleting luts does not always work reliably, deleted luts can reappear after a power cycle
Workaround: Resetting luts via the Odyssey->Reset menu does clear (delete) all custom luts
- Anamorphic Desqueeze is not supported in Canon Half Raw at this time.
- 1D LUTs are not support, only 3D Luts.

**KNOWN ISSUES (FROM PREVIOUS RELEASE: 5.1.100)****AUDIO**

- SDI/HDMI outputs occasionally will not carry audio. Cycle Odyssey power to restore.
- SDI/HDMI audio occasionally will have a static pop when powering up.
- Audio will occasionally swap tracks when recording in DPX.
- Using Analog Audio and HDMI video, occasionally SDI, HDMI and headphone outputs do not carry audio.
- Audio output (headphones) occasionally flips channels.

MONITOR

- Focus Assist in Edge Enhanced mode and recording Apple ProRes 422(HQ) shows edges as white instead of selected color.
- PIXEL ZOOM in RAW or DPX occasionally causes stretching of image. Recording is unaffected.
- Switching between ARRIRAW 1.5G DL and 3G DL occasionally can make the image incorrect on the OLED screen. Disconnect & reconnect one of the SDI inputs to correct. Recording is unaffected.
- SDI/HDMI outputs have a pink line in image on Canon C500 2K 12-bit/10-bit video. Recording is unaffected.
- IO Industries RAW files do not send color balance metadata to the Odyssey7Q so images appear incorrect. Recorded metadata color balance is set to 5600K but is not baked in.

PLAY

- Very fast scrubbing can show bad colors. The image corrects after scrubbing completed.
- PLAY mode audio occasionally out of sync.
- Playlist occasionally reports timecode as "00:00:00;00". Eject and re-insert the SSD to correct.
- PIXEL ZOOM in PLAY mode, 1080i60 not supported & will blank image. Recording is unaffected.
- Scrubbing RAW or DPX files occasionally causes the image to pixelate. The image corrects after scrubbing completed.
- FS700 2K RAW files occasionally show improper colors on initial selection of a clip. De-select and then re-select the clip to correct.
- FS700 RAW files occasionally show vertical line on right edge of frame. Recording is unaffected.
- F700 4K RAW 50p files occasionally do not play back audio. Recording is unaffected.
- FS700 RAW 30p and 60p files occasionally play with jitter. De-select and re-select to correct. Recording is unaffected.
- Multiple clip playback not supported in RAW formats.
- Canon UHD RAW occasionally plays back black image. De-select and re-select to correct. Recording is unaffected.

RECORD

- Audio at the last few frames of an Apple ProRes 422(HQ) file occasionally records static. Add two seconds of pre- and post-roll to shots to avoid.
- ARRIRAW 4:3 mode is currently unsupported.

POST

- FS RAW files appear green when imported directly into SpeedGrade.
- Pending Adobe update, import via dynamic link from Premier.
- Canon Cinema 4K half RAW 100/120 does not work in Adobe or Resolve - Working with Adobe and BMD to resolve.
- In Resolve 11 Lite, FS700 RAW (CinemaDNG) files that are underexposed may appear green when using "Auto-Color" setting. Working with Blackmagic Design to resolve.

**FIRMWARE V5.10.100****NEW FEATURES (ODYSSEY7Q+)****HDMI 4K/UHD -> 2K/HD SUPERSAMPLE**

4096x2160 to 2048x1080 23.98, 24, 25, 29.97
3840x2160 to 1920x1080 23.98, 24, 25, 29.97

High quality supersampling of 4K/UHD video signal over HDMI yields 2K/HD video superior to that available directly from some small cameras

NEW FEATURES (ODYSSEY7Q & ODYSSEY7Q+)**APPLE PRORES 422 & APPLE PRORES 422 (LT) SUPPORT**

4K/UHD/2K/1080/720 resolutions all supported
4K/UHD up to 30p; 2K/1080/720 up to 60p

SONY F35 12-BIT/10-BIT RGB 4:4:4 SUPPORT

12-bit or 10-bit RGB 4:4:4 recording in uncompressed DPX stacks
Dual-link capture, 23.98, 25, 29.97

SONY FS7/FS700 RECORD OPTION ADDS ADDITIONAL APPLE PRORES SUPPORT

Apple ProRes 422
Apple ProRes 422 (LT)

(FS7/FS700 Record Option Required.)

Option of Apple ProRes 422 or Apple ProRes 422 (LT) for

- 4K RAW -> 4K Apple ProRes 23.98, 25, 29.97
- 4K RAW -> UHD Apple ProRes 23.98, 25, 29.97
- 4K RAW -> 2K Apple ProRes 23.98, 25, 29.97, 50, 59.94
- 4K RAW -> HD Apple ProRes 23.98, 25, 29.97, 50, 59.94

SONY FS700 RECORD OPTION ADDS HIGH SPEED BURST IN 2K/HD APPLE PRORES

(FS7/FS700 Record Option Required. Feature only available for FS700.)

Option of Apple ProRes 422 (HQ), Apple 422 or Apple 422 (LT) for

- 4K RAW Burst -> 2K Apple ProRes 100p, 120p
- 4K RAW Burst -> HD Apple ProRes 100p, 120p

CANON C500 RECORD OPTION ADDS APPLE PRORES 422 & APPLE PRORES 422 (LT)

(Canon RAW Record Option Required.)

Option of Apple ProRes 422 or Apple ProRes 422 (LT) for

- 4K RAW -> 4K Apple ProRes 23.98, 24, 25, 29.97, 30
- QHD RAW -> UHD Apple ProRes 23.98, 24, 25, 29.97, 30



NEW FEATURES (ALL ODYSSEYS)

APPLE PRORES 422 & APPLE PRORES 422 (LT) SUPPORT

1080p, 1080i & 720p supported

ODYSSEY REMOTE TRIGGER SUPPORTED

New Odyssey Remote Trigger (cable remote with record indicator)

HD Apple ProRes recording only

FIXES & IMPROVEMENTS

FIXED HDMI video Legalizing issue on some cameras

FIXED FS7 RAW DNG magenta cast

FIXED FS7 RAW DNG compatibility with Adobe, FCPX & Scratch Lab

FIXED C300 1080p30 playback

FIXED FS7 RAW to Apple ProRes S-Log2

FIXED C100 & FS100 1080p24 support

IMPROVED Playback performance

IMPROVED Safe Eject errors

IMPROVED FS700 LUTs

THIRD PARTY DEVELOPMENTS

SONY PXW-FS7 AND ODYSSEY7Q WORKFLOW GUIDE

Nick Shaw of Antler Post worked with Convergent Design to develop Resolve Workflow for FS7/FS700 .DNG files. Also created corrective LUTs for FS7 DNG files created in firmware builds prior to this release (versions 2.1.100 – 4.1.100)

View Online: [Sony PXW-FS7 and Odyssey7Q Workflow Guide](#)

PICTURE RESCUE 2 - PROSOFT ENGINEERING

Prosoft Engineering has updated Picture Rescue 2 to recover ALL file types from Convergent Design SSDs. Even if a Safe Eject was not performed, this inexpensive utility can rescue the files.

KNOWN ISSUES

- 4K/UHD HDMI input recording 4K/UHD Apple ProRes, HDMI monitoring output shows lines in display. SDI output, OLED image and recording are unaffected.
- 4K/UHD HDMI input recording to supersampled 2K/HD Apple ProRes, OLED image may show lines in display. HDMI & SDI outputs and recording are unaffected.
- During SSD Safe Eject, OLED will flash after each clip completed. Operation unaffected.
- 720p50/60 over HDMI not functioning on Odyssey7Q+ (working on Odyssey7 and Odyssey7Q).
- Timecode triggering over HDMI not correctly functioning on FS7 & GH4. Use camera trigger.
- SDI output embedded audio occasionally has ticking noise.
- FS7 4K RAW->2K/HD Apple ProRes, S-Log3 to Rec709 LUT not working.
- FS700 4K RAW to 2K/HD Apple ProRes S-Log2 to Rec709 LUT not working.
- FS700 4K RAW Burst up to 10 additional frames (450 instead of 440) recorded. Additional frames are "bad" and should be deleted.
- FS700 4K RAW Burst -> 2K/HD Apple ProRes clip length may be off by 1% (437 frames instead of 440).



FIRMWARE v4.10.100

NEW FEATURES (ODYSSEY7Q+)

4K 10-BIT HDMI SUPPORT

4K Apple ProRes 422 (HQ) 23.98, 24
 UHD Apple ProRes 422 (HQ) 23.98, 24, 25, 29.97, 30

1080P60 10-BIT HDMI SUPPORT

1080p Apple ProRes 422 (HQ) 50p, 60p

NEW FEATURES (ODYSSEY7Q & ODYSSEY7Q+)

EXTENDED WARRANTY (ODYSSEY7Q ONLY)

All Odyssey7Q warranties are automatically extended to January 1, 2016. (See bulletin to Odyssey7Q owners for details.)

4K/UHD DUAL-LINK 3G-SDI INPUT

Input 4K/UHD video via dual-link 3G-SDI. For use with cameras such as F55, GH4 with YAGH base, and Phantom Flex4K.

MULTI-STREAM HDMI INPUT

Allows HD video signal over HDMI as one of the inputs for Multi-Stream Monitoring.

MULTI-STREAM 720P INPUT

Allows 720p HD video signal for Multi-Stream Monitoring. Mixable with 1080i and 1080p HD video.

SONY FS7 (WITH XDAC-FS7 EXTENSION BACK) SUPPORT

Record modes available with FS RAW Record Option
 4K RAW 23.98, 25, 29.97, 50, 59.94
 2K RAW 23.98, 25, 29.97, 50, 59.94, 100, 119.88 (120), 200, 239.76 (240)
 4K RAW to 4K Apple ProRes 422 (HQ) 23.98, 25, 29.97
 4K RAW to UHD Apple ProRes 422 (HQ) 23.08, 25, 29.97
 4K RAW to 2K Apple ProRes 422 (HQ) 23.98, 25, 29.97, 50, 59.94
 4K RAW to HD (1080p) Apple ProRes 422 (HQ) 23.98, 25, 29.97, 50, 59.94

Note: FS7 S-Log3 supported in RAW & Apple ProRes record modes

SONY FS700 4K RAW TO 4K/2K APPLE PRORES

Additional record modes available with FS RAW Record Option
 4K RAW to 4K Apple ProRes 422 (HQ) 23.98, 25, 29.97
 4K RAW to 2K Apple ProRes 422 (HQ) 23.98, 25, 29.97, 50, 59.94

CANON C500 4K/QHD RAW TO 4K/UHD APPLE PRORES

Additional record modes available with Canon RAW Record Option
 4K RAW to 4K Apple ProRes 422 (HQ) 23.98, 24, 25, 29.97, 30
 QHD RAW to UHD Apple ProRes 422 (HQ) 23.98, 24, 25, 29.97, 30
 Note: 4K "half RAW" to Apple ProRes not supported.

**NEW FEATURES (ODYSSEY7, ODYSSEY7Q, ODYSSEY7Q+)****HDMI RECORD TRIGGER**

Start/stop recording on Odyssey from Panasonic GH4 (with new GH4 firmware) and Sony a7S.

HDMI TIMECODE SUPPORT

Capture timecode data from Panasonic GH4 (with new GH4 firmware) and Sony a7S.

1TB ODYSSEY SSD SUPPORT

Allows the use of the new Odyssey 1TB SSD in Odyssey monitor/recorder.

CUSTOM FRAME GUIDES

Up to four user-programmable frame guides in six color options. All four frame guides plus one preset frame guide can be displayed concurrently.

PLAYBACK NOTES

Expanding PLAY Markers functionality, a Notes text field is now available in Clip XML data as well as a Good/Bad take indication. Used in conjunction with new CD APPLE PRORES TRANSFER UTILITY 1.5, a Final Cut XML can transfer Markers and Notes to FCPX, FCP7, Adobe Premier and Resolve 10 & 11.

PSF VIDEO OUTPUT OPTION

Certain modes add choice of true progressive (p) or Progressive-Segmented Frame (psf) video output for expanded compatibility with other equipment.

OLED CALIBRATION CONTROLS

RGB Gain and Saturation controls added for the OLED display, with reset.

2K APPLE PRORES SUPPORT FOR CANON C500 @ 50P/60P

Record C500 2K @ 50p/60p in Apple ProRes 422 (HQ)

CD APPLE PRORES TRANSFER TOOL 1.5

Support for expanded Marker & Notes functions. Required for MAC OSX Yosemite compatibility. Java JRE 1.6 required. CD Apple ProRes Transfer Tool available for download on the Convergent Design website.

FIXES & IMPROVEMENTS

- FIXED HDMI input detection with Blackmagic HDMI to SDI Converter
- FIXED SDI input detection with Blackmagic SDI Studio camera (50p, 59.94p)
- FIXED Pixel Zoom image blackout when dragged to corner
- FIXED Pixel Zoom scrolling image when dragged to corner
- FIXED Safe Eject errors after mid-recording power loss
- FIXED Audio Gain adjustment
- FIXED FS700 low white balance clipping
- IMPROVED SSD menu function controls
- IMPROVED Screen Saver brightness
- IMPROVED Separate FS7 & FS700 camera selection in Odyssey menus
- IMPROVED Apple ProRes 47/48p Project Rate added
- IMPROVED LTC timecode trigger in HD ProRes
- IMPROVED Support to record 2K/HD @ 48p in Apple ProRes 422 (HQ)
- IMPROVED 4K Playback shows UHD center cut of 4K image



KNOWN ISSUES

MONITOR

- Occasionally when zooming, the image will stretch, zooming again will correct.
- FS7 Cine S-Log3 / S-Log2 not currently supported

PLAY

- Occasionally in Play there is an audible tone heard at the end of the file. Recording is unaffected.
- Custom name text may run out of box into other areas of the top menu when first entered.
- Play Markers created in previous firmware not supported.
- Occasionally Scrubbing while playing 4K ProRes can cause image stuttering.
- Occasionally Pausing during playback of 4K ProRes can cause image stuttering.
- Occasionally a playlist file starting timecode will read 0's. Remove and reinsert SSD to correct.

RECORD

- Occasionally HDMI input signals are not detected. Disconnect and reconnect HDMI plug to correct.
- Occasionally when switching modes to Canon 4K Raw to 4K ProRes, Odyssey fails to detect frame rate. To correct disconnect and reconnect the SDI input.

**KNOWN ISSUES (FROM PREVIOUS RELEASE: 3.10.100)****AUDIO**

- SDI/HDMI outputs occasionally will not carry audio. Cycle Odyssey power to restore.
- SDI/HDMI audio occasionally will have a static pop when powering up.
- Audio will occasionally swap tracks when recording in DPX.
- Using Analog Audio and HDMI video, occasionally SDI, HDMI and headphone outputs do not carry audio.
- Audio output (headphones) occasionally flips channels.

MONITOR

- Focus Assist in Edge Enhanced mode and recording Apple ProRes 422(HQ) shows edges as white instead of selected color.
- PIXEL ZOOM in RAW or DPX occasionally causes stretching of image. Recording is unaffected.
- Switching between ARRIRAW 1.5G DL and 3G DL occasionally can make the image incorrect on the OLED screen. Disconnect & reconnect one of the SDI inputs to correct. Recording is unaffected.
- SDI/HDMI outputs have a pink line in image on Canon C500 2K 12-bit/10-bit video. Recording is unaffected.
- IO Industries RAW files do not send color balance metadata to the Odyssey7Q so images appear incorrect. Recorded metadata color balance is set to 5600K but is not baked in.

PLAY

- Very fast scrubbing can show bad colors. The image corrects after scrubbing completed.
- PLAY mode audio occasionally out of sync.
- Playlist occasionally reports timecode as "00:00:00;00". Eject and re-insert the SSD to correct.
- PIXEL ZOOM in PLAY mode, 1080i60 not supported & will blank image. Recording is unaffected.
- Scrubbing RAW or DPX files occasionally causes the image to pixelate. The image corrects after scrubbing completed.
- FS700 2K RAW files occasionally show improper colors on initial selection of a clip. De-select and then re-select the clip to correct.
- FS700 RAW files occasionally show vertical line on right edge of frame. Recording is unaffected.
- F700 4K RAW 50p files occasionally do not play back audio. Recording is unaffected.
- FS700 RAW 30p and 60p files occasionally play with jitter. De-select and re-select to correct. Recording is unaffected.
- Multiple clip playback not supported in RAW formats.
- Canon UHD RAW occasionally plays back black image. De-select and re-select to correct. Recording is unaffected.

RECORD

- Audio at the last few frames of an Apple ProRes 422(HQ) file occasionally records static. Add two seconds of pre- and post-roll to shots to avoid.
- ARRIRAW 4:3 mode is currently unsupported.

POST

- FS RAW files appear green when imported directly into SpeedGrade. Pending Adobe update, import via dynamic link from Premier.
- Canon Cinema 4K half RAW 100/120 does not work in Adobe or Resolve Working with Adobe and BMD to resolve.
- In Resolve 11 Lite, FS700 RAW (CinemaDNG) files that are underexposed may appear green when using "Auto-Color" setting. Working with Blackmagic Design to resolve.

EARLIER VERSIONS

Please see our website for release notes for earlier firmware versions.



Convergent Design warrants Odyssey, and all included accessories, against defects in material and workmanship for a period of one year for registered units, and 3 months (for units used as rentals) from the original date of purchase.

Convergent Design disclaims all other warranties.

Convergent Design will not be liable for damages of any kind, including, but not limited to, compensation or reimbursement on account of failure of the unit, or any of its accessories, or its recording media, external storage systems, or any other media or storage systems to record or playback content of any type. Also Convergent Design will not be liable for a failure of the unit to properly record or play back for any reason. Convergent Design's total liability, in all cases, is limited to the actual purchase price.

If you discover a defect, please refer to our Return Merchandise Policy below.

During the warranty period, Convergent Design, at its option, will repair or replace product or product components, which in its opinion prove defective, provided the unit is returned, freight charges prepaid, to Convergent Design. Parts and components used in the repair process may be recycled or repaired, at Convergent Design's sole discretion. This warranty service will be performed at no charge to the registered owner, provided the product is shipped prepaid to Convergent Design.

Convergent Design reserves the right to determine whether a needed repair is subject to the warranty as per its provisions stated herein. Transit damage caused by inadequate packing violates the warranty. The warranty will be void if, in the opinion of Convergent Design, the product has been damaged through accident, misuse, misapplication, or as a result of service or modification not authorized in writing by Convergent Design.

Opening the unit and breaking the warranty seals, voids the warranty, unless specifically authorized in advance by Convergent Design.

THE FOLLOWING ARE NOT COVERED UNDER WARRANTY, AND ARE ITEMS FOR WHICH CONVERGENT DESIGN DOES NOT ACCEPT ANY RESPONSIBILITY:

Damage due to the use of an AC power supply, other than the one supplied, or use of any inappropriate power source.

Damage due to overheating conditions. The unit will attempt to shut down, if powered on, in the event of overheating, before damage can occur.

Damage due to exposure to water, or other liquids, or excessive dust or sand.

Damage caused by dropping or other rough handling.

Damage caused by any over-voltage conditions or reverse voltage conditions.

Any physical damage to the OLED and/or Touch Screen including scratches.

Damage to any connector by using excessive force or rough handling.

Any loss or corruption of video or audio data recorded on the unit, or any loss or corruption of data that is in any way associated with the Odyssey.



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