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User Manual Odyssey7

Updated 18-Aug-2014 | Firmware Release v2.11.110

PROFESSIONAL MONITOR/RECORDER

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Read This First!



Before you begin using the Odyssey7Q, 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!

9. **NEVER DELETE ANY FILES OFF OF 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 Odyssey7Q, **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 Odyssey7Q 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 Odyssey7Q.

QUESTIONS or FEEDBACK? We're always available to help! CDSupport@Convergent-Design.com

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ODYSSEY 7

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 256 GB or 512 GB, allows for extended recording.
- Apple ProRes 422 (HQ) 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.

i For the latest firmware, product manuals and other information visit Convergent-Design.com

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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.

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Product 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
Zebras	Currently one programmable level, future two programmable levels
False Color	False color with 5 programmable levels
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 (HDMI future)
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)
Record Triggers	Touchscreen, SDI record trigger (ARRI, Canon, Panasonic, Red, Sony), Optional Remote Control Cable (future)
Recording SSD Media	Convergent Design SSDs with power-loss protection, in 256 and 512 GB sizes, 420MB/sec write, 500MB/sec read speed, compatible with USB 3.0 and Thunderbolt adapters. SSDs and adpaters sold separately.
Recording Formats	Compressed formats: Apple ProRes 422 (HQ) up to 1080/60p, 1080/60i, 720/60p

All Specifications subject to change and update without notice.

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Recording Capabilities

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

HD VIDEO	The Odyssey7 records HD video as 10-bit Apple ProRes 422 (HQ)
	All .DPX files are recorded 4:4:4. 4:2:2 video signals are up-converted to 4:4:4.
	3G-SDI: accepted 1080p/psf frame rates: 23.98, 24, 25, 29.97, 30, 50, 59.97, 60
	HDMI: accepted 1080p/psf frame rates: 23.98, 24, 25, 29.97, 30, 50i, 60i, 720p50, 60
	Compressed Apple ProRes 422 (HQ) 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 rate.

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

Apple ProRes 422 (HQ)

The Odyssey7 records in Apple ProRes 422 (HQ) which is a 10-bit 4:2:2 220Mb compressed codec. This will allow for high quality recording while avoiding high data rates of working with uncompressed video.

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.

MAXIMUM RECORD TIME IN MINUTES TO A 512GB SSD

Recording Format	24fps	25fps	30fps	50fps	60fps
1080p Apple ProRes 422 (HQ)	330	318	264	159	132
1080i Apple ProRes 422 (HQ) - (24p using 3:2 Pulldown Removal)	330			318	204
720p Apple ProRes 422 (HQ)				158	132

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Package Contents

Odyssey7 box contains one (1) Odyssey7 monitor/recorder and one (1) universal power supply.



MEDIA AND ACCESSORIES SOLD SEPARATELY!

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2.5” PREMIUM SSD MEDIA

To enable recording on the Odyssey7, you must use specific SSD media: Only Convergent Design premium SSDs will work in the Odyssey7. These SSDs, available in 256 GB and 512 GB, must be purchased separately.

256GB SSD for Odyssey7 and 7Q	**CD-SSD-256GB**
512GB SSD for Odyssey7 and 7Q	**CD-SSD-512GB**

ODYSSEY UTILITY DRIVE

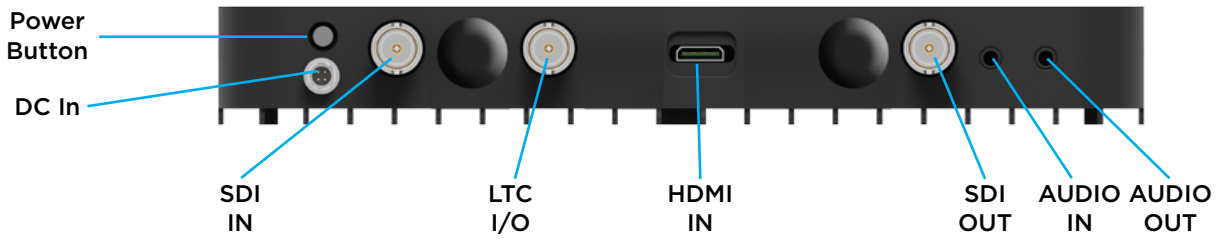
The Odyssey Utility Drive is designed as a lower cost alternative to the Odyssey Premium SSD media for secondary tasks. The Odyssey Utility Drive can be used for Odyssey7 & 7Q firmware updates, Odyssey7Q 3D-LUT files and other future functionality. The Odyssey Utility Drive will not record video files. It is intended for Odyssey7 & 7Q owners who do not wish to tie up an Odyssey SSD with utility features, or for Odyssey7 & 7Q owners who use their devices as monitors and do not need to purchase the more expensive recording media.

Utility Drive for Odyssey7 and 7Q	**CD-SSD-UTILITY**

? QUESTIONS or FEEDBACK? We’re always available to help! CDSupport@Convergent-Design.com

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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. *This input will be enabled in a free future firmware update.*
AUDIO Out	3.5mm mini-phone stereo headphone socket.

ODYSSEY7 - TOP

There is a single SSD slot on the top of the Odyssey7.



Only Convergent Design 256 GB and 512 GB 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. In a future free firmware update the RMT port 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

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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 and issue alerts for critical issues.

Upon first initializing of the Odyssey7, 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. 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.

In order to activate the Odyssey7 after initial purchase, please visit our website to register free and activate the unit.

Also, make sure your Odyssey7 has the latest firmware, posted here:
https://www.convergent-design.com/odyssey7-firmware

See Firmware Updates under the Appendix below for more information on how to put new firmware on your Odyssey7.

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 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 SSD, 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 SSD in the Odyssey7 menu at Menu » Odyssey » SSD's » Recover SSD1.

SETTING UP & USING THE ODYSSEY7

The touch screen 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.

Upper tool bar – Record Mode



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:

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ODYSSEY

Sub-Menu 1	Sub-Menu 2	Sub-Menu 3	Option	Description	Additional Information
SET	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 https://odyssey7q.com/new-north-america to register the unit.
	Time	→	→	Set the appropriate time.	IMPORTANT FOR RECORDING OPTION RENTALS
	Date	→	→	Set the appropriate date.	
	Reset	Menu	→	Restore all default settings.	
		Metadata		Resets metadata fields	
SSD	Format SSD 1	→	→	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.
	Recover SSD1	→	→	Non-destructively recovers / rebuilds file system of SSD1	Use only in extreme cases (such as if a computer corrupts the SSDs file system).
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.**					
ABOUT	→	→	→	Displays the firmware version, serial number, warranty status, and which Options are activated.	Check the website regularly to ensure you are running the current firmware.

SETUP

Sub-Menu 1	Sub-Menu 2	Description	Additional Information
MONITOR → RECORD	4:2:2 HD -> ProRes HD (.MOV)	10-Bit Apple ProRes 422 (HQ) 220Mb Compressed	This determines the type of signal coming into the Odyssey7Q and notes how it is to be recorded.
4:2:2 / 4:4:4 SOURCE	ARRI	This tells the Odyssey7Q the type of camera sending a standard HD video signal. Manufacturers use different protocols for sending record triggers, metadata and timecode. They also define their image LOG curves differently, which effects how the Odyssey7 can correctly LUT the signal. Additionally there are some specific signal variants for certain frame rates that are particular to individual camera designs.	
	ARRI (LOG-C)		
	CANON		
	CANON (C-LOG)		
	PANASONIC		
	RED		
	SONY FS700		
	SONY FS700 (S-LOG2)		
	SONY F3/OTHER (S-LOG)		
	SONY F5/F55 (S-LOG2)		
	SONY F5/F55 (S-LOG3)		
	SONY OTHER		
	OTHER CAMERA		

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RECORD

Dropdown	Sub-Item		Description	Additional Information
TRIGGER	Rec Button		Record button on Odyssey7 Upper Tool Bar	
	Camera		Record triggers on camera cues the Odyssey7	Compatible cameras include Canon C300, XF305, Sony F3, FS700, ARRI ALEXA (via SDI Remote camera setting).
	Timecode		Timecode rolling on camera triggers Odyssey7. Camera must be set REC RUN Timecode.	
	Remote		Future Free Firmware Update	
CLIP	(Clip Name) (Clip#) (AAAAAAAA)(000)		Enter in clip naming convention. Will increase sequentially with each clip.	
PROJECT	Frame Rate	Follows Input	Default setting; aligns to the incoming frame rate for all frames rates 60p and below.	Determines playback frame rate onto SSDs. It can follow the source frame rate or be set to a specific record frame rate. The [FOLLOWS INPUT] default setting aligns to the incoming frame rate for all frames rates 60p and below. Above this rate, the default project rate for 100/200fps is 25fps and for 120/240fps the default project rate is 24fps. This is to allow an even division of frames so that the timeline file will play back smoothly.
		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		

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INPUTS

Sub-Menu 1	Sub-Menu 2	Sub-Menu 3	Option	Description	Additional Information
AUDIO	Channels	2	SDI	Currently limited to two channels of SDI or HDMI embedded audio. This menu will be expanded in a future free firmware update.	
TIMECODE	Source	SDI	2		At high frame rates, some cameras will not generate timecode. In these cases the Odyssey7 will generate a Record Run timecode from its internal clock.
		LTC	LTC	LTC to 6 pin via remote port and adaptor cable.	
		SEED / REC RUN	→		
VIDEO	Progressive/PSF	→	→	For 1920x1080 video signals structured as true progressive (P) or progressivesegmented frames (psf).	
	Interlaced	→	→	For 1920x1080 video signals structured as interlaced fields (i). Note that some cameras carry progressive video embedded within an interlaced signal. See 3:2 Pulldown	
	3:2 Pulldown (to 24p)	→	→	For 24p video signals striped within a 60i signal. Extracts the 24p video, records it as 1080/24p and discards the excess fields for greater efficiency and smoother post.	Records a 1080/60i video signal without alteration.

OUTPUTS

Sub-Menu	Sub-Menu 2	Sub-Menu 3	Option	Description	Additional Information
OVERLAYS	ON	→	→	Replicates OLED Image Analysis tools display over the SDI and HDMI outputs.	
	OFF	→	→	Leaves SDI and HDMI output signals clean when displaying OLED Image Analysis tools.	
Headphone	+/-dB	→	→	Adjusts Audio Out monitor level. Range from -102dB to +12dB	
REC TALLY	On	→	→	Green Tally = Ready	Activates Tally signal over SDI when Odyssey7 is recording.
	Off	→	→	Red Tally = Recording	
LEGALIZED	ON	→	→		Only displayed in Raw Modes (ARRI, Canon, Sony), not DPX or 4:22/4:4:4
	OFF	→	→		

Congratulations! You are through the [✲] MENU. Everything is easier from here.

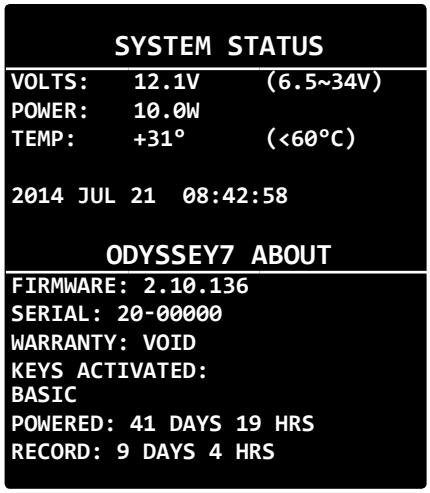
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SYSTEM STATUS BUTTONS



Displays critical specs of Odyssey7. Input voltage, current wattage draw of Odyssey7 (varies with mode), current temperature of main processor. Tapping button brings up more detailed information including the about menu of the Odyssey7.



The Odyssey7 has a wide internal operating temperature window, up to 65° Celsius (149° Fahrenheit). The Odyssey7 uses its magnesium case to passively shed excess heat. There are no vents or fans. Even under most harsh conditions, the Odyssey7 should not suffer any operational issues due to heat. However, if the internal temperature of the Odyssey7 rises high enough there are a series of warnings and safeguards in place to protect the device and the recorded files.

TEMPERATURE WARNINGS AND SAFEGUARDS

	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 Odyssey7 has a wide range of acceptable voltage for incoming power, from 6.5 volts to 34 volts. The total wattage draw from the Odyssey7 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 Odyssey7 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 Level	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 STATUS BUTTTON



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

RECORD STATUS BUTTON



Displays current recording format. Tapping button brings up detailed information on recording type and frame rates.

TRIGGER BUTTON



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 ([*] [RECORD] [TRIGGER] [REC BUTTON]).

SSD1 STATUS BUTTON



Displays record time available given current settings (HH:MM). Tapping button brings up detailed information on SSD1 status.

SSD SAFE EJECT BUTTON



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

REC/PLAY BUTTON



Displays current status as to whether Odyssey7 is in record or play mode. Tapping button toggles between modes. *NOTE: Play Mode changes the upper and lower tool bars. See Play Mode, below.*

CLIP METADATA BUTTON



Displays detailed information on clip metadata. Clip name, Reel name/number, Scene name/number, Take #, Day #, Camera designation and Project name are indicated. Tapping on button opens menu to adjust clip metadata.

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LAST TAKE BUTTON



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

AUDIO METERS



Displays left and right audio levels. Press and hold Level Meter to access Audio Meters menu.

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UPPER & LOWER TOOL BARS - PLAY MODE

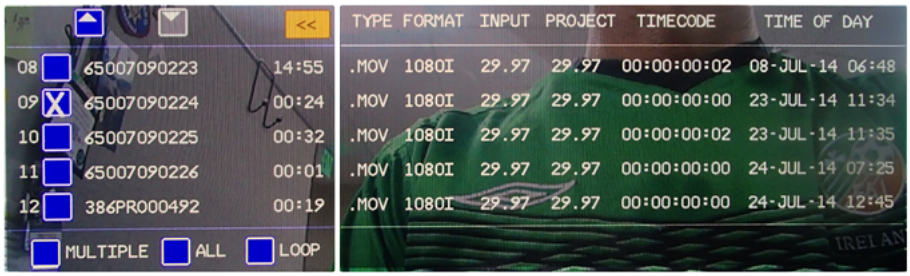
Tapping the REC/PLAY Button toggles the Upper Tool Bar to Play Mode. Upper toolbar selections are different in Play Mode.



PLAY LIST BUTTON

PLAY LIST

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



OUTPUT STATUS / PROJECT RATE BUTTON

2K60P*
4:2:2

Displays current SDI output setting. Tapping button brings up detailed information on the Output Status. To change these settings, go to [*] [OUTPUTS] [MODE].

PLAY LAST BUTTON

PLAY LAST

Displays last recorded clip name. Tapping button brings up detailed information on the last recorded clip. Unless selected otherwise, the Odyssey will default to playing the last recorded clip.

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LOWER TOOL BAR - PLAY MODE

A different toolbar will appear at the bottom of the monitor in Play Mode.



TOOLS/SCRUB BUTTON

TOOLS / SCRUB — Toggles between Play controls and image analysis controls.

PLAY CONTROLS

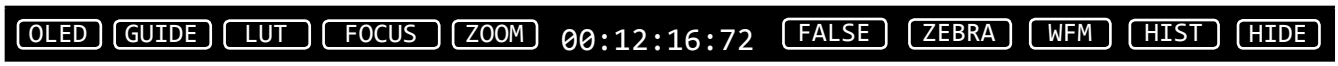
There are five deck-style play controls. **<PREV** and **NEXT>** skip to the previous or next file in a selected playlist. **<STEP** and **STEP>** move a paused video file to the previous or next frame. ► & **II** toggle between play and pause.

SCRUB BAR

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 it 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.

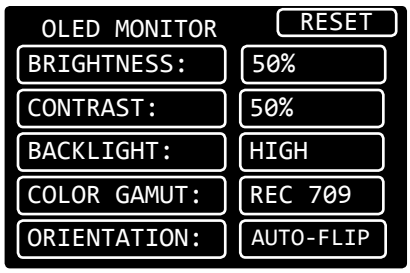
LOWER TOOL BAR

In addition to being a high quality recorder of multiple formats, the Odyssey7 is also a full-featured production monitor. The Lower Tool Bar activates and controls the monitoring and image analysis functions.



OLED

OLED



Tapping button brings up OLED monitor settings. Controls are for Brightness, Contrast, Backlight and Color Gamut (Rec709 or DCI P3). These controls are for the Odyssey7 OLED panel only, and will not affect the recorded signal or the signal from any of the device's outputs. The Odyssey7 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, the Odyssey7 defaults are 50% for brightness and contrast, medium for backlight and Rec709 for Color Gamut. Unless otherwise noted, any standard HD video source should be a Rec709-compliant signal, not DCI P3, which is for digital cinema displays. Additional controls will be available in a future free firmware update.

GUIDE

GUIDE

Tapping button activates Frame Guides. Holding button brings up the Frame Guides settings. Current choices are 1.85:1 and 2.39:1. Additional options including user-adjustable settings will be available in a future free firmware update. The [GUIDE] button will highlight in green when active and indicate current selected frame guide (1.85, 2.39, 1.33). The native aspect ratio of the HD video image is 16:9, or 1.78:1.

LUT

LUT

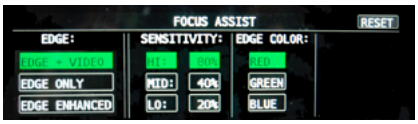
A Look Up Table (LUT) is a set of exposure, contrast and color offsets to adjust an image. The Odyssey7 offers LUTs to allow the flat LOG video signals from several popular cameras to be changed into standard Rec709 video color and contrast for monitoring, while the recording remains LOG for greater color correction control in post.

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FOCUS

FOCUS

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



[EDGE + VIDEO] Shows video image with sharp edges highlighted in color. Also know as Peaking.

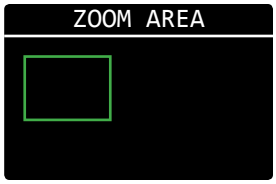
[EDGE ONLY] Shows only the sharp edges, clearly highlighting only aspects of the frame that are in focus.

[EDGE ENHANCED] Shows some picture information for framing, with sharp edges highlighted in color. To tune the Focus Assist to your personal preference, adjust Sensitivity of the high, midrange and low frequencies, then select a preference for Edge Color (red, green, blue). The [FOCUS] button will highlight in green when active.

[RESET] Reset resets monitor functions to default values.

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 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

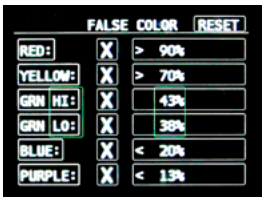
00:12:16:04

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

FALSE

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, Green, Blue and Purple. An HD video signal is measured in a scale from 0 to 109, often marked as a % or with the suffix IRE.



In the chart below, note that while the different colors are designed to indicate certain ranges, these ranges are user-adjustable for personal exposure preferences. Red, being the "white clipping" indicator will appear for any part of the image at the user-set exposure value and above, up to the highest brightness of the image (109%). Yellow will appear from the user-set exposure value up to the bottom of the Red exposure range. Purple is the bottom of the exposure range, so it will appear for any part of the image at the user-set exposure value or below. Blue will appear from the user-set exposure value to the top of the Purple exposure range. As Green is in a middle range of exposure, the top and bottom of its range can be set. It is possible to overlap some of the exposure ranges, at which point some of the colors will not appear. Other parts of the image are rendered in varying densities of gray. There is a reference bar at the bottom of the image indicating the exposure range each color represents.

COLOR	PRESET	ADJUSTMENT RANGE	INTENDED INDICATION
RED	90% & UP	70-109%	White clipping
YELLOW	70% & UP	70-109%	Near overexposure
GREEN	38-45%	30-70%	Middle grey or skin tone
BLUE	10% & BELOW	0%-30%	Black underexposure
PURPLE	5% & BELOW	0%-15%	Black clipping

ZEBRA

ZEBRA

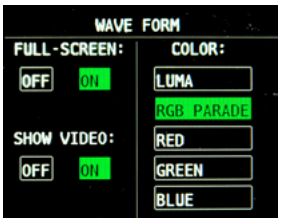
Tapping button activates Zebra. Holding button opens Zebra settings. A Zebra stripe (//////) is an exposure tool to indicate any part of the image that is at or above a particular brightness. Adjustment range for the Zebra setting is 70-109%. A future free firmware update will add a second Zebra stripe option.

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WFM (WAVEFORM)

WFM

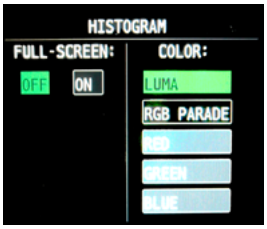
Tapping button activates waveform. The waveform is based on the signal shown on the Odyssey7 OLED. When in Multi-stream mode, if two signals are selected then the waveform can be used to compare two side-by-side images.



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 primary colors separated and displayed individually [RGB parade], or as the individual primary colors only [Red] [Green] [Blue]. The waveform can be displayed across the full width of the image display or in the lower right corner. With the large display, the RGB parade shows three individual waveforms side by side in the appropriate colors, while in the small display mode they are overlapped. The Waveform background can be switched between opaque and transparent to allow the video image to be visible behind the waveform for reference. A graticule overlay indicates exposure value references in 20% increments from 0%-100%, with an additional reference at 109%.

HIST (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 primary colors separated and displayed individually [RGB PARADE], or as the individual primary colors only [RED] [GREEN] [BLUE].

The Histogram can be displayed across the full width of the image display or in the lower right corner. With the large display, the RGB PARADE shows three individual Histograms one above another in the appropriate colors, while in the small display mode they are overlapped. The HD video image is visible behind the Histogram at all times for image reference.

HIDE (HIDE MENUS & SCREEN OVERLAYS/ VIDEO)

HIDE

While the Odyssey7'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.

LOSS OF POWER DURING A RECORD

You should never power off the camera while recording. Many cameras including the ALEXA disable the user from doing so while recording. Included in the Odyssey7 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 SSDs 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.

DOWNLOADING MEDIA

Always make sure to properly safe eject to dismount the SSD before removing from Odyssey7. While the Odyssey7 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 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 sells an adapter to USB 3.0 (CD-SSD-USB3).

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.)

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FILE MANAGEMENT SOFTWARE

Convergent Design has a free file utility program, CD ProRes Transfer Tool, available for download for both Mac & PC on our website.
https://convergent-design.com/support/firmware-downloads/software-utilities.html

CD Apple ProRes TRANSFER 1.2

Copies Apple ProRes files recorded on the Odyssey7 and merges files within each clip. Also optimizes Apple ProRes clips for playback and editing. *Note: While not required, offloading files from SSDs using this tool is a more efficient workflow than other methods.*

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 80-130MbpsFor 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 Apple ProRes 422 (HQ)	30MB/Sec.	100

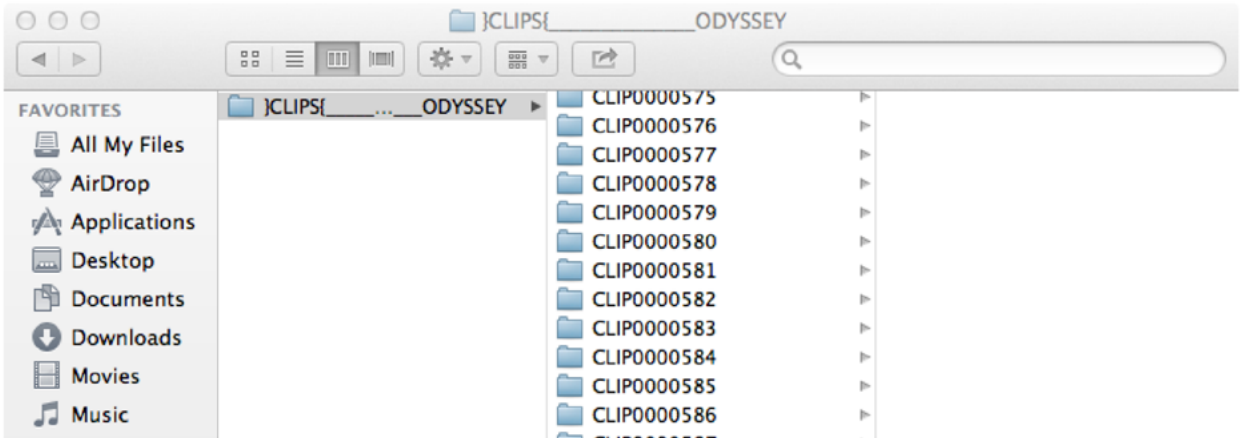
Apple ProRes 422 (HQ)

The Odyssey7 records in Apple ProRes 422 (HQ) which is a 10-bit 4:2:2 220Mb compressed codec. This will allow for high quality recording while avoiding high data rates of working with uncompressed video.

WORKING WITH FILES RECORDED BY THE ODYSSEY7

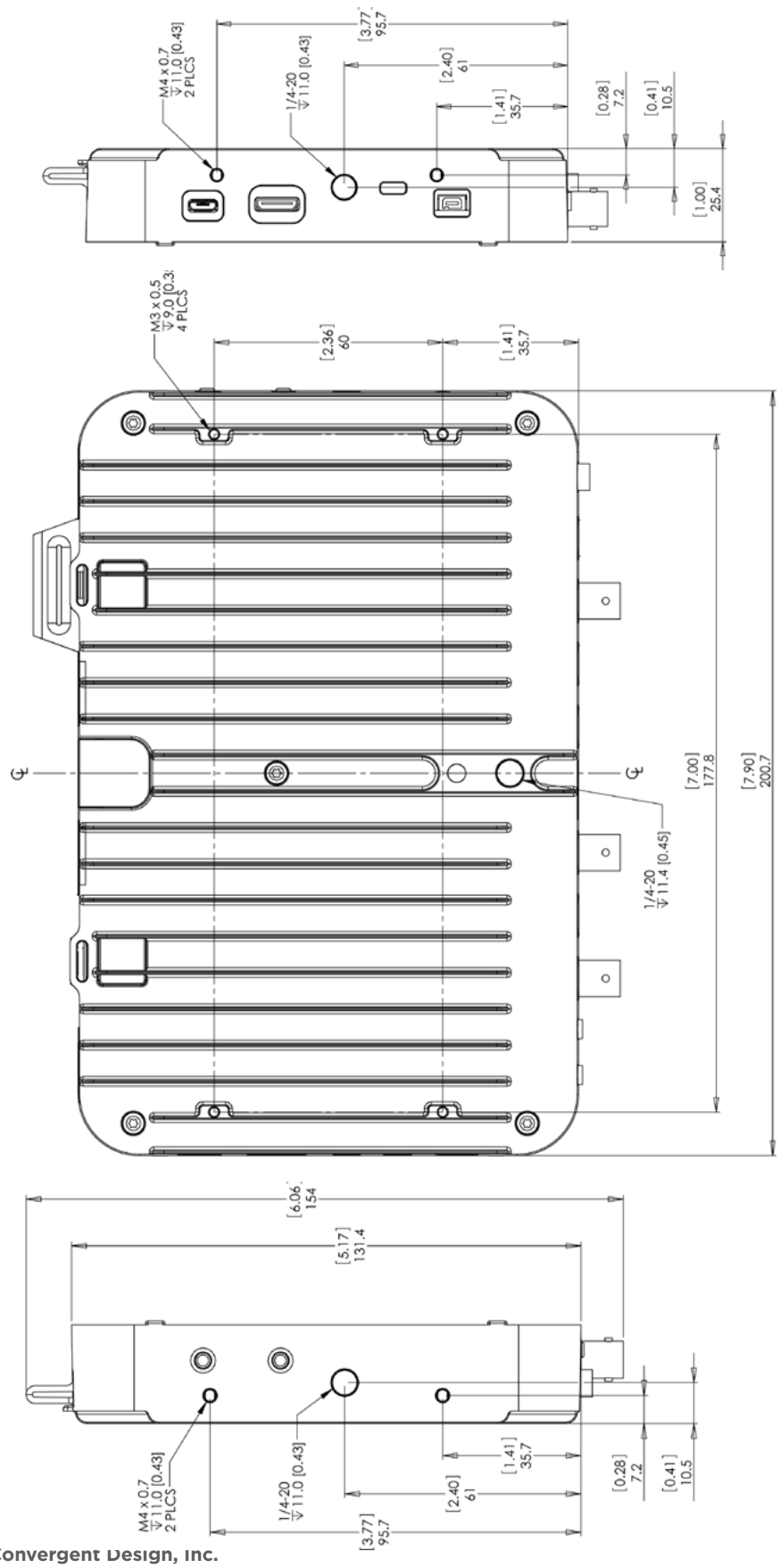
There are numerous post systems and NLEs that can read natively the various file formats recorded by the Odyssey7. Some NLEs may require plug-ins in order to read certain file formats. Blackmagic Design Resolve software is available for free and can read all formats recorded by the Odyssey7.

FILE STRUCTURE



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Mechanical Drawings



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Convergent Design Accessories

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POWER SUPPLY OPTIONS

The Odyssey7 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 Odyssey7 can range from 8-15w. Even small camcorder batteries can power the Odyssey7 for several hours.

The Odyssey7 is supplied with a Convergent Design AC power supply (replacement part CD-OD-AC-PS). 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 Odyssey7.

The Odyssey7 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 Odyssey7 accessories.

ONLY USE A CONVERGENT DESIGN POWER CABLE ON THE ODYSSEY7.

Convergent Design offers four optional power cables for the Odyssey7.

Anton Bauer D-Tap 12v power cable to Odyssey7 (18")	CD-OD-DTAP
XLR-4 (generic 12v) power cable to Odyssey7 (18")	CD-OD-XLR
Fischer-3 (ARRI 24v) power cable to Odyssey7 (18")	CD-OD-Fischer
Flying lead (bare wire pigtail) power cable to Odyssey7 (36")	CD-OD-Flying

BATTERY PLATE OPTIONS

Convergent Design offers a series of rear plates for the Odyssey7 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

Convergent Design also makes battery plates that can also hold and power a pair of Teradek Bolt video receivers along with the Odyssey7. 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.

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

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ODYSSEY HOOD (CD-OD-HOOD)

The Convergent Design Odyssey Hood is a flexible three-sided sunshade for the Odyssey7. It 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 ALUMINUM TABLE STAND (CD-OD-AL-TS)

The Convergent Design Odyssey Aluminum Table Stand attaches to the Odyssey7. 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 CASE (CD-OD-CASE)

The Convergent Design Odyssey7 Case is based on a Nanuk 910 with custom foam insert. The use of rigid foam means less is needed for protecting the gear and it can be precision cut. The main cutout for an Odyssey7 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 ULTRA-THIN SDI CABLE (CD-OD-SDI)

The Odyssey Ultra-Thin SDI Cable is a flexible and lightweight cable for use with the Odyssey7. 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 on special order.

ODYSSEY UTILITY DRIVE (CD-SSD-UTILITY)

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 Odyssey7 & 7Q firmware updates, Odyssey7 3D-LUT files and other future functionality. The Odyssey Utility Drive will not record video files. It is intended for Odyssey7 & 7Q owners who do not wish to tie up an Odyssey SSD with utility features, or for Odyssey7 & 7Q owners who use their devices as monitors and do not need to purchase the more expensive recording media.

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ODYSSEY SSD TO USB 3.0 ADAPTER (CD-SSD-USB3)

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 RACK MOUNT KIT (CD-OD-RACK)

The Convergent Design Odyssey Rack Mount Kit accepts one or two Odyssey7 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 SCREEN PROTECTORS

The Convergent Design Odyssey Screen Protector is a stick-on/peel-off clear shield for the glass screen on the Odyssey7. 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 Odyssey7.

Replacement Odyssey7 Screen Protector (CD-OD-SP7): US List: $35
Replacement Odyssey7 Screen Protector (CD-OD-SP): US List: $35

CLOTH FOR CLEANING THE ODYSSEY7 SCREEN

ODYSSEY MICROFIBER CLEANING CLOTH (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 http://convergent-design.com/dealers.html

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Third-Party Accessories

Convergent Design works with numerous manufacturers for additional support products for the Odyssey7. 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.

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.

MOUNTING AND BATTERY PLATES

Ocean Video manufactures the EnduroPower mounting plate with Anton Bauer Gold Mount or IDX V-Lock battery mounts. The EnduroPower plate includes numerous threaded mounting points for accessories.

Nebtek manufacturers the Odyssey7 Power Cage with Anton Bauer Gold Mount or IDX V-Lock battery mounts, or dual camcorder battery mounts for Sony, JVC Canon or Panasonic compatible batteries. The Odyssey7 Power Cage includes numerous threaded mounting points for accessories.

SOFT CASE

PortaBrace manufactures the Flat Screen Monitor Case – Convergent Design, which is made of waterproof Nylon Taslan. Velcro flaps allow access to all sides and an integrated hood folds down as a screen protector.

NEW FEATURES

HIGHER FRAME RATES FOR APPLE PRORES 422 (HQ) IN 1080P

Apple ProRes 422 (HQ) recording is now enabled in 1080p50 and 1080p59.94.

INTEGRATED DECK CONTROL AND SCRUBBING IN PLAY MODE

Scrubbing through clips is now available both while the file is playing as well as when it is paused.

SELECTABLE PIXEL ZOOM DRAG ORIENTATION

When using the finger drag function to select the section of the image visible in Pixel Zoom function, the drag orientation can be set to follow the finger move (drag the image) or oppose the finger move (drag the window).

NEW FEATURES – RECORD OPTIONS (ODYSSEY7Q ONLY)

NEW POV RAW RECORD OPTION AVAILABLE FOR PURCHASE OR RENT

The POV RAW Record Option is for various special function cameras with RAW output. The RAW data is captured as Cinema DNG files. The POV RAW Record Option is $1495 to purchase or $99/day to rent through the Convergent Design website.

The cameras currently supported include the IO Industries Flare 2KSDI and the Indiecam indieGS2K. Supported RAW formats for these cameras are as follows.

•	IO Industries Flare 2KSDI	2048x1080	23.98 – 60p	10-bit RAW
•	IO Industries Flare 2KSDI	1920x1080	23.98 – 60p	10-bit RAW
•	Indiecam indieGS2K	2048x1080	23.98 – 60p	10-bit RAW
•	Indiecam indieGS2K	1920x1080	23.98 – 120p	10-bit RAW
•	Indiecam indieGS2K	1920x1080	23.98 – 60p	12-bit RAW

CANON C500 HIGH SPEED RAW SUPPORT

Canon Cinema RAW “4K Half RAW” mode 4096x1080 is supported at 50p/60p and 100p/120p. The Odyssey7Q currently supports the original full frame height version of the Canon 4K half RAW, not the “4Kx1K” cropped mode. Only the highest frame rates in the Slow & Fast modes are currently supported.

SONY FS700 4K2HD RECORDING UP TO 60P

FS700 4K RAW to HD Apple ProRes 422 (HQ) is now available up to 60p (59.94). 50p is also available.

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FIXES & IMPROVEMENTS

- FIXED Time of Day timecode issue
- FIXED Backward file compatibility during firmware updates
- FIXED “Ticking” audio after 720p file recovery
- FIXED Black dots in live image when overexposing or white-clipping
- FIXED False-triggering when Odyssey set to camera trigger
- FIXED Timecode triggering in 720p
- FIXED False “Warranty Void” notice on some units from previous firmware
- FIXED 1080psf audio sync issue in Playback
- FIXED Pixel Zoom mode distorting of image on OLED
- IMPROVED Touchscreen response
- IMPROVED Touchscreen recalibrates by engaging F1 Lock button

KNOWN ISSUES

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 occasionally will swap tracks when recording in DPX.
- 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.
- SDI/HDMI outputs have a pink line in image on Canon C500 2K 12-bit/10-bit video. 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.
- 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

- Audio in HD Apple ProRes 422 (HQ) 50p/60p files is out of sync because the Odyssey is currently playing back audio at 1080 25/30p. Recording is unaffected.
- Very fast scrubbing can show bad colors. The image corrects after scrubbing completed.
- The Playlist occasionally reports timecode as “00:00:00;00”. Eject and re-insert the SSD to correct.
- Multiple clip play is currently supported only in DPX and Apple ProRes 422 (HQ).
- 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.

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.

ODYSSEY7 FEATURES

ADVANCED PLAYBACK CONTROLS FOR ALL FORMATS

This is a complete revamp of the Playback system. Standard deck-style controls for Play/Pause, single-frame step forward or step-back, and skip forward or back to next/pervious clip. Additionally, an interactive scrub bar allows the user to quickly access any section of a clip simply by dragging a finger across the OLED touchscreen. All recordable formats are supported and more detailed information is noted in the Play List.

Playback Controls:
Clip Preview (First frame of clip)
Playback Scrubbing
Pause
Next Clip / Previous Clip
Fast Forward / Rewind

EXPANDED HD FORMAT SUPPORT IN APPLE PRORES 422 (HQ)

In addition to 1080p video, the Odyssey7 now support 1080i and 720p signals, as well as 24p signals embedded within 1080i video streams using “3:2 Pulldown”. Additionally, upon selecting 3:2 PULLDOWN, the Odyssey7 will remove the excess material and record a pure 1080p23.98 video stream for more efficient storage and ease of post.

Added Formats:
1080i 59.94
1080i 50
1080i (23.98p over 59.94i) (3:2 Pulldown Support with removal)
720p 59.94
720p 50

MONITORING LUTS FOR HD VIDEO

Monitoring LUTs for the LOG outputs from several popular cameras are now supported in HD video recording in both Apple ProRes 422 (HQ) and Uncompressed DPX (Odyssey7 only). All monitoring LUTs conform selected LOG signals to Rec709. Monitoring LUTs are applied to the OLED screen, video outputs and Image Analysis tools, but not to the recorded files.

Supported LOG Formats:
ARRI Log-C
Canon C-Log
Sony F3 S-Log
Sony F5 / F55 S-Log2
Sony F5 / F55 S-Log3
Sony FS700 S-Log2

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WAVEFORM OPACITY

Opacity is now selectable when using the Waveform. The background of the waveform can be either translucent as in previous firmware, or selected to be solid black so that the waveform display can be more clearly seen.

IMAGE ANALYSIS TOOLS RESETS

Menu page resets are now available in the settings for False Color, Focus Assist and OLED menus.

ODYSSEY UTILITY DRIVE FUNCTIONALITY

Added support for firmware updates via the new Odyssey Utility Drive.

TIMECODE TRIGGERING

Added record triggering via rolling of timecode when recording in Apple ProRes 422 (HQ) (1080 formats over SDI only).

INTERNAL TIMECODE GENERATOR

Activated internal timecode generator.

-Seed Record Run
-Seed Time of Day Timecode
-Seed Time of Day Timecode Drop Frame

LTC TIMECODE SUPPORT

Enabled LTC timecode input. Record triggering over LTC not supported

INCOMING VIDEO FORMAT MENU SETTING

For setting type of 1080 signal between 1080p/psf, 1080i and 1080 23.98 over 60i (3:2 Pulldown). Selecting 3:2 Pulldown sets recording to remove 3:2 pulldown cadence and record material as 1080p23.98. 3:2 Pulldown in 720p not supported.

[INPUTS] [VIDEO] [PROGRESSIVE / INTERLACE / 3:2 PULLDOWN TO 24P]

SMPTE COLOR BARS

On startup in Apple ProRes 422 (HQ) recording mode and in modes when input does not match selected recording mode.

FIXES & IMPROVEMENTS

- FIXED Occasional file corruption when using PIXEL ZOOM while recording Apple ProRes 422(HQ
- FIXED Occasional file corruption when recording a 1080psf signal
- FIXED Playback issues at end of a file
- FIXED Image scaling in psf and interlaced signals that showed jagged lines in PIXEL ZOOM.
- FIXED Black line in image from Canon 5Dmk3 in 1080p23.98
- IMPROVED Hide Menu/Video Functionality
- IMPROVED SSD detection
- IMPROVED PIXEL ZOOM movement & image refresh
- IMPROVED HDMI detection
- IMPROVED Firmware update ease by accepting file or folder

KNOWN ISSUES

AUDIO

- Occasionally in DPX mode the audio will swap channels during recording
- Occasionally the SDI/HDMI output will not have audio. Cycle power onOdyssey to correct.
- Occasionally the SDI/HDMI output audio will have a static pop on startup.
- Occasionally when recording in Apple ProRes 422 (HQ), the audio will record static for the last few frames. Add two seconds of pre- and post-roll to avoid.
- Occasionally headphones output will flip channels

PIXEL ZOOM

- Occasionally when recording a PSF or Interlaced signal in Apple ProRes 422 (HQ), engaging PIXEL ZOOM can result in a black image on the OLED panel and video outputs. The recorded signal is not affected and the issue is corrected by cycling through the PIXEL ZOOM settings.
- Occasionally in Playback, engaging PIXEL ZOOM can result in a horizontally stretched image on the OLED panel. The recorded signal is not affected and the issue is corrected by cycling to Record mode and then back to Playback.
- In Playback with 1080i60 material, PIXEL ZOOM is not supported and will blank the screen.

PLAYBACK

- In Playback with 1080i60 material, PIXEL ZOOM is not supported and will blank the screen.
- In Playback, audio sync may slip up to four frames after scrubbing through a clip. This does not affect the recorded file.
- In Playback, very fast scrubbing can result in shifted colors. Normal colors return when scrubbing completed.

FRAME RATE

- Occasionally when changing frame rates the Odyssey does not detect the source change. To remedy this disconnect and reconnect the source, or cycle power on the Odyssey7.

OTHER NOTES

NOT SUPPORTED AT THIS TIME

- 720p 24/25/30 signal (720p with 3:2 or 2:2 Pulldown)

QUESTIONS or FEEDBACK? We're always available to help! CDSupport@Convergent-Design.com

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- SD NTSC/PAL video
- 1080p 50/59.94 recording in Apple ProRes 422 (HQ)
- Analog audio input
- File name matching from the camera in video recording
- LTC Timecode Trigger
- HDMI Timecode in
- HDMI Record Trigger

OTHER

To playback Apple ProRes 422 (HQ) files in QuickTime Player X, the files must be first run through our Apple ProRes 422 (HQ) Utility to be optimized for the recently released Apple ProRes 422 (HQ) Codec update. If files are not optimized, then they will play the first second of audio only. This is not an issue when playing in FCPX.

Limited Warranty

Convergent Design warrants Odyssey7, 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 overvoltage 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 Odyssey7.

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