SONY

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HDC User Group

Newsletter No.5

If you don't wish to receive this letter, or you know other people who might wish to receive it, please let me know: neil.thompson@eu.sony.com
Ideas or news for future editions also gratefully received.

NAB News

One of the new technologies shown at NAB that you might not have heard about (we didn't hear about it till the show opened) was a consumer derivative organic LED display being used as a viewfinder. It was a bit large for a viewfinder at 12", but as an illustration of where future product developments may go, it was interesting. These **OLED** displays have extremely low lag, excellent angle of view and resolution. Improving viewfinder performance is high on the priority list.

There was also a suite showing our route to **1080P 50** acquisition and recording. The HDC-1500 is already capable of generating 1080P 50 pictures. Future CCUs will be able to receive these pictures via fibre, and deliver them to 1080P 50 versions of the MVS switcher.

New for the US market was the **HDC-1400** camera. This is a lower cost version of the HDC-1500, but only operates at 59.94i.
It's not CE marked, is not made in the UK, so would be subject to import tariffs if brought to the UK, and of course will not work at 50i, 25P or any frame rate apart from 59.94i, so should be of no relevance to the UK market. Just so you know.

HDVF-C950W and RCP-920 now shipping

The new 9" viewfinder and the alternative RCP to the '750 have been covered in previous editions, but they are now available, and if you need to have a look at them we have one of each in our UK demo kit.
(Something we hadn't realised about the new RCP: you can re-assign various buttons if you don't like the way it's set out.)

Large Lens Adapters

Just a reminder about the slightly confusing range of cradles available…

HDLA-1500
HDLA-1500/B
HDLA-1505
HDLA-1505/B

The /B flavours are the black versions, which may fit in better with your lens colour scheme.
We are going to introduce a /B version of the 7" CRT and 9" CRT viewfinders shortly, to complete the matching set.

The HDLA-1505 is the same as the '1500, but with the support bridge for the CRT viewfinder removed. An LCD viewfinder is then mounted directly on the camera within the cradle.
You can convert a '1500 into a '1505 by removing the bridge yourself, but it's not the sort of thing you'd want to do on location.
(We're not really expecting to sell a lot of the '1505's, as CRT viewfinders are one of the main reasons for using a cradle.)

Next to appear will be the HDLA-1507, which will be a cradle with the front sawn off to enable use with a portable lens, but retaining the bridge to mount a CRT viewfinder. This should be available end of June.

Please remember…the current large lens adapters cannot be used with portable lenses.

Long Viewfinder Hoods

The VFH-990 long hood for the 9" CRT and 9" LCD viewfinders is now available.
Similar style to the existing hood for 7" viewfinders.
List price is £830, so you may prefer the cornflake box and gaffer tape option!
(Though ours is HD ready of course.)

Supermotion & Flicker Reduction

If you're shooting at 150 fields per second, each field is captured over only 1/3 of the output cycle of mains powered lights. If the output of the lights in a stadium are pulsed, or vary over the mains cycle, then they may appear to flicker, as you're no longer averaging the output of the lights over a full cycle.

The HDC-3300, like previous Supermotion cameras, has a flicker reduction system. It's actually rather sophisticated, but in typical Sony fashion we're not terribly keen to let anyone know how it works. Ian Sheldon has prepared a useful user guide to the HDC-3300, which gives details of this and several other features. This guide is included as an extra pdf file with this newsletter, but here's an extract of the guide that helps explain the flicker reduction system:

As with the BVP-9500 SD Super Motion camera, the HDC-3300 employs flicker reduction techniques to minimise the effect of shooting in pulsed lighting, such as discharge or fluorescent lighting. The flicker reduction is significantly more sophisticated than in the BVP-9500, however.

HDCU Menu

Set the using System Menu S09

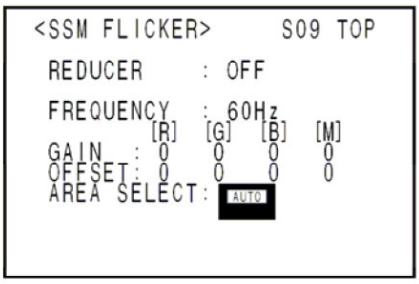

Figure 13: System Menu S09

Select Flicker Reduction On or OFF
Set Frequency 600Hz or 50Hz
Set Gain (amount of flicker compensation.) –99 means "OFF", 0 means AUTO
Set Offset Determines the reference level for compensation. 0 indicates 3% video level (normal black level)

Figure 14: Compensation Area

Chose the area over which compensation operates. AUTO gives 4 independent compensation areas

Latest System Software

We'll be rolling out another software upgrade shortly for a number of bug fixes. (A tech memo should be published on sonybiz.net shortly with more details). We'd normally just send you a file that you could load on to a memory stick and install yourselves, but unfortunately the HDCUs will require a PLD device upgrade again, which needs a jig and PC interface.
If you have a service contract this will be implemented by our field service team as soon as it is available.
The installation jig and software, for use with a laptop PC are available to purchase as service tools, and if you'd like to be able to do your own PLD upgrades this can be arranged.
Warranty upgrade is on a return to base system, which we're happy to do if you can get the HDCUs to us, though of course this is likely to be impractical in many cases, as they are well plumbed in. Because of this we'll try and upgrade HDCUs on site as and when we can when we're visiting, but we can't really give a schedule for this.

Camera head Menus

We've been waiting a long time for a proper list of the camera head menus in the HDC-1500. This is now available as part of the latest ops manual. I've posted this manual on my personal website if you'd like to download it. (It will appear on sonybiz.net eventually, but it is quite useful so I hope you'll excuse this unofficial route.)
Go to www.imagemechanic.co.uk and scroll down to the bottom of the home page.

In the meantime I've added the menu pages as an appendix to this newsletter so you can print them out if you'd like.

www.sonybiz.net

Sony UK Technical Services Group Helpdesk: 01256 828828
The helpdesk is the central point for contacting the Technical Services Group.

Andy Rosic	Service manager
Lee Prosser	Field Support
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HDC-1500
Camera Head Menus

Page title	No.	Item	Default	Settings	Remarks
<VF DISPLAY>	01 (U03)	EX	ON	ON, OFF	
		ZOOM	OFF	ON, OFF	
		DISP	LEFT	LEFT, RIGT	
		FOCUS	OFF	ON, OFF	Valid only when a serial lens is used
		ND	ON	ON, OFF	
		CC	ON	ON, OFF	
		5600K	ON	ON, OFF	
		IRIS	ON	ON, OFF	
		WHITE	OFF	ON, OFF	
		D.EXT	ON	ON, OFF	
		GAIN	ON	ON, OFF	
		SHUTT	ON	ON, OFF	
		BATT	OFF	ON, OFF	
		RETURN	ON	ON, OFF	
		TALK	ON	ON, OFF	
		MESSAG	ALL	ALL, WRN, AT, OFF	ALL: To display all messages WRN: To display warning messages and higher AT: To display Auto Setup information and higher

Page title	No.	Item	Default	Settings	Remarks
<'!' IND>	02 (U04)	ND	[IND] ON	ON, OFF	[IND]: Set whether to be included in the status indications on the viewfinder *(see page 83)*. [NORMAL]: Specify the conditions under which the '!' indication is not to be displayed even if [IND] is ON. (By specifying the standard or normal conditions here, non-standard or abnormal conditions can be found with the '!' indication on the viewfinder.) e.g.: With the default setting of ND, the '!' indication is displayed when an ND filter other than 1 is selected. - - - : When CCU connected (cannot be changed)
			[NORMAL] 1 – – – –	1, 2, 3, 4, 5 (combination allowed)	
		CC	[IND] ON	ON, OFF	
			[NORMAL] – B – – –	A, B, C, D, E (combination allowed)	
		WHITE	[IND] ON	ON, OFF, - - -	
			[NORMAL] – A B	P, A, B (combination allowed)	
		5600K	[IND] ON	ON, OFF, - - -	
			[NORMAL] OFF	ON, OFF	
		GAIN	[IND] ON	ON, OFF, - - -	
			[NORMAL] – – L	L, M, H (combination allowed)	
		SHUTT	[IND] ON	ON, OFF, - - -	
			[NORMAL] OFF	ON, OFF	
		FAN	[IND] ON	ON, OFF	
			[NORMAL] AUTO1	AUTO1, AUTO2, MIN, MAX	
		EXT	[IND] ON	ON, OFF	
		FORMAT	[IND] ON	ON, OFF	
			[NORMAL] 59.94i	59.94i, 30PsF, 29.97PsF, 50i, 25PsF, 24PsF, 23.98PsF, 60P, 59.94P, 50P, 60i	
<VF MARKER>	03 (U05)	MARKER	ON	ON, OFF	Except MASK
		CENTER	OFF	ON, OFF	
			1	1, 2, 3, 4	1: Entire cross 2: Entire cross with a hole 3: Center 4: Center with a hole
		SAFETY ZONE	OFF	ON, OFF	
			90.0%	80.0, 90.0, 92.5, 95.0%	
		EFFECT	OFF	ON, OFF	
		ASPECT	OFF	ON, OFF	
			4:3	16:9, 15:9, 14:9, 13:9, 4:3, (4.3)	(4.3): If VF SCAN is set to 4:3 on HDLA attached (cannot be changed)
		MASK	OFF	ON, OFF, (ON)	(ON): If VF SCAN is set to 4:3 on HDLA attached (cannot be changed)
			12	0 to 15	Set the level to darken outside the aspect area.
		SAFETY	OFF	ON, OFF	For the safety marker in Aspect mode
			90.0%	80.0, 90.0, 92.5, 95.0%	
<VF DETAIL>	04 (U02)	VF DETAIL	ON	ON, OFF	
		LEVEL	25%	0 to 100%	
		CRISP	0	–99 to +99	
<ZEBRA>	05 (U07)	ZEBRA	OFF	ON, OFF	
			1	1, 2, 1&2	
		ZEBRA1 LEVEL	70%	50 to 109%	
		WIDTH	10%	0 to 30%	
		ZEBRA2	100%	50 to 109%	

Page title	No.	Item	Default	Settings	Remarks
<CURSOR>	06 (U06)	CURSOR	OFF	ON, OFF	display only if HDLA attached
		BOX/CROSS	BOX	BOX, CROSS	
		H POSITION	50	0 to 99	display only if HDLA attached
		V POSITION	50	0 to 99	
		WIDTH	50	0 to 99	
		HEIGHT	50	0 to 99	
<VF OUT>	07 (U01)	VF OUT	COLOR	COLOR, Y, R, G, B, (COLOR), (Y), (R), (G), (B), (RET), (VF), (R+G), (R+B), (G+B)	Settings in ( ): When HDLA attached (cannot be changed)
		RET MIX VF	OFF	ON, OFF, (ON), (OFF)	Settings in ( ): When HDLA attached (cannot be changed)
		MIX DIRECTION	RET	MAIN, RET	
		MIX VF MODE	Y-MIX	Y-MIX, WIRE(W), WIRE(B)	
		MIX VF LEVEL	80%	0 to 80%	
<SWITCH ASSIGN1>	08 (U08)	GAIN	[L] 0 dB	–3, 0, 3, 6, 9, 12 dB	
			[M] 6 dB	–3, 0, 3, 6, 9, 12 dB	
			[H] 12 dB	–3, 0, 3, 6, 9, 12 dB	
		ASSIGNABLE	OFF	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2, VF DETAIL, MIX VF, 5600K, FAN MAX, D.EXTENDER	When HDLA attached: OFF, EXTENDER, 5600K, FAN MAX, D.EXTENDER **Note** When you turn D.EXTENDER ON or OFF, noise may be generated. This is not a malfunction.
		RE.ROTATION	STD	STD, RVS	Specify operation mode of the MENU SEL knob. STD: Clockwise rotation moves ➡ down or increases values on the menu screen. RVS: Counterclockwise rotation moves ➡ down or increases values on the menu screen.
<SWITCH ASSIGN2>	09 (U09)	LENS VTR S/S	RETURN2 SW	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2	Assign a function to the VTR START/STOP switch on the mounted lens.
		FRONT RET1	RETURN1 SW	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2	
		FRONT RET2	RETURN2 SW	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2	
		HANDLE SW1	RETURN1 SW	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2, ZOOM(T)	
		HANDLE SW2	INCOM1	OFF, RETURN1 SW, RETURN2 SW, INCOM1, INCOM2, ZOOM(W)	
		ZOOM SPEED	20	00 to 99	

Page title	No.	Item	Default	Settings	Remarks
<HEAD SET>	10 (U12)	INTERCOM1 MIC	CARBON	DYNAMIC, CARBON, MANUAL	
		LEVEL	(–20 dB)	–60 dB, –50 dB, –40 dB, –30 dB, –20 dB	Settings in ( ): With DYNAMIC or CARBON (cannot be changed)
			0 dB	–6 dB, 0 dB, +6 dB	Input gain
		POWER	(OFF)	ON, OFF, (ON), (OFF)	Settings in ( ): With DYNAMIC or CARBON (cannot be changed)
		UNBAL	(OFF)	ON, OFF, (ON), (OFF)	Settings in ( ): With CARBON (cannot be changed)
		INTERCOM2 MIC	CARBON	DYNAMIC, CARBON, MANUAL	
		LEVEL	(–20 dB)	–60 dB, –50 dB, –40 dB, –30 dB, –20 dB	Settings in ( ): With DYNAMIC or CARBON (cannot be changed)
			0 dB	–6 dB, 0 dB, +6 dB	Input gain
		POWER	(OFF)	ON, OFF, (ON), (OFF)	Settings in ( ): With DYNAMIC or CARBON (cannot be changed)
		UNBAL	(OFF)	ON, OFF, (ON), (OFF)	Settings in ( ): With CARBON (cannot be changed)
<INTERCOM LEVEL>	11 (U13)	SIDE TONE			
		INTERCOM1	50	MU, 1 to 99	
		INTERCOM2	50	MU, 1 to 99	
<RECEIVE SEL1>	12	INTERCOM1 RECEIVE SEL	SEPARATE	SEPARATE, MIX	
		INTERCOM	LEFT	RIGHT, LEFT, BOTH, - - -	
		ENG	LEFT	RIGHT, LEFT, BOTH, - - -	
		PROD	LEFT	RIGHT, LEFT, BOTH, - - -	
		PGM1	RIGHT	RIGHT, LEFT, BOTH, - - -	
		PGM2	RIGHT	RIGHT, LEFT, BOTH, - - -	
		TRACKER	LEFT	RIGHT, LEFT, BOTH, - - -	
<RECEIVE SEL2>	13	INTERCOM2 RECEIVE SEL	SEPARATE	SEPARATE, MIX	
		INTERCOM	LEFT	RIGHT, LEFT, BOTH, - - -	
		ENG	LEFT	RIGHT, LEFT, BOTH, - - -	
		PROD	LEFT	RIGHT, LEFT, BOTH, - - -	
		PGM1	RIGHT	RIGHT, LEFT, BOTH, - - -	
		PGM2	RIGHT	RIGHT, LEFT, BOTH, - - -	
		TRACKER	- - -	RIGHT, LEFT, BOTH, - - -	
<RECEIVE SEL3>	14	TRACKER RECEIVE SEL	SEPARATE	SEPARATE, MIX	
		INTERCOM	LEFT	RIGHT, LEFT, BOTH, - - -	
		ENG	LEFT	RIGHT, LEFT, BOTH, - - -	
		PROD	LEFT	RIGHT, LEFT, BOTH, - - -	
		PGM1	RIGHT	RIGHT, LEFT, BOTH, - - -	
		PGM2	RIGHT	RIGHT, LEFT, BOTH, - - -	

Page title	No.	Item	Default	Settings	Remarks
<RECEIVE SEL4>	15	EARPHONE RECEIVE SEL	SEPARATE	SEPARATE, MIX	
		INTERCOM	LEFT	RIGHT, LEFT, BOTH, - - -	
		ENG	LEFT	RIGHT, LEFT, BOTH, - - -	
		PROD	LEFT	RIGHT, LEFT, BOTH, - - -	
		PGM1	RIGHT	RIGHT, LEFT, BOTH, - - -	
		PGM2	RIGHT	RIGHT, LEFT, BOTH, - - -	
		TRACKER	LEFT	RIGHT, LEFT, BOTH, - - -	
<OPERATOR FILE>	16	READ (MS→CAM)		Execute by ENTER.	To read the operator file from a “Memory Stick”
		WRITE (CAM→MS)		Execute by ENTER.	To write the current settings of the operator file items to a “Memory Stick”
		PRESET		Execute by ENTER.	To set the operator file items to the preset values in internal memory
		FILE ID		alphanumerics (max.16 characters)	Enter a comment for the operator file to be written to a “Memory Stick.” *See “To specify a character string” on page 85.*
		CAM CODE	HDCxxxx	Camera code	display only
		DATE			display only
<LENS FILE>	17 (U11)	FILE	1	1 to 16	
			xxxx...	Lens file name	display only
			F.xx	F-stop number of the lens	display only
		CENTER MARKER			To set and store the center marker position: H POS: Increasing the value moves it to the right. V POS: Increasing the value moves it downwards.
		H POS	0	–20 to +20	
		V POS	0	–20 to +20	
		STORE CENTER		Execute by ENTER.	

PAINT Menu

Menu page	No.	Item✓	Default	Settings	Remarks
<SW STATUS>	P01	FLARE	ON	ON, OFF	
		GAMMA	ON	ON, OFF	
		BLK GAM	OFF	ON, OFF	
		KNEE	ON	ON, OFF	
		WHT CLIP	ON	ON, OFF	
		DETAIL	ON	ON, OFF	
		LVL DEP	ON	ON, OFF	
		SKIN DTL	OFF	ON, OFF	
		MATRIX	OFF	ON, OFF	

Menu page	No.	Item✓	Default	Settings	Remarks
<VIDEO LEVEL>	P02	WHITE	[R] [G] [B] [M] 0 0 0	–99 to +99	R, G, B, and M (master) values can be independently set. (M cannot be set for WHITE or FLARE.)
		BLACK	0 0 0 0	–99 to +99	
		FLARE	0 0 0	–99 to +99	
		GAMMA	0 0 0 0	–99 to +99	
		V MOD	0 0 0 0	–99 to +99	
		FLARE	ON	ON, OFF	
		V MOD	ON	ON, OFF	
		D. SHAD	OFF	ON, OFF	
		TEST	OFF	OFF, SAW, 3STEP, 10STEP	
<GAMMA>	P03	LEVEL	[R] [G] [B] [M] 0 0 0 0	–99 to +99	R, G, B, and M (master) values can be independently set.
		COARSE	0.45	0.35 to 0.90 (0.05 steps)	
		TABLE	STANDARD		display only
			5	1, 2, 3, 4, 5, 6	1: equivalent to a camcorder 2: 4.5-times gain 3: 3.5-times gain 4: equivalent to SMPTE-240M 5: equivalent to ITU-R709 6: 5.0-times gain
		GAMMA	ON	ON, OFF	
		TEST	OFF	OFF, 1, 2	1: Analog test signal 2: Digital test signal
<BLACK GAMMA>	P04	LEVEL	[R] [G] [B] [M] 0 0 0 0	–99 to +99	R, G, B, and M (master) values can be independently set.
		RANGE	HIGH	LOW, L.MID, H.MID, HIGH	
			OFF	ON, OFF	
		TEST	OFF	OFF, 1, 2	1: Analog test signal 2: Digital test signal
<SATURATION>	P05	SATURATION	0	–99 to +99	
		SW	OFF	ON, OFF	
		LOW KEY SAT	0	–99 to +99	
		RANGE	HIGH	LOW, L.MID, H.MID, HIGH	
		SW	OFF	ON, OFF	
		TEST	OFF	OFF, 1, 2	1: Analog test signal 2: Digital test signal
<KNEE>	P06	K POINT	[R] [G] [B] [M] 0 0 0 0	–99 to +99	R, G, B, and M (master) values can be independently set. Absolute values are displayed in ABS mode except for M (master).
		K SLOPE	0 0 0 0	–99 to +99	
		KNEE	ON	ON, OFF	
		KNEE MAX	OFF	ON, OFF	
		KNEE SAT	0	–99 to +99	
			OFF	ON, OFF	
		AUTO KNEE	OFF	OFF, AUTO, ADAPTIVE	
		POINT LIMIT	0	–99 to +99	Absolute value is displayed in ABS mode.
		SLOPE	0	–99 to +99	Absolute value is displayed in ABS mode.
		ABS			Highlighted: ABS (Absolute) mode

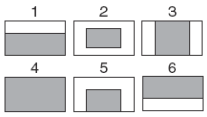
Menu page	No.	Item	Default	Settings	Remarks
<WHITE CLIP>	P07	W CLIP	[R] [G] [B] [M] 0 0 0 0	–99 to +99	R, G, B, and M (master) values can be independently set. Absolute values are displayed in ABS mode except for M (master).
			ON	ON, OFF	
		ABS			Highlighted: ABS (Absolute) mode
<DETAIL 1>	P08	DETAIL	ON	ON, OFF	
		LEVEL	0	–99 to +99	Absolute value is displayed in ABS mode.
		LIMITER M	0	–99 to +99	
		LIMITER WHT	0	–99 to +99	Absolute value is displayed in ABS mode.
		LIMITER BLK	0	–99 to +99	Absolute value is displayed in ABS mode.
		CRISP	0	–99 to +99	Absolute value is displayed in ABS mode.
		LVL DEP	0	–99 to +99	Absolute value is displayed in ABS mode.
			ON	ON, OFF	
		ABS			Highlighted: ABS (Absolute) mode
<DETAIL 2>	P09	H/V RATIO	0	–99 to +99	Absolute value is displayed in ABS mode.
		FREQ	0	–99 to +99	Absolute value is displayed in ABS mode.
		MIX RATIO	0	–99 to +99	Absolute value is displayed in ABS mode.
		KNEE APERTURE	0	–99 to +99	Absolute value is displayed in ABS mode.
			OFF	ON, OFF	
		ABS			Highlighted: ABS (Absolute) mode
<SKIN DETAIL>	P10	SKIN DTL	OFF	ON, OFF	
		SKIN GATE	OFF	OFF, 1, 2, 3	1, 2, 3: Skin gate can be set to ON for the specified channel only.
		ABS			Highlighted: ABS (Absolute) mode
		CH SW	[1] [2] [3] (ON) OFF OFF	ON, OFF	Skin tone detail function can be independently set for each channel (channel 1 is always ON). Absolute values are indicated for LEVEL only in ABS mode.
		HUE	AUTO AUTO AUTO	Execute by ENTER.	
		PHASE	0 0 0	0 to 359	
		WIDTH	29 29 29	0 to 359	
		SAT	–89 –89 –89	–99 to +99	
		LEVEL	0 0 0	–99 to +99	

Menu page	No.	Item	Default	Settings	Remarks
<USER MATRIX>	P11	R-G	0	–99 to +99	
		R-B	0	–99 to +99	
		G-R	0	–99 to +99	
		G-B	0	–99 to +99	
		B-R	0	–99 to +99	
		B-G	0	–99 to +99	
		MATRIX	ON	ON, OFF	
		PRESET	ON	ON, OFF	Invalid when MATRIX is OFF
			SMPTE-240M	SMPTE-240M, ITU-709, SMPTE-WIDE, NTSC, EBU, ITU-601	
		USER MATRIX	OFF	ON, OFF	
		MULTI MATRIX	OFF	ON, OFF	
<MULTI MATRIX>	P12	PHASE	0	0, 23, 45, 68, 90, 113, 135, 158, 180, 203, 225, 248, 270, 293, 315, 338	Select an axis (angle) at PHASE for which the multimatrix adjustment to be made, and set HUE and SAT. (HUE and SAT can be adjusted independently for 16 axes.)
		HUE	0	–99 to +99	
		SAT	0	–99 to +99	
		ALL CLEAR		Execute by ENTER.	
		GATE	OFF	ON, OFF	
		MATRIX	ON	ON, OFF	
		PRESET	ON	ON, OFF	Invalid when MATRIX is OFF
			ITU-709	SMPTE-240M, ITU-709, SMPTE-WIDE, NTSC, EBU, ITU-601	
		USER	OFF	ON, OFF	
		MULTI	OFF	ON, OFF	
<SHUTTER>	P13	SHUTTER	OFF	ON, OFF	
			1/100 (sec)	60i/59.94i: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 50i: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 30PsF/29.97PsF: 1/40, 1/60, 1/120, 1/125, 1/250, 1/500, 1/1000 25PsF: 1/33, 1/50, 1/100, 1/125, 1/250, 1/500, 1/1000 24P/23.98P: 1/32, 1/48, 1/96, 1/125, 1/250, 1/500, 1/1000 60P/59.94P: 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 50P: 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000	Step shutter setting
		ECS FREQ	30.0 Hz	60i/59.94i: 60.00 to 4300 Hz 50i: 50.00 to 4700 Hz 30PsF/29.97PsF: 30.00 to 2700 Hz 25PsF: 25.00 to 2300 Hz 24PsF/23.98PsF: 24.00 to 2200 Hz 60P/59.94P: 60.02 to 4600 Hz 50P: 50.03 to 4600 Hz	

Menu page	No.	Item	Default	Settings	Remarks
<SCENE FILE>	P14	1			To store and read scene files (paint data): When storing a file in camera memory, specify the number before executing STORE. When reading, only specify the number.
		2			
		3			
		4			
		5			
		STORE		Execute by ENTER.	
		STANDARD		Execute by ENTER.	To read the standard paint data
		READ (MS→CAM)		Execute by ENTER.	To load five scene files from a "Memory Stick" to internal memory
		WRITE (CAM→MS)		Execute by ENTER.	To write five scene files in the camera's memory to a "Memory Stick"
		FILE ID		Max.16 characters	Enter a comment for the scene files to be written to a "Memory Stick." *See "To specify a character string" on page 85.*
		CAM CODE	HDCxxxx	Camera code	display only
		DATE			display only

MAINTENANCE Menu

Menu page	No.	Item	Default	Settings	Remarks
<AUTO SETUP>	M01	AUTO BLACK		Execute by ENTER.	
		AUTO WHITE		Execute by ENTER.	
		AUTO LEVEL		Execute by ENTER.	
		AUTO WHITE SHADING		Execute by ENTER.	
		AUTO BLACK SHADING		Execute by ENTER.	
		TEST	OFF	OFF, SAW, 3STEP, 10STEP	
<WHITE SHADING>	M02	V SAW	[R] [G] [B] 0 0 0	–99 to +99	R, G, and B values can be independently set.
		V PARA	0 0 0	–99 to +99	
		H SAW	0 0 0	–99 to +99	
		H PARA	0 0 0	–99 to +99	
		WHITE	0 0 0	–99 to +99	
		AUTO WHITE SHADING		Execute by ENTER.	
		WHITE SHAD MODE	RB	RGB, RB	
		3D WHITE SHAD	ON	ON, OFF	
<BLACK SHADING>	M03	V SAW	[R] [G] [B] [M] 0 0 0	–99 to +99	R, G, and B values can be independently set. M (master) value can also be set for BLACK.
		V PARA	0 0 0	–99 to +99	
		H SAW	0 0 0	–99 to +99	
		H PARA	0 0 0	–99 to +99	
		BLK SET	0 0 0	–99 to +99	
		BLACK	0 0 0 0	–99 to +99	
		MASTER GAIN	0 dB	–3, 0, 3, 6, 9, 12 dB	
		AUTO BLACK SHADING		Execute by ENTER.	
		2D BLACK SHAD	ON	ON, OFF	

Menu page	No.	Item	Default	Settings	Remarks
<OHB MATRIX>	M04	PHASE	0	0, 23, 45, 68, 90, 113, 135, 158, 180, 203, 225, 248, 270, 293, 315, 338	To select an axis (angle) at PHASE for which the OHB matrix adjustment is to be made, and set HUE and SAT (HUE and SAT can be adjusted independently for 16 axes).
		HUE	0	–99 to +99	
		SAT	0	–99 to +99	
		ALL CLEAR		Execute by ENTER.	To clear the HUE and SAT values for all PHASE settings
		OHB MATRIX	OFF	ON, OFF	
		MATRIX	ON	ON, OFF	
<AUTO IRIS>	M05	AUTO IRIS	OFF	ON, OFF	
		WINDOW	1	1, 2, 3, 4, 5, 6	Select the auto iris windows:  The shaded parts indicate the area where light detection occurs.
		OVERRIDE	- -	–99 to +99, - -	To set the override to temporarily change the reference value for brightness of the automatic iris level in the range of ±2 steps: –99: two steps to fully closed iris +99: two steps to fully open iris - - : OFF The setting returns to " - - " when the power is turned off.
		IRIS LEVEL	0	–99 to +99	±4 steps
		APL RATIO	65	–99 to +99	
		IRIS GAIN	0	–99 to +99	
		IRIS CLOSE	OFF	ON, OFF	
<MIC GAIN>	M06 (U14)	MIC1	60 dB	20, 30, 40, 50, 60 dB	valid only in standalone operation
		MIC2	60 dB	20, 30, 40, 50, 60 dB	
<UP TALLY>	M07 (U20)	TALLY BRIGHTNESS	50	0 to 100	
		NUMBER BRIGHTNESS	50	0 to 100	
		CAMERA NUMBER	- -	- -, 1 to 96	
		NUMBER DISPLAY	AUTO	ON, OFF, AUTO	AUTO: to correspond to the UP TALLY switch setting of HDLA attached
<CALL/TALLY>	M08	CCU CALL	ON	ON, OFF	Invalid with CCU connected
		CAM CALL	OFF	ON, OFF	Invalid with CCU connected
<OUTPUT FORMAT> (HDC1500)	M09 (U15)	CURRENT	1080-59.94i (V)		Displays the current format.
		ACTIVE LINE	1080	1080, 720	The selectable frame settings are displayed for the selected ACTIVE LINE. (not displayed with CCU connected)
			59.94i	1080: 60i, 30PsF, 24PsF, 60P, 59.94i, 29.97PsF, 23.98PsF, 59.94P, 50i, 25PsF, 50P 720: 60P, 59.94P. 25PsF. 50P	

Menu page	No.	Item	Default	Settings	Remarks
<OUTPUT FORMAT> (HDC1550)	M09 (U15)	CURRENT	1080-59.94i (V)		Displays the current format.
		ACTIVE LINE	1080	1080, 720	The selectable frame settings are displayed for the selected ACTIVE LINE. (not displayed with CCU connected)
			59.94i	1080: 59.94i, 29.97PsF, 23.98PsF, 50i, 25PsF, 24PsF 720: 60P, 59.94P. 25PsF. 50P	
<DOWN CONVERTER>	M10 (U18)	OUTPUT SIGNAL	MAIN	MAIN, RET, VF	
		ASPECT	SQ	SQ, EC	
<TEST OUT>	M11 (U16)	OUTPUT	VF	SD-SYNC, HD-SYNC, VF, VBS	
		(PWR SAVE)			Displayed in POWER SAVE mode only
		VBS-OUT			
		CHARACTER	OFF	ON, OFF	
		HD-SYNC-OUT			
		V-PHASE	0	–127 to +127	
		H-PHASE	0	–127 to +127	
<SDI-2 OUT> (HDC1500)	M12 (U17)	OUTPUT	MAIN	MAIN, VF, LINK-B, RET, SD-SDI	
		(PWR SAVE)			Displayed in POWER SAVE mode only
		CHARACTER	OFF	ON, OFF	Not displayed if OUTPUT is set to VF or LINK-B
<SDI OUT> (HDC1550)	M12 (U17)	OUTPUT	MAIN	MAIN, VF, RET, SD-SDI	
		(PWR SAVE)			Displayed in POWER SAVE mode only
		CHARACTER	OFF	ON, OFF	Not displayed if OUTPUT is set to VF
<POWER SAVE> (HDC1500)	M13 (U10)	SDI-2 OUT	PWR SAVE	PWR SAVE, ACTIVE	
		DOWN CONVERTER	ACTIVE	PWR SAVE, ACTIVE	
<POWER SAVE> (HDC1550)	M13 (U10)	SDI OUT	PWR SAVE	PWR SAVE, ACTIVE	
		DOWN CONVERTER	ACTIVE	PWR SAVE, ACTIVE	
<TRUNK>	M14 (U19)	TRUNK	ON	ON, OFF	
		IF	232c	232c, 422a	
<GENLOCK>	M15	REFERENCE		Condition of synchronisation	display only
		GENLOCK			display only
		STATUS			
		FORMAT			
		PHASE			
		V	0	–999 to +999	
		HD H	0	–99 to +99	
		SD H	0	–99 to +99	
<DATE>	M16	DATE/TIME	yyyy/mm/dd hh: mm	2000 to 2099 / 01 to 12 / 00 to 31, 00 to 23 : 00 to 59	

Menu page	No.	Item	Default	Settings	Remarks
<OTHERS 1>	M17	FAN MODE	AUTO1	AUTO1, AUTO2 , MIN, MAX	AUTO1: Normal rotation AUTO2: Slow rotation
		CAM BARS	OFF	ON, OFF	
		V DTL CREATION	NAM	NAM, G, R+G, Y	
		DTL H/V MODE	H/V	H/V, V only	
		TEST 2 MODE	3STEP	3STEP, 10STEP	
		WHITE SETUP MODE	AWB	AWB, A.LVL	
<OTHERS 2>	M18	DATE TYPE	5 M/D/Y	1 Y/Mn/D 2 Mn/D 3 D/M/Y 4 D/M 5 M/D/Y 6 M/D	Y: Year Mn: Month (numeric) M: Month (character string) D: Day
		WHITE MEMORY	OFF	ON, OFF	
		F NO. DISP	CONTROL	CONTROL, RETURN	Select the iris indication on the panel when AUTO IRIS is on: CONTROL: To display the value from the camera RETURN: To display the value returned from the lens

FILE Menu

Five types of files can be used for easy adjustments of the camera; Operator, Reference, Scene, OHB, and Lens. You can store the items set with the OPERATION menu and customized USER menu in the Operator file.

For the specific items included in these files, refer to the Maintenance Manual.

Menu page	No.	Item	Default	Settings	Remarks
<OPERATOR FILE>	F01	READ (MS→CAM)		Execute by ENTER.	To read the operator file from a “Memory Stick”
		WRITE (CAM→MS)		Execute by ENTER.	To write the current settings of the operator file items to a “Memory Stick”
		PRESET		Execute by ENTER.	To set the operator file items to the preset values in internal memory
		STORE PRESET FILE		Execute by ENTER.	To store the current settings of the operator file items in the operator file in internal memory.
		FILE ID		max.16 characters	Enter a comment for the operator file to be written to a “Memory Stick.” *See “To specify a character string” on page 85.*
		CAM CODE	HDCxxxx	Camera code	display only
		DATE			display only

Menu page	No.	Item	Default	Settings	Remarks
<SCENE FILE>	F02	1			To store and read scene files (paint data): When storing a file in camera memory, specify the number before executing STORE. When reading, only specify the number.
		2			
		3			
		4			
		5			
		STORE		Execute by ENTER.	
		STANDARD		Execute by ENTER.	To read the standard paint data
		READ (MS→CAM)		Execute by ENTER.	To load five scene files from a “Memory Stick” to internal memory
		WRITE (CAM→MS)		Execute by ENTER.	To write five scene files in the camera’s memory to a “Memory Stick”
		FILE ID		Max.16 characters	Enter a comment for the scene files to be written to a “Memory Stick.” *See “To specify a character string” on page 85.*
		CAM CODE	HDCxxxx	Camera code	display only
		DATE			display only
<REFERENCE>	F03	STORE FILE		Execute by ENTER.	To store the current settings of the reference file items in the reference file in internal memory.
		STANDARD		Execute by ENTER.	To read the standard values in the reference file in internal memory.
		ALL PRESET		Execute by ENTER.	To resume the factory-preset reference file
		READ (MS→CAM)		Execute by ENTER.	To load a reference file from a “Memory Stick”
		WRITE (CAM→MS)		Execute by ENTER.	To write the current settings of the reference file items as a reference file to a “Memory Stick”
		FILE ID		Max.16 characters	Enter a comment for the reference file to be written to a “Memory Stick.” *See “To specify a character string” on page 85.*
		CAM CODE	HDCxxxx	Camera code	display only
		DATE			display only
<LENS FILE>	F04	STORE FILE		Execute by ENTER.	
		No.	1	1 to 16	
		NAME	xxxxx...		
		F NO	F1.7	F1.0 to F3.4	
		CENTER MARKER			To set and store the center marker position: H POS: Increasing the value moves it to the right. V POS: Increasing the value moves it downwards.
		H POS	0	–20 to +20	
		V POS	0	–20 to +20	
		STORE		Execute by ENTER.	
<OHB FILE>	F05	STORE FILE		Execute by ENTER.	To store the offset values of the items specific to the CCD (No repeated store operation is necessary even if the CCD is reattached)

Menu page	No.	Item	Default	Settings	Remarks
<FILE CLEAR>	F06	PRESET OPERATOR		Execute by ENTER.	
		REFERENCE (ALL)		Execute by ENTER.	
		10 SEC CLEAR	OFF	ON, OFF	OFF: To exclude the 10 SEC setting when executing REFERENCE (ALL)
		LENS (CURRENT)		Execute by ENTER.	To return the settings of the currently selected lens file to the factory-set conditions.
		OHB WHITE SHADE (ALL)		Execute by ENTER.	
		OHB WHITE SHADE (3D)		Execute by ENTER.	To clear the 3D WHITE SHADING setting only
		OHB BLACK SHADE		Execute by ENTER.	
		OHB ND OFFSET		Execute by ENTER.	
		OHB MATRIX		Execute by ENTER.	
		M.S. FORMAT		Execute by ENTER.	To initialize a “Memory Stick”

DIAGNOSIS Menu

This menu is only for viewing and no setting is made using this menu.

Menu page	No.	Item	Indication	Remarks
<OPTICAL LEVEL>	D01	CCU→CAM	GREEN, YELLOW, RED, NG, NO SIGNAL	With CCU connected only
		CAM→CCU	GREEN, YELLOW, RED, NG, NO SIGNAL	With CCU connected only
<BOARD STATUS>	D02	ROM	Vx.xxx	ROM version
		OHB	OK, NG	
		DPR	OK, NG	
		VDA	OK, NG	
		DAP	OK, NG	
		AU	OK, NG	
		AT	OK, NG	
		PS	OK, NG	
		SDI	OK, NG	HDC1500 only
		TR	OK, NG	HDC1550 only
<PLD VERSION>	D03	TG	Vx.xxx	
		VDA	Vx.xxx	
		DAP	Vx.xxx	
		AT	Vx.xxx	
		SDI	Vx.xxx	
<ROM VERSION>	D04 (U21)	AT	x.xx	
		HDLA	x.xx	With HDLA attached only