

# Colorimetric and Resolution requirements of cameras

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## ADDENDUM 5a : Menu settings for

### BTS/Thomson Multi-media LDK6000

(1080p25 – capable camera, and MCP series 9000)

Menu items that contribute significantly to the “BBC look” are highlighted.

#### Camera Head System Menu Structure

##### MAIN Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
VF >>	0 1 2 3 S						
Lens >>	0 1 2 3 S						
Video >>	2 3 S						
Install >>	0 1 2 3 S						
Files >>	1 2 3 S						
Security >>	0 1 2 3 S						
Diagnostics >>	2 3 S						
Service >>	3 S						

##### VF Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
VF mon	2 3 S	Y,R,G,B,-G	-	operator	Y		
VF Contour >>							
VF Contour	2 3 S	On, Off	-	operator	On		
Level	2 3 S	0..99	VF cont. Off	operator	95	50	
Focus Assist	0 1 2 3 S	On,Off	-	operator	On		
Zebra >>							
Zebra	3 S	On,Off	"2" VF used	operator	Off		Switch on VF
mode	3 S	Level, band	Zebra Off	operator	Level		
level (%)	3 S	0..99	Zebra Off	operator	90		
contrast	3 S	0..99	Zebra Off	operator	15		
Centre Cross	0 1 2 3 S	On,Off	-	operator	Off		
Safe Area	0 1 2 3 S	On,Off	-	operator	Off		
Iris Ind.	0 1 2 3 S	On,Off	SuperXPander	operator	Off		
Zoom Ind.	0 1 2 3 S	On,Off	-	operator	Off		
Box downright	0 1 2 3 S	Ftr,Off	-	operator	Off		indicates filters
Marker	0 1 2 3 S	Off,4:3,16:9,14:9	-	operator	Off		actually " 4:3" On, Off on the camera
Marker Type	0 1 2 3 S	Dot,Shad, Both	-	operator	Off	70	"Shad" doesn't do the right thing viewfinder text brightness
Ind. White	2 3 S	0..99	-	operator	28		
Ind. Black	2 3 S	0..99	-	operator	30		
Display	2 3 S	On,Time	-	operator	Time		useful to set this to On for set-up
Menu Time	3 S	0..10 sec.	Display On	operator	10		
Info Time	3 S	0..20 sec.	-	operator	5		
Rotary Speed	3 S	0..10 sec.	-	operator	5		
VF Notch	2 3 S	On,Off	-	operator	Off		
Ext Asp Ratio	0 1 2 3 S	4:3,16:9	-	operator	4:3		
Loc Asp Ratio	0 1 2 3 S	4:3,16:9	-	operator	16:9		

##### LENS Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Lens Type	0 1 2 3 S	Std,WA	-	operator	STD		two basic settings
Auto Iris	0 1 2 3 S	On, Off	SuperXPander		Off		
Peak/Average	3 S	0..99	Auto Iris off	scene	65		
AutoIris Setpoint	3 S	0..99	-	scene	35		
Mom Iris Setpoint	3 S	0..99	-	scene	50		
Manufacturer	0 1 2 3 S	Fuj, Ang, Can, Other	-	-	Fuj1		for large lens adapter
Extended iris >>	3 S						
Min iris	3 S	5.6, 8, 11, 16	-	operator	F16.0		
Max iris	3 S	1.4, 2, 2.8, 4, 5.6	-	operator	F2.0		
Min exp time	3 S	1/100, 1/200, 1/500	-	operator	1/500		
Max Gain	3 S	0..15 (3db steps)	-	operator	15dB		
Autoiris const >>	3 S						
Iris gain	3 S	5..10	-	-	-		

**VIDEO Menu**

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Colour filter	2 3 S	00 .. 99	3k2,5K6,7K5, AWC	scene	50		
Contour >>							
Contour	S	Off, On	-	scene	On		
Level	3 S	00 .. 99	Contour = Off	scene	50	26	
Srce Sel >>	3 S	Y,R,G,RG	-	scene	R+G		
<more> >>							
vert cont	3 S	0..99	Contour = Off	scene	25	29	
coarse/fine	3 S	0..99	Contour = Off	scene	50	99	
Soft Cont >>							
Soft Contour	2 3 S	Off, On	-	scene	Off		
Level	2 3 S	0..99	Soft Cont=Off	scene	70		
Knee Contour	3	Off, 1,2,3,4		scene	Off		
Skin >>							
Skin	2 3 S	Off, 1, 2, 1+2	-	scene	Off		
Auto	2 3 S	Off, On	Skin=Off or 1+2	-	Off		
View	2 3 S	Off, On	On Skin=Off		Off		
Skin Level	2 3 S	0..99	On Skin=Off	scene	50		
<more> >>							
width1 R	3 S	0..99	Skin <> 1	scene	50		
width1 B	3 S	0..99	Skin <> 1	scene	50		
color1 R	3 S	0..99	Skin <> 1	scene	50		
color1 B	3 S	0..99	Skin <> 1	scene	50		
width2 R	3 S	0..99	Skin <> 2	scene	50		
width2 B	3 S	0..99	Skin <> 2	scene	50		
color2 R	3 S	0..99	Skin <> 2	scene	50		
color2 B	3 S	0..99	Skin <> 2	scene	50		
Black >>							
Black stretch	3 S	0..99	Blk str = Off	scene	99	70	Set to "Press", 0-49=compress, 51-99=stretch.
Master	2 3 S	0..99	-	scene	50		
<more> >>							
Red	3 S	0..99	-	scene	50		
Green	3 S	0..99	-	scene	50		
Blue	3 S	0..99	-	scene	50		
Master	3 S	0..99	-	scene	50		
Gain >>							
Red	2 3 S	0..99	-	scene	50		
Green	2 3 S	0..99	-	scene	50		
Blue	2 3 S	0..99	-	scene	50		
Knee >>							
Knee	2 3 S	Off, Var	-	scene	Off	On	For film mode
Knee Type	3 S	Y, NAM	-	scene	Y		
Slope M	3 S	0..99	knee <> var	scene	60	90	1.5 stops, 94=2.5 stops, but colour goes wrong in whites!
Point M	3 S	0..99	knee <> var	scene	50	17	Knee at 600mV after gamma
Gamma >>							
Gamma	2 3 S	Nom,Low,Pre	-	scene	Nom		
Master	3 S	0..99	gamma<>Pre	scene	76		
Red	3 S	0..99	gamma<>Pre	scene	76		
Green	3 S	0..99	gamma<>Pre	scene	76		
Blue	3 S	0..99	gamma<>Pre	scene	76		
Matrix >>							
Matrix	3 S	EBU,RAI,BBC,B/W, skin,1:1,CFL,var1&2	-	scene	Skin	BBC	
Saturation	2 3 S	0..99	-	-	50	40	Operator has control on OCP

### INSTALL Menu LDK 5460 Triax Adapter

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Video Mode	2 3 S	1080i50, 1080i59, 1080psf25,720p59	Not Available	-	-		1080psf25 for film mode
Disable Camera	0 1 2 3 S	Off, On	-	-	Off		
IR receiver	0 1 2 3 S	Off, On	-	operator	Off		
Intercom >>	0 1 2 3 S						
Side tone	1 2 3 S	0...99	-	operator	50		
Cam. Mic	1 2 3 S	Off,Switch, Track, Prod	Cam. Mic=On	operator	Switch		
Cam. Mic Gain	1 2 3 S	0dB,40dB	-	operator	40dB		
Cam. Mic Pwr	1 2 3 S	On,Off	-	operator	Off		
Cam. Prod	1 2 3 S	Off,L,R,Both	-	operator	Off		
Cam. Eng	1 2 3 S	Off,L,R,Both	-	operator	Off		
Cam. Prog	1 2 3 S	Off,L,R,Both	-	operator	Off		
Cam. Track	1 2 3 S	Off,L,R,Both	-	operator	Off		
Cam. Track lvl	1 2 3 S	0...99	-	operator	50		
Track Mic To	1 2 3 S	Off,Cam,Eng, Prod,All	-	operator	Off		
Track Mic Gain	1 2 3 S	0dB,40dB	-	operator	40dB		
Track Mic Pwr	1 2 3 S	On,Off	-	operator	Off		
Track Source	1 2 3 S	Side,Eng	-	operator	Side		
Cam. Mic To	1 2 3 S	CH1,CH2	-	operator	CH1		
Audio >>							
Audio 1 Gain	1 2 3 S	-22 to -64 by 6	-	operator	-64dB		
Audio 1 HPF	1 2 3 S	On,Off	-	operator	Off		
Audio 2 Gain	1 2 3 S	-22 to -64 by 6	-	operator	-64dB		
Audio 2 HPF	1 2 3 S	On,Off	-	operator	Off		
Notch	3 S	Off, On	-	operator	Off		
Exposure >>							
Lighting	1 2 3 S	-10..+10	Exp<>50,60Hz	scene	0		
Clean Scan >>	1 2 3 S						Press switch for 2 seconds
Mode	1 2 3 S	Norm,Extended	-	scene	Normal		
Value	1 2 3 S	*	-	scene	-		* See section 5 of Operation Manual 'Shooting Screens'
Gain preset >>							
Gain - (dB)	2 3 S	-3,-6	-	operator	-3dB		
Gain + (dB)	2 3 S	3,6,9	-	operator	3dB		
Gain ++ (dB)	2 3 S	6,9,12	-	operator	6dB		
Private Data	0 1 2 3 S	C->B,B->C,B<->C	-	operator	Inter		

### FILES Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Store scenefile >>							
File select	2 3 S	sacm1..4, scard1..4	-	-	-		
Store	2 3 S	Exec	-	-	-		
Recall scenefile >>							
File select	2 3 S	standard, scam1..4, scard1..4	-	-	-		
Recall	2 3 S	Exec	-	-	-		
Store oper. file >>							
File select	1 2 3 S	ocam 1, ocard1..2	-	-	-		
Store	1 2 3 S	Exec	-	-	-		
Recall oper. file >>							
File select	1 2 3 S	standard, ocam1, ocard1..2	-	-	-		
Recall	1 2 3 S	Exec	-	-	-		
Attributes >>							
File select	2 3 S	available files	-	-	-		
File name	2 3 S		-	-	-		
Attribute	2 3 S	R/W, R	no card	-	R/W		

## SECURITY Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Installed Level	2 3 S	user0..user3	no owner	-	u3		Level 0 is most restrictive, level 3 do anything. Must have pin. Seemed to work without owner card.
Run Hours >>			card or PIN				
Days ago	2 3 S	0 ... 30		-	0		
Set Time >>				-	-		
Hour	2 3 S	0 ... 23		-	-		
Minute	2 3 S	0 ... 59		-	-		
Set Date >>				-	-		
Year	2 3 S	0 ... 99		-	-		
Month	2 3 S	1 ... 12		-	-		
Day	2 3 S	1 ... 31		-	0		
PIN code >>			no owner card/PIN		0		
Four digits	0 1 2 3 S	0000 ... 9999	-	-	0000		
Customer files >>			no owner card/PIN		-		
Stor cust Scn	0 1 2 3 S	Exec	-				
Stor cust. Op	0 1 2 3 S	Exec	-				
Green Button >>			no owner card/PIN	-	-		
Standard	0 1 2 3 S	Factory/Customer	-		Factory	Cust.	
Scene file	0 1 2 3 S	On,Off	-		On		
Operator file	0 1 2 3 S	On,Off	-		On		

## DIAGNOSTICS Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Communication >>			LDK 5600				Triax DPM
Base Station	2 3 S	Ok, NotOk	-	-	-		
OCP	2 3 S	Ok, NotOk	-	-	-		
MCP	2 3 S	Ok, NotOk	-	-	-		
Adaptor Type	2 3 S	Triax, DVCPRO, ..	-	-	-		
Sensor Type	2 3 S	IT,ITW,FT,DPM	-	-	-		
Sensor Voltage	2 3 S	Ok, NotOk	-	-	-		
Shutter Run	2 3 S	Run, Stop	-	-	-	Run	
Front Power	2 3 S	Ok, NotOk	-	-	-		
Y carrier	2 3 S	Ok, NotOk	-	-	-		
Cam. 12nc	2 3 S	...	-	-	-	3391	
Cam. Version	S	...	-	-	-	3.2	
Cam. Status	2 3 S	...	-	-	-	15	
Cam. Boot ver.	2 3 S	...	-	-	-	4.7	
Cam. FPGA ver.	2 3 S	...	-	-	-	1.6	
Adapter 12nc	2 3 S	...	-	-	-	3435	
Adapter Version	S	...	-	-	-	2.0	
Adapter Status	2 3 S	...	-	-	-	5	
PPG Status						255 - not in manual	

## SERVICE Menu

Menu text	User level	Values	Blocked if	File	Default	BBC	Comment
Sawtooth	3 S	Off, On	-	-	Off		PrPb on camera tested
Sawt Select	3 S	PrPr, Asic	-	-	PrPr	Asic	
ViPr Test	S	Int/Ext	-	-	Int		
LPC	S	Off, On	-	-	On		
BPC	S	Off, On	-	-	On		
Calibrations >>							
3200K	S	Off, Run	-	-	Off		
3200K reset	S	Cust,Fact	-	-	Fact		
Shutter phase	S	-30..+30	-	-	0		
Scaler >>							
Encoder	3 S	Off,On	-		Off		
SDI	3 S	Off,On	-		Off		
Encoder bars	3 S	Off,On	-		Off		
EPLD Test	S	Off,Sawt,Bars	-		Off		
Chroma	0 1 2 3 S	Off, On	-	-	On		

# MCP menu settings – Series 9000

## Menu Button Unlabelled 1 - No menu

### Menu Button Unlabelled 2 - SDTV Contour

Functions	Parameters	Factory File	BBC
Level >>			
Level Dep	0..99	50	50
V-level	0..99	25	59
Level	0..99	50	26
Freq >>			
Coarse/fine	0..99	50	99
Noise Slicer	0..99	5	06
Soft >>			
Soft	0..99	70	

#### Comments

SD values are not recalled from scene file on set-up card. so must be entered manually. They control aperture correction to the downconverted output, and are always on. They are independent of and extra to the HD contour values.

### Transfer

Functions	Parameters	Factory File	BBC
Execute	state, Cam NR.		

#### Comments

Transfer setup from one camera head to another.

### Set Up

Functions	Parameters	Factory File	BBC
Black Str >>			
Black Stretch	On / Off	Off	On
Level	0-99	99	70
Matrix	EBU,RAI,BBC,B/W,skin,1:1,CFL,var1&2	Skin	BBC
Mtx R			
Mtx G			
Mtx B			
Mat sequence	M -> G , G -> M	G->M	M->G
Video Mode	1080i50, 1080i59, ? ,720p59		

#### Comments

On for film look, Off for video  
Set to "Press", 0-49=compress, 51-99=stretch.

"?" is 1080psf25

### Maint

Functions	Parameters	Factory File	BBC
Timing >>	On, Off		
	HPh/Subc Fine/Subc Coarse	22/50/180	
Audio >>	MCP/External	ext	
Audio 1	-22 .. -64 dB in 6dB steps	-64 dB	
Audio 2	-22 .. -64 dB in 6dB steps	-64 dB	
Cam. Disable	On / Off	Off	
Iris P/A	0-99	65	
Lamp >>			
On-air lamp	Disable, Enable		
Dim Level	50	50	

#### Comments

Down-convert Pal Output

### Diagnose

Functions	Parameters	Factory File	BBC
MCP			
Head			
Base			
OCP		76	
Test Keys			
Test Rotaries			
Test LEDs			
Test screen			

#### Comments

407.2090 ST.24  
407.3391 ST.15  
407.3425 ST.26

### System Install

Functions	Parameters	Factory File	BBC
OCP Var Black Stretch	Yes / No	Yes	
OCP Var Gamma	Yes / No	Yes	
OCP Var Flare	Yes / No	Yes	
OCP Var Saturation	Yes / No	Yes	
OCP White Clip	Yes / No	Yes	
OCP Knee Source	Yes / No	Yes	
OCP Knee Slope	Yes / No	Yes	
OCP Knee Point	Yes / No	Yes	
OCP Lock	Total / Upper	Total	
Black Contrast (appears to be mis-named)	Press / Stretch		Press
Standard Definition	cust / fact		cust
Recall install File			
Store Install file			

#### Comments

Allows OCP control to stretch or compress blacks, useful in clipping black noise if gain has been used.

## MCP Install

Functions	Parameters	Factory File	BBC	Comments
Call Buzzer	On, Off	On		
Key click	On, Off	On		
MCP Panel Lock	Total / Upper	Total		
Brightness lcd >>				
Screen	0-99	75		
Contrast	0-99	25		
Br Iris	0-99	75		Brightness of Iris and Master Black indication
Camera Preset	No cam, cam1, ... cam15	No cam		
Mon Preset 1	Ext1, Ext2, Yext1, Yext2, R, G, B, Sup, CVBS, Seq, Y	Ext1		
Mon Preset 2	Ext1, Ext2, Yext1, Yext2, R, G, B, Sup, CVBS, Seq, Y	Ext2		
Scene File recall	Direct / recall	Direct		
PXM Follow	On, Off	Off		
Indicator range	0 - 99, -99 - 99	0 - 99		
MCP Preset Number	MCP 1, 2, 3			Only applicable if more than one MCP in use

## Black

Functions	Parameters	Factory File	BBC	Comments
Red	0-99	50		
Green	0-99	50		
Blue	0-99	50		
Master	0-99	50		

## Flare

Functions	Parameters	Factory File	BBC	Comments
Flare	on, off	on		Required if you are using a lens on the camera!
Red	0-99	10		
Green	0-99	15		
Blue	0-99	25		

## Gamma

Functions	Parameters	Factory File	BBC	Comments
Gamma	BBC04/05/06, ARD, CCIR, RAI	ARD	BBC04	

## Gain

Functions	Parameters	Factory File	BBC	Comments
Red	0-99	50		
Green	0-99	50		
Blue	0-99	50		

## White Shading

Functions	Parameters	Factory File	BBC	Comments
Shading	On/Off	On		
Red Hor	On/Off, Saw 50, Par 00, Gain 50	On		
Red Vert	On/Off, Saw 50, Par 00, Gain 50	On		
Green Hor	On/Off, Saw 50, Par 00	On		
Green Vert	On/Off, Saw 50, Par 00	On		
Blue Hor	On/Off, Saw 50, Par 00, Gain 50	On		
Blue Vert	On/Off, Saw 50, Par 00, Gain 50	On		

## Knee

Functions	Parameters	Factory File	BBC	Comments
Slope + Pt >>				For film mode
Slope	0-99		90	1.5 stops headroom (94=2.5 stops, but tends to colour the peak whites...)
Point	0-99		17	Knee is active only above 600mV
De-Sat	Off, On	Off		Does not do anything useful. 0-50 desaturates colours in knee, 50-99 does nothing.
Source	Y, Nam	Y		

## Contour

Functions	Parameters	Factory File	BBC	Comments
HD Contour	Off / Var	Var	Off	Off for film-look
Level >>				These values are good for video look.
Level Dep	0..99	40	54	
V-level	0..99	25	29	
Level	0..99	50	26	
Freq >>				
Coarse/fine	0..99	50	99	
Noise Slicer	0..99	5	15	
Soft >>	On/Off	Off		
Soft	0..99	70		
Knee Contour	Off/01/02/03/04	Off		
Contour Source	Avg RG, R, G, Y	Avg RG		

## Skin Contour

Functions	Parameters	Factory File	BBC	Comments
Skin Contour 1	Off/On, 0-99	Off, 50		
Skin Window 1	Off/On, R 0-99, B 0-99	Off, 50, 50		
Skin Colour 1	Off/On, R 0-99, B 0-99	Off, 50, 50		
Skin Contour 2	Off/On, 0-99	Off, 50		
Skin Window 2	Off/On, R 0-99, B 0-99	Off, 50, 50		
Skin Colour 2	Off/On, R 0-99, B 0-99	Off, 50, 50		

## White Clip

Functions	Parameters	Factory File	BBC	Comments
White Clip	On, Off	On		
Master	0-99	80		

## Exposure

Functions	Parameters	Factory File	BBC	Comments
Var	crt, flm., mon, 60Hz, 590Hz, Nom, 1/200	Nom	Film	Essential to film mode shooting!
Exposure	9.9ms – 39ms	9.9	20.0 ms	50% shutter

## Encoding

Functions	Parameters	Factory File	BBC	Comments
Chroma.	On, Off	On		
Saturation	0-99	50	40	Operator hands-on control

## Base Station menus

### MAIN Menu

Menu text	User	Comments
<Menu Off>	O I	
Video >>	O I	
Monitoring >>	O I	
Audio/Intercom >>	O I	
SDTV >>	O I	
System >>	O I	
Files >>	O I	
Diagnostics >>	O I	

Accessed from wheel under left-hand cover.

Double-click on wheel to enter

## VIDEO Menu

Menu text	User	Values	Default	Blocked if	File	Comments
Colour Bar >>						
Colour Bar	O I	On,Off	Off	-	-	-
White Bar Level	I	SMPTE, Full	SMPTE		System	
Ext. Black Clamp	O I	0..99	50		System	

## MONITORING Menu

Menu text	User	Values	Default	Blocked if	File	Comments
Menu >>						
Display	O I	On,Time	Time	-	Operator	-
Menu Time	O I	5..99	10	-	Operator	-
Statusbar >>						
Studio >>						
Studio	O I	On,Off	Off	-	Operator	-
Name	O I	[String]	---	-	-	-
Operator >>						
Operator	O I	On,Off	Off	-	Operator	-
Name	O I	[String]	---	-	-	-
Camera Number	O I	On,Off	Off	-	Operator	-

Other menu items listed in full in the base station users guide.