

Technical information: Command List for HV-D30 Remote Control

(The command which a remote control box RC-Z3 is the same as)

16.May.2002

The Hitachi HV-D30 series color cameras are provided with the functions which can be controlled from a PC. This information is prepared to explain the commands corresponding respective control items.

For remote control procedure, see Technical Information entitled Protocol for remote control.

Do the following establishment to control a HV-D30 camera with the remote control command which is the same as remote control box RC-Z3.

Set a "REMOTE TYPE" item in "MODE2" in the "OTHER FUNC" menu screen.

1. ON/OFF control commands (Setting commands, response request commands, response commands)

Note 1. Set character S listed in the (DT4) column to 0 to control a camera, and 1 not to control it.

2. Setting data can be backed up to the EEPROM by the command MEMORY BACK UP.

In the case of the last of the name of the column of (DT3) is described as ON or OFF, (DT3) becomes ON or OFF as the name in case of 1 and (DT3) becomes the opposite condition in case of 0.

(Exsample)

KNEE OFF : Bit 2 of (DT3)

OFF : (20,02,04,FB) / ON : (20,02,00,FB)

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	00H	0	PRESET 3200K/5600K	S
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7	CAP ON	S
	01H	0	GAIN +3dB	S
		1	+6dB	S
		2	+12dB	S
		3	+24dB	S
		4	+1dB	S
		5	+2dB	S
		6		1
		7		1
	02H	0		1
		1	GAMMA OFF	S
		2	KNEE OFF	S
		3	WHITE CLIP OFF	S
		4	DETAIL OFF	S
		5	M.SHAD OFF	S
		6	MASKING ON	S
		7		1

PRESET 3200K/5600K

PRESET 3200K	PRESET5600K	(DT4)
0	1	FEH

If WHITE BAL MODE:PRESET(20,04,00,F3), this item is enable.

CAP ON(Set only,not memory)

IRIS closes when it is "CAP ON".

GAIN

if AGC MODE:PRESET(20,04,00,CF).

Refer to 3 pages for the details of the GAIN command.

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	04H	0	IRIS MODE	0 S
		1		1 S
		2	WHITE BAL MODE	0 S
		3		1 S
		4	AGC MODE	0 S
		5		1 S
		6		1
		7	AUTO KNEE OFF	S
	05H	0	SHUTTER ON	0 S
		1	SHUTTER MODE	1 S
		2		2 S
		3	SHUTTER PRESET	3 S
		4	MODE	4 S
		5		5 S
		6		6 S
		7		7 S
	06H	0	COLOR DTL ON	S
		1	SOFT DTL ON(Always Hi)	1
		2	HI CHROMA ON	S
		3		1
		4		1
		5		1
		6		1
		7	FLARE OFF	S

IRIS MODE

	MANUAL	REMOTE	AUTO	-	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

MANUAL : Manual iris of the camera is done effectively.

REMOTE : The iris is controlled by “IRIS (302EH)” command.

AUTO : AUTO IRIS. Iris level is adjusted by “OVER RIDE(3039H)” command.

WHITE BAL MODE

	PRESET	MEMORY	AUTO	-	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

AGC MODE

	PRESET	-	AUTO	-	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

PRESET : The setting of NORMAL/HIGH/MAX by “GAIN(2001H)” command is enable.

AUTO : AGC ON

SHUTTER

Refer to 3 pages for the details of the SHUTTER command.

GAIN command

(DT1)	(DT2)		(DT3)													(DT4)
		bit	0dB	1dB	2dB	3dB	4dB	5dB	6dB	7dB	8dB	9dB	10dB	11dB	12dB	
20H	01H	0	0	0	0	1	1	1	0	0	0	1	1	1	0	C0H
		1	0	0	0	0	0	0	1	1	1	1	1	1	0	
		2	0	0	0	0	0	0	0	0	0	0	0	0	1	
		3	0	0	0	0	0	0	0	0	0	0	0	0	0	
		4	0	1	0	0	1	0	0	1	0	0	1	0	0	
		5	0	0	1	0	0	1	0	0	1	0	0	1	0	

(DT1)	(DT2)		(DT3)												(DT4)
		bit	13dB	14dB	15dB	16dB	17dB	18dB	19dB	20dB	21dB	22dB	23dB	24dB	
20H	01H	0	0	0	1	1	1	0	0	0	1	1	1	0	C0H
		1	0	0	0	0	0	1	1	1	1	1	1	0	
		2	1	1	1	1	1	1	1	1	1	1	1	0	
		3	0	0	0	0	0	0	0	0	0	0	0	1	
		4	1	0	0	1	0	0	1	0	0	1	0	0	
		5	0	1	0	0	1	0	0	1	0	0	1	0	

SHUTTER command

(DT1)	(DT2)	(DT3)															
		bit	OFF	SHUTTER PRESET										VAR.	AES	EXT	
				1/100 (1/60)	1/250	1/500	1/1000	1/2000	1/4000	1/10000	1/20000	1/40000	1/100000				
20H	05H	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
		1	-	0	0	0	0	0	0	0	0	0	0	0	1	0	1
		2	-	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		3	-	1	0	1	0	1	0	1	0	1	0	-	-	-	-
		4	-	0	1	1	0	0	1	1	0	0	1	-	-	-	-
		5	-	0	0	0	1	1	1	1	0	0	0	-	-	-	-
		6	-	0	0	0	0	0	0	0	1	1	1	-	-	-	-
		7	-	0	0	0	0	0	0	0	0	0	0	-	-	-	-
(DT4)			FEH	00H	00H	00H	00H	00H	00H	00H	00H	00H	00H	F8H	F8H	F8H	

1/100 become 1/60 in PAL.

VARIABLE : The setting of variable shutter by “SHUTTER VARIABLE(3038H)” command is enabled.

AES : AES ON

EXT : External trigger mod

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	07H	0		1
		1		1
		2	DTL	0 S
		3		1 S
		4	ALC PEAK/AVE	0 S
		5		1 S
		6		1
		7		1
	08H	0	BAR/CAM	S
		1	CONTRAST	0 S
		2		1 S
		3	MONO ON	S
		4	NEGA ON	1
		5		1
		6	SETUP OFF	S
		7	MESSAGE RTN ON	S
	09H	0		1
		1		1
		2		1
		3	DIGITAL TEST ON	S
		4	TEST SAW ON	S
		5		1
		6		1
		7		1
	0AH	0		1
		1		1
		2		1
		3		1
		4		1
		5		1
		6	COLOR DTL IND ON	S
		7		1
	0BH	0		1
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7	PAINT ENABLE ON	S

DTL

If DETAIL ON(20.02.00.EF).

	VARIABLE	LOW	NORMAL	HIGH	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

VARIABLE : The setting of variable DTL by
“DETAIL(302CH)” command is enable.

ALC PEAK/AVE

	50/50	25/75	15/85	0/100	(DT4)
0	0	1	0	1	CFH
1	0	0	1	1	

BAR/CAM

CAM	BAR	(DT4)
0	1	FEH

CONTRAST

	OFF	MIDDLE	HIGH	-	(DT4)
0	0	1	1	0	F9H
1	0	0	1	1	

SETUP OFF

The 7.5IRE SETUP is added the video signal in case of
“SETUP ON”.

MESSAGE RTN

ON :The executive message of AWB, ABB and ASC is
indicated.

OFF:The executive message of AWB, ABB and ASC isn't
indicated.

COLOR DTL IND(Set Only,No Memory)

When the following function is adjusted, the color of the
establishment point disappears.

COLOR DTL PHASE(3059H,306BH),
COLOR DTL WIDTH(305AH,306CH)

PAINT ENABLE ON

if PAINT ENABLE ON(20.0B,80,7F),R/B Paint GAIN
(3018H,301AH), R/B Paint BLACK(3021H,3023H)
adjustment become effective.

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	10H	0		1
		1	MENU ON	S
		2		1
		3		1
		4	UP ON	S
		5	DOWN ON	S
		6	RIGHT ON	S
		7	LEFT ON	S
	11H	0		1
		1	OUTPUT SEL	0 S
		2		1 S
		3		1
		4	OUTPUT SYNC	S
		5	SYNC ON G ON	S
		6	GL MODE VBS/HD·VD	S
		7	GL IN 75Ω/HIGH	S
	15H	0	D.N.R. MODE	0 S
		1		1 S
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	16H	0	DYNA CHROMA ON	S
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	17H	0		1
		1		1
		2	INDICATOR DISPLAY	0 S
		3		1 S
		4		1
		5		1
		6		1
		7		1

MENU SET UP COMMAND

In the same way as sw of the rear control panel of the camera which a menu screen can operate.

(Note)Be sure to set it up again in Low when you set up each bit in Hi.

OUTPUT SEL

	RGB	Y/R-Y/B-Y	Y/C,VBS	-	(DT4)
0	0	1	0	1	F9H
1	0	0	1	1	

OUTPUT SYNC

SYNC	HD	(DT4)
0	1	BFH

GL MODE VBS/HD·VD

VBS	HD·VD	(DT4)
0	1	BFH

GL IN 75Ω/HIGH

75Ω	HIGH	(DT4)
0	1	7FH

D.N.R. MODE

	OFF	MODE1	MODE2	-	(DT4)
0	0	1	1	0	FCH
1	0	0	1	1	

INDICATOR DISPLAY

The indication mode of each detection area is chosen.

	OFF	WHT / BLK	-----	FOCUS GATE	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

WHT/BLK : The detection indicator of WHT is displayed normally.

Detection indicator of ABB is displayed if ABB ON .

FOCUS GATE : The indicator of FOCUS GATE is displayed.

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	18H	0	GAMMA TABLE	0 S
		1		1 S
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	1CH	0	D.GAIN UP	0 S
		1		1 S
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	20H	0	COLOR DTL PHASE ch1	0 S
		1		1 S
		2		2 S
		3		1
		4		1
		5		1
		6		1
		7		1
	21H	0	COLOR DTL PHASE ch2	0 S
		1		1 S
		2		2 S
		3		1
		4		1
		5		1
		6		1
		7		1

GAMMA TABLE

If GAMMA:ON(20,02,00,FD).

	LOW	STANDARD	HIGH	-	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

D.GAIN UP

	OFF	+6dB	+12dB	-	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

COLOR DTL PHASE ch1

	R-Mg	Mg-B	B-Cy	Cy-G	G-Ye	Ye-R	-(R-Mg)	-(R-Mg)	(DT4)
0	0	1	0	1	0	1	0	1	FCH
1	0	0	1	1	0	0	1	1	
2	0	0	0	0	1	1	1	1	

This command is used with COLOR DTL PHASE (3059H).

COLOR DTL PHASE ch2

	R-Mg	Mg-B	B-Cy	Cy-G	G-Ye	Ye-R	-(R-Mg)	-(R-Mg)	(DT4)
0	0	1	0	1	0	1	0	1	FCH
1	0	0	1	1	0	0	1	1	
2	0	0	0	0	1	1	1	1	

This command is used with COLOR DTL PHASE (306BH).

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	29H	0	DTL BOOST FREQ	S
		1		S
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	33H	0	Pixel correct ON	S
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	35H	0	COLOR DTL CH SEL	S
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7		1
	36H	0	EXT TRIGGER MODE	S
		1		S
		2		1
		3		1
		4		1
		5	TRIGGER POLARITY	S
		6	WRITE ENABLE	S
		7		1

DTL BOOST FREQ

	LOW	MID	HIGH	---	(DT4)
0	0	1	0	1	3FH
1	0	0	1	1	

COLOR DTL CH SEL

	ch1	ch2	(DT4)
0	0	1	FEH

EXT TRIGGER MODE

	MODE1	MODE2	---	---	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

TRIGGER POLARITY

	NEGATIVE	POSITIVE	(DT4)
0	0	1	DFH

(EXT TRIG)WRITE ENABLE

	NEGATIVE	POSITIVE	(DT4)
0	0	1	BFH

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
20H 23H 22H	37H	0	EXT TRIGGER	0
		1	DELAY TIME	0
		2	02H(2Hcount) ~	0
		3	14H(20Hcount)	0
		4		0
		5		1
		6		1
		7		1
	38H	0	FOCUS SIGNAL SELECT	0 S
		1		1 S
		2		2 S
		3		1
		4	FOCUS DETECT FIELD	S
		5		1
		6		1
		7	FOCUS LEVEL DEP. ON	S
	39H	0	COMB FILTER ON	S
		1		1
		2		1
		3		1
		4		1
		5		1
		7		1

EXT TRIGGER DELAY TIME

00H,01H:don't care

Selection of FOCUS signal resource

	DTL SUM	H-DTL	V-DTL	H-DTLL (LOW)	H-DTLM (MIDDLE)	(DT4)
0	0	1	0	1	0	F8H
1	0	0	1	1	0	
2	0	0	0	0	1	

FOCUS DETECT FIELD

	ODD	ODD & EVEN	(DT4)
0	0	1	EFH

As for the ordinariness,Please use the ODD mode.

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
28H 2BH 2AH	00H	0	ID DISPLAY	0 S
		1		1 S
		2	TITLE DISPLAY	0 S
		3		1 S
		4	IRIS OPEN LIMIT ADJ	S
		5	IRIS CLOSE LIMIT ADJ	S
		6		1
		7	ALC GATE ON	S
	01H	0	LENS TYPE	S
		1		1
		2	SHADING MODE	0 S
		3		1 S
		4	FLD/FRM	S
		5		1
		6		1
		7	CAME MODE	S
	08H	0	AGC LIMIT	S
		1	06H(+6dB) ~	S
		2	18H(+24dB)	S
		3		S
		4		S
		5		1
		6		1
		7		1

ID DISPLAY

	OFF	TOP	BOTTOM	-	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

TITLE DISPLAY

	OFF	TOP	BOTTOM	-	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

IRIS OPEN LIMIT ADJ

If IRIS OPEN LIMIT ADJ : ON(28,00,10,EF), the setting of iris open limit is adjusted by “AUTO IRIS OPEN LIMIT(303CH)” command.

IRIS CLOSE LIMIT ADJ

If IRIS CLOSE LIMIT ADJ : ON(28,00,20,DF), the setting of iris close limit is adjusted by “AUTO IRIS CLOSE LIMIT(303BH)” command.

LENS TYPE

VIDEO	DC	(DT4)
0	1	FEH

SHADING MODE

	LUMINANCE	COLOR	FLAT	-	(DT4)
0	0	1	0	1	F3H
1	0	0	1	1	

FLD/FRM

FLD	FRM	(DT4)
0	1	EFH

CAM MODE

MANUAL	AUTO	(DT4)
0	1	7FH

(DT1)	(DT2)	(DT3)		(DT4)
CTL	MODE	Bit	Item	MASK
28H 2BH 2AH	10H	0	WHITE GATE ON	S
		1		1
		2		1
		3		1
		4		1
		5		1
		6		1
		7	ATW SPEED	S
	11H	0	ALC SPEED	0 S
		1		1 S
		2	LENS SELECTION	S
		3		1
		4		1
		5		1
		6		1
		7		1
	28	0	ALC GATE SEL	0 S
		1		1 S
		2		2 S
		3		1
		4		1
		5		1
		6		1
		7		1

ATW SPEED

Sets real-time auto white balance response speed.

SLOW	STANDARD	(DT4)
0	1	BFH

ALC SPEED

It sets up it with the action speed of AGC and AES.

	SLOW	STANDARD	FAST	-	(DT4)
0	0	1	0	1	FCH
1	0	0	1	1	

LENS SELECTION

COSMICAR	OTHHERS	(DT4)
0	1	FBH

ALC GATE SEL

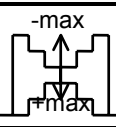
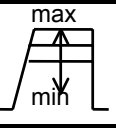
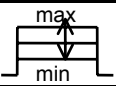
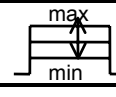
If ALC GATE:ON(28,00,80,7F).

	GATE 1	GATE 2	GATE 3	GATE 4	GATE 5	GATE 6	(DT4)
0	0	1	0	1	0	1	F8H
1	0	0	1	1	0	0	
2	0	0	0	0	1	1	

2. Analog control commands (Setting commands, response request commands, response commands)

Note 1. X in the DATA column is undefined.

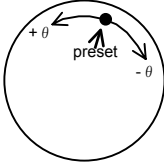
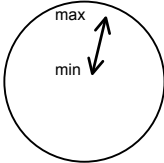
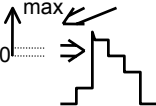
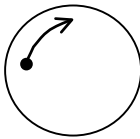
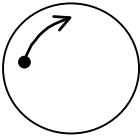
2. Setting data can be backed up to the EEPROM by the command MEMORY BACK UP.

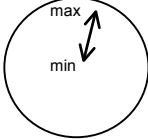
Item	(DT1)	(DT2)	(DT3)U , (DT4)D	
	CTL	MODE	DATA	
R GAIN	30H	00H	min preset max	
B GAIN		02H	80XXH~00XXH~7FXXH (SINGED)	
R GAMMA	33H	03H	min preset max	
B GAMMA	32H	05H	80XXH~00XXH~7FXXH (SINGED)	
FLARE		07H	-max FLARE off +max 80XXH~00XXH~7FXXH (SINGED)	
W.CLIP		13H	min preset max 80XXH~00XXH~7FXXH (SINGED)	
R paint GAIN		18H	min preset max	
B paint GAIN		1AH	80XXH~00XXH~7FXXH (SINGED)	
R paint BLACK		21H	min preset max	
B paint BLACK		23H	80XXH~00XXH~7FXXH (SINGED)	
TOTAL GAMMA		27H	min preset max 80XXH~00XXH~7FXXH (SINGED)	
KNEE POINT		28H	min preset max 80XXH~00XXH~7FXXH (SINGED)	
MASTER BLACK		2BH	min preset max 80XXH~00XXH~7FXXH (SINGED)	
DETAIL		2CH	min preset max 80XXH~00XXH~7FXXH (SINGED)	
IRIS		2EH	CLOSE OPEN 80XXH~00XXH~7FXXH (SINGED)	
SC PHASE		33H	(Under table reference)	

SC PHASE					
SC COARSE	SC FINE	(DT3)		(DT4)	
0°	-128	00	00 00 00	00	X X X
					X X X
	0	00	10 00 00	00	X X X
					X X X
	+127	00	11 11 11	11	X X X
90°	-128	01	00 00 00	00	X X X
					X X X
	0	01	10 00 00	00	X X X
					X X X
	+127	01	11 11 11	11	X X X
					X X X

180°	-128	10	00	00	00	00	X	X	X
							X	X	X
	0	10	10	00	00	00	X	X	X
							X	X	X
	+127	10	11	11	11	11	X	X	X
270°	-128	11	00	00	00	00	X	X	X
							X	X	X
	0	11	10	00	00	00	X	X	X
							X	X	X
	+127	11	11	11	11	11	X	X	X
							X	X	X

Item	(DT1)	(DT2)	(DT3)U , (DT4)D		
	CTL	MODE	DATA		
H.PHASE	30H 33H	34H	-128 0 +127 80XXH~00XXH~7FXXH (SINGED)		
SHUTTER VARIABLE		38H	<u>NTSC:CCD MODE:FLD</u> ←INTEGRATION→ ← LOCK SCAN → 4s ~ 1/30s , 1/59.94s ~ 1/124144s FF88H FFFFH, 0000H 0126H ----- <u>NTSC:CCD MODE:FRM</u> ←INTEGRATION→ ← LOCK SCAN → 8s ~ 1/30s , 1/59.94s ~ 1/124144s FF10H FFFFH, 0000H 0126H		
			<u>PAL:CCD MODE:FLD</u> ←INTEGRATION→ ← LOCK SCAN → 4s ~ 1/25s , 1/50.00s ~ 1/123517s FF9CH FFFFH, 0000H 0158H ----- <u>PAL:CCD MODE:FRM</u> ←INTEGRATION→ ← LOCK SCAN → 8s ~ 1/25s , 1/50.00s ~ 1/123517s FF38H FFFFH, 0000H 0158H		
			OVER RIDE	39H	-128 0 +127 80XXH~00XXH~7FXXH (SINGED)
			IRIS SPEED	3AH	1 +15 01XXH~0FXXH (SINGED)
			AUTO IRIS CLOSE LIMIT	3BH	CLOSE OPEN 80XXH~FFXXH (SINGED)
AUTO IRIS OPEN LIMIT		3CH	CLOSE OPEN 00XXH~7FXXH (SINGED)		
AUTO KNEE TRIM	3FH	LOW HIGH 80XXH~00XXH~7FXXH (SINGED) (KNEE LEVEL of the "AUTO KNEE" condition is adjusted.)			

Item	(DT1)	(DT2)	(DT3)U , (DT4)D
	CTL	MODE	DATA
R HUE CROMA COMPEN	30H 33H 32H	40H	$+ \theta$ preset $- \theta$ 80XXH~00XXH~7FXXH (SINGED) 
G HUE CROMA COMPEN		41H	
B HUE CROMA COMPEN		42H	
Y HUE CROMA COMPEN		43H	
C HUE CROMA COMPEN		44H	
M HUE CROMA COMPEN		45H	
R SAT CROMA COMPEN		46H	min max 80XXH~00XXH~7FXXH (SINGED) 
G SAT CROMA COMPEN		47H	
B SAT CROMA COMPEN		48H	
Y SAT CROMA COMPEN		49H	
C SAT CROMA COMPEN		4AH	
M SAT CROMA COMPEN		4BH	
DTL LEVEL DEPEND		53H	Dependent level setting Low High 80XXH~00XXH~7FXXH (SINGED) 
DTL CRISP		54H	Crispness level setting 0 max 80XXH~00XXH~7FXXH (SINGED) 
DTL HV BALANCE		55H	Balance setting for horizontal and vertical detail amount H<V H=V H>V 80XXH~00XXH~7FXXH (SINGED)
COLOR DTL ch1 LEVEL (FRESH GAIN)		58H	Sets color detail level 0 1 2(magnification) 80XXH~00XXH~7EXXH (SINGED: Upper 7 bits are effective. 128 steps.)
COLOR DTL ch1 PHASE (FRESH PHASE)		59H	Sets color detail phase -128 0 127 80XXH~00XXH~7CXXH 
COLOR DTL ch1 WIDTH (FRESH WIDTH)		5AH	Selects color phase range for setting -128(-120°) 0(0°) 127(+120°) 80XXH ~ 00XXH ~ 7FXXH (SINGED)
COLOR DTL ch2 LEVEL (FRESH GAIN)		6AH	Sets color detail level 0 1 2(magnification) 80XXH~00XXH~7EXXH (SINGED: Upper 7 bits are effective. 128 steps.)
COLOR DTL ch2 PHASE (FRESH PHASE)		6BH	Sets color detail phase -128 0 127 80XXH~00XXH~7CXXH 
COLOR DTL ch2 WIDTH (FRESH WIDTH)		6CH	Selects color phase range for setting -128(-120°) 0(0°) 127(+120°) 80XXH ~ 00XXH ~ 7FXXH (SINGED)

Item	(DT1)	(DT2)	(DT3) _U , (DT4) _D	
	CTL	MODE	DATA	
WHITE GATE H POSI	30H 33H	A2	LEFT AA00H ~ 0000H ~ 5600H (NTSC) AC00H ~ 0000H ~ 5300H (PAL)	RIGHT
WHITE GATE V POSI	32H	A3	UP CA00H ~ 0000H ~ 3600H (NTSC) C200H ~ 0000H ~ 3D00H (PAL)	DOWN
CHROMA GAIN		A4	min 80XXH ~ 00XXH ~ 7FXXH	max 
IRIS GAIN		A5	min -10 0 10 F6XXH ~ 00XXH ~ 0AXXH	max
AES LIMIT		B0	NTSC: 1/514.6s ~ 1/124144s 00E8H ~ 0126H	
			PAL: 1/511.3s ~ 1/123517s 011AH ~ 0158H	
FOCUS DETECT GATE H STRAT ADDRESS		B1H	0 ~ 740(NTSC), 724(PAL) 0000H ~ 02E4H, 02D4H	
FOCUS DETECT GATE V STRAT ADDRESS		B2H	0 ~ 230(NTSC), 274(PAL) 0000H ~ 00E6H, 0112H	
FOCUS DETECT GATE H WIDTH		B3H	10 ~ 750(NTSC), 734(PAL) 000AH ~ 02EEH, 02DEH	
FOCUS DETECT GATE V WIDTH		B4H	10 ~ 240(NTSC), 284(PAL) 000AH ~ 00F0H, 011CH	
FOCUS DETECT LEVEL DEPEND UPPER DATA		B5H	30% ~ 200% 001EH ~ 00C8H	
FOCUS DETECT LEVEL DEPEND LOWER DATA		B6H	0% ~ 50% 0000H ~ 0032H	
FOCUS DETECT CRISP		B7H	0% ~ 12.5% (1024 STEP) 0000H ~ 03FFH	

Item	(DT1)	(DT2)	(DT3), (DT4), (DT5), (DT6)	
	CTL	MODE	DATA	
FOCUS DETECT DATA (READ ONLY)	33H 32H	B8H	MIN ~ MAX 00000000H ~ FFFFFFFFH	

3. Auto function control commands (Setting commands, response commands)

(Note) As for the executive result, a memory is done.

	Setting commands		Response commands		
Item	(DT1)	(DT2)	(DT1)	(DT2)	(DT3)
	CTL	MODE	CTL	MODE	RESULT
AUTO WHITE	40H	10H	40H	00H	00H:"OK" 11H:"NG","CHANGE TO CAM" 12H:"NG","CHANGE TO MEMORY MODE" 13H:"NG","LOW LIGHT" 14H:"NG","HIGH LIGHT" 15H:"NG","C.TEMP.HIGH" 16H:"NG","C.TEMP.LOW" 18H:"NG","???" 23H:"CAM MODE:AUTO", "CHANGE TO MANUAL" 24H:"NG","LONG SHUTTER MODE", "CHANGE SHUTTER MODE" 25H:"NG","EXT TRIGGER", "CHANGE SHUTTER MODE" 07H:When a menu screen is indicated, "auto function" doesn't move.
AUTO BLACK	40H	20H	40H	00H	00H:"OK" 11H:"NG","CHANGE TO CAM" 18H:"NG","???" 07H:When a menu screen is indicated, "auto function" doesn't move.
AUTO SHADING	40H	30H	40H	00H	00H:"OK" 11H:"NG","CHANGE TO CAM" 13H:"NG","LOW LIGHT" 14H:"NG","HIGH LIGHT" 24H:"NG","LONG SHUTTER MODE", "CHANGE SHUTTER MODE" 25H:"NG","EXT TRIGGER", "CHANGE SHUTTER MODE"

4. SCENE file select

(Note) Every time "SCENE FILE NO." is changed, "SCENE FILE NO." does a memory.

Item	(DT1)	(DT2)	(DT3)
	CTL	CTL	CTL
FILE-1	60H	01H	01H
FILE-2			02H
FILE-3			03H
FILE-4			04H
PRESET			FFH

5. Memory backup

The change setting data can be backed up to the EEPROM.

(1) In a bundle memory backup

Item	(DT1)	(DT1)
	CTL	CTL
MEMORY BACK UP1	61H	02H

A memory supports all the data of "ADJUST FILE", "COMMON FILE" and "SCENE FILE 1,2,3,4".

(2) One item memory backup

Item	(DT1)	(DT2)	(DT3)	備考
	CTL	CTL	CTL	
MEMORY BACK UP2	65H	20H	XXH	ON/OFF Command
		28H	XXH	ON/OFF Command
		30H	XXH	Analog Command

The same value as DT1 and DT2 of when that command to, DT2, DT3 setting are set up.

(3) Only an optional scene file, memory backup.

(Note) The item of the menu screen that "FILE SEL" is indicated is the item of the scene file.

Item	(DT1)	(DT2)	(DT3)
	CTL	CTL	CTL
FILE-1	61H	01H	01H
FILE-2			02H
FILE-3			03H
FILE-4			04H
PRESET			FFH

Note

The memory backup writes data to the address of memory IC which was assigned in the unit of a command. The rewriting guarantee number to the same address of memory IC that is using with the HV-D30 camera is becoming 100,000 times. Therefore, please pay attention in the case that a memory backup command is used.

6.States read (Response request commands, response commands)

Item	(DT1)	(DT2)	(DT3),(DT4),(DT5)
	CTL	MODE	RESULT
CAMERA TYPE	13H	00H	(DT3) 65H: HV-D30
CAMERA VERSION	12H	01H	Ver.(DT3).(DT4)....ASCII code
CAMERA ID		02H	(DT3),(DT4),(DT5)....ASCII code
FILE No.		04H	(DT3) 01H:FILE-1,02H:FILE-2,03H:FILE-3,04H:FILE-4,FFH:PRESET
NTSC/PAL		05H	(DT3) 00H:NTSC,FFH:PAL

7.TITLE CHARACTER SET COMMANDS

Item	(DT1)	(DT2)	(DT3),(DT4),...,(DT14)
	CTL	MODE	RESULT
TITLE CHARA SET	10H	06H	(DT3),(DT4),...,(DT14) ASCII code(12 characters)

8. INITIALIZE COMMANDS

Item	(DT1)	(DT2)	(DT3)
	CTL	CTL	CTL
FACTORY INITIALIZE	90H	00H	FFH
ALL INITIALIZE			00H
LEVEL MENU INITIALIZE			02H
MASKING MENU INITIALIZE			03H
DTL MENU INITIALIZE			04H
DTL SUB MENU INITIALIZE			05H
GAMMA MENU INITIALIZE			06H

9. ID code chart

CHR.	ASCII code	CHR.	ASCII code	CHR.	ASCII code
SPACE	20H	A	41H	N	4EH
0	30H	B	42H	O	4FH
1	31H	C	43H	P	50H
2	32H	D	44H	Q	51H
3	33H	E	45H	R	52H
4	34H	F	46H	S	53H
5	35H	G	47H	T	54H
6	36H	H	48H	U	55H
7	37H	I	49H	V	56H
8	38H	J	4AH	W	57H
9	39H	K	4BH	X	58H
		L	4CH	Y	59H
		M	4DH	Z	5AH

10. TITLE code chart

CHR.	ASCII code	CHR.	ASCII code	CHR.	ASCII code	CHR.	ASCII code
SPACE	20H	4	34H	A	41H	N	4EH
.	28H	5	35H	B	42H	O	4FH
.	29H	6	36H	C	43H	P	50H
.	2AH	7	37H	D	44H	Q	51H
.	2BH	8	38H	E	45H	R	52H
.	2CH	9	39H	F	46H	S	53H
~	2DH		3AH	G	47H	T	54H
~	2EH		3BH	H	48H	U	55H
~	2FH		3FH	I	49H	V	56H
0	30H			J	4AH	W	57H
1	31H			K	4BH	X	58H
2	32H			L	4CH	Y	59H
3	33H			M	4DH	Z	5AH