

# MULTIMEDIA PROJECTOR WX6000 / SX6000

# **User Commands**

**Revision 1** 

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# 1. Overview

These specifications describe the methods of controlling both the Projector WX6000 / SX6000 from the PC over an RS-232C connection or LAN.

Virtually all operations possible with the remote control can be controlled from the PC. The following symbols are used in these specifications:

Symbol	Description			
	Space (20h) with 0 or more characters, or other separator.			
	Space (20h) with 1 or more characters, or other separator.			
	Separator between parameters.			
	, (comma enclosed in more than 0 space) or			
	(1 or more space)			
[]	Data in [ ] can be omitted.			
I	Same as OR.			
: =	Definition name is on the left side of this mark, and definition description is on the right side.			

## 2. Communication Specifications

## **Communication Specifications**

The projector can be controlled via RS-232C or LAN connection.



PC - Projector connection configuration

\* Signal lines other than the three SD, RD, and SG lines are not used in the projector.

 $^{\ast}$  Loop back its own signals on the PC side as necessary.

## Usable Character Codes

Use ASCII codes in the red and blue areas.

No distinction is made between double-byte characters and single-byte characters. Do not use double-byte or triple-byte characters. They will all be recognized as single-byte characters. Uppercase and lowercase versions of the same alphabetic characters will be recognized as the same character (case insensitive).

	0	1	2	3	4	5	6	7	8	9	А	В	С	D	Е	F
0	NUL		SP	0	@	Ρ	`	р								
1			!	1	А	Q	а	q								
2			=	2	В	R	b	r								
3			#	3	С	S	с	s								
4			\$	4	D	Т	d	t								
5			%	5	Е	U	е	u								
6			&	6	F	V	f	v								
7			-	7	G	W	g	w								
8			(	8	Η	Х	h	x								
9			)	9	Ι	Y	i	у								
А	LF		*	:	J	Ζ	j	z								
В			+	•••	к	]	k	{								
С			,	<	L	¥	I									
D	CR		-	=	Μ	]	m	}								
Е				>	Ν	^	n	~								
F			/	?	0	_	0									

Item	Specifications
Delimiters	CR(0Dh), LF(0Ah), null ( 00h ) Characters usable as delimiters. These characters alone (single characters) or CR+LF (0D0Ah) can be used as delimiters.
General Characters	20h to 7Eh Characters usable in commands.
Invalid Characters	Do not use the codes in regions other than the red and blue areas. Even if they are used, they are considered "other separator codes", and they are handled in the same way as SP(20h).

## Communication System (Serial)

Item	Specifications						
Communication system	RS-232-C Start-stop synchronization Semi-duplex communication						
Transmission speed	19.2 Kbps						
Character length	8 bits / character						
Stop bit	2 bits						
Parity	None						
Transmission format	Variable-length records with terminals as delimiters						
Maximum transmission length	Maximum of 256 characters (bytes) including delimiters.						
Delimitare	Delimiters are one of the following: CR, LF, CR+LF, Null (0).						
Delimiters	Response delimiters are identical to command delimiters.						
	ASCII code (General-purpose characters: 20h to 7Fh)						
Transmission codes	(Codes other than those above and delimiters are considered "other separator codes")						
Communication procedure	No procedure						
Flow control	None						
Error control	None						
Break signal	Not supported						
Times and	Tc Between characters: 5s (Timeout between CR and LF is 10ms.)						
limeout	Tr Between command / response 15s interval:						

\* For information about timeouts, refer to "3. Communication Flow" on P. 8.

## Communication System (LAN)

Item	Specifications
Communication system	Uses the TCP / IP protocol. Port: 33336



#### Commands

Transmissions sent from the PC to the projector.

Transmission format
---------------------

<Command character strings> <Delimiter>

<Command character strings>

Character strings consisting of 0 or more alphanumeric characters.

<Delimiters>

One of CR (0Dh), LF (0Ah), CR+LF (0Dh+0Ah), Null (00h)

## Туре

	Possibilities of responses from the projector : possible, : r	not possible
Туре	Description	Response
	Commands with a command character string length of 0. No command processing is performed.	ОК
		BUSY
Null Commands	<pre><null character="" command="" string="">     := <character 0="" length="" string="" with=""></character></null></pre>	WARN
Character string		ERR
	Projector control command. The format is shown below.	ОК
		BUSY
Control command	<control character="" command="" string=""></control>	WARN
Character string	:= <control name="">[□<parameter value="">]</parameter></control>	ERR
	Command that sets values for each parameter. The format is shown below.	ОК
		BUSY
Setting command	<pre><setting character="" command="" strings=""> </setting></pre>	WARN
Character string		ERR
	For the definition of <parameter value="">, refer to the parameter</parameter>	
	definitions.	
	Requests current value of each parameter. The format is shown below.	OK
		BUSY
Reference	<pre><reference character="" command="" string=""></reference></pre>	WARN
command Character string		ERR



#### Response

Transmissions sent from the Projector to the PC in response to commands from the PC.

### Transmission format

<Response character string> <Delimiter>

<Response character string>

Character strings consisting of one or more ASCII characters.

The first two characters are always one lowercase letter and a : (colon).

The first character indicates the response type.

Response type	Meaning	Example
i	State response	i:OK i:BUSY etc.
w	Warning	w:USER_COMMAND
е	Error	e:000B INVALID
g	Reference command response	g:AVOL=10

#### <Delimiter>

Delimiters for commands sent from the PC.

## Туре

.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
OK response	After the processing of each command is completed, a response is sent indicating that the next command can be received.
	<ok character="" response="" string="">:=i:OK</ok>
BUSY response	This response is sent when a command cannot be received during processing. Wait for a few moments, and then try sending the command again. <busy character="" response="" string="">:=i:BUSY</busy>
Example:	<ul> <li>IMAGE=STANDARD</li> <li>i:BUSY</li> <li>* Commands are indicated by "&gt;", and responses are indicated by "&lt;".</li> </ul>
WARN response	This response is sent when warning information is issued. Note that the command is not executed in this case. <warning character="" response="" string="">:= w:<warning description=""></warning></warning>
Example:	<pre>&gt; IMAGE=STANDARD &lt; w:USER_COMMAND_VERSION_IS_UPDATED</pre>
ERR response	An error message is output. <error character="" response="" string="">:= e:<error code=""> <error message=""> * <error code=""> is expressed as a four-digit hexadecimal number. * Refer to "Error List"!</error></error></error></error>
Example:	> abcdefg < e:0002 INVALID_COMMAND
GET response	Request response for each parameter. <get character="" response="" string="">:=g<parameter name="">=<value></value></parameter></get>
Example:	> GET LANG or ? LANG < g:LANG=JPN



#### Other

#### Transmission recognition

On the receiving side (the Projector), the data that is able to be received within the character interval of Tc is held, and the transmission is considered received when the delimiter is received. If the character interval received exceeds the Tc or if a delimiter is not received within 256 characters, all data already received is lost, and the mode is reset to standby to receive commands again.

#### Parameter value

The <Parameter value> is defined as shown below.

## 3. Communication Flow

#### Transmission sent

At the PC, the transmission is sent within character intervals of Tc (character interval timeout).

#### Transmission received

At the Projector, the data that is able to be received within the character interval of Tc is held, and the transmission is considered received when the delimiter is received.

If the character interval received exceeds the Tc or if a delimiter is not received within 256 characters, all data already received is lost, and the mode is reset to standby to receive commands again.

### Command / Response

One response is always returned for each command sent from the PC.



\* The timeout interval between command and response (Tr) is 15 seconds.

#### **Response Reception Timeout**

If a response is not received within the Tr (timeout interval between command and response) while standing by a waiting response after sending a command from the PC, it is deemed to have exceeded the "response reception timeout." Please resend the command.

#### **Control Mode**

"LOCAL mode" and "REMOTE mode" on previous models (SX50、SX6、SX60、X600、SX7、X700) have been removed. You do not need to be aware of which mode it is in (no need to use "REMOTE" and "LOCAL" commands) to send user commands.

#### Other

If AC power is supplied to the projector, communication is possible regardless of whether the power is on or off.

The PC side cannot send the next user command before a response for the first command is returned. If more than 2 user commands arrive at one port, "BAD\_SEQUENCE" will be returned in response to the second user command.

For procedures which return "BAD SEQUENCE", change the procedure, and do not send the next user command on the PC side before a response for the first command is returned.

# 4. Command System

Menu Contr						
			,			-
Display Setting	Input select	INPUT	ј г	Total number of dots adjustment		
L	Aspect	ASPECT		Tracking adjustment		
	Auto PC	AUTOPC	1 -	Horizontal/Vertical position adjustment		
	Input signal settings			Horizontal/Vertical resolution adjustment		
	Input signal selection	SEL	*Use	r commands use only automatic selection of ir	nput signals.	-
	HDMI input level			· · · · · · · · · · · · · · · · · · ·		
	HDMI color format					
	HDMI overscan		-			
	Prograceba	112101_0100104				
	Floglessive		_			
Imaga adjustment	Image made cetting	IMAGE	۲	Color esturation cotting	SAT	7
Inlage aujustment	Omete user memory			Hup potting		-
	o leate user memory	SAVEMORROF	-			-
	Save user memory	SAVEINGPROF		Color temperature		-
	Basic image mode	mer		Gain adjustment	RGBGAIN	-
	Brightness setting	BRI	_	Offset adjustment	RGBOFFSEI	
	Contrast setting	CONT				
	Sharpness setting	SHARP		Ambient light	AMBADJ	Type AMBTYPE
	Gamma adjustment	GAMMA		- Noise reduction	NR	Level AMBLEVEL
	Color adjustment			— Dynamic gamma	DGAMMA	
	Advanced adjustment		_	<ul> <li>Memory color adjustment</li> </ul>	MEMCADJ	
	Lamp mode setting	LAMP		- 6-axis color correction	6AXADJ	
	Reset		1	6-axis adjustment	6 A X F	R-Y
			-	Reset		
				Fine gamma adjustment	FINE GAMMA R~	-в Г
				Reset	1	-
				Robot		
Installation setting	Installation lock			HDMI	ASELH	
Thataliacion secting	Test rettern	TDTN		Digital PC	ASELD	
	Comon Annot			Apple a DO-1	AGEL A1	
	Screen Aspect	SORNASPECT		Analog PC-1	AGELAG	
	Keystone			Analog PC-2	ASELAZ	
	Digital image shift	114055145		Component	ASELU	
	Flip display	IMAGEFLIP				
	Lens shift reset			adjustment		
	Audio input terminal selection		- '			
	Screen color correction		_	Menu display position setting		
	On screen			Guide		
				Input status display		
				High temperature display		
				Menu display time		
				Lamp warning indication	LMPWRN	
				Filter warning indication	FLTWRN	
			_			
System setting	Power management mode			Screen when no signal		
	Direct power-on			Screen when blank		
	User screen setting			Startup screen		
	Electronic sound					
	Key repeat	KREP		Password setting		
	Kev lock		1	Password registration		
	Remote control cotting		1	Gamma restore		
	HDML input	HOMUN	1	Lamp time inquin:		
	Гаранарас	1.12/01/2114	-	Lamp counter recet		
	Other cottings		1	Depat to factory default acting		
	ourier settings	1	1	neset to ractory derault settings		
Nintran etc Attin	Ohenen network					
INVELWORK Setting	Mature for the setting		-			
	Network function		-			
	Set network password		-			
	Register network password		4			
	PJLink					
	DHCP		┥┌╨	address		
	TCP/IP setting			ubnet mask		
	Initialize network setting		G⊔G	ateway address		
			-			
-Information	Product code	PRODCODE				
	Signal information	SIGNAL_INFO				
	Firmware ROM version	ROMVER				
	Product serial number		1			
1	IP address		1			
1			1			
	Gateway address					
	Gateway address Mail sender address					
	Gateway address Mail sender address Mail recipient address					
	Gateway address Mail sender address Mail recipient address Projector name					
	Gateway address Mail sender address Mail recipient address Projector name Desister legation					
	Gateway address Mail sender address Mail recipient address Projector name Projector location			Tediotec functions that an available to the	monu but and a color	do in the upper

# Canon

[POWER]	POWER
[ANALOG PCT]	APOI
	ASPEUT
	DOWN
	RIGHT
[LENSSHIFT]/[LENS]	
LEXIT J	EXIT
[MENU]	MENU
[FOCUS]	FOCUS
[ZOOM]	ZOOM
[SHIFT]	SHIFT
[LENS]	LENS
[TESTPATTERN]	TPTN
[KEYSTONE]	KEYSTONE
1/DZOOM+	NUM_1/DZOOM_P
2	NUM_2
3/VOL+	NUM_3/VOL_P
4/DZOOM-	NUM_4/DZOOM_N
5	NUM_5
6/VOL-	NUM_6/VOL_M
7	NUM_7
8	NUM_8
9/MUTE	NUM_9/MUTE
0	NUM 0
Fn	FN
[IMAGE]	IMAGE
[FREEZE]	FREEZE
[BLANK]	BLANK
ulate	
Key emulate	MAIN
Remote control emulate	RC
erence	

POWER	POWER
MENU	MENU
LENS	LENS
INPUT	INPUT
1	UP
1	DOWN
	I FFT
→	RIGHT
OK	lok
Remote control bu	utton emulation
	PUWER
INPUT	
Digital PC	DPC
Analog PC1	APC1
Analog PC2	APC2
HDMI	HDMI
Component	COMP
ASPECT	ASPECT
AUTOPC	AUTOPC
1	UP
Ļ	DOWN
←	LEFT
→	RIGHT
OK	ОК
EXIT	EXIT
MENU	MENU
FOCUS	FOCUS
700M	ZOOM
SHIFT	SHIFT
Teet nettern	TPTN
KEVSTONE	
2	NUM 2
2 3/VOL+	
4/DZOOM-	
5 F	
07 YOL-	
/	
8	
97MUIE	
U	<u>INUM_0</u>
Fn	HN
IMAGE	IMAGE

FREEZE

BLANK

FREEZE

BLANK

# 5. Command List

Item	Commands	Description
1	6AXADJ	6-axis adjustment ON/OFF
2	6AXR-Y	6-axis correction R-Y hue/saturation settings
3	AMBADJ	Ambient light correction adjustment ON/OFF
4	AMBLEVEL	Ambient light level settings
5	AMBTYPE	Ambient light type settings
6	ASELA1	Analog PC-1 audio terminal selection
7	ASELA2	Analog PC-2 audio terminal selection
8	ASELC	Component audio terminal selection
9	ASELD	Digital PC audio terminal selection
10	ASELH	HDMI audio terminal selection
11	ASPECT	Screen settings
12	AUTOPC	Auto PC
13	AUTOSETEXE	Auto setup
14	AVOL	Audio volume adjustment
15	BLANK	BLANK function
16	BRI	Brightness setting
17	COLOR_TEMP	Color temperature setting
18	COMVER	User command version inquiry
19	CONT	Contrast setting
20	DGAMMA	Dynamic gamma
21	DZOOM_POS	DZOOM position setting
22	DZOOM_RAT	DZOOM ratio setting
23	ERR	Error information inquiry
24	FINE_GAMMA_B	Fine gamma (B) adjustment
25	FINE_GAMMA_G	Fine gamma (G) adjustment
26	FINE_GAMMA_R	Fine gamma (R) adjustment
27	FLTWRN	Filter warning indication at startup
28	FREEZE	Freeze status
29	GAMMA	Gamma adjustment
30	HDMI_IN	HDMI input setting
31	HDMI_OVSCAN	HDMI overscan setting
32	HUE	Hue setting
33	IMAGE	Image mode setting
34	IMAGEFLIP	Flip display
35	INPUT	Input selection

# Canon

Item	Commands	Description
36	KREP	Key repeat
37	LAMP	Lamp output setting
38	LAMPCOUNTER	Lamp ON time inquiry
39	LMPWRN	Lamp warning indication at startup
40	MAIN	Side control operation emulation
41	MEMCADJ	Memory color adjustment
42	MODE	Control mode switch
43	MUTE	Mute control
44	NR	Noise reduction
45	POWER	This controls the power supply
46	PRODCODE	Product information inquiry
47	RC	Remote control operation emulate
48	RGBGAIN	RGB gain adjustment
49	RGBOFFSET	RGB offset adjustment
50	ROMVER	ROM version inquiry
51	SAT	Color saturation setting
52	SAVEIMGPROF	Create user memory
53	SCRNASPECT	Screen aspect setting
54	SEL	Input signal selection
55	SHARP	Sharpness setting
56	SIGNAL_INFO	Input signal information inquiry
57	SIGNALSTATUS	Signal status inquiry
58	TEMP	Temperature sensor value inquiry
59	TPTN	Test pattern

## 6. Details of Commands

Descriptions of each command are provided starting from the next page. The command descriptions have the format shown below.

## Alphabetic command name

This briefly describes the command function.

## Format

This indicates the command format.

### Environment

This defines the environments that support the command (power supply state, input signal state).

Power*1					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
*2	*3	*4	*5	*5	*5	*5	*5

\*1 Power Executable regardless of power supply state when marked by "-".

\*2 OFF "O" if enabled in a power OFF state.

\*3 ON "O" if enabled in a power ON state.

\*4 PM "O" if enabled while the power management state is in standby state.

\*5 Input The command is enabled in states marked by "O".

The command is executable regardless of input when marked by "-".

## Response

This describes the command response.

### Description

This includes the command function, conditions, and notes.

## Example

This provides command usage examples.



## **6AXADJ**

6-axis adjustment ON / OFF

#### Format

```
6AXADJ=<6-axis adjustment parameter:ID>
GET 6AXADJ / ? 6AXADJ
```

<6-axis adjustment parameter:ID>

ON	This sets the 6-axis adjustment to ON.
OFF	This sets the 6-axis adjustment to OFF.

#### Environment

	Power				Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х			-		

#### Response

"i:OK" is returned if the parameter was set properly.

For 'Get 6axadj' or '?6axadj', current 6-axis adjustment state is returned in

'g:6AXADJ=<6-axis adjustment parameter:ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to select ON or OFF for the 6-axis adjustment.
- (2) This command functions in the same way as when "Image adjustments" "Advanced adjustments" "6-axis adjustment" are selected on the menu.
- (3) In the case of "6-axis adjustment," set the hue and color saturation of each axis using the 6AXR to Y "6-axis correction R to Y hue / color saturation setting" commands.
- (4) This sets the currently selected input signal and image mode.
- (5) The current 6-axis adjustment setting can be obtained using the GET command. ("GET 6AXADJ")

#### Example

#### Control

- > 6AXADJ=ON The 6-axis adjustment is set to ON.
- Reference

< i:OK

- > GET 6AXADJ or ?6AXADJ The 6-axis adjustment ON or OFF setting is obtained.
- < g:6AXADJ=ON

## 6AXR-Y

6-axis correction R-Y hue / saturation settings

#### Format

6AXR	= <r hu<="" th=""><th>e:Nu</th><th>mbe</th><th>er&gt;</th><th><r< th=""><th><pre>saturation:Number&gt;</pre></th><th><r bi<="" th=""><th>rightness:Number&gt;</th></r></th></r<></th></r>	e:Nu	mbe	er>	<r< th=""><th><pre>saturation:Number&gt;</pre></th><th><r bi<="" th=""><th>rightness:Number&gt;</th></r></th></r<>	<pre>saturation:Number&gt;</pre>	<r bi<="" th=""><th>rightness:Number&gt;</th></r>	rightness:Number>
6AXG	≔ <g hu<="" td=""><td>e:Nu</td><td>mbe</td><td>er&gt;</td><td><g< td=""><td><pre>saturation:Number&gt;</pre></td><td><g bi<="" td=""><td>rightness:Number&gt;</td></g></td></g<></td></g>	e:Nu	mbe	er>	<g< td=""><td><pre>saturation:Number&gt;</pre></td><td><g bi<="" td=""><td>rightness:Number&gt;</td></g></td></g<>	<pre>saturation:Number&gt;</pre>	<g bi<="" td=""><td>rightness:Number&gt;</td></g>	rightness:Number>
6AXB	= <b hu<="" td=""><td>e:Nu</td><td>mbe</td><td>er&gt;</td><td>&lt;в</td><td><pre>saturation:Number&gt;</pre></td><td><b bi<="" td=""><td>rightness:Number&gt;</td></b></td></b>	e:Nu	mbe	er>	<в	<pre>saturation:Number&gt;</pre>	<b bi<="" td=""><td>rightness:Number&gt;</td></b>	rightness:Number>
6AXC	= <c hu<="" td=""><td>e:Nu</td><td>mbe</td><td>er&gt;</td><td><c< td=""><td><pre>saturation:Number&gt;</pre></td><td><c bi<="" td=""><td>rightness:Number&gt;</td></c></td></c<></td></c>	e:Nu	mbe	er>	<c< td=""><td><pre>saturation:Number&gt;</pre></td><td><c bi<="" td=""><td>rightness:Number&gt;</td></c></td></c<>	<pre>saturation:Number&gt;</pre>	<c bi<="" td=""><td>rightness:Number&gt;</td></c>	rightness:Number>
6AXM	⊨ <m hu<="" td=""><td>e:Nu</td><td>mbe</td><td>er&gt;</td><td><m></m></td><td><pre>saturation:Number&gt;</pre></td><td><m bi<="" td=""><td>rightness:Number&gt;</td></m></td></m>	e:Nu	mbe	er>	<m></m>	<pre>saturation:Number&gt;</pre>	<m bi<="" td=""><td>rightness:Number&gt;</td></m>	rightness:Number>
6AXY	= <y hu<="" td=""><td>e:Nu</td><td>mbe</td><td>er&gt;</td><td>&lt;¥</td><td><pre>saturation:Number&gt;</pre></td><td><y bi<="" td=""><td>rightness:Number&gt;</td></y></td></y>	e:Nu	mbe	er>	<¥	<pre>saturation:Number&gt;</pre>	<y bi<="" td=""><td>rightness:Number&gt;</td></y>	rightness:Number>
GET	6AXR	/	?	6A3	R			
GET	6AXG	/	?	6A3	G			
GET	6AXB	/	?	6A3	в			
GET	6AXC	/	?	6A3	C			
GET	6AXM	/	?	6A3	M			
GET	6AXY	/	?	6A2	Y			

Setting values for < R/G/B/C/M/Y hue:Number> are -20 to 20. Setting values for < R/G/B/C/M/Y saturation:Number> are -20 to 20. Setting values for < R/G/B/C/M/Y brightness:Number> are -20 to 20.

#### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х			-		

#### Response

"i:OK" is returned if the parameter was set properly.

For 'GET 6AX\*' or '?6AX\*', current 6-axis correction R-Y hue/saturation/brightness settings are returned as

'g:6AX\*=<\*hue: Number>,<\*saturation:Number>,<\*brightness:Number>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the 6-axis correction of the hue and color saturation for R to Y.
- (2) This command functions in the same way as when "Image adjustments" "Advanced adjustments" "6-axis color adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID VALUE" is returned.
- (4) These commands take effect when they have been set to valid using the 6-axis adjustment command (6AXADJ), and they can be set separately.
- (5) This sets the currently selected input signal and image mode.
- (6) The current 6-axis color correction can be obtained using the GET command. ("GET 6AXR/G/B/C/M/Y")

#### Example

#### Setting

> 6AxR=-8, 5, 3 The R hue is set to -8, the color saturation is set to 5, and the brightness is set to 3. < i:OK

#### Reference

```
> GET GAXR or ?GAXR This retrieves the R hue, color saturation, and brightness.
```

```
< g:6AXR=12, -8, 4
```



### AMBADJ

Ambient light correction adjustment ON / OFF

#### Format

```
AMBADJ=<Ambient light correction adjustment parameter:ID>
GET AMBADJ / ? AMBADJ
```

<Ambient light correction adjustment parameter:ID>

ON	This sets the ambient light correction adjustment to ON.
OFF	This sets the ambient light correction adjustment to OFF.

#### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х			-		

#### Response

"i:OK" is returned if ON / OFF of ambient light correction adjustment was set properly.

For 'GET AMBADJ' or '?AMBADJ', current ambient light correction adjustment setting is returned as 'g:AMBADJ=<Ambient light correction adjustment parameter:ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to select ON or OFF for the ambient light correction adjustment.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Ambient light" are selected on the menu.
- (3) In the case of "Ambient light correction adjustment" to OK, set the level using AMB\_LEVEL of "Ambient light level" command, and set the type using AMB\_TYPE of "Ambient light type" command.
- (4) This sets the currently selected input signal and image mode.
- (5) The current ambient light correction adjustment setting can be obtained using the GET command. ("GET AMBADJ")

#### Example

Control

> AMBADJ=ON The ambient light correction adjustment is set to ON. < i:OK</pre>

Reference

- > GET AMBADJ or ?AMBADJ The ambient light correction adjustment ON or OFF setting is obtained.
- < g:AMBADJ=ON



## AMBLEVEL

Ambient light level settings

#### Format

```
AMBLEVEL=<Ambient light level settings parameter:ID>
GET AMBLEVEL / ? AMBLEVEL
```

<Ambient light level settings parameter:ID>

WEAK	This sets the ambient light level to WEAK.
MIDDLE	This sets the ambient light level to MIDDLE.
STRONG	This sets the ambient light level to STRONG

Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	х			-		

### Response

"i:OK" is returned if ambient light level was set properly.

For 'GET AMBLEVEL' or '?AMBLEVEL', current ambient light level is returned as 'g:AMBLEVEL=<ambient light level settings parameter:ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the ambient light level.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Ambient light" "Level" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current ambient light level setting can be obtained using the GET command. ("GET AMBLEVEL")

## Example

Setting

- > AMBLEVEL=MIDDLE This sets the ambient light level to MIDDLE.
- < i:OK

Reference

> GET AMBLEVEL or ?AMBLEVEL

This retrieves the ambient light level.

< g:AMBLEVEL=MIDDLE



## AMBTYPE

Ambient light type settings

#### Format

```
AMBTYPE=<Ambient light type settings parameter:ID>
GET AMBTYPE / ? AMBTYPE
```

<Ambient light type settings parameter:ID>

TG	This sets the ambient light type to Tungsten.
FL	This sets the ambient light type to Fluorescent.
FL_H	This sets the ambient light type to Fluorescent H.

Environment

	Power		Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	х			-		

### Response

"i:OK" is returned if ambient light type was set properly.

For 'GET AMBTYPE' or '?AMBTYPE', current ambient light type is returned as 'g:AMBTYPE=<Ambient light type settings parameter:ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the ambient light type.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Ambient light" "Type" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current ambient light type setting can be obtained using the GET command. ("GET AMBTYPE")

## Example

Setting

- > AMBTYPE=FL
- < i:OK

This sets the ambient light type to Fluorescent.

Reference

- > GET AMBTYPE or ?AMBTYPE
- < g:AMBTYPE=FL

This retrieves the ambient light type.



## ASELA1

Analog PC-1 audio terminal selection

#### Format

<Analog PC-1 Audio terminal selection parameter: ID>

1	Audio In 1
2	Audio In 2
OFF	Turned off

#### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

### Response

"i:OK" is returned when audio selection was successfully completed.

For 'GET ASELA1' or '?ASELA1', current Analog PC-1 audio selection is returned as 'g:ASELA1=<Analog PC-1 audio terminal selection parameter: ID>'

For details on other responses, refer to the "Error List".

### Description

- (1) This command is used to select Analog PC-1 audio terminal.
- (2) This command functions in the same way as when "System setting" "Audio terminal selection" "Analog PC-1" are selected on the menu.
- (3) The current Analog PC-1 audio terminal selection setting can be obtained using the GET command. ("GET ASELA1")
- (4) Analog PC-1 Audio terminal selection retains the last setting after the power is turned off.

## Example

Setting

> ASELA1=1 Audio IN1 is set for Analog PC-1 audio terminal selection. < i:OK</pre>

Reference

- > GET ASELA1 or ?ASELA1
- < g:ASELA1=1

Analog PC-1 audio terminal selection is acquired.



## **ASELA2**

Analog PC-2 Audio terminal selection

#### Format

```
ASELA2=<Analog PC-2 audio terminal selection: ID>
GET ASELA2 / ?ASELA2
```

<Analog PC-2 audio terminal selection: ID>

2	Audio In 2
2	Audio In 2
OFF	Turned off

Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	х			-		

### Response

"i:OK" is returned when audio selection was successfully completed.

For 'GET ASELA2' or '?ASELA2', current Analog PC-2 audio selection is returned as 'g:ASELA2=<Analog PC-2 audio terminal selection parameter: ID>'

For details on other responses, refer to the "Error List".

### Description

- (1) This command is used to select Analog PC-2 audio terminal.
- (2) This command functions in the same way as when "System setting" "Audio terminal selection" "Analog PC-2" are selected on the menu.
- (3) The current Analog PC-2 audio terminal selection setting can be obtained using the GET command. ("GET ASELA2")
- (4) Analog PC-2 Audio terminal selection retains the last setting after the power is turned off.

## Example

Setting

> ASELA2=2 Audio IN2 is set for Analog PC-2 audio terminal selection. < i:0K</pre>

Reference

- > GET ASELA2 or ?ASELA2
- < g:ASELA2=2

Analog PC-2 Audio terminal selection is acquired.



## ASELC

Component audio terminal selection

#### Format

<Component audio terminal selection parameter: ID>

1	Audio In 1
2	Audio In 2
OFF	Turned off

#### Environment

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

### Response

"i:OK" is returned when audio terminal selection was completed successfully. For 'GET ASELC' or '?ASELC', current component audio selection is returned as

'g:ASELC=<Component audio terminal selection parameter: ID >'

For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to select Component audio terminal.
- (2) This command is same as the operations of "System setting" "Audio terminal selection" "Component".
- (3) The current Component audio terminal selection setting can be obtained using the GET command. ("GET ASELC")
- (4) Component audio terminal selection retain the last setting after the power is turned off.

## Example

Setting

```
> ASELC=1 Audio IN1 is set for Component audio terminal selection.
< i:OK</pre>
```

Reference

- > GET ASELC or ?ASELC
- < g:ASELC=1

Component audio terminal selection is acquired.



## ASELD

Digital PC audio terminal selection

#### Format

<Digital PC audio terminal selection parameter: ID>

1	Audio In 1
2	Audio In 2
OFF	Turned off

#### Environment

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

### Response

"i:OK" is returned when audio terminal selection was completed successfully. For 'GET ASELD' or '?ASELD', current Digital PC audio selection is returned as

'g:ASELD=<Digital PC audio terminal selection parameter: ID>' For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to select Digital PC audio terminal.
- (2) This command is same as the operations of .This command functions in the same way as when "System setting" "Audio terminal selection" "Digital PC" are selected on the menu.
- (3) The current Digital PC audio terminal selection setting can be obtained using the GET command. ("GET ASELD")
- (4) Digital PC audio terminal selection retains the last setting after the power is turned off.

## Example

Setting

> ASELD=1 Audio IN1 is set for Digital PC audio terminal selection.< i:OK</pre>

Reference

- > GET ASELD or ?ASELD
- < g:ASELD=1

Digital PC audio terminal selection is acquired.



## ASELH

HDMI audio terminal selection

#### Format

```
ASELH=<HDMI audio terminal selection parameter: ID>
GET ASELH / ?<u>A</u>ASELH
```

<HDMI audio terminal selection parameter: ID>

Н	HDMI audio
1	Audio In 1
2	Audio In 2
OFF	Turned off

#### Environment

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	х			-		

#### Response

"i:OK" is returned when audio terminal selection was completed successfully.

For 'GET ASELC' or '?ASELC', current HDMI audio terminal selection is returned as 'g:ASELH=<HDMI audio terminal selection parameter: ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to select HDMI audio terminal.
- (2) This command functions in the same way as when "System setting" "Audio terminal selection" "HDMI" are selected on the menu.
- (3) The current HDMI audio terminal selection setting can be obtained using the GET command. ("GET ASELH")
- (4) HDMI audio terminal selection retains the last setting after the power is turned off.

## Example

Setting

> ASELH=H < i:OK HDMI audio is set for HDMI audio terminal selection.

```
Reference
```

- > GET ASELH or ?ASELH
- < g:ASELH=H

HDMI audio terminal selection is acquired.



## ASPECT

Screen settings

#### Format

```
ASPECT=<Screen setting parameters: ID>
GET ASPECT / ?∆ASPECT
```

<Screen setting parameters:ID>

AUTO	Auto
4:3	4:3
16:9	16:9
16:10	16:10
ZOOM	Zoom
TRUE	Real

#### Environment

Power			Input							
OFF	ON	PM	Parameter	D-RGB	A-RGB	COMP	HDMI	None		
х	0	Х	AUTO							
			4:3							
			16:9							
			16:10			×	*1	*2		
			ZOOM	×	×		*3	*4		
			TRUE	*5	*5	*5	*5			

\*1 Enabled when "HDMI input" setting is PC or "HDMI input" is auto and the input signal is PC system.

- \*2 Depend on Input setting. Enabled when "HDMI input" setting is PC.
- \*3 Enabled when "HDMI input" is auto and the input signal is video system.
- \*4 Depend on Input setting.Enabled when "HDMI input" setting is auto.
- \*5 Enabled when the input signal resolution is smaller than the screen aspect domain resolution.

## Response

"i:OK" is returned if the parameter was set properly.

For 'get  $\tt aspect'$  or '?  $\tt aspect'$  , current screen display mode is returned as

'g:ASPECT=<Screen setting parameters:ID>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the screen sizes.
- (2) This command functions in the same way as when "Display settings" "Aspect" are selected on the menu.
- (3) If the command cannot be supported, 'INVALID\_SOURCE' is returned as an error response.
- (4) If the necessary signals are not input, 'NO\_SIGNAL' is returned.
- (5) The final screen settings are retained even when the power is turned off. However, the screen settings may be different if the input terminal or input signal is changed.
- (6) The GET command can be used to retrieve the current screen display mode. ("GET ASPECT")



## Example

Setting > ASPECT=16:9 < i:OK

This sets the screen size to 16:9.

```
Reference
```

```
> GET ASPECT or ?ASPECT < g:ASPECT=TRUE
```

This retrieves the screen size.

## **AUTOPC**

Auto PC

#### Format

AUTOPC

#### Environment

Power				Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None	
Х	0	Х	Х	0	Х	Х	Х	

#### Response

"i:OK" is returned if the control was executed properly. For details on other responses, refer to the "Error List".

#### Description

- (1) This executes Auto PC.
- (2) This command is identical to pressing the "AUTOPC" button on the remote control.
- (3) If the input is not "A-RGB1" or "A-RGB2", 'e:200x INVALID\_SOURCE (\*\*\*)' is returned as an error response.
- (4) If signals are not input, "e:2010 NO\_SIGNAL" is returned.
- (5) Execution of this command may modify the following setting values.
  - $\boldsymbol{\cdot}$  Total number of dots
  - Tracking
  - $\cdot \ \text{Horizontal} \ / \ \text{vertical positions}$
  - Number of horizontal / vertical display dots

## Example

- > AUTOPC
- < i:OK
- \* Commands are indicated by ">", and responses are indicated by "<".



## **AUTOSETEXE**

Auto setup

#### Format

AUTOSETEXE <Auto set parameter:ID>

<Auto set parameter:ID>

INPUT Automatic signal sensing execution

Environment

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

#### Response

" i:OK" is returned when the automatic processing was completed successfully. For details on other responses, refer to the "Error List".

#### Description

- (1) This command is used to execute auto setup.
- (2) One of the following responses is returned if auto setup cannot be executed due to projector settings.

Projector sottings	Туре	Error rosponso	
Flojeciol settings	INPUT	Litor response	
set to BLANK		'e:1006 NOW_BLANK'	
set to FREEZE	×	'e:1009 NOW_FREEZE'	
set to D.ZOOM	×	'e:100A NOW_D.ZOOM'	: Executable
set to DIS		'e:1008 INVALID_SCREEN_ASPECT'	× : Non-executable

If the input signal cannot be detected using the automatic signal sensing, (3) 'i: input\_not\_found' is returned.

## Example

Setting

```
> AUTOSETEXE INPUT
< i:OK
```

Automatic signal sensing is executed.



## AVOL

Audio volume adjustment

#### Format

```
AVOL=<Audio volume level:Number>
GET AVOL / ? AVOL
```

Setting values for <Audio volume level:Number> are 0 to 20.

#### Environment

Power				Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None	
Х	0	Х			-			

#### Response

"i:OK" is returned if the parameter was set properly.

```
For 'GET AVOL' or '?AVOL', current audio volume level is returned as
    'g:AVOL=<Audio volume level:Number>'
```

For details on other responses, refer to the "Error List".

#### Description

- (1) This adjusts the volume.
- (2) This command is identical to pressing the "VOL+" and "VOL-" button on the remote control or the "VOL" on the side control.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) The volume level can be set even while the sound is muted.
- (5) The GET command can be used to retrieve the current volume. ("GET AVOL")

## Example

Setting	
> AVOL=18	This sets the volume to 18.
< i:OK	

#### Reference

```
> GET AVOL or ?AVOL
< g:AVOL=18
```

This retrieves the volume.



## **BLANK**

**BLANK** function

#### Format

```
BLANK=<BLANK parameter:ID>
GET BLANK / ? BLANK
```

<BLANK parameter:ID>

ON	BLANK ON
OFF	BLANK OFF

#### Environment

(

	Power	ower				Input		
OFF	ON	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	0	Х			-		

#### Response

"i:OK" is returned if the parameter was set properly.

For 'get blank' or '?blank', current BLANK status is returned as

- 'g:BLANK=ON'
- 'g:BLANK=OFF'

For details on other responses, refer to the "Error List".

#### Description

- This command is used to set the BLANK function. (1)
- (2)This command is identical to pressing the "BLANK" button on the remote control.
- (3) Executing this command in a FREEZE status will cancel the FREEZE status and become BLANK.
- The current BLANK settings can be obtained using the GET command. ("GET BLANK") (4)

#### Example

Setting

> BLANK=ON Set to "User" screen when screen is BLANK. < i:OK

Reference

> GET BLANK or ?BLANK

The current BLANK status is referenced.

< g:BLANK=ON

# Canon

## BRI

Brightness setting

### Format

```
BRI=<Brightness setting:Number>
GET BRI / ? BRI
```

Setting values for <Brightness setting:Number> are -20 to 20.

#### Environment

	Power				Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

#### Response

"i:OK" is returned if the parameter was set properly.

For 'get  $\tt bri'$  or '?  $\tt bri'$  , current brightness is returned as

'g:BRI=<Brightness setting:Number>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the screen brightness.
- (2) This command functions in the same way as when "Image adjustments" "Brightness" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 invalid\_value" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current brightness can be acquired using the applicable GET command. ("Get bri")

## Example

Setting	
> BRI=-10	This sets the brightness to -10.
< i:OK	

#### Reference

```
> GET BRI or ?BRI
< g:BRI=-10</pre>
```

This retrieves the brightness.



## **COLOR TEMP**

Color temperature setting

#### Format

```
COLOR_TEMP=<Color temperature setting:Number>
GET COLOR_TEMP / ? COLOR_TEMP
```

Setting values for <Color temperature setting:Number> are -17 to 21.

#### Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
Х	0	Х			-		

#### Response

"i:OK" is returned if color temperature was set properly.

For 'GET COLOR TEMP' or '?COLOR TEMP', current color temperature setting is returned as 'g:COLOR TEMP=<Color temperature setting:Number>'

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the color temperature of the screen.
- (2)This command functions in the same way as when "Image adjustment" - "Color adjustment" -"Color temperature" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- The current color temperature can be obtained using the GET command. ("GET COLOR\_TEMP") (5)

## Example

Setting

> COLOR\_TEMP=3

This sets the color temperature to +3.

Reference

< i:OK

- > GET COLOR\_TEMP or ?COLOR\_TEMP
- < g:COLOR TEMP=1

This obtains the color temperature.



## COMVER

User command version inquiry

#### Format

GET COMVER / ? COMVER

#### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-		-				

#### Response

Returns the user command version as

g:COMVER="<User command version:Character string>"

For details on other responses, refer to the "Error List".

<User command version>:=99.9999

#### Description

- (1) This inquires about the user command version of the projector.
- (2) This inquiry can be executed in any status provided that AC power is supplied to the projector.
- (3) The user command version consists of a 2-digit number followed by a 4-digit number. Question marks may appear in place of the numerals if the firmware has not been upgraded correctly. (Example "?????")

#### Example

- > GET COMVER or ? COMVER
- < g:COMVER="01.0000"



## CONT

Contrast setting

#### Format

```
CONT=<Contrast setting:Number>
GET CONT / ? CONT
```

Setting values for <Contrast setting:Number> are -20 to 20.

#### Environment

	Power				Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

#### Response

"i:OK" is returned if the parameter was set properly.

```
For 'GET CONT' or '?CONT', current contrast setting is returned as 'g:CONT=<Contrast setting:Number>'
```

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the screen contrast.
- (2) This command functions in the same way as when "Image adjustment" "Contrast setting" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current contrast can be acquired using the applicable GET command. ("Get cont")

## Example

Setting	
> CONT=3	

- This sets the contrast to +3.
- < i:OK
- Reference
  - > GET CONT or ?CONT
  - < g:CONT=3

This retrieves the contrast.


# DGAMMA

Dynamic gamma

## Format

```
DGAMMA=<Dynamic gamma setting parameter:ID>
GET DGAMMA / ? DGAMMA
```

<Dynamic gamma setting parameter:ID>

OFF	Off
WEAK	Weak
MIDDLE	Middle
STRONG	Strong

## Environment

Power					Input			
OFF	ON	PM	D-RGB A-RGB COMP HDMI None					
х	0	х			-			

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET DGAMMA' or '?DGAMMA', current dynamic gamma setting is returned as

'g:DGAMMA=<Dynamic gamma setting parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) The command is used to set the dynamic gamma function.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Dynamic gamma" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current dynamic gamma function status can be acquired using the applicable GET command. ("GET DGAMMA")

## Example

Setting

```
    > DGAMMA=WEAK
    This sets the dynamic gamma function to WEAK.
    < i:OK</li>
```

#### Reference

- > GET DGAMMA or ?DGAMMA This retrieves the dynamic gamma function state.
- < g:DGAMMA=WEAK

# DZOOM\_POS

DZOOM position setting

## Format

```
DZOOM_POS=<DZOOM position X:Number>,<DZOOM position Y:Number>
GET DZOOM_POS / ? DZOOM_POS
```

<DZOOM position X/Y:Number> is a signed integer indicating the central position of the enlarged input image.

#### Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
Х	0	Х	0	0	0	0	х

#### Response

"i:OK" is returned when the DZOOM position setting was completed successfully. For 'GET DZOOM POS' or '?DZOOM POS', the current DZOOM position is returned as

g:DZOOM POS=<DZOOM position X:Number>,<DZOOM position Y:Number>

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set the DZOOM position (center position of the displayed enlarged input image).
- (2) This command is identical to pressing the arrow keys to move while DZOOM is enabled, however, the position can be specified in more detail.
- (3) If a position outside the range is specified, the position is automatically moved to the nearest position within the range.
- (4) 0 for <DZOOM position X / Y:Number> indicates the center position of the input image.
- (5) Positive direction for <DZOOM position X / Y:Number> corresponds to RIGHT and UP keys, and negative direction corresponds to LEFT and DOWN keys.
- (6) The numerical value for <DZOOM position X / Y:Number> represents units in pixels of the input image.
  - \* For example, in a case where an input image of XGA (1024 x 768) size is enlarged twice the size (range of 512 x 384 is displayed), up to ±256 for <DZOOM position X:Number>, and up to ±192 for <DZOOM position Y:Number> can be specified.

# Example

#### Control

> DZOOM\_POS=100,200 This sets the DZOOM position shifted 100 right and 200 up. < i:OK</pre>

#### Reference

- > GET DZOOM\_POS or ?DZOOM\_POS
- < g:DZOOM\_POS=100,200

This retrieves the total number of dots.



# DZOOM\_RAT

DZOOM ratio setting

## Format

```
DZOOM_RAT=<DZOOM ratio parameter:ID>
GET DZOOM_RAT / ? DZOOM_RAT
```

<DZOOM ratio parameter:ID>

1	same size (DZOOM disabled)
1.5	1.5x
2	2x
3	3x
4	4x
5	5x
6	6x
8	8x
10	10x
12	12x

## Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
х	0	х	0	0	0	0	х

## Response

"i:OK" is returned if DZOOM ratio was set properly.

For 'get dzoom\_rat' or '?dzoom\_rat', current DZOOM ratio is returned as

'g:DZOOM\_RAT=<DZOOM ratio parameter:Number>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the DZOOM ratio.
- (2) This command is identical to pressing the "DZOOM +" and "DZOOM -" button to set the desired ratio.
- (3) The SET command can be used when DZOOM is disabled and set to other than "1", to enable DZOOM and display the ratio on the screen .
- (4) The SET command can be used when DZOOM is enabled and set to "1", to disable DZOOM and hide the ratio from the screen.
- (5) The GET command can be used to obtain current DZOOM ratio. ("GET DZOOM\_RAT")

## Example

Control

- > DZOOM\_RAT=12
- < i:OK

This sets the DZOOM to 12x.

Reference

> GET DZOOM\_RAT or ?DZOOM\_RAT

This obtains the DZOOM ratio.

< g:DZOOM\_RAT=12



## ERR

Error information inquiry

## Format

GET ERR / ? ERR

Environment

Power					Input			
OFF	ON	PM	D-RGB	D-RGB A-RGB COMP HDMI None				
	-				-			

## Response

Returns the current error information as

'g:ERR=<ErrorID:Character string>'

For details on other responses, refer to the "Error List".

<ErrorID:Character string>

NO_ERROR	No
ABNORMAL_TEMPERATURE	Te
FAULTY_LAMP	La
FAULTY_LAMP_COVER	La
FAULTY_COOLING_FAN	Co
FAULTY_POWER_SUPPLY	Po
FAULTY_AIR_FILTER	Ai
FAULTY_POWER_ZOOM	Zo
FAULTY_POWER_FOCUS	Fo
FAULTY_POWER_LENS_SHIFT	Le
FAULTY_LENS_CONNECTOR	Le

No error Temperature error Lamp error Lamp cover error Cooling fan error Power supply error Air filter error Zoom error Focus error Lens shift error Lens connector error

## Description

- (1) This inquires about the current error information.
- (2) This inquiry can be executed in any status provided that AC power is supplied to the projector.
- (3) Information when the warning LED of the projector is flashing can be obtained. "NO\_ERROR" is returned when the warning LED is not lighted.

## Example

- > GET ERR or ? ERR
- < g:ERR=FAULTY\_LAMP
- \* Commands are indicated by ">", and responses are indicated by "<".



# FINE\_GAMMA\_R

Fine gamma (R) adjustment

## Format

Adjustment values for <Fine gamma (R) adjustment point n adjustment value:Number> are 0 to 1024.

#### Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
х	0	х			-		

#### Response

"i:OK" is returned if the fine gamma (R) adjustment was set properly.

For 'GET FINE\_GAMMA\_R' or '?FINE\_GAMMA\_R', current fine gamma (R) adjustment value is returned as 'g:FINE\_GAMMA\_R=<Number of adjustment points>:<Fine gamma (R) adjustment point 1

> adjustment value:Number>, <Fine gamma (R) adjustment point 2 adjustment value:Number>,

••••, <Fine gamma (R) adjustment point n adjustment value:Number> For details on other responses, refer to the "Error List".

## Description

- (1) This executes the fine gamma (R) adjustment.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Fine gamma adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current fine gamma setting can be acquired using the applicable GET command. ("GET FINE\_GAMMA\_R")

## Example

Setting

```
> FINE_GAMMA_R=0,128,256,384,512,640,768,896,1024
```

This executes the fine gamma (R) adjustment.

< i:OK

#### Reference

> GET FINE\_GAMMA\_R or ?FINE\_GAMMA\_R

This retrieves the fine gamma (R) adjustment value.

```
< g:FINE_GAMMA_R=9:0,128,256,384,512,640,768,896,1024</pre>
```



# FINE\_GAMMA\_G

Fine gamma (G) adjustment

## Format

Adjustment values for <Fine gamma (G) adjustment point n adjustment value:Number> are 0 to 1024.

#### Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
Х	0	х			-		

#### Response

"i:OK" is returned if the fine gamma (G) adjustment was set properly.

For 'GET FINE\_GAMMA\_G' or '?FINE\_GAMMA\_G', current fine gamma (G) adjustment value is returned as 'g:FINE\_GAMMA\_G=<Number of adjustment points>:<Fine gamma (G) adjustment point 1

> adjustment value:Number>, <Fine gamma (G) adjustment point 2 adjustment value:Number>,

••••, <Fine gamma (G) adjustment point n adjustment value:Number> For details on other responses, refer to the "Error List".

## Description

- (1) This executes the fine gamma (G) adjustment.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Fine gamma adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current fine gamma setting can be acquired using the applicable GET command. ("Get fine\_gamma\_g")

## Example

Setting

```
> FINE_GAMMA_G=0,128,256,384,512,640,768,896,1024
```

This executes the fine gamma (G) adjustment.

```
< i:OK
```

#### Reference

> GET FINE\_GAMMA\_G or ?FINE\_GAMMA\_G

This retrieves the fine gamma (G) adjustment value.

```
< g:FINE_GAMMA_G=9:0,128,256,384,512,640,768,896,1024</pre>
```



# FINE\_GAMMA\_B

Fine gamma (B) adjustment

## Format

Adjustment values for <Fine gamma (B) adjustment point n adjustment value:Number> are 0 to 1024.

#### Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
х	0	Х			-		

## Response

"i:OK" is returned if the fine gamma (B) adjustment was set properly.

adjustment value.Number>, <fine gamma (B) adjustment point . adjustment value:Number>,

••••,<Fine gamma (B) adjustment point n adjustment value:Number>

For details on other responses, refer to the "Error List".

## Description

- (1) This executes the fine gamma (B) adjustment.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Fine gamma adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current fine gamma setting can be acquired using the applicable GET command. ("GET FINE\_GAMMA\_B")

## Example

Setting

> FINE\_GAMMA\_B=0,128,256,384,512,640,768,896,1024

This executes the fine gamma (B) adjustment.

< i:OK

Reference

- > GET FINE\_GAMMA\_B or ?FINE\_GAMMA\_B
  - This retrieves the fine gamma (B) adjustment value.
- < g:FINE\_GAMMA\_B=9:0,128,256,384,512,640,768,896,1024</pre>



# **FLTWRN**

Filter warning indication at startup

## Format

```
FLTWRN=<Filter warning parameter: ID>
GET FLTWRN / ?AFLTWRN
```

<Filter warning parameter: ID>

OFF	Turned off
ON	Turned on

## Environment

	Power				Input	Input		
OFF	ON	PM	D-RGB	D-RGB A-RGB COMP HDMI Nor				
х	0	Х			-			

## Response

"i:OK" is returned when setting of filter warning indication at startup was completed successfully. For 'GET FLTWRN' or '?FLTWRN', current setting of filter warning indication at startup is returned as

'g:FLTWRN=<Filter warning parameter: ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set the indication of filter warning at startup.
- (2) This command functions in the same way as when "Installation setting" "On screen" "Filter warning indication" are selected on the menu.
- (3) The current setting of filter warning indication at startup can be obtained using the GET command. ("Get fltwrn")
- (4) The setting of Filter warning indication at startup retains the last setting after the power is turned off.

# Example

Setting

- > FLTWRN=OFF Filter warning indication at startup is disabled.
- < i:OK

Reference

- > Get fltwrn of ?fltwrn The setting of filter warning indication at startup is acquired.
- < g:FLTWRN



# **FREEZE**

Freeze status

## Format

FREEZE=<FREEZE parameter:ID> GET FREEZE / ? FREEZE

<FREEZE parameter:ID>

ON	Image now frozen
OFF	Image now not frozen

## Environment

Power		Input					
OFF	ON	РМ	D-RGB A-RGB COMP HDMI No				None
х	0	Х	0	0	0	0	х

## Response

"i:OK" is returned if the parameter was set properly.

For 'get freeze' or '?freeze', current freeze status is returned as

'gFREEZE=ON'

'g:FREEZE=OFF'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to freeze the image.
- (2) This command is identical to pressing the "FREEZE" button on the remote control.
- (3) The current freeze status can be obtained using the GET command. ("Get freeze")

# Example

Setting	
> FREEZE=ON	Freezes image.
< i:OK	

### Reference

- > Get freeze or ?freeze The current freeze status is referenced.
- < g:FREEZE=ON
- \* Commands are indicated by ">", and responses are indicated by "<".



# GAMMA

Gamma adjustment

## Format

```
GAMMA=<Gamma adjustment:Number>
GET GAMMA / ? GAMMA
```

Setting values for <Gamma adjustment: Number> are -10 to 10.

#### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

```
For 'GET GAMMA' or '?GAMMA', current gamma adjustment is returned as 'g:GAMMA=<Gamma adjustment:Number>'
```

For details on other responses, refer to the "Error List".

## Description

- (1) This performs the Gamma adjustment.
- (2) This command functions in the same way as when "Image adjustment" "Gamma adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current gamma adjustment can be acquired using the applicable GET command. ("GET GAMMA")

## Example

#### Setting

>	GAMMA=-1	This sets the gamma correction to -1.
<	i:OK	

Reference

```
> GET GAMMA or ?GAMMA This retrieves the gamma adjustment.
```

< g:GAMMA=3



# HDMI\_IN

HDMI input setting

## Format

```
HDMI_IN=<HDMI input setting parameter:ID>
GET HDMI_IN / ? HDMI_IN
```

<HDMI input setting parameter:ID>

AUTOSelect this when connecting to an AV equipment. Image processing and<br/>menu displays are adjusted respective to the connected video equipment.PCSelect this when connecting to a computer Image processing and menu<br/>displays are adjusted respective to the connected computer.

Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	х			-		

## Response

"i:OK" is returned if HDMI input was set properly.

For <code>'get hdmi\_in</code>' or <code>'?hdmi\_in</code>', current HDMI input setting status is returned as

'g:HDMI\_IN=<HDMI input setting parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This switches the HDMI input setting to [AV input] / [PC input].
- (2) This command functions in the same way as when "System setting" "HDMI input" are selected on the menu.
- (3) The current HDMI input setting can be acquired using the applicable GET command. ("GET HDMI\_IN").

# Example

Setting

> HDMI\_IN=AUTO

This sets the HDMI input to AV source.

< i:OK

Reference

- > GET HDMI\_IN or ?HDMI\_IN This retrieves the setting status of the HDMI input setting.
- < g:HDMI\_IN=AUTO



# HDMI\_OVSCAN

HDMI overscan setting

## Format

```
HDMI_OVSCAN=<HDMI overscan setting parameter:ID>
GET HDMI_OVSCAN / ? HDMI_OVSCAN
```

<HDMI overscan setting parameter:ID>

OFF	Turns overscan to OFF
ON	Turns overscan to ON

## Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х	-	-	-	0	0

## Response

"i:OK" is returned if HDMI overscan was set properly.

For 'GET HDMI\_OVSCAN' or '?HDMI\_OVSCAN', current HDMI overscan setting status is returned as 'g:HDMI\_OVSCAN=<HDMI overscan setting parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This switches the HDMI overscan setting to [OFF] / [ON].
- (2) This command functions in the same way as when "Display setting" "HDMI overscan" are selected on the menu.
- (3) The current HDMI overscan setting can be acquired using the applicable GET command ("Get hdmi\_overscan").
- (4) The setting is fixed to [OFF] depending on the setting status of other functions or the status of the input signal.

## Example

Setting

- > HDMI\_OVSCAN=ON This sets the HDMI overscan to ON.
- < i:OK

## Reference

> GET HDMI\_OVSCAN or ?HDMI\_OVSCAN

This retrieves the setting status of the HDMI overscan setting.

< g:HDMI\_OVSCAN=ON



# HUE

Hue setting

## Format

```
HUE=<Hue setting value:Number>
GET HUE / ? HUE
```

Setting values for <Hue setting value:Number> are -20 to 20.

### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х	-				

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET HUE' or '?HUE', current hue setting is returned as 'g:HUE=<Hue setting value:Number>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the screen hue.
- (2) This command functions in the same way as when "Image adjustment" "Color adjustment" "Hue setting" are selected on the menu.

+8.

- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The GET command can be used to retrieve the current hue. ("Get hue")

# Example

Setting	
>HUE=8	This sets the hue to
<i:ok< td=""><td></td></i:ok<>	

#### Reference

>GET HUE or ?HUE <g:HUE=1 This retrieves the hue.



# **IMAGE**

Image mode setting

## Format

```
IMAGE=<Image mode setting parameter:ID>
GET IMAGE / ? IMAGE
```

### <Image mode setting parameter:ID>

STANDARD	Standard
PRESENTATION	Presentation
VIVID_PHOTO	Vivid photo
PHOTO_SRGB	Photo / sRGB
DCM_SIM	DICOM Sim*
DYNAMIC	Dynamic
VIDEO	Video
CINEMA	Cinema
USER_1	User 1
USER_2	User 2
USER_3	User 3
USER_4	User 4
USER_5	User 5
* Only available on DICOM model	S.

## Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	х			-		

# Response

"i:OK" is returned if the parameter was set properly.

For 'GET IMAGE' or '?IMAGE', current image mode is returned as

'g:IMAGE=<Image mode setting parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the image quality.
- (2) This command functions in the same way as when "Image adjustment" "Image mode setting" are selected on the menu.
- (3) The final settings for the image mode are retained even when the power is turned off.
- (4) Changing the setting may modify the following setting values.

Setting	Commands related to the settings		
Brightness	BRI		
Contrast	CONT		
Sharpness	SHARP		
Gamma adjustment	GAMMA		
Dynamic gamma	DGAMMA		
Saturation / Hue	SAT / HUE		
Color temperature	COLOR_TEMP		
Ambient light / Type / Level	AMBADJ / AMBTYPE / AMBLEVEL		
Noise reduction	NR		



Setting	Commands related to the settings
Dynamic gamma	FINE_GAMMA_R ~ B
Memory color adjustment	MEMCADJ
RGB gain / offset adjustment	RGBGAIN / RGBOFFSET
Lamp mode	LAMP
6-axis adjustment	6AXADJ
6-axis color correction	6AXR ~ Y

(5) The current image quality can be acquired using the applicable GET command. ("Get image")

# Example

Setting

> IMAGE=PRESENTATION This sets the image mode to "Presentation".

```
< i:OK
```

Reference

- > GET IMAGE or ?IMAGE This references the current image mode.
- < g:IMAGE=CINEMA



# IMAGEFLIP

Flip display

## Format

```
IMAGEFLIP=<Image flip setting parameters:ID>
GET IMAGEFLIP / ? IMAGEFLIP
```

<Image flip setting parameters:ID>

NONE	None
CEILING	Ceiling
REAR	Rear projection
REAR_CEILING	Rear projection with ceiling

#### Environment

	Power				Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

### Response

"i:OK" is returned if the parameter was set properly.

For 'GET IMAGEFLIP' or '?IMAGEFLIP', current flip display setting is returned as

'g:IMAGEFLIP=<Image flip setting parameters:ID>'

For details on other responses, refer to the "Error List".

### Description

- (1) This command is used to flip the screen display in various ways (vertically or horizontally).
- (2) This command functions in the same way as when "Display setting" "Flip display" are selected on the menu.
- (3) When the display is flipped, the "keystone distortion" settings are initialized.
- (4) The current flip display status can be acquired using the applicable GET command. ("GET IMAGEFLIP")

## Example

Setting

```
> IMAGEFLIP=REAR This displays the image in a rear projection (flip vertically).
< i:OK</pre>
```

#### Reference

> GET IMAGEFLIP or ?IMAGEFLIP

```
< g:IMAGEFLIP=REAR_CEILING
```

P This retrieves the flip display state.



# INPUT

Input selection

## Format

```
INPUT=<Input selection parameters:ID>
GET INPUT / ? INPUT
```

<Input selection parameters:ID>

D-RGB	Digital PC
A-RGB1	Analog PC-1
A-RGB2	Analog PC-2
COMP	Component
HDMI	HDMI

## Environment

	Power				Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'get input' or '?input', current input selection is returned as

'g:INPUT=<Input selection parameters:ID>'

For details on other responses, refer to the "Error List".

# Description

- (1) This controls the input selection.
- (2) This command is identical to pressing the "INPUT" button on the remote control.
- (3) The input can be selected automatically using the auto setup command (AUTOSETEXE=INPUT).
- (4) The current input can be acquired using the applicable GET command. ("GET INPUT")

# Example

## Setting

> INPUT=HDMI The input is set to HDMI. < i:OK

Reference

- > GET INPUT or ?INPUT This retrieves the input signal.
- < g:INPUT=A-RGB1
- \* Commands are indicated by ">", and responses are indicated by "<".



# **KREP**

Key repeat

## Format

```
KREP=<Key repeat parameter: ID>
GET KREP / ?∆KREP
```

<Key repeat parameter: ID>

Turned off
Turned on

## Environment

OFF ON

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	х			-		

## Response

"i:OK" is returned when Key repeat parameter was completed successfully.

- For 'GET KREP' or '?KREP', current Key repeat setting is returned as
  - 'g:KREP=<Key repeat parameter: ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set Key repeat.
- (2) This command functions in the same way as when "System setting" "Other setting" Key repeat" are selected on the menu.
- (3) The current Key repeat setting can be obtained using the GET command. ("GET KREP")
- (4) Key repeat setting retains the last setting after the power is turned off.

## Example

### Setting

- > KREP=OFF Key repeat setting is disabled. < i : 0K</pre>
- Reference

```
> GET KREP or ?KREP Key repeat setting is acquired.
< g:KREP=OFF</pre>
```



# LAMP

Lamp output setting

## Format

```
LAMP=<Lamp output setting parameters:ID>
GET LAMP / ? LAMP
```

<Lamp output setting parameters:ID> NORMAL Normal

NORMAL	Normal
SILENT	Silent cooling

## Environment

	Power	wer			Input		
OFF	ON	N PM	D-RGB A-RGB COMP HDMI None				None
х	0	х х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'get lamp' or '?lamp', current lamp output is returned as

- 'g:LAMP=<Lamp output setting parameters:ID>'
- For details on other responses, refer to the "Error List".

# Description

- (1) This command is used to set the light quantity of the lamp to "NORMAL" or "SILENT" (reduced light quantity appropriate for silent cooling).
- (2) This command functions in the same way as when "Image adjustment" "Lamp mode setting" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current lamp output can be acquired using the applicable GET command. ("Get lamp")

## Example

## Setting

```
> LAMP=NORMAL The lamp output is set to "NORMAL".<ir><ii:ok</pre>
```

#### Reference

```
> GET LAMP or ?LAMP This retrieves the lamp output.
< g:LAMP=SILENT</pre>
```



# LAMPCOUNTER

Lamp ON time inquiry

## Format

GET LAMPCOUNTER / ? LAMPCOUNTER

Environment

Power					Input		
OFF	ON	PM	D-RGB A-RGB COMP HDMI None			None	
	-				-		

## Response

Returns current lamp on time as

'g:LAMPCOUNTER="<Lamp ON time:Character string>"' For details on other responses, refer to the "Error List".

Lamp ON time	ON time:H
"[G]"	0~539
"[GG]"	540 ~ 1079
"[GGG]"	1080 ~ 1619
"[GGGG]"	1620 ~ 2159
"[GGGGG]"	2160 ~ 2699
"[GGGGGY_]"	2700 ~ 2849
"[GGGGGYY_]"	2850 ~ 2999
"[GGGGGYYR]"	3000 ~

<Lamp ON time: Character string>

For all other responses, refer to "Error List."

## Description

- (1) This inquires about the current lamp ON time.
- (2) This inquiry can be executed in any status provided that AC power is supplied to the projector.

## Example

> GET LAMPCOUNTER or ? LAMPCOUNTER

< g:LAMPCOUNTER="[GG\_\_\_\_]"

# Canon

# **LMPWRN**

Lamp warning indication at startup

## Format

```
LMPWRN=<Lamp warning parameter: ID>
GET LMPWRN / ?ALMPWRN
```

<Lamp warning parameter: ID>

OFF	Turned off
ON	Turned on

### Environment

Power				Input			
OFF	ON	N PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	x c			-		

## Response

"i:OK" is returned when setting of lamp warning indication at startup was completed successfully. For 'GET LMPWRN' or '?LMPWRN', current setting of lamp warning indication at startup is returned as

'g:LMPWRN=<Lamp warning parameter: ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set the indication of lamp warning at startup.
- (2) This command functions in the same way as when "Installation setting" "On screen" "Lamp warning indication" are selected on the menu.
- (3) The current setting of lamp warning indication at startup can be obtained using the GET command. ("Get lmpwrn")
- (4) The setting of Lamp warning indication at startup retains the last setting after the power is turned off.

# Example

Setting

```
> LMPWRN=OFF Lamp warning indication at startup is disabled.
< i : 0K</pre>
```

## Reference

> Get lmpwrn or ?lmpwrn The setting of Lamp warning indication at startup is acquired. < g:lmpwrn

# MAIN

Side control operation emulation

## Format

MAIN <Side control emulation button parameters:ID>

<Side control emulation button parameters:ID>

POWER	POWER button
POWER_OFF	POWER button pressed twice
MENU	MENU
LENS	LENS
INPUT	INPUT
UP	UP
UP+REP	Hold down the UP button
*-REP	Release the button
DOWN	DOWN
DOWN+REP	Hold down the DOWN button
*-REP	Release the button
LEFT	LEFT
LEFT+REP	Hold down the LEFT button
*-REP	Release the button
RIGHT	RIGHT
RIGHT+REP	Hold down the RIGHT button
*-REP	Release the button
OK	ОК

\* After setting the status of the button to be pressed down, send a command from the PC to release the pressed status after predetermined time.

#### Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-				-		

## Response

"i:OK" is returned when the button press request has been acknowledged successfully. (It does not indicate if the operation for the pressed button was executed properly.)

## Description

- (1) This emulates the pressing of the side control buttons for controlling the projector.
- (2) With the emulation of the side control operations, the functions of the buttons corresponding to the parameters cannot necessarily be executed. Emulation simply consists in emulating the pressing of the buttons.
- (3) A parameter with '+REP' signifies "button press start." (This is the same as the status in which the side control button is held down.)

Be absolutely sure to send the '\*-REP' parameter, and end the button pressing last of all. The button pressing is ended in the cases below as well.

- <1> When a side control or remote control button has been operated
- ${<}2{>}$  When some command has been received

## Example

#### Setting

- > MAIN MENU
- < i:OK

<sup>\*</sup> Commands are indicated by ">", and responses are indicated by "<".



# MEMCADJ

Memory color adjustment

## Format

```
MEMCADJ=<Memory color adjustment parameter:ID>
GET MEMCADJ / ? MEMCADJ
```

<Memory color adjustment parameter:ID>

OFF	No adjustment
MEM_L	Memory color adjustment - light
MEM_M	Memory color adjustment - medium
MEM_H	Memory color adjustment - heavy

#### Environment

	Power				Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	х			-		

### Response

i:OK' is returned when memory color has been adjusted successfully.

For 'GET MEMCADJ' or '?MEMCADJ', current memory color adjustment is returned as 'g:MEMCADJ=<Memory color adjustment parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used by selecting "No adjustment", "Memory color adjustment light" to "Memory color adjustment heavy".
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Memory color adjustment" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current memory color adjustment setting can be obtained using the GET command. ("GET MEMCADJ")

## Example

Control

> MEMCADJ=MEM\_M This sets the tone adjustment to "Memory color adjustment - medium".

Reference

- > GET MEMCADJ or ?MEMCADJ This retrieves the memory color adjustment level.
- < g:MEMCADJ=MEM\_M



# MODE

Control mode switch

# Format

REMOTE LOCAL GET MODE / ? MODE

# Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-				-		

## Response

"i:OK" is always returned with the control mode switch setting.

For 'get mode' or '?mode', current control mode is returned as

'g:MODE=REMOTE'

'g:MODE=LOCAL'

For details on other responses, refer to the "Error List".

## Description

- (1) There are no 'local' and 'remote' control modes with this version of the user commands, however, this command exists to maintain compatibility with previous versions of the user commands.
- (2) The current control mode can be obtained using the GET command. ("Get mode")

## Example

Mode switch

- > REMOTE
- < i:OK

Mode reference

- > GET MODE or ?MODE
- < g:MODE=LOCAL



# MUTE

Mute control

## Format

```
MUTE=<Mute control parameter: ID>
GET MUTE /
            ? MUTE
```

<Mute control parameter: ID>

ON	Disables the audio / beep sound.
OFF	Enables the audio / beep sound.

### Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

- For 'GET MUTE' or '?MUTE', current mute setting is returned as
  - 'g:MUTE=<Mute control parameter: ID>'
- For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set the sound output muting to ON or OFF.
- Mute control enables simultaneous control of the audio and beep sound. (2)
- (3) This command is identical to pressing the MUTE button on the remote control.
- (4) The mute setting is always "OFF" when the power has just been turned on.
- The volume can be set even when it is on "MUTE". (5)
- The current muting status can be acquired using the applicable GET command. ("GET MUTE") (6)

## Example

Setting

- This mutes the volume. > MUTE=ON
- < i:OK

Reference

- This retrieves the volume state. > GET MUTE or ?MUTE
- < g:MUTE=ON

# NR

anon

Noise reduction

## Format

```
NR=<Noise reduction setting parameter:ID>
GET NR / ? NR
```

<Noise reduction setting parameter:ID>

OFF	Off
WEAK	Weak
MIDDLE	Middle
STRONG	Strong

#### Environment

Power					Input		
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	х	Х	Х	0	0	0

### Response

"i:OK" is returned if noise reduction was set properly.

For 'GET NR' or '?NR', current noise reduction setting is returned as

'g:NR=<Noise reduction setting paarameter:ID>'

"FUNCTION\_NOT\_AVAILABLE" is returned if PC is selected for HDMI input. For details on other responses, refer to the "Error List".

## Description

- (1) This sets the noise reduction function.
- (2) This command functions in the same way as when "Image adjustment" "Advanced adjustment" "Noise reduction" are selected on the menu.
- (3) This sets the currently selected input signal and image mode.
- (4) The current noise reduction function status can be acquired using the applicable GET command ("GET NR").

## Example

Setting

NR=MIDDLE This sets the noise reduction function to MIDDLE.< i:OK</li>

Reference

> GET NR or ?NR	This retrieves the noise reduction function status.
< g:NR=MIDDLE	



# POWER

This controls the power supply

## Format

```
POWER <Parameter:ID>
GET POWER / ? POWER
```

<Parameter:ID> ON

OFF

Power	ON
Power	OFF

### Environment

Power		Input						
OFF	ON	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-	-				-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET POWER' or '?POWER', current power supply status is returned as shown in the table below.

Response	Status
'g:POWER=OFF'	OFF
'g:POWER=OFF2ON'	OFF -> ON in transition
'g:POWER=ON'	ON
g:POWER=ON2PMM'	ON -> Standby in transition
'g:POWER=PMM'	Standby
'g:POWER=PMM2ON'	Standby -> ON in transition
'g:POWER=ON2OFF'	ON -> OFF in transition

For details on other responses, refer to the "Error List".

## Description

- (1) This performs ON / OFF control of the power supply.
- (2) This command is identical to pressing the POWER button on the remote control.
- (3) Processing of other commands (including ZOOM / FOCUS) will be interrupted at "POWER OFF" when the power is ON.
- (4) 'i:BUSY' will be returned at "POWER ON" during power OFF transition. For other cases, 'i:OK' will always be returned.
- (5) The current power supply status can be referenced using the applicable GET command. ("GET FOWER")
- (6) After sending this command, use GET POWER to obtain the power supply state at regular intervals, and check that it is in the controlled state (off or on).
- (7) Even when it is powered up by using this command, "Prepare for lamp replacement", "Lamp replacement warning", "Clean filter warning" will display for 10 seconds as usual.

## Example

Control

- > POWER ON
- < i:OK

Reference

- > GET POWER or ?POWER
- < g:POWER=OFF



# PRODCODE

Product information inquiry

## Format

GET PRODCODE / ? PRODCODE

## Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-				-		

## Response

Product name is returned as

g:PRODCODE="<Product name:Character string>" For details on other responses, refer to the "Error List".

<Product name:Character string> WX6000 / SX6000

## Description

- (1) This inquires about the product name of the projector.
- (2) This inquiry can be executed in any status provided that AC power is supplied to the projector.

### Example

- > GET PRODCODE or ? PRODCODE
- < g:PRODCODE="WX6000"

# Canon

# RC

Remote control operation emulate

# Format

RC <Remote control emulation button parameters:ID>

<Remote control emulation button parameters:ID>

POWER	POWER button
POWER_OFF	POWER button pressed twice
MENU	MENU
EXIT	EXIT
INPUT	INPUT
DPC	DIGITAL
APC1	ANALOG PC1
APC2	ANALOG PC2
HDMI	HDMI
COMP	COMPONENT
ASPECT	ASPECT
AUTOPC	AUTOPC
UP	UP
UP+REP	Hold down the UP button
*-REP	Release the button
DOWN	DOWN
DOWN+REP	Hold down the DOWN button
*-REP	Release the button
LEFT	LEFT
LEFT+REP	Hold down the LEFT button
*-REP	Release the button
RIGHT	RIGHT
RIGHT+RFP	Hold down the RIGHT button
*-RFP	Release the button
FOCUS	FOCUS
700M	700M
SHIFT	SHIFT
TDTN	TEST DATTEDN
II IN KEVSTONE	VEVSTONE
NUM 0	0
NUM 1	1
NUM 2	1
NUM 2	2
INUM_3	3
NUM_4	4 r
NUM_5	5
NUM_6	6
NUM_7	7
NUM_8	8
NUM_9	9
DZOOM_P	DZOOM+
DZOOM_P+REP	Hold down the DZOOM + button
*-REP	Release the button
DZOOM_M	DZOOM-
DZOOM_M+REP	Hold down the DZOOM - button
*-REP	Release the button
VOL_P	VOL+
VOL_P+REP	Hold down the VOL + button
MUTE	MUTE
FN	FN
IMAGE	IMAGE
FREEZE	FREEZE
BLANK	BLANK



- \* After setting the status of the button to be pressed down, send a command from the PC to release the pressed status after predetermined time. .
- \* Although emulation parameters for both values and function are available for the common key for 1/DZOOM+, 3/VOL+, 4/DZOOM-, 6/VOL- and 9/MUTE, there is no difference in operation so that it works in the same manner as when the "Common key" on the remote controller is pressed.

In other words, depending on the status of UI, it acts as a value key or a function key.

## Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
	-				-		

## Response

"i:OK" is returned when the button press request has been acknowledged successfully. (It does not indicate if the operation for the pressed button was executed properly.)

### Description

- (1) This emulates pressing of the remote control buttons for controlling the projector.
- (2) With the emulation of the remote control operations, the functions of the buttons corresponding to the parameters cannot necessarily be executed. Emulation simply consists in emulating the pressing of the buttons.
- (3) A parameter with '+REP' signifies "button press start". (This is the same as the status in which the remote control button is held down.)

Be absolutely sure to send the '\*-REP' parameter, and end the button pressing last of all. The button pressing is ended in the cases below as well.

- <1> When a side control or remote control button has been operated <2> When a command has been received
- (4) The combined use key to 1/DZOOM+, 3/VOL+, 4/DZOOM-, 6/VOL-, 9/MUTE works as a numerical key or function key by a state of UI.

## Example

#### Setting

> RC POWER < i:OK



# RGBGAIN

RGB gain adjustment

## Format

RGBGAIN=<R gain setting:Number> <G gain setting:Number> <B gain setting:Number> GET RGBGAIN / ? RGBGAIN

Setting values for <R/G/B gain setting:Number> are -60 to 60.

#### Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET RGBGAIN' or '?RGBGAIN', current RGB gain adjustment values are returned as

'g:RGBGAIN=<R gain setting:Number>,<G gain setting:Number>,<B gain setting:Number>' For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to adjust the gain of the R, G and B colors.
- (2) This command functions in the same way as when "Image adjustment" "Color adjustment" "Gain adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current RGB gain values can be obtained using the GET command. ("Get rgbgain")

# Example

Setting

> RGBGAIN=10, 11, 12 < i:OK The R gain is set to 10, G gain to 11 and B gain to 12.

Reference

- > GET RGBGAIN or ?RGBGAIN
- < g:RGBGAIN=-10, 0, 19

The RGB gain values are obtained.



# RGBOFFSET

RGB offset adjustment

## Format

```
RGBOFFSET=<R offset setting:Number> <G offset setting:Number> <B offset
setting:Number>
GET RGBOFFSET / ? RGBOFFSET
```

Setting values for <R/G/B offset setting:Number> are -60 to 60.

#### Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET RGBOFFSET' or '?RGBOFFSET', current RGB offset adjustment values are returned as 'g:RGBOFFSET=<R offset setting:Number>,<G offset setting:Number>,<B offset setting:Number>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to adjust the offset of the R, G and B colors.
- (2) This command functions in the same way as when "Image adjustment" "Color adjustment" "Offset adjustment" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current RGB offset values can be obtained using the GET command. ("Get rgboffset")

## Example

## Setting

```
> RGBOFFSET=10, 11, 12
< i:OK</pre>
```

The R offset is set to 10, G offset to 11 and B offset to 12.

Reference

> GET RGBOFFSET or ?RGBOFFSET

< g:RGBOFFSET=-10, 0, 19

The RGB offset values are obtained.



# **ROMVER**

ROM version inquiry

## Format

GET ROMVER / ? ROMVER

## Environment

Power		Input					
OFF	ON	PM	D-RGB A-RGB COMP HDMI None				
	-				-		

## Response

ROM version of the firmware is returned as

g:ROMVER="<ROM version:Character string>" For details on other responses, refer to the "Error List".

<ROM version>:=99.999999

## Description

- (1) This inquires about the version of the firmware.
- (2) This inquiry can be executed in any status provided that AC power is supplied to the projector.

## Example

- > GET ROMVER or ? ROMVER
- < g:ROMVER="01.030602"



# SAT

Color saturation setting

## Format

```
RGBGAIN=<R gain setting:Number> <G gain setting:Number> <B gain setting:Number>
GET RGBGAIN / ? RGBGAIN
```

Setting values for <Color saturation setting value:Number> are -20 to 20.

### Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'GET SAT' or '?SAT', current saturation setting value is returned as

'g:SAT=<Color saturation setting value:Number>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the screen color saturation.
- (2) This command functions in the same way as when "Image adjustment" "Color adjustment" "Color saturation setting" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The GET command can be used to retrieve the current color saturation. ("GET SAT")

# Example

Setting	
> SAT=-10	This sets the color saturation to -10.
< i:OK	

#### Reference

```
> GET SAT or ?SAT
< g:SAT=1
```

This retrieves the color saturation.

# SAVEIMGPROF

Create, save, delete user memory / Create user memory status

## Format

SAVEIMGPROF=<User memory save to parameter:ID>

<User memory save to parameter:ID>

USER_1	Save to User 1
USER_2	Save to User 2
USER_3	Save to User 3
USER_4	Save to User 4
USER_5	Save to User 5
DEL_ALL	Delete all User memory

#### <User memory presence parameter:ID>

	51	1
0		User memory not created
1		User memory created

#### Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х	0	0	0	0	0

## Response

"i:OK" is returned if the user memory was saved properly.

For 'get saveingprof' or '?saveingprof', presence of user memory can be confirmed as

'g:SAVEIMGPROF=<Number of user memories>:<User 1 present parameter>,

<User 2 present parameter>,<User 3 present parameter>,

<User 4 present parameter>,<User 5 present parameter>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to create user memory.
- (2) This command functions in the same way as "Image adjustment" "Create user memory" and "Save user memory".
- (3) The create user memory status can be confirmed using the GET SAVEIMGPROF command ("GET SAVEIMGPROF").

## Example

#### Setting

> SAVEIMGPROF=USER\_2 Saves the current image adjustment value to user memory 2. < i:OK</pre>

#### Reference

```
> GET SAVEIMGPROF (
< g:SAVEIMGPROF=5:0,1,1,0,0
```

Confirms the create user memory status. User memory 3 and user memory 3 have been created.



# SCRNASPECT

Screen aspect setting

## Format

```
SCRNASPECT=<Screen aspect setting parameter:ID>
GET SCRNASPECT / ? SCRNASPECT
```

<Screen aspect setting parameter:ID>

16:10	
16:9 display	
4:3 display	
16:10 digital image shift	*Not available with WX6000
16:9 digital image shift	
4:3 digital image shift	*Not available with SX6000
	16:10 16:9 display 4:3 display 16:10 digital image shift 16:9 digital image shift 4:3 digital image shift

## Environment

Power		Input					
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
Х	0	Х			-		

## Response

"i:OK" is returned if the parameter was set properly.

For 'get scrnaspect' or '?scrnaspect', current screen aspect setting is returned as

'g:SCRNASPECT=<Screen aspect setting parameter:ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This sets the screen aspect.
- (2) This command functions in the same way as when "Installation setting " "Screen aspect" are selected on the menu.
- (3) The GET command can be used to retrieve the current screen aspect. ("GET SCRNASPECT")
- (4) The final screen aspect settings are retained even when the power is turned off.

## Example

Setting

> SCRNASPECT=16:9

This sets the screen aspect to 16:9.

>i:OK

```
Reference
> GET SCRNASPECT or ?SCRNASPECT
< g:SCRNASPECT=4:3
```

This retrieves the screen aspect.


## SHARP

Sharpness setting

### Format

```
SHARP=<Sharpness setting:Number>
GET SHARP / ? SHARP
```

Setting values for <Sharpness setting:Number> are -10 to 10.

#### Environment

Power			Input				
OFF	ON	PM	D-RGB A-RGB COMP HDMI No				None
Х	0	Х	-				

#### Response

"i:OK" is returned if the parameter was set properly.

```
For 'GET SHARP' or '?SHARP', current sharpness setting is returned as 'g:SHARP=<Sharpness setting:Number>'
```

For details on other responses, refer to the "Error List".

#### Description

- (1) This sets the screen sharpness.
- (2) This command functions in the same way as when "Image adjustment" "Sharpness setting" are selected on the menu.
- (3) If numerical parameters are outside the range, "e:0801 INVALID\_VALUE" is returned.
- (4) This sets the currently selected input signal and image mode.
- (5) The current sharpness can be acquired using the applicable GET command. ("GET SHARP")

## Example

Setting	
> SHARP=3	This sets the sharpness to 3
< i:OK	

#### Reference

> GET SHARP or ?SHARP This retrieves the sharpness.

\* Commands are indicated by ">", and responses are indicated by "<".

< g:SHARP=3



## SIGNAL\_INFO

Input signal information inquiry

### Format

GET SIGNAL\_INFO / ? SIGNAL\_INFO

### Environment

Power			Input				
OFF	ON	PM	D-RGB A-RGB COMP HDMI N				None
Х	0	Х	-				

#### Response

Current input signal information is returned as

'g:SIGNAL\_INFO="<Input signal information:Character string>"' For details on other responses, refer to the "Error List".

### Description

- (1) This acquires the status of the input signal entering the projector.
- (2) This functions in the same way as "Information" "Input signal".

### Example

- > GET SIGNAL\_INFO or ? SIGNAL\_INFO
- < g:SIGNAL\_INFO="1920 x 1200 60"</pre>

\* Commands are indicated by ">", and responses are indicated by "<".



# SIGNALSTATUS

Signal status inquiry

### Format

```
GET SIGNALSTATUS / ? SIGNALSTATUS
```

Environment

Power			Input				
OFF	ON	PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	Х			-		

#### Response

Current image signal input status is returned as 'g:SIGNALSTATUS=<Signal status:ID>'

For details on other responses, refer to the "Error List".

#### <Signal status:ID>

Signal status	Meaning
NO_SIGNAL	Signal not detected
DISPLAYING	Image now displayed or display enable status
SETTING	Signal detection and display preparation in progress

## Description

- (1) This inquires about the current image signal input status.
- (2) This returns the signal status of the selected input. Use INPUT command for the input selection.
- (3) "e:1006:NOW\_BLANK" is returned when it is set to BLANK.

#### Example

- > GET SIGNALSTATUS or ? SIGNALSTATUS
- < g:SIGNALSTATUS=NO\_SIGNAL

\* Commands are indicated by ">", and responses are indicated by "<".



## **TEMP**

Temperature sensor value inquiry

## Format

GET TEMP / ? TEMP

### Environment

Power			Input				
OFF	ON	N PM	D-RGB A-RGB COMP HDMI N				None
-					-		

#### Response

For 'GET TEMP' or '?TEMP', temperature sensor value is returned as 'TEMP=<Number of sensors>,<Sensor 1 value>,...,<Sensor n value>'

## Description

(1) There are cases when number of sensors is 0. In this case, there will not be a comma.

## Example

> GET TEMP or ?TEMP This retrieves the temperature sensor value.

< g:TEMP=1,80.5

\* Commands are indicated by ">", and responses are indicated by "<".

# Canon

# TPTN

Test pattern

## Format

TPTN=<Test pattern parameter: ID> GET TPTN / ?ATPTN

#### < Test pattern parameter: ID>

OFF	Turned off
CB1	Color bar
SSH1	Stair step H No.1
SSH2	Stair step H No.2
SSH3	Stair step H No.3
SSV1	Stair step V No.1
SSV2	Stair step V No.2
SSV3	Stair step V No.3
RTF1	Raster 100% White
RTF2	Raster 100% Red
RTF3	Raster 100% Green
RTF4	Raster 100% Blue
RTH1	Raster 50% White
RTH2	Raster 50% Red
RTH3	Raster 50% Green
RTH4	Raster 50% Blue
CKR1	Checker No.1
CKR2	Checker No.2
MUL1	Multi No.1
MUL2	Multi No.2
CHR1	Character
BDR1	Border
CRS1	Cross hatch 8 divided
CRS2	Cross hatch 12 divided
CRS3	Cross hatch 4 divided

#### Environment

Power			Input				
OFF	ON	N PM	D-RGB	A-RGB	COMP	HDMI	None
х	0	x x			-		

## Response

"i:OK" is returned when Test pattern setting was completed successfully. For "GET TPTN'or '?TPTN', current Test pattern setting is returned as

'g:TPTN=<Test pattern parameter: ID>'

For details on other responses, refer to the "Error List".

## Description

- (1) This command is used to set Test pattern.
- (2) This command functions in the same way as when "Installation setting" "Test pattern" are selected on the menu.
- (3) The current Test pattern setting can be obtained using the GET command. ("Get tpin")
- (4) Test pattern setting retains the last setting after the power is turned off.

#### Example

Setting

> TPTN=OFF

Test pattern is disabled.

< i:OK



Reference > GET TPTN or ?TPTN GET TPTN or ?TPTN

< g:TPTN=OFF

Test pattern is acquired.

\*Commands are indicated by ">", and responses are indicated by "<".

# 7. Error List

Item	Code	TYPE	Error character strings	Error	Remedy
1	0001	е	BAD_SEQUENCE	Communication sequence error	Wait until a response is received before sending the next command.
2	0002	е	INVALID_COMMAND	Invalid (undefined) command.	Send a valid command.
3	0004	е	INVALID_FORMAT	Invalid command format.	Send the command in the valid format.
4	0005	е	NOT_POWER_SUPPLIED	The projector's power is off.	Turn on the power using the POWER ON command.
5	-	·	BUSY (POWER)	The projector is switching power modes.	Wait until the power mode is ON, OFF or PMM.
6	000A	e	INVALID_PARAMETER	The parameter (type) is invalid (undefined). Includes cases when the number of parameters is incorrect.	Use the correct parameters.
7	000B	е	JOB_TIMEOUT	Internal processing in the projector has timed out.	Resend the command.
		i	BUSY (NETWORK)	Executing network related functions.	Wait until the network related functions have finished execution.
		i	BUSY (FOCUS)	The focus lens is being driven.	Wait until the projector has finished driving the focus lens.
٥		i	BUSY (ZOOM)	The zoom lens is being driven.	Wait until the projector has finished driving the zoom lens.
9	-	i	BUSY (IMAGE)	Image mode switching is in progress.	Wait until the projector has switched the image mode.
		·	BUSY (NOW_SETTING)	Signal setting (detection) in progress.	Wait until the processing is completed.
		i	BUSY	Internal processing in the projector is in progress.	Wait until the current processing is complete.
	1006	e	NOW_BLANK	Cannot execute command since blanking operation is in progress.	Resend the command after canceling the blanking operation.
10	1009	е	NOW_FREEZE	Cannot execute command since freeze operation is in progress.	Resend the command after canceling the freeze operation.
10	100A	е	NOW_D.ZOOM	Cannot execute command since D. zooming is in progress.	Resend the command after canceling D. zooming.
	100B	e	NOW_SPECIAL_MENU	Cannot execute command in current menu mode.(E.g., Password indication)	Resend the command after exiting the current menu mode.
11	F001	е	SYSTEM (UNKNOWN)	Internal error has occurred.	Resend the command.
12	E0XX	е	COMMUNICATION_ERROR	A communication protocol violation has occurred in the projector.	Resend the command.
	1008	е	INVALID_SCREEN_ASPECT	Cannot execute command under current screen aspect ratio setting.	Change the screen aspect ratio setting.
14	200X	е	INVALID_SOURCE (****)	Cannot execute command with current input source.	Change the input source.
	2010	е	NO_SIGNAL	No input signal.	Supply the input signal.
15	201X	е	INVALID_SIGNAL (****)	Cannot execute command with current input signal. Current input signal is indicated in parentheses.	Change the input signal.

# Canon

Item	Code	TYPE	Error character strings	Error	Remedy
	201F	е	INVALID_SIGNAL	Cannot execute command with current input signal.	Change the input signal.
17	0801	e	INVALID_VALUE	Numerical parameters are invalid or outside the specified range.	Set the parameters in the correct range.
	1002	е	NO_LOGO_CAPTURED	Cannot execute command because the user image is not registered.	Register the user image.
	1003	е	IP_NOT_AVAILABLE	Cannot execute PROGRESSIVE conversion.	Switch to the correct input signal.
	1004	е	POWER_MANAGEMENT_OFF	DPON=ON cannot be set when PMM=OFF.	Use a setting other than PMM=OFF.
	1005	е	DIRECT_POWER_ON	PMM=OFF cannot be set when DPON=ON.	Use the DPON=OFF setting.
18	1010	е	INACTIVE_PARAMETER	Parameter is currently in a disabled state.	Set the parameter when it is enabled.
	1011	е	FUNCTION_NOT_AVAILABLE	Objective function is currently in a disabled state.	Set the function when it is enabled.
	2020	е	INVALID_IMAGE_MODE	Cannot set in current image mode.	Set when other image mode is selected.
	203X	е	INVALID_RESOLUTION (***)	Invalid input signal resolution. Additional information is indicated in parentheses. OVER_PANEL_RES: input signal resolution exceeds panel resolution.	Switch to an input signal with the correct resolution.
19	-	i	INPUT_NOT_FOUND	Input was not switched since there is no input signal at AUTOSETEXE=INPUT.	Notification of status only; no particular measures needed.

\* Error codes are 4-digit hexadecimal strings. X represents any character from 0 to 9 or from A to F.

\* Items with lower numbers have a higher priority. (Even when multiple errors have occurred, the error with the highest rank is returned. However, errors of the same item number are ranked with the same priority.)

\* Even though the projector is under one of the conditions listed in the Error List, a command that is executable is performed. For example, an executable command is activated while the zoom lens is driven.

# 8. Error Processing





