

**EXPAND SERIAL COMMAND**

**FUNCTIONAL SPECIFICATIONS**

**PDG-DWL100**

Ver. 1.00

**SANYO Electric Co., Ltd**  
**DS Company**  
**Projector Division**

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### 3 . Notes for communication

**3.1** Expand Serial Command is defined as a single command per line that starts with “C” and ends with carriage return (0x0D).

**3.2** When a projector receives carriage return (0x0D), it starts decoding.

**3.3** There are two types of commands; the Functional Execution Command and the Status Read Command.

- Example of Functional Execution Command: "CF\_BRIGHT\_032" [CR]
- Example of Status Read Command: "CR\_BRIGHT" [CR]

Note) “\_” indicates a space

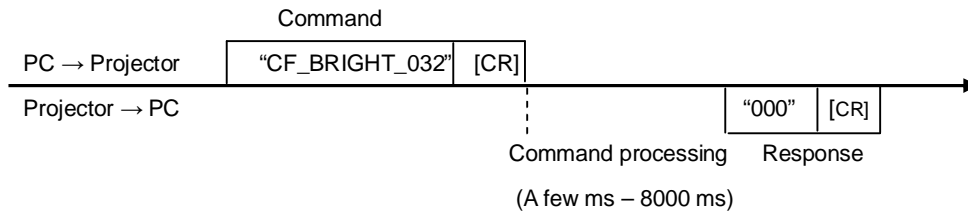
**3.4** It clears the information of buffer in the conditions below:

- When the projector receives LF (0x0A) or EOF (0x1A).
- When it takes more than one second to receive a single command.

(Until receiving the carriage return after the reception of the first data.)

**3.5** The projector processes commands and returns responses within a few ms to 8000 ms after the reception of the command.

When several commands are issued in succession, do not send another command unless the response to the previous command has been returned; need to confirm that the processing of the current command has been completed and returned the response before sending another command.



Note) When the computer sends another command before the previous response has been returned, the projector may not operate properly.

Note) When the current command processing has not been completed, another command process cannot be accepted by the projector.

**3.5.1** Normally it is less than 1000ms for the completion of receiving a command and returning the response, but it takes more than 1000ms for some Functional Execution Commands (CF commands) as listed below:

Command	Item
CF_IMAGE	Select Image Mode
CF_INPUT	Select Input
CF_SCREEN	Select Screen Size
CF_SYSTEM	Select System
CF_IMAGEADJ	Reset/Store for Image Adjustment

It takes about 8 seconds for the internal initialization after plugging in AC power.

During this time commands cannot be processed. Do not issue any command.

#### 4 . Notation

**4.1** Data from a controller to a projector is represented as COMMAND, and responded data from a projector to a controller against the incoming command is represented as RESPONSE.

**4.2 [CR]: Carriage Return Code**

The command ends with carriage return code.

The response also ends with carriage return code.

**4.3 \_:** Space Code

All space code is indicated by (\_).

**4.4 %1:** Parameter included in command.

When there is more than one parameter, they are represented as %2, %3...

In this specifications, "Slot" notation is same as "Input" notation. Etc.Slot1=Input1.

**5. Functional Execution Command Table**

**5.1. Image Command Table**

Execute command	Item
CF_BRIGHT_%1[CR]	Set value of Brightness
CF_CONT_%1[CR]	Set value of Contrast
CF_COLOR_%1[CR]	Set value of Color
CF_SHARP_%1[CR]	Set value of Sharpness
CF_GAMMA_%1[CR]	Set value of Gamma Correction
CF_COLTEMP_%1[CR]	Set level of Color Temperature
CF_IMAGE_%1[CR]	Set Image mode Preset
CF_BCOLOR_%1[CR]	Set value of Brilliant Color
CF_TINT_%1[CR]	Set value of Tint
CF_WHITEPEAKING_%1[CR]	Set value of White peaking

**5.2. PC Control Command Table**

Execute command	Item
CF_FSYNC_%1[CR]	Set value of Fine sync
CF_TDOTS_%1[CR]	Set value of Total dots
CF_H-POS_%1[CR]	Set value of Horizontal Position
CF_V-POS_%1[CR]	Set value of Vertical Position

**5.3. Input Control Command Table**

Execute command	Item
CF_INPUT_%1[CR]	Select Input
CF_SYSTEM_%1[CR]	Select System in Video or S-Video input mode
CF_INPUT1_%1[CR]	Select Input1 and set input selected in %1
CF_INPUT2_%1[CR]	Select Input2 and set input selected in %1
CF_INPUT3_%1[CR]	Select Input3 and set input selected in %1
CF_INPUT4_%1[CR]	Select Input4 and set input selected in %1
CF_INPUT5_%1[CR]	Select Input5 and set input selected in %1
CF_INPUT6_%1[CR]	Select Input6 and set input selected in %1
CF_INPUT7_%1[CR]	Select Input7 and set input selected in %1
CF_INPUT8_%1[CR]	Select Input8 and set input selected in %1

**5.4. Screen Command Table**

Execute command	Item
CF_SCREEN_%1[CR]	Select Aspect Ratio.
CF_KEystone_%1[CR]	Set Keystone Correction
CF_MOUNTING_%1[CR]	Select Mounting mode
CF_DZCENT_%1[CR]	Cancel Digital zoom

**5.5. Lamp Command Table**

Execute command	Item
CF_LAMPH_%1[CR]	Reset total lamp running time for each lamp
CF_LAMPMODE_%1[CR]	Switch dimmer function levels of Normal/Eco

**5.6. Sound Command Table**

<b>Execute command</b>	<b>Item</b>
<b>CF_VOLUME_%1[CR]</b>	Set value of Volume.
<b>CF_MUTE_%1[CR]</b>	Set ON/OFF of Sound Mute.

**5.7. Setting Command Table**

<b>Execute command</b>	<b>Item</b>
<b>CF_INPUTSEARCH_%1[CR]</b>	Set ON/OFF of Input search
<b>CF_LANG_%1[CR]</b>	Select language for OSD
<b>CF_P-MANETIME_%1[CR]</b>	Set timer for Power management
<b>CF_FDEFAULT_%1[CR]</b>	Return the settings to Factory Default status
<b>CF_RS232MODE_%1[CR]</b>	Set RS232/LAN of RS232 mode
<b>CF_STANDBYMODE_%1[CR]</b>	Set Standby mode.
<b>CF_CCAPTION_%1[CR]</b>	Set Closed caption.
<b>CF_FANCONTROL_%1[CR]</b>	Set Fan control.
<b>CF_LAMPLIFERE_%1[CR]</b>	Set Lamp life Reminder.
<b>CF_RCODE_%1[CR]</b>	Select Remote Control Reception Code
<b>CF_FREEZE_%1[CR]</b>	Set Freeze on.

## 6 Status Read Command Table

### 6.1 Image Status Read Command Table

Status read command	Item
CR_BRIGHT [CR]	Get value of Brightness
CR_CONT [CR]	Get value of Contrast
CR_COLOR [CR]	Get value of Color
CR_SHARP [CR]	Get value of Sharpness
CR_GAMMA [CR]	Get value of Gamma
CR_COLTEMP [CR]	Get value of Color temperature
CR_IMAGE [CR]	Get Selected Image Status
CR_BCOLOR [CR]	Set value of Brilliant Color
CR_TINT [CR]	Set value of Tint
CR_WHITEPEAKING [CR]	Get value of White peaking

### 6.2 PC Status Read Command Table

Status read command	Item
CR_FSYNC [CR]	Get setting value of Fine Sync.
CR_TDOTS [CR]	Get setting value of Total Dots
CR_H-POS [CR]	Get setting value of Horizontal Position
CR_V-POS [CR]	Get setting value of Vertical Position
CR_SETPCADJ [CR]	Get currently displayed signal

### 6.3 Video Status Read Command Table

Status read command	Item
CR_SERSYS [CR]	Get currently selected signal.

### 6.4 Input Status Read Command Table

Status read command	Item
CR_INPUT [CR]	Get selected Input
CR_SOURCE [CR]	Get selected Source
CR_SYSTEM [CR]	Get selected System in Video Input mode
CR_SRCINP1 [CR]	Get selected source for Input 1
CR_SRCINP2 [CR]	Get selected source for Input 2
CR_SRCINP3 [CR]	Get selected source for Input 3
CR_SRCINP4 [CR]	Get selected source for Input 4
CR_SRCINP5 [CR]	Get selected source for Input 5
CR_SRCINP6 [CR]	Get selected source for input 6
CR_SRCINP7 [CR]	Get selected source for input 7
CR_SRCINP8 [CR]	Get selected source for input 8

### 6.5 Screen Status Read Command Table

Status read command	Item
CR_SCREEN [CR]	Get selected screen size
CR_KYSTNMODE [CR]	Get Keystone mode
CR_MOUNTING [CR]	Get Mounting mode

**6.6 Lamp Status Read Command Table**

Status read command	Item
CR_LAMPREPL[CR]	Get information on Lamp replacement time
CR_LAMPH [CR]	Get total Actuality used time of lamps
CR_LAMPMODE [CR]	Get setting status of dimmer function level.
CR_LAMPSTS [CR]	Get Lamp lighting status
CR_PROJH [CR]	Get total running time of projector
CR_HMLAMP [CR]	Get the total number of lamps

**6.7 Sound Status Read Command Table**

Status read command	Item
CR_VOLUME [CR]	Get value of Volume.
CR_MUTE [CR]	Get setting status of Mute.

**6.8 Setting Status Read Command Table**

Status read command	Item
CR_INPUTSEARCH [CR]	Get setting status of Input search.
CR_LANG [CR]	Get selected language
CR_P-MANETIME [CR]	Get value of time when Power management
CR_SECURITY [CR]	Get setting status of security
CR_PJLOCKKNOW [CR]	Get actual setting status of security
CR_PJLOCKMENU [CR]	Get setting status of security of menu
CR_RS232MODE [CR]	Get setting status of RS232 mode
CR_STANDBYMODE[CR]	Get setting status of Standby mode.
CR_CCAPTION [CR]	Get setting status of Closed caption.
CR_FANCONTROL [CR]	Get setting status of Fan control.
CR_LAMPLIFERE [CR]	Get setting status of Lamp life Reminder.
CR_RCODE [CR]	Get selected Remote Control Code

**6.9 Other Status Read Command Table**

Status read command	Item
CR_STATUS [CR]	Get status of projector.
CR_SIGNAL [CR]	Get status of signal existence.
CR_VMUTE [CR]	Get setting status of No Show.
CR_FREEZE [CR]	Get setting status of Freeze
CR_TEMPWARN [CR]	Get temperature status whether it is close to abnormal level or not.
CR_TEMPFAIL [CR]	Get temperature in abnormal temperature status.
CR_TEMP [CR]	Get temperature status of now.

**7 Error Code Table**

<b>Error Code</b>	<b>Contents</b>
?	-When the received data which cannot be decoded. -Parameter designation error (wrong digit number, including invalid value, etc.)
000	Normal reception. (This is "Not" error.)
101	Specified function is not available in the selected mode.
102	Specified value is out of range. (Not reflected)
103	Command mismatched to Hardware (The command is for the Optional function which is not implemented)
201	Increased/decreased value is out of range in the item which is specified with numerical parameter or changeable numerical value.

## 8 Functional Execution CommandFormat

- PC issues a command in the format below:

**Pattern1:** “CF\_ Command” [CR]

**Pattern2:** “CF\_ Command \_” %1 [CR]

CF\_: Header

Command: Text

%1: Parameter (Text)

\_: Space (To separate Command and Parameter)

- The projector decodes the received command and when it gets ready to receive another command, it returns the Correspondence.

“000” [CR]: (0x06, 0x0D) When the projector receives the Functional Execution Command.

“nnn” [CR]: Except “000”, when it cannot execute commands for some specific reason.

Refer to [7. Error Code Table] for detail.

- When the projector cannot decode the command, it returns “?” [CR].

### 8.2 Transfer Example

When setting projector’s total dots to 1344 by Expand Command.

PC → PJ: “CF\_TDOTS\_1344” [CR]

PC ← PJ: “000” [CR] ----- Acceptable

### 8.3 Operation Requirements

Functional Execution Commands are limited in the status bellow/

(Status Read Commands are available in following status.)

Projector Status	Available Functional Execution Command
In Standby Mode	C00: POWER ON
Cooling Down in process	NONE (No Execution)
Cooling Down in process due to abnormal temperature	NONE (No Execution)
In Abnormal Temperature	NONE (No Execution)
Power Failure (For 60 seconds after Power failed.)	NONE (No Execution)

Note) The projector returns an appropriate error code when it receives other command in the above status.

## 8.4 Image Command

### 8.4.1 CF\_BRIGHT Command

Command	"CF_BRIGHT_%1" [CR]	
%1	"-50~050" ----- Directly specify setting value of Brightness "UP" ----- Increment setting value of Brightness by 1 "DN" ----- Decrement setting value of Brightness by 1	
Details	Set user controlled value of Brightness. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.2 CF\_CONT Command

Command	"CF_CONT_%1" [CR]	
%1	"-50~050" ----- Directly specify setting value of Contrast "UP" ----- Increment setting value of Contrast by 1 "DN" ----- Decrement setting value of Contrast by 1	
Details	Set user controlled value of Contrast. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.3 CF\_COLOR Command

Command	"CF_COLOR_%1" [CR]	
%1	"-16~016" ----- Directly specify setting value of Color "UP" ----- Increment setting value of Color by 1 "DN" ----- Decrement setting value of Color by 1	
Details	Set user controlled value of Color. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.4 CF\_SHARP Command

Command	"CF_SHARP_%1" [CR]	
%1	"000~031" ----- Directly specify setting value of Sharpness. "UP" ----- Increment setting value of Sharpness by 1 "DN" ----- Decrement setting value of Sharpness by 1	
Details	Set user controlled value of Sharpness. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.5 CF\_GAMMA Command

Command	"CF_GAMMA_%1" [CR]	
%1	"000~003" ----- Directly specify setting value of Gamma "UP"----- Increment setting value of Gamma by 1 "DN"----- Decrement setting value of Gamma by 1	
Details	Set user controlled value of Gamma. (Available only in the normal Power ON status) No display is shown when projector received command	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.6 CF\_COLTEMP Command

Command	"CF_COLTEMP_%1" [CR]	
%1	"000" – "002" "UP" -----Change the Color Temp upward "DN" -----Change the Color Temp downward	
Details	Set Color Temperature (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.7 CF\_IMAGE Command

Command	"CF_IMAGE__%1" [CR]	
%1	"PRESEN" ----- Presentation (Fixed value to display graphic image with Presentation) "BRIGHT" ----- Bright (Fixed value to focus on tone reproduction for Bright) "MOVIE" ----- Movie (Fixed value to focus on tone reproduction for Movie) "SRGB" ----- sRGB (Fixed value to focus on tone reproduction for sRGB) "USER" ----- USER (Fixed value to focus on tone reproduction for USER)	
Details	Select Image mode. (Available only in the normal Power ON status) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.8 CF\_BCOLOR Command

Command	"CF_BCOLOR_%1"[CR]	
%1	"ON-OFF"----- Directly specify setting value of Brilliant Color. "UP"---- Change the Brilliant Color upward "DN"---- Change the Brilliant Color downward	
Details	Set user controlled value of Brilliant Color. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.9 CF\_TINT Command

Command	"CF_TINT_%1"[CR]	
%1	"-50~050"----- Directly specify setting value of Tint. "UP"---- Set Tint to UP "DN"---- Set Tint to DN	
Details	Set user controlled value of Tint. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.4.10 CF\_WHITEPEAKING Command

Command	"CF_WHITEPEAKING_%1"[CR]	
%1	"000~010"----- Directly specify setting value of White peaking. "UP"----- Increment setting value of White peaking by 1 "DN" ----- Decrement setting value of White peaking by 1	
Details	Set user controlled value of White peaking. (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.5 PC Control Command

### 8.5.1 CF\_FSYNC Command

Command	"CF_FSYNC_%1" [CR]	
%1	"0000~0031" ----- Directly specify setting value of Fine sync "UP" ----- Increment setting value of Fine sync by 1 "DN" ----- Decrement setting value of Fine sync by 1	
Details	Set value of Fine sync in PC signal (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.5.2 CF\_TDOTS Command

Command	"CF_TDOTS_%1" [CR]	
%1	"-005 ~ 0005" ----- Directly specify setting value of Total dots "nnnn" indicates minimum value, which is current (Display Dots + Position H) value "UP" ----- Increment setting value of Total dots by 1 "DN" ----- Decrement setting value of Total dots by 1	
Details	Set value of Total Dots in PC signal (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.5.3 CF\_H-POS Command

Command	"CF_H-POS_%1" [CR]	
%1	"-005~0005" ----- Directly specify setting value of Horizontal Position "nnnn" indicates maximum value, which is current value of (Total Dots - Display Dots) "UP" ----- Increment setting value of Horizontal Position by 1 "DN" ----- Decrement setting value of Horizontal Position by 1	
Details	Set value of Horizontal Position in PC signal (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.5.4 CF\_V-POS Command

Command	"CF_V-POS_%1" [CR]	
%1	"-005~0005" ----- Directly specify setting value of Vertical Position "nnnn" indicates maximum value, which is current (Total Line - Display Line) value "UP" ----- Increment setting value of Vertical Position by 1 "DN" ----- Decrement setting value of Vertical Position by 1	
Details	Set Vertical Position value in PC signal (Available only in the normal Power ON status) No display is shown when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.6 Input Control Command

### 8.6.1 CF\_INPUT Command

Command	"CF_INPUT_%1" [CR]	
%1	"HDMI" ----- Select HDMI "COMPUTER1" ----- Select Computer 1 "YPBPR1" ----- Select YPbPr 1 "COMPUTER2" ----- Select Computer 2 "YPBPR2" ----- Select YPbPr 2 "SCART" ----- Select Scart "VIDEO" ----- Select Video "S-VIDEO" ----- Select S-video	
Details	Select Input (Valid only when it is in the normal Power ON status.) This command works the same way as "SOURCE" button of the projector and remote control. The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.2 CF\_SYSTEM Command

Command	"CF_SYSTEM_%1" [CR]	
%1	Input is Video	"AUTO" ----- Select MODE 1 "NTSC" ----- Select MODE 2 "PAL" ----- Select MODE 3 "SECAM" ----- Select MODE 4
	Input is S-Video	"AUTO" ----- Select MODE 1 "NTSC" ----- Select MODE 2 "PAL" ----- Select MODE 3 "SECAM" ----- Select MODE 4
Details	Select system of the currently selected Input. (Valid only when in the normal Power ON status.) When selected Input does not meet the requirement for the specified %1, return "101" [CR] and the command is not executed. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.3 CF\_INPUT1 Command

Command	"CF_INPUT1_%1" [CR]	
%1	"HDMI" ----- Select HDMI	
Details	Select HDMI (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.4 CF\_INPUT2 Command

Command	"CF_INPUT2_%1" [CR]	
%1	"COMPUTER 1" ----- Select Computer1	
Details	Select Computer1 (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.5 CF\_INPUT3 Command

Command	"CF_INPUT3_%1" [CR]	
%1	"YPBPR1" ----- Select YPbPr1	
Details	Select YPbPr1 (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.6 CF\_INPUT4 Command

Command	"CF_INPUT4_%1" [CR]	
%1	"COMPUTER2" ----- Select Computer2	
Details	Select Computer2 (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.7 CF\_INPUT5 Command

Command	"CF_INPUT5_%1" [CR]	
%1	"YPBPR 2" ----- Select YPbPr 2	
Details	Select YPbPr 2 (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.6.8 CF\_INPUT6 Command

Command	"CF_INPUT6_%1" [CR]	
%1	"SCART" ----- Select Scart	
Details	Select Scart (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.6.9 CF\_INPUT7 Command**

Command	"CF_INPUT7_%1" [CR]	
%1	"VIDEO" ----- Select Video	
Details	Select Video (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.6.10 CF\_INPUT8 Command**

Command	"CF_INPUT8_%1" [CR]	
%1	"S-VIDEO" ----- Select S-video	
Details	Select S-video (Valid only when it is in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.7 Screen Control Command

### 8.7.1 CF\_SCREEN Command

Command	"CF_SCREEN_%1" [CR]	
%1	"NORMAL" ----- Select 4:3 screen display "WIDE" ----- Select 16 : 10 screen display "TRUE" ----- Select native screen display "UP" ----- Switch screen upward "DN" ----- Switch screen downward	
Details	Select screen size. (Valid only when in the normal Power ON status.) The projector shows Image OSD at receiving the command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.7.2 CF\_KEystone Command

Command	"CF_KEystone_%1" [CR]	
%1	"UP" ----- Correct Keystone distortion to resize upper part of image "FUP" ----- Correct Keystone distortion to resize upper part largely "DN" ----- Correct Keystone distortion to resize lower part of image "FDN" ----- Correct Keystone distortion to resize lower part largely "RST" ----- Reset keystone adjust	
Details	Change the correction level of Keystone distortion. (Valid only when in the normal Power ON status.) When the value reaches the correction limit, the projector accepts the command but does not execute it. The behavior is the same as the "Keystone +/-" button of the remote control A scale OSD is shown by adjusting Keystone and the scale reflects adjusting value	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.7.3 CF\_MOUNTING Command

Command	"CF_MOUNTING_%1" [CR]	
%1	"FDESKTOP" ----- Select Front-Desktop "RDESKTOP" ----- Select Rear-Desktop "FCEILING" ----- Select Front-Ceiling "RCEILING" ----- Select Rear-Ceiling	
Details	Select Mounting mode. (Valid only when in the normal Power ON status.)	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.7.4 CF\_DZCENT Command

Command	"CF_DZCENT_%1" [CR]	
%1	"CENT" ----- Cancel Digital Zoom ( CENT : "CENTER )	
Details	Cancel Digital Zoom When image is expanded or shrunk, reset its value. (Valid only when in the normal Power ON status.)	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.8 Lamp Command

### 8.8.1 CF\_LAMPH Command

Command	"CF_LAMPH_%1"[CR]	
%1	"RST"	
Details	Reset total lamp running time This command is available in normal Power ON status.	
Correspondence	Acceptable	Acceptable
	Unacceptable	Unacceptable

### 8.8.2 CF\_LAMPMODE Command

Command	"CF_LAMPMODE_%1" [CR]	
%1	"ON" ----- Set lamp control mode to ECO "OFF" ----- Set lamp control mode to NORMAL	
Details	Select Eco mode. (Valid only when in the normal Power ON status.) The value set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.9 Sound Command

### 8.9.1 CF\_VOLUME Command

Command	"CF_VOLUME_%1" [CR]	
%1	"000~010" "UP" ----- Set Volume to UP "DN" ----- Set Volume to DN	
Details	Set value of Volume. (Valid only when in the normal Power ON status.) The command behaves the same as remote control, which adjusts volume directly and release the sound-mute function. The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. Display OSD when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.9.2 CF\_MUTE Command

Command	"CF_MUTE_%1" [CR]	
%1	"ON" ----- Set Sound Mute ON "OFF" ----- Set Sound Mute OFF	
Details	Set/Cancel Sound Mute. (Valid only when in the normal Power ON status.) Display OSD when projector received command.	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

## 8.10 Setting Command

### 8.10.1 CF\_INPUTSEARCH Command

Command	"CF_INPUTSEARCH_%1" [CR]	
%1	"ON" ----- Set Input search to ON "OFF" ----- Set Input search to OFF	
Details	On/Off Input search. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.10.2 CF\_LANG Command

Command	"CF_LANG_%1" [CR]	
%1	"ENG" ----- Select ENGLISH "DEU" ----- Select German "FRA" ----- Select French "ITA" ----- Select Italian "ESP" ----- Select Spanish "SVE" ----- Select Swedish "JPN" ----- Select Japanese "CHI" ----- Select Chinese "POL" ----- Select Poland "TUR" ----- Select Turkish "GRE" ----- Select Greece "NOR" ----- Select Norway "CZE" ----- Select Czech "KOR" ----- Select Korea "RUS" ----- Select Russia "POR" ----- Select Portuguese "HUN" ----- Select Hungarian	
Details	Select language for OSD. (Valid only when in the normal Power ON status.) The language set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

### 8.10.3 CF\_P-MANETIME Command

Command	"CF_P-MANETIME_%1" [CR]	
%1	"000~180" ----- Power management ( step = 10 ) "UP" ----- Increase the timer for Power management "DN" ----- Decrease the timer for Power management	
Details	Set/Cancel Power Management. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.10.4 CF\_FDEFAULT Command**

Command	"CF_FDEFAULT_%1" [CR]	
%1	"RST"	
Details	Return the settings to Factory Default status (Valid only when in the normal Power ON status) No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.10.5 CF\_RS232MODE Command**

Command	"CF_RS232MODE_%1" [CR]	
%1	"RS232" ----- Set RS232 "LAN" ----- Set LAN	
Details	Select RS232 mode. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.10.6 CF\_STANDBYMODE Command**

Command	"CF_STANDBYMODE_%1" [CR]	
%1	"ON" ----- Set Standby mode On "OFF" ----- Set Standby mode Off	
Details	Select Eco Standby mode. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

**8.10.7 CF\_CCAPTION Command**

Command	"CF_CCAPTION_%1" [CR]	
%1	"OFF" ----- Set Off "CC1" ----- Set CC1 "CC2" ----- Set CC2	
Details	Select Closed caption. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. No display is shown when projector received command..	
Correspondence	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]



## 9 Status Read Command

### 9.1 Format

- 1) PC issues a command in the format below:

**"CR\_Command" [CR]**

Command: String

- 2) When the projector receives the applicable command, it returns the required information as a data string.

**"000\_" %1 [CR]**

%1: required Information (a data string. Refer to [Basic Status Read Command Table])

- 3) When the received data cannot be decoded, the projector returns **"?" [CR]**

### 9.2 Transfer Example

Getting total dots of the projector by Expand Serial Commands

PC → PJ: "CR\_TDOTS" [CR]

PC ← PJ: "000\_%1344" [CR]

### 9.3 OSD

Don't display OSD when projector received Status Read command.

## 9.4 Image Status Read Commands

### 9.4.1 CR\_BRIGHT Command

Command	"CR_BRIGHT" [CR]	
Details	Get user controlled value of Brightness	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-50" – "050"
	Unacceptable	"?" [CR]

### 9.4.2 CR\_CONT Command

Command	"CR_CONT" [CR]	
Details	Get user controlled value of Contrast	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-50" – "050"
	Unacceptable	"?" [CR]

### 9.4.3 CR\_COLOR Command

Command	"CR_COLOR" [CR]	
Details	Get user controlled value of Color	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-16" – "016"
	Unacceptable	"?" [CR]

### 9.4.4 CR\_SHARP Command

Command	"CR_SHARP" [CR]	
Details	Get user controlled value of Sharpness	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000" – "031"
	Unacceptable	"?" [CR]

### 9.4.5 CR\_GAMMA Command

Command	"CR_GAMMA" [CR]	
Details	Get user controlled value of Gamma	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000" – "003"
	Unacceptable	"?" [CR]

#### 9.4.6 CR\_COLTEMP Command

Command	"CR_COLTEMP" [CR]	
Details	Get Color Temp setting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000": "001": "002":
	Unacceptable	"?" [CR]

#### 9.4.7 CR\_IMAGE Command

Command	"CR_IMAGE" [CR]	
Details	Get image setting status.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"PRESEN" ----- Presentation (Fixed value to display graphic image with Presentation) "BRIGHT" ----- Bright (Fixed value to focus on tone reproduction for Bright) "MOVIE" ----- Movie (Fixed value to focus on tone reproduction for Movie) "SRGB" ----- sRGB (Fixed value to focus on tone reproduction for sRGB) "USER" ----- USER (Fixed value to focus on tone reproduction for USER)
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition . "?" [CR] ----- When unknown command is received

#### 9.4.8 CR\_BRTCOLOR Command

Command	"CR_BCOLOR" [CR]	
Details	Get user controlled value of Brilliant Color	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON-OFF"----- Directly specify setting value of Brilliant Color.
	Unacceptable	"?" [CR]

#### 9.4.9 CR\_TINT Command

Command	"CR_TINT" [CR]	
Details	Get user controlled value of Tint.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-50" – "050"
	Unacceptable	"?" [CR]

#### 9.4.10 CR\_WHITEPEAKING Command

Command	"CR_WHITEPEAKING" [CR]	
Details	Get user controlled value of White peaking	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000" – "010"
	Unacceptable	"?" [CR]

## 9.5 PC Status Read Commands

### 9.5.1 CR\_FSYNC Command

Command	"CR_FSYNC" [CR]	
Details	Get value of Fine Sync	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"0000-0031" ----- Directly specify setting value of Fine sync
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.5.2 CR\_TDOTS Command

Command	"CR_TDOTS" [CR]	
Details	Get value of Total Dots	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-005" – "0005" (nnnn = Display Dots + Horizontal Position)
	Unacceptable	"Error Code" [CR] ---- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.5.3 CR\_H-POS Command

Command	"CR_H-POS" [CR]	
Details	Get value of Horizontal Position	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-005" – "0005" (nnnn = Total Dots - Display Dots)
	Unacceptable	"Error Code" [CR] ---- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.5.4 CR\_V-POS Command

Command	"CR_V-POS" [CR]	
Details	Get value of Vertical Position	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"-005" – "0005" (nnnn = Total Line - Display Line)
	Unacceptable	"Error Code" [CR] ---- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.5.5 CR\_SETPCADJ Command

Command	"CR_SETPCADJ" [CR]	
Details	Get value of Signal name.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	<p>This command is available only Input is PC-Analog. Get value of Signal name.</p> <p>"640x480"-----VGA1 is input. "1024x768"-----XGA1 is input "1600x1200"-----UXGA1 is input</p> <p>Please tell us your spec about value of signal name.</p>
	Unacceptable	"?" [CR] ----- When unknown command is received

## 9.6 Video Status Read Command

### 9.6.1 CR\_SERSYS Command

Command	"CR_SERSYS" [CR]	
Details	Get currently selected signal. Valid only when input is video. (Invalid when Slot is computer)	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"1080i60"----- 1080i 60Hz "1080i50" ----- 1080i 50Hz "1035i" ----- 1035i "720P" ----- 720p "575P" ----- 576p "480P" ----- 480p "575i" ----- 576i (includes composite signal such as PAL) "480i" -----480i (includes composite signal such as NTSC) "NO_SIGNAL" ----- There is no signal
	Unacceptable	"?" [CR]

## 9.7 CR\_INPUT Command

### 9.7.1 CR\_INPUT Command

Command	"CR_INPUT" [CR]	
Details	Get Setting of Input number.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"1" ----- HDMI is selected "2" ----- Computer 1 is selected "3" ----- YPbPr 1 is selected "4" ----- Computer 2 is selected "5" ----- YPbPr 2 is selected "6" ----- Scart is selected "7" ----- Video is selected "8" ----- S-video is selected
	Unacceptable	"?" [CR]

### 9.7.2 CR\_SOURCE Command

Command	"CR_SOURCE" [CR]	
Details	Get selected Source	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"HDMI"----- HDMI is selected "COMPUTER1" ----- Computer1 is selected "YPBPR1" -----YPbPr1 is selected "COMPUTER2" ----- Computer2 is selected "YPBPR2" -----YPbPr2 is selected "SCART" ----- Scart is selected "VIDEO" ----- Video is selected "S-VIDEO" ----- S-VIDEO is selected
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.7.3 CR\_SYSTEM Command

Command	"CR_SYSTEM" [CR]	
Details	Get selected System	
Correspondence	Acceptable	"000_%1" [CR]
	%1	Slot is PC signal "VGA1" -----VGA1 is selected "VGA2" -----VGA2 is selected : : "XGA1" -----XGA1 is selected : : "1080i" -----1080i is selected "1035i" -----1035i is selected "720p" -----720p is selected "575p" -----575p is selected "480p" -----480p is selected "575i" -----575i is selected "480i" -----480i is selected
	%1	Slot is Video "AUTO" ----- Auto is selected "NTSC" ----- NTSC is selected "NTSC443" ----- NTSC4.43 is selected "PAL" ----- PAL is selected "SECAM" ----- SECAM is selected "PAL-M" ----- PAL-M is selected "PAL-N" ----- PAL-N is selected "1080i60" ----- 1080i60Hz is selected "1080i50" ----- 1080i50Hz is selected "1035i" ----- 1035i is selected "720P" ----- 720p is selected "575P" ----- 575p is selected "480P" ----- 480p is selected "575i" ----- 575i is selected "480i" ----- 480i is selected
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.7.4 CR\_SRCINP1 Command

Command	"CR_SRCINP1" [CR]	
Details	Get Source of Input 1	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"HDMI" ----- Source is HDMI
	Unacceptable	"?" [CR]

### 9.7.5 CR\_SRCINP2 Command

Command	"CR_SRCINP2" [CR]	
Details	Get Source of Input 2	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"COMPUTER1" ----- Source is Computer1
	Unacceptable	"?" [CR]

**9.7.6 CR\_SRCINP3 Command**

Command	"CR_SRCINP3" [CR]	
Details	Get Source of Input 3	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"YPBPR1" ----- Source is YPbPr1
	Unacceptable	"?" [CR]

**9.7.7 CR\_SRCINP4 Command**

Command	"CR_SRCINP4" [CR]	
Details	Get Source of Input 4	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"COMPUTER2" ----- Source is Computer2
	Unacceptable	"?" [CR]

**9.7.8 CR\_SRCINP5 Command**

Command	"CR_SRCINP5" [CR]	
Details	Get Source of Input 5	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"YPBPR2" ----- Source is YPBPR2
	Unacceptable	"?" [CR]

**9.7.9 CR\_SRCINP6 Command**

Command	"CR_SRCINP6" [CR]	
Details	Get Source of Input 6	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"SCART" ----- Source is Scart
	Unacceptable	"?" [CR]

**9.7.10 CR\_SRCINP7 Command**

Command	"CR_SRCINP7" [CR]	
Details	Get Source of Input 7	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"VIDEO" ----- Source is Video
	Unacceptable	"?" [CR]

**9.7.11 CR\_SRCINP8 Command**

Command	"CR_SRCINP8" [CR]	
Details	Get Source of Input 8	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"S-VIDEO" ----- Source is S-video
	Unacceptable	"?" [CR]

## 9.8 Screen Status Read Commands

### 9.8.1 CR\_SCREEN Command

Command	"CR_SCREEN" [CR]	
Details	Get currently selected screen image size	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"NORMAL" ----- 4:3 screen is selected "WIDE" ----- 16 : 10 screen is selected "TRUE" ----- Native screen is selected
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.8.2 CR\_KYSTNMODE Command

Command	"CR_KYSTNMODE" [CR]	
Details	Get currently setting of keystone	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"STR"
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

### 9.8.3 CR\_MOUNTING Command

Command	"CR_MOUNTING" [CR]	
Details	Get currently setting of mounting	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"FDESKTOP" ----- Select Front-Desktop "RDESKTOP" ----- Select Rear-Desktop "FCEILING" ----- Select Front-Ceiling "RCEILING" ----- Select Rear-Ceiling
	Unacceptable	"Error Code" [CR] ----- When command is invalid in the given condition "?" [CR] ----- When unknown command is received

## 9.9 Lamp Status Read Commands

### 9.9.1 CR\_LAMPREPL Command

Command	"CR_LAMPREPL"[CR]	
Details	Get information of Lamp Replacement time	
Response	Acceptable	"000_%1"[CR]
	%1	"1Y" ----- Over lamp replacement time "1N" ----- Within lamp replacement time  "1" means the number of lamps. (1 lamp model→ "1") "Y"/"N" means if it has reached its replacement time or not. e.g. "1Y" -----projector is 1 lamp model and Lamp is over its replacement time
	Unacceptable	"?"[CR]

### 9.9.2 CR\_LAMPH Command

Command	"CR_LAMPH" [CR]	
Details	Get total running time of lamp by hour (h) *Actual running time, not corresponding value	
Correspondence	Acceptable	"000_%1"[CR]
	%1, %2	"00000"~"99999"
	Unacceptable	"?" [CR]

### 9.9.3 CR\_LAMPMODE Command

Command	"CR_LAMPMODE" [CR]	
Details	Get Lamp mode setting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"OFF" ----- NORMAL is selected. "ON" ----- ECO is selected.
	Unacceptable	"Error Code" [CR]

### 9.9.4 CR\_LAMPSTS Command

Command	"CR_LAMPSTS" [CR]	
Details	Get the information of Lamp lighting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"n **** " A number of * should be among 1-4. First character shows how many lamps are incorporated in projector. (1,2 or 4 )  Second character shows following status in order of lamp number. "I" Lamp is ON "O" Lamp is OFF "X" Lamp failure  e.g. "1I" ..... 1 lamp model and Lamp is ON "2IO..... 2 lamps model and No.1 Lamp is ON and No.2Lamp is OFF "4IOXI" .... 4 lamps model and No.1,No.4 lamps are ON. No.2 lamp is OFF and No.3 model is failed.
	Unacceptable	"?" [CR]

### 9.9.5 CR\_PROJH Command

Command	"CR_PROJH" [CR]	
Details	Get total running time of projector (in hours)	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"0000000" – "0099999"
	Unacceptable	"?" [CR]

### 9.9.6 CR\_HMLAMP Command

Command	"CR_HMLAMP" [CR]	
Details	Get total lamp number	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"001"
	Unacceptable	"?" [CR]

## 9.10 SOUND status Read Commands

### 9.10.1 CR\_VOLUME Command

Command	"CR_VOLUME" [CR]	
Details	Get value of volume setting	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000" – "010"
	Unacceptable	"?" [CR]

### 9.10.2 CR\_MUTE Command

Command	"CR_MUTE" [CR]	
Details	Get setting status of Mute	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- Sound mute on "OFF" ----- Sound mute off
	Unacceptable	"?" [CR]

## 9.11 Setting Status Read Commands

### 9.11.1 CR\_INPUTSEARCH Command

Command	"CR_INPUTSEARCH" [CR]	
Details	Get Input search setting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- Input search is set to on. "OFF" ----- Input search is set to off.
	Unacceptable	"?" [CR]

### 9.11.2 CR\_LANG Command

Command	"CR_LANG" [CR]	
Details	Get selected language	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ENG" ----- English is selected "DEU" ----- German is selected "FRA" ----- French is selected "ITA" ----- Italian is selected "ESP" ----- Spanish is selected "SVE" ----- Swedish is selected "CHI" ----- Chinese is selected "JPN" ----- Japanese is selected "POL" ----- Poland is selected "TUR" ----- Turkish is selected "GRE" ----- Greece is selected "NOR" ----- Norway is selected "CZE" ----- Czech is selected "KOR" ----- Korea is selected "RUS" ----- Russia is selected "POR" ----- Portuguese is selected "HUN" ----- Hungarian is selected
	Unacceptable	"?" [CR]

### 9.11.3 CR\_P-MANETIME Command

Command	"CR_P-MANETIME" [CR]	
Details	Get value of Power management timer	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"000" – "180"
	Unacceptable	"?" [CR]

### 9.11.4 CR\_SECURITY Command

Command	"CR_SECURITY" [CR]	
Details	Get status of Security setting.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- On is selected in Security menu "OFF" ----- Off is selected in Security menu
	Unacceptable	"?" [CR]

**9.11.5 CR\_PJLOCKNOW Command**

Command	"CR_PJLOCKNOW" [CR]	
Details	Get setting status of current PJ Lock status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"LOCK" ----- Projector is locked and the password is needed to release the lock "FREE" ----- Either of; 1) Security function is off 2) Security function is on but the password have been entered and the projector has unlocked temporarily.
	Unacceptable	"?" [CR]

**9.11.6 CR\_PJLOCKMENU Command**

Command	"CR_PJLOCKMENU" [CR]	
Details	Get setting status of Security on menu.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- Security is on in menu. "OFF" ----- Security is off in menu.
	Unacceptable	"?" [CR]

**9.11.7 CR\_RS232MODE Command**

Command	"CR_RS232MODE" [CR]	
Details	Get setting status of RS232 mode.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"RS232" ----- RS232 is selected. "LAN" ----- LAN is selected.
	Unacceptable	"?" [CR]

**9.11.8 CR\_STANDBYMODE Command**

Command	"CR_STANDBYMODE" [CR]	
Details	Get setting status of Eco standby Power.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- On is selected. "OFF" ----- Off is selected.
	Unacceptable	"?" [CR]

**9.11.9 CR\_CCAPTION Command**

Command	"CR_CCAPTION" [CR]	
Details	Get setting status of Closed Caption.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"OFF" ----- Off is selected. "CC1" ----- CC1 is selected. "CC2" ----- CC2 is selected.
	Unacceptable	"?" [CR]

**9.11.10 CR\_FANCONTROL Command**

Command	"CR_FANCONTROL" [CR]	
Details	Get setting status of Fan control.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- On is selected. "OFF" ----- Off is selected.
	Unacceptable	"?" [CR]

**9.11.11 CR\_LAMPLIFERE Command**

Command	"CR_LAMPLIFERE" [CR]	
Details	Get setting status of Lamp life Reminder.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- On is selected. "OFF" ----- Off is selected.
	Unacceptable	"?" [CR]

**9.11.12 CR\_RCODE Command**

Command	"CR_RCODE" [CR]	
Details	Get selected Remote Control Code	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"001" ----- Code1 is selected "002" ----- Code2 is selected
	Unacceptable	"?" [CR]

## 9.12 Other Status Read Commands

### 9.12.1 CR\_STATUS Command

Command	"CR_STATUS" [CR]	
Details	Get status of Projector. This command is the same as "CR0" of Basic command, but it returns an error code.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"00" = Power on "80" = Standby "20" = Cooling "10" = Power Error "28" = Temperature Error cooling "21" = Cooling after Lamp Error
	Unacceptable	"?" [CR]

### 9.12.2 CR\_SIGNAL Command

Command	"CR_SIGNAL" [CR]	
Details	Get status if there is any signal or not	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- There is signal "OFF" ----- There is no signal
	Unacceptable	"?" [CR]

### 9.12.3 CR\_VMUTE Command

Command	"CR_VMUTE" [CR]	
Details	Get No Show setting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- No Show is ON. "OFF" ----- No Show is OFF.
	Unacceptable	"?" [CR]

### 9.12.4 CR\_FREEZE Command

Command	"CR_FREEZE" [CR]	
Details	Get Freeze setting status	
Correspondence	Acceptable	"000_%1" [CR]
	%1	"ON" ----- Freeze is ON. "OFF" ----- Freeze is OFF.
	Unacceptable	"?" [CR]

### 9.12.5 CR\_TEMPWARN Command

Command	"CR_TEMPWARN" [CR]	
Details	Get the information about the temperature inside the projector (1) close to an abnormal status 2) in an abnormal status 3) temperature level is normal 4) abnormal status is not detected). Possible to get data from plural sensor s at once.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	<p>** _</p> <p>Sensor 1 data comes first, and then one space, after that sensor 2 data is followed. Each data is as below: "W"--- in or close to the abnormal temp. (Warning Temp.) "S"--- in the safe level of temperature (Safe Temp.) "N"--- the given sensor does not detect abnormal temp.</p> <p>e.g. "S_W" [CR] indicates that the temperature detected at Sensor 1 is in the safe level while Sensor 2 in the abnormal temperature.</p>
	Unacceptable	"?" [CR]

### 9.12.6 CR\_TEMPFAIL Command

Command	"CR_TEMPFAIL" [CR]	
Details	Get the temperature inside the projector when the abnormal status occurs. Possible to get the data from plural sensors at once.	
Correspondence	Acceptable	"000_%1" [CR]
	%1	<p>e.g. "_31.5F"[CR] _ indicates a space. When the temperature goes under 0, the first character become "-", such as "-05.5F".</p> <p>With more than one temperature sensors installed, projector returns the data of each sensor in order. e.g. "_31.5F_35.2S" [CR]</p> <p>The first data indicates sensor 1, then sensor 2 data follows after single space. Last character in each data indicates the status of temperature; In the abnormal temperature ----- "F" In the safe level of temperature ----- "S" Neither in or close to the abnormal temp. ----- "N"</p> <p>The second example above indicates that the temperature detected by sensor 1 is 31.5 and temperature is abnormal, and at sensor 2 is 32.5 degrees and temperature is in the safe temperature.</p> <p>When the abnormal temperature status is not occurred the data become "_00.0S". When the projector is reset, "_00.0S" is set. Every time abnormal temperature status is detected, it renews the data and returns it. It only returns the renewed data of the latest abnormal temperature and the previous data is cleared.</p>
	Unacceptable	"?" [CR]

**9.12.7 CR\_TEMP Command**

Command	"CR_TEMP" [CR]	
Details	<p>Get the information about the temperature inside the projector                  (1) close to the abnormal 2) in the abnormal status 3) in the safe temperature level 4)abnormal status is not detected).                  Possible to get data from plural sensor s at once.</p>	
Correspondence	Acceptable	<p>"000_%1" [CR]</p> <p>%1=Temperature of sensor1                  %2=Temperature of sensor2</p> <p>%1, %2-----fixed 6 digits.                  Between %1 and %2 is space 1 character.</p> <p>"_31.5 F"</p> <p>"_" means a space and "-" changes into "-", when temperature gets below freezing.</p> <p>e.g. -05.5F</p> <p>The last character shows if corresponding sensor is under abnormal temperature.</p> <p>"F" ----- Abnormal temperature                  "W"-----Close to abnormal temperature(Temperature is as high to display Warning)                  "S" -----Not close to abnormal temperature (Temperature is low enough and safe.)                  "N"-----Applicable sensor does not detect abnormal temperature                  "E" -----Not able to return temperature data</p> <p>When several sensors are incorporated, projector returns values continuously.                  Etc. "_31.5F_35.2S"[CR]</p> <p>A data of sensor 1 comes first and a data of sensor 2 follows after single space.</p> <p>As described respectively in e.g., sensor 1 detects abnormal temp., sensor 2 detects 35.2 degrees which means safe temperature.</p> <p>.</p> <p>In case projector cannot return its data due to some hardware failure, the last character becomes "E" such as "_00.0E".</p> <p>Some of the projectors get abnormal temperature because of heat of Lamp ballast in Standby mode or Powering ON. Therefore detection of abnormal temperature is suspended while Standby mode or adequate time after Power ON, and during that time projector returns "_----N" as a temperature data.</p>
	Unacceptable	"?" [CR]