

**EXPAND SERIAL COMMAND**

**FUNCTIONAL SPECIFICATIONS**

**EIKI**

**LC-WB42N**

**Ver.1.00**

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## 1. Overview

- 1.1 This Functional Specification defines communication functions for LC-WB42N.
- 1.2 Compatible to Firmware Ver. 1.x of the projector.
- 1.3 Most commands can be used to control projector remotely from PC by RS-232C. Therefore, the commands are defined as Expand Serial Commands.

## 2. Serial Interface Specification

### 2.1 Transfer Specification

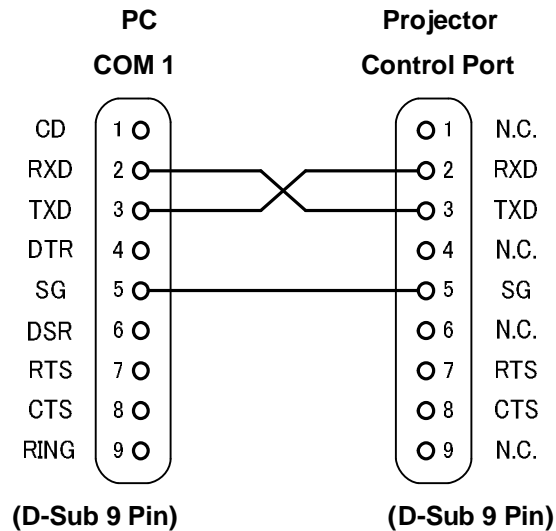
| Item               | Specification |
|--------------------|---------------|
| Synchronous System | Asynchronous  |
| Transmission Speed | 9600 / 19200  |
| Data Length        | 8 bit         |
| Parity             | N/A           |
| Stop Bit           | 1             |
| Flow Control       | N/A           |

Note1) Transmission Speed : initial setting value is 19200

Note2) Transmission Speed can be changed in service mode.

### 2.2 Connection

Dedicated serial cable must be used for a connection to a computer and a projector.





### 3. Notes for communication

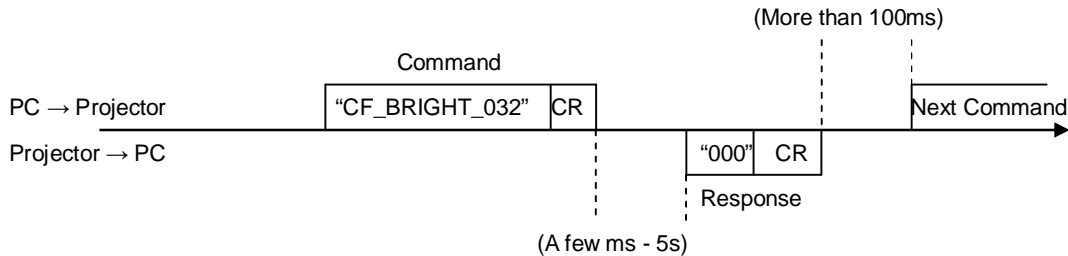
1. Expand Serial Command is defined as one command / one line that starts with "C" and ends with carriage return (0x0D)
2. There are two types of commands: Functional Execution Command and Status Read Command.

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

- Example of Status Read Command: "CR\_RIGHT"[CR]

Note) " \_ " means a space

3. When it takes more than one second to receive one command, it is not executed.  
When it takes more than one second to receive carriage return (0X0D) after the projector receives the first data "C", it clears the information of buffer.
4. On command pipelining, wait for the interval of 100ms till sending next command after receiving a response.



When a computer sends next command before receiving a response, the projector may not operate properly, except when there is no response for more than 5 seconds.

5. It takes about 5 seconds for internal initialization after plugging in AC power. During this time commands cannot be processed. Do not issue any command.

### 4. Name Definition

1. Data from a controller to a projector is represented as COMMAND, and data from a projector to a controller for the incoming command is represented as RESPONSE.
2. [CR] : Carriage Return Code  
Command ends with carriage return code.  
Response also ends with carriage return code.
3. \_ : Space Code  
A space Code is indicated by (\_).
4. %1 : Parameter in Command  
When there are several parameters, they are defined as %2, %3...
5. %%% : Error code returned from a projector  
Acceptable: "000".  
Unacceptable: See [7. Error Code Table].
6. %a : Parameter in Response Command  
When there are several parameters, they are defined as %b, %c...

## 5. Functional Execution Command Table

### 5.1 Image Command Table

| Execute command    | Item                             |
|--------------------|----------------------------------|
| CF_BRIGHT_%1[CR]   | Set Brightness value             |
| CF_CONT_%1[CR]     | Set Contrast value               |
| CF_COLOR_%1[CR]    | Set Color value                  |
| CF_TINT_%1[CR]     | Set Tint value                   |
| CF_SHARP_%1[CR]    | Set Sharpness value              |
| CF_GAMMA_%1[CR]    | Set Gamma value                  |
| CF_WBAL-R_%1[CR]   | Set White Balance Red value      |
| CF_WBAL-G_%1[CR]   | Set White Balance Green value    |
| CF_WBAL-B_%1[CR]   | Set White Balance Blue value     |
| CF_COLTEMP_%1[CR]  | Set Color Temp. value            |
| CF_PROGV_%1[CR]    | Set /Cancel Progressive Scan     |
| CF_NZRED_%1[CR]    | Set/Cancel Noise reduction       |
| CF_IMAGE_%1[CR]    | Set Image mode                   |
| CF_IMAGEADJ_%1[CR] | Reset/Store for Image Adjustment |

### 5.2 PC Adjust Control Command Table

| Execute command      | Item                                                                |
|----------------------|---------------------------------------------------------------------|
| CF_FSYNC_%1[CR]      | Set Fine Sync value                                                 |
| CF_TDOTS_%1[CR]      | Set Total Dots value                                                |
| CF_CLAMP_%1[CR]      | Set Clamp Value                                                     |
| CF_H-POS_%1[CR]      | Set Horizontal Position value                                       |
| CF_V-POS_%1[CR]      | Set Vertical Position value                                         |
| CF_DDOTS_%1[CR]      | Set Display Dots value                                              |
| CF_DLINE_%1[CR]      | Set Display Line value                                              |
| CF_PCSTORE_%1[CR]    | Store the setting value of PC Adjust menu to Mode 1-5               |
| CF_PCMODEFREE_%1[CR] | Delete the registered value in Mode1-5 and return it to Free status |

### 5.3 Input Control Command Table

| Execute command    | Item                                        |
|--------------------|---------------------------------------------|
| CF_INPUT_%1[CR]    | Select Input                                |
| CF_SOURCE_%1[CR]   | Select Input Source                         |
| CF_INPUT1_%1[CR]   | Select computer-1 and source selected in %1 |
| CF_INPUT2_%1[CR]   | Select computer-2 and source selected in %1 |
| CF_INPUT3_%1[CR]   | Select HDMI and source selected in %1       |
| CF_INPUT4_%1[CR]   | Select Video and source selected in %1      |
| CF_INPUT5_%1[CR]   | Select S-video and source selected in %1    |
| CF_INPUT6_%1[CR]   | Select Network and source selected in %1    |
| CF_INPUT_%1_%2[CR] | Select Input and Source                     |
| CF_SYSTEM_%1[CR]   | Select System                               |

## 5.4 Screen Command Table

| Execute command     | Item                             |
|---------------------|----------------------------------|
| CF_SCREEN_%1[CR]    | Select Screen size               |
| CF_DZCENT_%1[CR]    | Cancel Digital Zoom mode         |
| CF_KEYSTONE_%1[CR]  | Set Keystone                     |
| CF_KYSTNMODE_%1[CR] | Set Keystone Store mode          |
| CF_VSCALE_%1[CR]    | Set value of Vertical scale      |
| CF_VPOS_%1[CR]      | Set value of Vertical position   |
| CF_HSCALE_%1[CR]    | Set value of Horizontal scale    |
| CF_HPOS_%1[CR]      | Set value of Horizontal position |

## 5.5 Lamp Command Table

| Execute command    | Item                                  |
|--------------------|---------------------------------------|
| CF_LAMPH_%1[CR]    | Reset total running time of each lamp |
| CF_LAMPMODE_%1[CR] | Select Lamp mode                      |

## 5.6 Sound Command Table

| Execute command  | Item                         |
|------------------|------------------------------|
| CF_VOLUME_%1[CR] | Set Volume value             |
| CF_MUTE_%1[CR]   | Control ON/OFF of Sound Mute |

## 5.7 Setting Command Table

| Execute command          | Item                                          |
|--------------------------|-----------------------------------------------|
| CF_LANG_%1[CR]           | Select language for OSD                       |
| CF_MENUPOSITION_%1[CR]   | Move menu position.                           |
| CF_AUTOSETUPPCADJ[CR]    | Set Auto PC in Auto Setup                     |
| CF_AUTOSETUPKEYSTONE[CR] | Set Auto Keystone in Auto Setup               |
| CF_INPUTSEARCH_%1[CR]    | Set Input search function                     |
| CF_AUTOSETUP_%1[CR]      | Execute Auto Setup                            |
| CF_BACKGND_%1[CR]        | Set screen mode for the case of no signal     |
| CF_DISP_%1[CR]           | Set Display function                          |
| CF_LOGO_%1_%2[CR]        | Set Logo function                             |
| CF_CEIL_%1[CR]           | Set Ceiling function                          |
| CF_REAR_%1[CR]           | Set Rear function                             |
| CF_HDMISSETUP_%1[CR]     | Set Image mode of HDMI menu.                  |
| CF_HDMISOUND_%1[CR]      | Set Sound mode of HDMI menu.                  |
| CF_TERMINAL_%1[CR]       | Select mode of Terminal menu                  |
| CF_POINTER_%1[CR]        | Set Pointer mode                              |
| CF_STANDBYMODE_%1[CR]    | Set Standby Mode                              |
| CF_PIP_%1[CR]            | Select mode of Picture in Picture menu        |
| CF_PIPSIZE_%1[CR]        | Set Subpicture size in Picture in Picture     |
| CF_PIPPOSITION_%1[CR]    | Set Subpicture position in Picture in Picture |
| CF_P-MANE_%1[CR]         | Set Power management function                 |
| CF_P-MANETIME_%1[CR]     | Set Power management time                     |
| CF_ON-STA_%1[CR]         | Set Power ON Start function                   |
| CF_CCAPTIONDISP_%1[CR]   | Set channel of Closed caption                 |
| CF_CCAPTIONCOLOR_%1[CR]  | Set color of Closed caption                   |
| CF_RCODE_%1[CR]          | Select Remote Control Reception Code          |
| CF_KEYDIS_%1[CR]         | Disable RC/Projector keys                     |
| CF_PJPINCODE_%1[CR]      | Input PIN code to release PJ Lock             |
| CF_FANMODE_%1[CR]        | Select Fan mode                               |
| CF_FANCONTRL_%1[CR]      | Select Fan control mode                       |
| CF_FILTIMER_%1[CR]       | Set time when Filter warning OSD is displayed |
| CF_FILH_%1[CR]           | Reset Filter used time                        |
| CF_FDEFAULT_%1[CR]       | Set the value to Factory Default              |

**5.8 Other Command Table**

| <b>Execute command</b>  | <b>Item</b>                                                         |
|-------------------------|---------------------------------------------------------------------|
| <b>CF_KEYEMU_%1[CR]</b> | Behave the same as corresponding key of Projector / Remote control. |
| <b>CF_MENU_%1[CR]</b>   | Switch ON/OFF of each Menu.                                         |
| <b>CF_POWER_%1[CR]</b>  | Switch ON/OFF of Power.                                             |
| <b>CF_FREEZE_%1[CR]</b> | Set Freeze function.                                                |
| <b>CF_VMUTE_%1[CR]</b>  | Set No show function.                                               |
| <b>CF_PTIMER_%1[CR]</b> | Set P-Timer function.                                               |

## 6. Status Read Command Table

### 6.1 Image Status Read Command Table

| Status read command | Item                                   |
|---------------------|----------------------------------------|
| CR_BRIGHT[CR]       | Get Brightness value                   |
| CR_CONT[CR]         | Get Contrast value                     |
| CR_COLOR[CR]        | Get Color value                        |
| CR_TINT[CR]         | Get Tint value                         |
| CR_SHARP[CR]        | Get Sharpness value                    |
| CR_GAMMA[CR]        | Get Gamma value                        |
| CR_WBAL-R[CR]       | White Balance Red value                |
| CR_WBAL-G[CR]       | White Balance Green value              |
| CR_WBAL-B[CR]       | White Balance Blue value               |
| CR_COLTEMP[CR]      | Get setting value of Color temperature |
| CR_NZRED[CR]        | Get setting status of Noise reduction  |
| CR_PROGV[CR]        | Get setting status of Progressive scan |
| CR_IMAGE[CR]        | Get Selected Image status              |
| CR_IMGGMD[CR]       | Get setting value of Image Gamma       |

### 6.2 PC Adjust 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_CLAMP[CR]        | Get setting value of Clamp                    |
| CR_H-POS[CR]        | Get setting value of Horizontal Position      |
| CR_V-POS[CR]        | Get setting value of Vertical Position        |
| CR_DDOTS[CR]        | Get setting value of Display Dots             |
| CR_DLINE[CR]        | Get setting value of Display Line             |
| CR_PCSTORE[CR]      | Get Free or Stored status for PC Adj. mode1-5 |

### 6.3 Video Status Read Command Table

| Status read command | Item                                                                                |
|---------------------|-------------------------------------------------------------------------------------|
| CR_SERSYS[CR]       | Get selected current signal. When in Auto mode, it returns a result by Auto detect. |

### 6.4 Input Status Read Command Table

| Status read command | Item                                            |
|---------------------|-------------------------------------------------|
| CR_INPUT[CR]        | Get selected Input No.                          |
| CR_SOURCE[CR]       | Get selected source of currently selected Input |
| CR_SRCINP1[CR]      | Get selected source of Computer 1               |
| CR_SRCINP2[CR]      | Get selected source of Computer 2               |
| CR_SRCINP3[CR]      | Get selected source of HDMI                     |
| CR_SRCINP4[CR]      | Get selected source of Video                    |
| CR_SRCINP5[CR]      | Get selected source of S-video                  |
| CR_SRCINP6[CR]      | Get selected source of Network                  |
| CR_SYSTEM[CR]       | Get selected system status in Input mode        |
| CR_SYSLIST[CR]      | Get selectable System table                     |
| CR_MODELIST[CR]     | Get selectable Mode table                       |

## 6.5 Screen Status Read Command Table

| Status read command | Item                                      |
|---------------------|-------------------------------------------|
| CR_SCREEN[CR]       | Get selected screen size                  |
| CR_KYSTNMODE[CR]    | Get setting status of Keystone Store mode |
| CR_VSCALE[CR]       | Get setting status of Vertical Scale      |
| CR_VPOS[CR]         | Get setting status of Vertical Position   |
| CR_HSCALE[CR]       | Get setting status of Horizontal Scale    |
| CR_HPOS[CR]         | Get setting status of Horizontal Position |

## 6.6 Lamp Status Read Command Table

| Status read command | Item                                          |
|---------------------|-----------------------------------------------|
| CR_LAMPREPL[CR]     | Get the information for Lamp replacement time |
| CR_LAMPH[CR]        | Get lamp total running time                   |
| CR_LAMPCORRESPH[CR] | Get corresponding lamp use time               |
| CR_LAMPMODE[CR]     | Get Lamp Mode status                          |
| CR_LAMPSTS[CR]      | Get lamp lighting status                      |
| CR_PROJH[CR]        | Get projector total running time              |
| CR_HMLAMP[CR]       | Get lamp number                               |

## 6.7 Sound Status Read Command Table

| Status read command | Item                          |
|---------------------|-------------------------------|
| CR_VOLUME[CR]       | Get Volume value              |
| CR_MUTE[CR]         | Get Sound Mute setting status |

## 6.8 Setting Status Read Command Table

| Status read command  | Item                                                        |
|----------------------|-------------------------------------------------------------|
| CR_LANG[CR]          | Get selected language                                       |
| CR_AUTOSETUPPCADJ    | Get setting status of Auto PC in Auto setup                 |
| CR_AUTOSETUPKEYSTONE | Get setting status of Keystone in Auto setup                |
| CR_INPUTSEARCH[CR]   | Get setting status of Input search                          |
| CR_BACKGND[CR]       | Get setting status screen mode for the case of no signal    |
| CR_DISP[CR]          | Get setting status of Display                               |
| CR_LOGO[CR]          | Get setting status of Logo                                  |
| CR_CEIL [CR]         | Get setting status of Ceiling                               |
| CR_REAR[CR]          | Get setting status of Rear                                  |
| CR_HDMISSETUP[CR]    | Get status of Image mode of HDMI setup.                     |
| CR_HDMISOUND[CR]     | Get status of Sound mode of HDMI setup.                     |
| CR_TERMINAL[CR]      | Get setting status of Terminal.                             |
| CR_POINTER[CR]       | Get setting status of Pointer                               |
| CR_STANDBYMODE[CR]   | Get setting status of Standby Mode                          |
| CR_PIP[CR]           | Get status of mode of Picture in Picture.                   |
| CR_PIPSIZE[CR]       | Get status of Subpicture size in Picture in Picture         |
| CR_PIPPOSITION[CR]   | Get status of position of Subpicture in Picture in Picture. |
| CR_P-MANE[CR]        | Get setting status of Power management                      |
| CR_P-MANETIME[CR]    | Get setting time for Power management                       |
| CR_ON-STA[CR]        | Get setting status of ON Start                              |
| CR_CCAPTIONDISP[CR]  | Get setting status of channel of Closed caption             |
| CR_CCAPTIONCOLOR[CR] | Get setting status of color of Closed caption               |
| CR_RCODE[CR]         | Get selected Remote Control Code                            |
| CR_SECURITY[CR]      | Get setting status of Security                              |
| CR_KEYDIS[CR]        | Get RC/KEY disability status                                |
| CR_PJLOCKNOW[CR]     | Get if PJ Lock is actually in operation                     |
| CR_PJLOCKMENU[CR]    | Get setting status of PJ Lock                               |
| CR_FANMODE[CR]       | Get selected Fan mode                                       |
| CR_FANCONTROL[CR]    | Get selected Fan Control Mode                               |

|                        |                                                 |
|------------------------|-------------------------------------------------|
| <b>CR_FILH[CR]</b>     | Get Filter used time                            |
| <b>CR_FILREPL[CR]</b>  | Get the information for Filter replacement time |
| <b>CR_FILTIMER[CR]</b> | Get time when Filter warning OSD is displayed   |

### 6.9 Other Status Read Command

| <b>Status read command</b> | <b>Item</b>                                                |
|----------------------------|------------------------------------------------------------|
| <b>CR_STATUS[CR]</b>       | Get setting status of Projector behavior                   |
| <b>CR_SIGNAL[CR]</b>       | Get Signal Status if there is a signal or not              |
| <b>CR_VMUTE[CR]</b>        | Get setting status of No Show                              |
| <b>CR_FREEZE[CR]</b>       | Get setting status of Freeze                               |
| <b>CR_PTIMER[CR]</b>       | Get the operating status of Presentation Timer             |
| <b>CR_TEMPWARN[CR]</b>     | Get if temperature is close to abnormal temperature        |
| <b>CR_TEMP[CR]</b>         | Get current temperature status                             |
| <b>CR_TEMPFAIL[CR]</b>     | Get temperature when sensors approach abnormal temperature |

**7. Error Code Table**

| Error Code | Contents                                                                                                                        |
|------------|---------------------------------------------------------------------------------------------------------------------------------|
| ?          | -When the received data cannot be decoded<br>-Parameter determination error (digit number error, including invalid value, etc.) |
| 101        | The function is not available in the selected Mode                                                                              |
| 102        | Selected value is out of range (Not reflected)                                                                                  |
| 103        | Command mismatched to Hardware (command for Optional function which is not installed)                                           |
| 201        | When reached upper or lower limit of increasing or decreasing data                                                              |
| 301        | Command cannot be executed during capturing display. Resend the command after a while                                           |
| 302        | Command cannot be executed during Auto PC operation. Resend the command after a while                                           |
| 303        | Command cannot be executed while Memory Card Viewer is in process. Resend the command after a while                             |
| 402        | Command cannot be executed during PIN code operation. Resend the command after a while.                                         |

Note) These error codes are applied to Expand Command, not to Basic Command



## 8. Functional Execution Command

### 8.1 Format

1. PC issues commands in format as below:

**Pattern1** : "CF\_ COMMAND" [CR]

**Pattern2** : "CF\_ COMMAND\_%1 [CR]

CF\_ : Header

COMMAND : Character line

%1 : Parameter (Character line)

\_ : Space (To separate COMMAND and Parameter)

2. The projector decodes the received command and when it is ready to receive the next command, it returns the response.

"000" [CR] : (0x06, 0x0D) When receiving Functional Execution Command

"nnn" [CR] : Except "000", when it is unable to execute command by any specific reason.

See Error Code Table for details

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

### 8.2 Transfer Example

When setting projector's total dots to 1344 by Expand Serial Command

PC → PJ: "CF\_TDOTS\_1344" [CR]

PC ← PJ: "000"[CR] - - - - - Acceptable

### 8.3 Operation Requirements

Functional Execution Command is limited when the projector status is as below.

However, Status Read Command is effective even under these conditions.

| Projector Status                                               | Available Functional Execution Command                                                                |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Standby Mode                                                   | C00: POWER ON                                                                                         |
| Countdown in process                                           | C00: POWER ON<br>(Terminates Countdown)<br>C01: POWER OFF<br>C02: POWER OFF<br>(Terminates Countdown) |
| Cooling down in process                                        | N/A                                                                                                   |
| Cooling down in process due to Abnormal Temperature            | N/A                                                                                                   |
| Abnormal Temperature                                           | N/A                                                                                                   |
| Power Failure<br>(For 60 seconds after Power Failure occurred) | N/A                                                                                                   |
| Power Save / Cooling down in process                           | N/A                                                                                                   |
| Power Save in process                                          | C00: POWER ON<br>C01: POWER OFF                                                                       |

Note:) When the projector receives the other command in this above status, it returns error code to show the status.

When the projector receives the following functional execution commands, OSD menu is closed except for pop-up menu

## 8.4 Image Command

### 8.4.1 CF\_BRIGHT Command

|          |                                                                                                                                                                                                                                                                                                    |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_BRIGHT_%1"[CR]                                                                                                                                                                                                                                                                                 |                  |
| %1       | "000~063" ----- Directly select Brightness setting value<br>"UP" ----- Current Brightness setting value + 1<br>"DN" ----- Current Brightness setting value - 1                                                                                                                                     |                  |
| Details  | Set Brightness value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                         | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                       | "Error Code"[CR] |

### 8.4.2 CF\_CONT Command

|          |                                                                                                                                                                                                                                                                                                  |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_CONT_%1"[CR]                                                                                                                                                                                                                                                                                 |                  |
| %1       | "000~063" ----- Directly select Contrast setting value<br>"UP" ----- Current Contrast setting value + 1<br>"DN" ----- Current Contrast setting value - 1                                                                                                                                         |                  |
| Details  | Set Contrast value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                       | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                     | "Error Code"[CR] |

### 8.4.3 CF\_COLOR Command

|          |                                                                                                                                                                                                                                                                                               |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_COLOR_%1"[CR]                                                                                                                                                                                                                                                                             |                  |
| %1       | "000~063" ----- Directly select Color setting value<br>"UP" ----- Current Color setting value + 1<br>"DN" ----- Current Color setting value - 1                                                                                                                                               |                  |
| Details  | Set Color value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                    | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                  | "Error Code"[CR] |

### 8.4.4 CF\_TINT Command

|          |                                                                                                                                                                                                                                                                                              |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_TINT_%1"[CR]                                                                                                                                                                                                                                                                             |                  |
| %1       | "000~063" ----- Directly select Tint setting value<br>"UP" ----- Current Tint setting value + 1<br>"DN" ----- Current Tint setting value - 1                                                                                                                                                 |                  |
| Details  | Set Tint value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                 | "Error Code"[CR] |

### 8.4.5 CF\_SHARP Command

|          |                                                                                                                                                                                                                                                                                                   |                  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_SHARP_%1"[CR]                                                                                                                                                                                                                                                                                 |                  |
| %1       | "000~015" ----- Directly select Sharpness setting value<br>"UP" ----- Current Sharpness setting value + 1<br>"DN" ----- Current Sharpness setting value - 1                                                                                                                                       |                  |
| Details  | Set Sharpness value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                        | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                      | "Error Code"[CR] |

### 8.4.6 CF\_GAMMA Command

|          |                                                                                                                                                                                                                                                                                               |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_GAMMA_%1"[CR]                                                                                                                                                                                                                                                                             |                  |
| %1       | "000~015" ----- Directly set Gamma setting value<br>"UP" ----- Current Gamma setting value + 1<br>"DN" ----- Current Gamma setting value - 1                                                                                                                                                  |                  |
| Details  | Set Gamma value of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                    | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                  | "Error Code"[CR] |

### 8.4.7 CF\_WBAL - Command

|          |                                                                                                                                                                                                                                                                                                                      |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_WBAL-%1_%2"[CR]                                                                                                                                                                                                                                                                                                  |                  |
| %1       | " R " ----- Red<br>" G " ----- Green<br>" B " ----- Blue                                                                                                                                                                                                                                                             |                  |
| %2       | "000~063" ----- Directly select Color value specified by White Balance%1<br>"UP" ----- Current Color value set by White Balance%1 + 1<br>"DN" ----- Current Color value set by White Balance%1 - 1                                                                                                                   |                  |
| Details  | Set Color value set by White Balance%1 of user control<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                           | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                         | "Error Code"[CR] |

### 8.4.8 CF\_COLTEMP Command

|          |                                                                                                                                                                                                                                                                                                                                         |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_COLTEMP_%1"[CR]                                                                                                                                                                                                                                                                                                                     |                  |
| %1       | "000" ----- Xlow<br>"001" ----- Low<br>"002" ----- Mid<br>"003" ----- High                                                                                                                                                                                                                                                              |                  |
| Details  | Set Color Temperature. (Available only in the normal Power ON status)<br>The value set by this command will not be saved to the projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                              | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                            | "Error Code"[CR] |

### 8.4.9 CF\_PROGV Command

|          |                                                                                                                                                                                                                                                                                                                             |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PROGV_%1"[CR]                                                                                                                                                                                                                                                                                                           |                  |
| %1       | "FILM" ----- Select Progressive Mode FILM<br>"L1" ----- Select Progressive Mode L1<br>"L2" ----- Select Progressive Mode L2<br>"OFF" ----- Cancel Progressive scan<br>"UP" ----- Switch Progressive mode forward<br>OFF → L1 → L2 → FILM → OFF<br>"DN" ----- Switch Progressive mode backward<br>OFF → FILM → L2 → L1 → OFF |                  |
| Details  | Set / cancel Progressive scan<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status.                                 |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                  | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                | "Error Code"[CR] |

### 8.4.10 CF\_NZRED Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_NZRED_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
| %1       | "OFF" ----- Cancel Noise Reduction<br>"L1" ----- Noise Reduction for moving image<br>"L2" ----- Noise Reduction for still image<br>"UP" ----- Switch Progressive mode forward<br>OFF → L1 → L2 → FILM → OFF<br>"DN" ----- Switch Progressive mode backward<br>OFF → FILM → L2 → L1 → OFF                                                                                                                                                                 |                  |
| Details  | Noise Reduction based on frame correlation<br>Select L1 or L2 depending on motion detection<br>L2 is more effective in reducing noise than L1, however, L2 can have a blur in moving image<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby-mode or ALL is OFF, the value returns to original setting. (The value is held in Suspend mode.)<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                               | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                             | "Error Code"[CR] |

### 8.4.11 CF\_IMAGE Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_IMAGE_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |
| %1       | <p>"DYNAMIC" ----- Dynamic (Fixed value to enable projection with a sharp, powerful picture tone)</p> <p>"STAND" ----- Standard (Image adjust value is set to factory default)</p> <p>"REAL" ----- Real (Fixed value to display graphic image with natural tone)</p> <p>"CINEMA" ----- Cinema (Fixed value to focus on tone reproduction for movie)</p> <p>"BLACKBOARD" – Blackboard (Fixed value to project image onto green-colored blackboard)</p> <p>"COLORBOARD " – Colorboard(Fixed value to project image onto colored board)</p> <p>"CUSTOM1" ----- Image1 (the value set and stored by a user)</p> <p>"CUSTOM2" ----- Image2 (the value set and stored by a user)</p> <p>"CUSTOM3" ----- Image3 (the value set and stored by a user)</p> <p>"CUSTOM4" ----- Image4 (the value set and stored by a user)</p> |                  |
| Details  | <p>Select Image Mode</p> <p>Parameter "CUSTOM1" to "CUSTOM4" is the same as "Image1" to "Image4" displayed when selecting Image on OSD menu.</p> <p>The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF.</p> <p>This command is available in normal Power ON status.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | "Error Code"[CR] |

### 8.4.12 CF\_IMAGEADJ Command

|          |                                                                                                                                                                                                                                                                                                                                              |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_IMAGEADJ_%1"[CR]                                                                                                                                                                                                                                                                                                                         |                  |
| %1       | <p>"RST" ----- Reset Image adjustment</p> <p>"STR1" ----- Store current Image adjustment to Image 1</p> <p>"STR2" ----- Store current Image adjustment to Image 2</p> <p>"STR3" ----- Store current Image adjustment to Image 3</p> <p>"STR4" ----- Store current Image adjustment to Image 4</p>                                            |                  |
| Details  | <p>Reset / store Image adjustment.</p> <p>Parameter "STR1" to "STR4" is the same as "Image1" to "Image4" displayed when adjusting Image on OSD menu and selecting "Store"</p> <p>The value stored to "Image1-4" is saved and its setting is effective even after ALL is OFF.</p> <p>This command is available in normal Power ON status.</p> |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                 | "Error Code"[CR] |

## 8.5 PC Adjust Control Command

### 8.5.1 CF\_FSYNC Command

|          |                                                                                                                                                                                                                                                           |                                                |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Command  | "CF_FSYNC_%1"[CR]                                                                                                                                                                                                                                         |                                                |
| %1       | "0000~0031" ----- Directly select Fine Sync setting value<br>"UP" ----- Current Fine Sync setting value + 1<br>"DN" ----- Current Fine Sync setting value - 1                                                                                             |                                                |
| Details  | Set Fine Sync value of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status. |                                                |
| Response | Acceptable                                                                                                                                                                                                                                                | "000"[CR]                                      |
|          | Unacceptable                                                                                                                                                                                                                                              | "101"[CR] --- when Input for Video is selected |

### 8.5.2 CF\_TDOTS Command

|          |                                                                                                                                                                                                                                                                                                                      |                                                 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_TDOTS_%1"[CR]                                                                                                                                                                                                                                                                                                    |                                                 |
| %1       | "mmmm~nnnn" --- Directly select Total Dots setting value<br>"mmmm" shows minimum value, it is current Display Dots value + Horizontal Position value.<br>"nnnn" shows maximum value, which is not over 140MHz.<br>"UP" ----- Current Total Dots setting value + 1<br>"DN" ----- Current Total Dots setting value - 1 |                                                 |
| Details  | Set Total Dots of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.                                                                 |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                                                                           | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                                                                         | "101"[CR] ---- when Input for Video is selected |

### 8.5.3 CF\_CLAMP Command

|          |                                                                                                                                                                                                                                                                |                                                 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_CLAMP_%1"[CR]                                                                                                                                                                                                                                              |                                                 |
| %1       | "mmmm~nnnn" ---- Directly select Clamp setting value<br>"mmmm" shows minimum value, fixed-value "0001".<br>"nnnn" shows maximum value: it depends on input signal.<br>"UP" ----- Current Clamp setting value + 1<br>"DN" ----- Current Clamp setting value - 1 |                                                 |
| Details  | Set Clamp value of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.          |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                     | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                   | "101"[CR] ---- when Input for Video is selected |

**8.5.4 CF\_H – POS Command**

|          |                                                                                                                                                                                                                                                                              |                                                 |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_H-POS_%1"[CR]                                                                                                                                                                                                                                                            |                                                 |
| %1       | "0000~nnnn" --- Directly select Horizontal Position setting value<br>"nnnn" shows maximum value, it is current Total Dots value - Display Dots value<br>"UP" ----- Current Horizontal Position setting value + 1<br>"DN" ----- Current Horizontal Position setting value - 1 |                                                 |
| Details  | Set Horizontal Position value of PC signal.<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.         |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                                   | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                                 | "101"[CR] ---- when Input for Video is selected |

**8.5.5 CF\_V – POS Command**

|          |                                                                                                                                                                                                                                                                        |                                                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Command  | "CF_V-POS_%1"[CR]                                                                                                                                                                                                                                                      |                                                  |
| %1       | "0000~nnnn" --- Directly select Vertical Position setting value<br>"nnnn" shows maximum value, it is current Total Line value - Display Line value<br>"UP" ----- Current Vertical Position setting value + 1<br>"DN" ----- Current Vertical Position setting value - 1 |                                                  |
| Details  | Set Vertical Position value of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.      |                                                  |
| Response | Acceptable                                                                                                                                                                                                                                                             | "000"[CR]                                        |
|          | Unacceptable                                                                                                                                                                                                                                                           | "101"[CR] ---- When Input source is Video system |

**8.5.6 CF\_DDOTS Command**

|          |                                                                                                                                                                                                                                                                                                                                            |                                                 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_DDOTS_%1"[CR]                                                                                                                                                                                                                                                                                                                          |                                                 |
| %1       | "0256~"nnnn" --- Directly select Display Dots setting value<br>"nnnn" shows maximum value, it is current Total Dots value - Horizontal Position value<br>Even number is available and when odd number is set, it is rounded out.<br>"UP" ----- Current Display Dots setting value + 2<br>"DN" ----- Current Display Dots setting value - 2 |                                                 |
| Details  | Set Display Dots value of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.                                                                               |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                 | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                               | "101"[CR] ---- When Input for Video is selected |

### 8.5.7 CF\_DLINE Command

|          |                                                                                                                                                                                                                                                                |                                                 |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_DLINE_%1"[CR]                                                                                                                                                                                                                                              |                                                 |
| %1       | "0100"~"nnnn" --- Directly select Display Line setting value<br>"nnnn" shows maximum value, it is current Total Line value – Vertical Position value<br>"UP" ----- Current Display Line setting value + 1<br>"DN" ----- Current Display Line setting value – 1 |                                                 |
| Details  | Set Display Line value of PC signal<br>The value set by this command will not be saved to projector. Therefore, when turning into Standby mode or ALL is OFF, the value returns to original setting.<br>This command is available in normal Power ON status.   |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                     | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                   | "101"[CR] ---- When Input for Video is selected |

### 8.5.8 CF\_PCSTORE Command

|          |                                                                                                                                                                                                                                                                                      |                                                 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_PCSTORE_%1"[CR]                                                                                                                                                                                                                                                                  |                                                 |
| %1       | "MODE1" ---- Store current PC Adjust status to Mode1<br>"MODE2" ---- Store current PC Adjust status to Mode2<br>"MODE3" ---- Store current PC Adjust status to Mode3<br>"MODE4" ---- Store current PC Adjust status to Mode4<br>"MODE5" ---- Store current PC Adjust status to Mode5 |                                                 |
| Details  | Store current PC Adjust status (each parameter status such as Total dots) to Mode1-Mode5. This command operates the same way as storing to Mode1-Mode5 in PC Adjust MENU.<br>This command is available in normal Power ON status.                                                    |                                                 |
| Response | Acceptable                                                                                                                                                                                                                                                                           | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                                                                                         | "101"[CR] ---- When Input for Video is selected |

### 8.5.9 CF\_PCMODEFREE Command

|          |                                                                                                                                                                                                                    |                                                 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Command  | "CF_PCMODEFREE_%1"[CR]                                                                                                                                                                                             |                                                 |
| %1       | "MODE1" ---- Set Mode1 to Free status<br>"MODE2" ---- Set Mode2 to Free status<br>"MODE3" ---- Set Mode3 to Free status<br>"MODE4" ---- Set Mode4 to Free status<br>"MODE5" ---- Set Mode5 to Free status          |                                                 |
| Details  | Delete the registered data in Mode1-Mode5 and turns it to Free status.<br>This command operates the same as turning Mode1-Mode5 to Free in PC Adjust Menu.<br>This command is available in normal Power ON status. |                                                 |
| Response | Acceptable                                                                                                                                                                                                         | "000"[CR]                                       |
|          | Unacceptable                                                                                                                                                                                                       | "101"[CR] ---- When Input for Video is selected |



## 8.6 Input Control Command

### 8.6.1 CF\_INPUT Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
| %1       | <p>"COMPUTER1" ----- Select Computer1 Input<br/>                 "COMPUTER2" ----- Select Computer2 Input<br/>                 "HDMI" ----- Select HDMI Input<br/>                 "VIDEO" ----- Select Video Input<br/>                 "S-VIDEO" ----- Select S-video<br/>                 "NETWORK" ----- Select Network<br/>                 "UP" ----- Switch Input setting forward<br/>                 When Computer 2 is selected in Terminal menu:<br/>                 Computer1 → Computer2 → HDMI → Video → S-video → Network → ...</p> <p>When Monitor out is selected in Terminal menu:<br/>                 Computer1 → HDMI → Video → S-video → Network → ...</p> <p>"DN" ----- Switch Input setting backward<br/>                 When Computer 2 is selected in Terminal menu:<br/>                 Network → S-video → Video → HDMI → Computer2 → Computer1 → ...</p> <p>When Monitor out is selected in Terminal menu:<br/>                 Network → S-video → Video → HDMI → Computer1 → ...</p> |                  |
| Details  | <p>Select Input<br/>                 The same operation as "INPUT" button of the projector and Remote Control.<br/>                 This command is available in normal Power ON status.</p> <p>Projector returns "101" by selecting Computer 2 while Monitor out is selected in Terminal menu.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | "Error code"[CR] |

### 8.6.2 CF\_SOURCE Command

|         |                     |                                                                                                                                                                                                                                                                                                                                                                               |
|---------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command | "CF_SOURCE_%1"[CR]  |                                                                                                                                                                                                                                                                                                                                                                               |
| %1      | Input is Computer 1 | <p>"ANALOG" ----- Select Analog Input<br/>                 "YPBPR" ----- Select Component Input<br/>                 "SCART" ----- Select Scart Input<br/>                 "UP" ----- Switch Input as follows<br/>                 Analog → YPBPR → Scart → ...<br/>                 "DN" ----- Switch Input as follows<br/>                 Scart → YPBPR → Analog → ...</p> |
|         | Input is Computer 2 | <p>"ANALOG" ----- Select Analog Input<br/>                 "UP"<br/>                 "DN"<br/>                 Although no operation is made, projector accepts parameter "UP" / "DN"</p>                                                                                                                                                                                     |
|         | Input is HDMI       | <p>"HDMI" ----- Select HDMI Input<br/>                 "UP"<br/>                 "DN"<br/>                 Although no operation is made, projector accepts parameter "UP" / "DN"</p>                                                                                                                                                                                         |
|         | Input is Video      | <p>"VIDEO" ----- Select Composite Video Input<br/>                 "UP"<br/>                 "DN"<br/>                 Although no operation is made, projector accepts parameter "UP" / "DN"</p>                                                                                                                                                                             |
|         | Input is S-video    | <p>S-VIDEO ----- Select S-video Input<br/>                 "UP"<br/>                 "DN"<br/>                 Although no operation is made, projector accepts parameter "UP" / "DN"</p>                                                                                                                                                                                     |

|          |                                                                                                                                                                                                                                   |                                                                                                                                |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
|          | Input is Network                                                                                                                                                                                                                  | NETWORK ----- Select Network Input<br>"UP"<br>"DN"<br>Although no operation is made, projector accepts parameter "UP"<br>/"DN" |
| Details  | Select Source of currently selected Input<br>When Input specified by %1 is inappropriate for selected Input, the projector returns "101" and the command is not executed.<br>This command is available in normal Power ON status. |                                                                                                                                |
| Response | Acceptable                                                                                                                                                                                                                        | "000"[CR]                                                                                                                      |
|          | Unacceptable                                                                                                                                                                                                                      | "Error Code"[CR]                                                                                                               |

### 8.6.3 CF\_INPUT1 Command

|          |                                                                                                                       |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT1_%1_"[CR]                                                                                                   |                  |
| %1       | "ANALOG" ----- Select Analog RGB Input<br>"YPBPR" ----- Select Component<br>"SCART" ----- Select SCART                |                  |
| Details  | Select Input - Computer 1 and source specified in %1 at once.<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                            | "000"[CR]        |
|          | Unacceptable                                                                                                          | "Error Code"[CR] |

### 8.6.4 CF\_INPUT2 Command

|          |                                                                                                                                                                                                                              |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT2_%1_"[CR]                                                                                                                                                                                                          |                  |
| %1       | "ANALOG" ----- Select Analog RGB Input                                                                                                                                                                                       |                  |
| Details  | Select Input - Computer 2 and source specified in %1 at once.<br>This command is available in normal Power ON status.<br><br>Projector returns "101" by selecting Computer 2 while Monitor out is selected in Terminal menu. |                  |
| Response | Acceptable                                                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                 | "Error Code"[CR] |

### 8.6.5 CF\_INPUT3 Command

|          |                                                                                                               |                  |
|----------|---------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT3_%1_"[CR]                                                                                           |                  |
| %1       | "HDMI" ----- Select HDMI                                                                                      |                  |
| Details  | Select HDMI Input and source specified in %1 at once.<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                    | "000"[CR]        |
|          | Unacceptable                                                                                                  | "Error Code"[CR] |

**8.6.6 CF\_INPUT4 Command**

|          |                                                                                                                 |                  |
|----------|-----------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT4_%1"[CR]                                                                                              |                  |
| %1       | "VIDEO" ----- Select Composite video Input                                                                      |                  |
| Details  | Select Video input and source specified in %1 at once..<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                      | "000"[CR]        |
|          | Unacceptable                                                                                                    | "Error Code"[CR] |

**8.6.7 CF\_INPUT5 Command**

|          |                                                                                                                   |                  |
|----------|-------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT5_%1"[CR]                                                                                                |                  |
| %1       | "S-VIDEO" ----- Select S-video Input                                                                              |                  |
| Details  | Select S-video input and source specified in %1 at once..<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                        | "000"[CR]        |
|          | Unacceptable                                                                                                      | "Error Code"[CR] |

**8.6.8 CF\_INPUT6 Command**

|          |                                                                                                                   |                  |
|----------|-------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT6_%1"[CR]                                                                                                |                  |
| %1       | "NETWORK" ----- Select Network input                                                                              |                  |
| Details  | Select Network input and source specified in %1 at once..<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                        | "000"[CR]        |
|          | Unacceptable                                                                                                      | "Error Code"[CR] |

**8.6.9 CF\_INPUT\_%1\_%2 Command**

|          |                                                                                                                                                                                                                                                                                                                                     |                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUT_%1_%2"[CR]                                                                                                                                                                                                                                                                                                                |                  |
| %1       | "COMPUTER1" ----- Select Computer1 Input<br>"COMPUTER2" ----- Select Computer2 Input<br>"HDMI" ----- Select HDMI Input<br>"VIDEO" ----- Select Video Input<br>"S-VIDEO" ----- Select S-video Input                                                                                                                                  |                  |
| %2       | When %1 is COMPUTER1<br>"ANALOG" ----- Select Analog RGB Input<br>"YPBPR" ----- Select Component Input<br>"SCART" ----- Select SCART Input<br>When %1 is COMPUTER2<br>"ANALOG" ----- Select Analog RGB Input<br>When %1 is VIDEO<br>"VIDEO" ----- Select Video Input<br>When %1 is S- VIDEO<br>"S-VIDEO" ----- Select S-Video Input |                  |
| Details  | Select Input specified by %1 and also Source specified in %2<br>This command is available in normal Power ON status.<br><br>Projector returns "101" by selecting Computer 2 while Monitor out is selected in Terminal menu.                                                                                                         |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                          | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                        | "Error Code"[CR] |

8.6.10 CF\_SYSTEM Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CF_SYSTEM_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| %1       | Input is Computer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | "VGA1" ----- Select VGA1<br>:<br>"XGA1" ----- Select XGA1<br>:<br>"WXGA3" ----- Select WXGA3<br>"1080I" ----- Select 1080I<br>"1035I" ----- Select 1035I<br>"720P" ----- Select 720P<br>"575P" ----- Select 575P<br>"480P" ----- Select 480P<br>"575I" ----- Select 575I<br>"480I" ----- Select 480I<br>"MODE1"~ "MODE5"----- Select Mode 1~Mode 5                                                                           |
|          | Input is HDMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "D-XGA1" ----- Select D-XGA1<br>:<br>:<br>"D-WXGA3" ----- Select D-WXGA3<br>"D-1080I" ----- Select D-1080I<br>"D-1035I" ----- Select D-1035I<br>"D-720P" ----- Select D-720P<br>"D-575P" ----- Select D-575P<br>"D-480P" ----- Select D-480P<br>Projector returns "101" when no signal is detected.                                                                                                                          |
|          | Input is Video                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | "AUTO" ----- Select System "Auto"<br>"NTSC" ----- Select NTSC<br>"NTSC443" ----- Select NTSC4.43<br>"PAL" ----- Select PAL<br>"SECAM" ----- Select SECAM<br>"PAL-M" ----- Select PAL-M<br>"PAL-N" ----- Select PAL-N<br>"1080I" ----- Select 1080i<br>"1035I" ----- Select 1035i<br>"720P" ----- Select 720p<br>"575P" ----- Select 575p<br>"480P" ----- Select 480p<br>"575I" ----- Select 575i<br>"480I" ----- Select 480i |
| Details  | Select System of currently selected Input<br>When Input specified by %1 is inappropriate for selected Input, the projector returns "101"[CR] and the command is not executed<br>This command is available in normal Power ON status.<br>Note1) "NTSC" / "NTSC4.43" / "PAL" / "SECAM" / "PAL-M" / "PAL-N" is available only when Input is VIDEO / S-VIDEO<br>Note2) "1080I" / "1035I" / "720P" / "575P" / "480P" / "575I" / "480I" is available only when Input is Y / Pb/Cb / Pr/Cr<br>Note3) D-XGA1/.../D-480P is available only when Input is applicable. |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | "000"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                    |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                             |

## 8.7 Screen Control Command

### 8.7.1 CF\_SCREEN Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CF_SCREEN_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| %1       | Input is Computer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>"NORMAL" ----- Select Normal size<br/>                     "TRUE" ----- Select True size<br/>                     "FULL" ----- Select Full screen size<br/>                     "CUSTOM" ----- Select Custom size<br/>                     "DZOOM_UP" ----- Expand image size with Digital Zoom<br/>                     "DZOOM_DN" ----- Reduce image size with Digital Zoom<br/>                     "UP" ----- Switch selectable screen size forward<br/>                     (Normal → True → Full → Custom → Normal)<br/>                     "DN" ----- Switch selectable screen size backward<br/>                     (Normal → Custom → Full → True → Normal)</p> |
|          | Input is Video                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>"NORMAL" ----- Select Normal mode<br/>                     "ZOOM" ----- Select Zoom mode<br/>                     "NATURAL" ----- Select Natural wide mode<br/>                     "FULL" ----- Select Full mode<br/>                     "CUSTOM" ----- Select Custom size<br/>                     "UP" ----- Switch selectable screen size forward<br/>                     (Normal → Full → Zoom → Wide → Natural → Custom → Normal...)<br/>                     "DN" ----- Switch selectable screen size backward<br/>                     (Custom → Natural → Wide → Zoom → Full → Normal → Custom...)</p>                                                          |
| Details  | <p>Select image size on screen.<br/>                     When Input specified by %1 is inappropriate for selected Input, the projector returns "101" [CR] and the command is not executed.<br/>                     "DZOOM UP" and "DZOOM DN" start effecting from the first command.<br/>                     This command is available in normal Power ON status.<br/>                     Note) When Input is computer and AV sorts signals (480i / 575i...etc) are entered, the signal recognized as Video Input.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | "000"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

### 8.7.2 CF\_DZCENT Command

|          |                                                                                                                                                                                                                 |                                                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Command  | "CF_DZCENT_%1"[CR]                                                                                                                                                                                              |                                                  |
| %1       | "CENT" ---- Cancel Digital Zoom (CENT: "CENTER")                                                                                                                                                                |                                                  |
| Details  | <p>Cancel Digital Zoom<br/>                     When image is expanded or shrunk, reset its value.<br/>                     This command is available in normal Power ON status and when Input is Computer.</p> |                                                  |
| Response | Acceptable                                                                                                                                                                                                      | "000"[CR]                                        |
|          | Unacceptable                                                                                                                                                                                                    | "101"[CR] ----- when Input for Video is selected |

### 8.7.3 CF\_KEYSTONE Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Command  | "CF_KEYSTONE_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                     |           |
| %1       | <p>"UP" ----- Correct Keystone distortion to reduce upper part of image<br/>                     "FUP" ----- Correct Keystone distortion to reduce upper part by 2steps<br/>                     "DN" ----- Correct Keystone distortion to reduce lower part of image<br/>                     "FDN" ----- Correct Keystone distortion to reduce lower part by 2steps<br/>                     "RST" ----- Reset Keystone correction</p> |           |
| Details  | <p>Change Keystone distortion correction<br/>                     This command is available in normal Power ON status.</p>                                                                                                                                                                                                                                                                                                               |           |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                               | "000"[CR] |

|  |              |                                                                                                                                                                                                                                |
|--|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Unacceptable | <p>“Error Code”[CR]<br/>                 “201” [CR] ----When reaching the Keystone correction limit or reaching 1 step to correction limit and “FDN”/“FUP” is received.<br/>                 (The command is not executed)</p> |
|--|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 8.7.4 CF\_KYSTNMODE Command

|          |                                                                                                                       |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | “CF_KYSTNMODE_%1”[CR]                                                                                                 |                  |
| %1       | <p>“STR” ----- Set Keystone store mode to Store<br/>                 “RST” ----- Set Keystone store mode to Reset</p> |                  |
| Details  | <p>Set Keystone store mode<br/>                 This command is available in normal Power ON status.</p>              |                  |
| Response | Acceptable                                                                                                            | “000”[CR]        |
|          | Unacceptable                                                                                                          | “Error Code”[CR] |

#### 8.7.5 CF\_VSCALE Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | “CF_VSCALE_%1”[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
| %1       | <p>“032” ----- +32<br/>                 “031” ----- +31<br/>                 :<br/>                 “002” ----- +2<br/>                 “001” ----- +1<br/>                 “000” ----- ±0<br/>                 “-01” ----- -1<br/>                 “-02” ----- -2<br/>                 :<br/>                 “-31” ----- -31<br/>                 “-32” ----- -32<br/>                 “UP” ----- Vertical Scale setting value + 1<br/>                 “DN” ----- Vertical Scale setting value - 1</p> |                  |
| Details  | <p>Set Vertical Scale<br/>                 This command is available in normal Power ON status.<br/>                 Note1) Screen mode is changed into Custom by receiving this command.<br/>                 Note2) When there is no Input, projector returns 101 and the command does not execute.</p>                                                                                                                                                                                                 |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | “000”[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | “Error Code”[CR] |

#### 8.7.6 CF\_VPOS Command

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Command | “CF_VPOS_%1”[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| %1      | <p>“015” ----- +15<br/>                 “014” ----- +14<br/>                 :<br/>                 “002” ----- +2<br/>                 “001” ----- +1<br/>                 “000” ----- ±0<br/>                 “-01” ----- -1<br/>                 “-02” ----- -2<br/>                 :<br/>                 “-14” ----- -14<br/>                 “-15” ----- -15<br/>                 “UP” ----- Vertical Position setting value + 1<br/>                 “DN” ----- Vertical Position setting value – 1</p> |  |
| Details | <p>Set Vertical Position<br/>                 This command is available in normal Power ON status.</p>                                                                                                                                                                                                                                                                                                                                                                                                          |  |

|          |                                                                                                                                                                |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|          | Note1) Screen mode is changed into Custom by receiving this command.<br>Note2) When there is no Input, projector returns 101 and the command does not execute. |                  |
| Response | Acceptable                                                                                                                                                     | "000"[CR]        |
|          | Unacceptable                                                                                                                                                   | "Error Code"[CR] |

### 8.7.7 CF\_HSCALE Command

|          |                                                                                                                                                                                                                                                                                |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_HSCALE_%1"[CR]                                                                                                                                                                                                                                                             |                  |
| %1       | "032" ----- +32<br>"031" ----- +31<br>:<br>"002" ----- +2<br>"001" ----- +1<br>"000" ----- ±0<br>"-01" ----- -1<br>"-02" ----- -2<br>:<br>"-31" ----- -31<br>"-32" ----- -32<br>"UP" ----- Horizontal Scale setting value + 1<br>"DN" ----- Horizontal Scale setting value - 1 |                  |
| Details  | Set Horizontal Scale<br>This command is available in normal Power ON status.<br>Note1) Screen mode is changed into Custom by receiving this command.<br>Note2) When there is no Input, projector returns 101 and the command does not execute.                                 |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                     | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                   | "Error Code"[CR] |

### 8.7.8 CF\_HPOS Command

|          |                                                                                                                                                                                                                                                                                      |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_HPOS_%1"[CR]                                                                                                                                                                                                                                                                     |                  |
| %1       | "015" ----- +15<br>"014" ----- +14<br>:<br>"002" ----- +2<br>"001" ----- +1<br>"000" ----- ±0<br>"-01" ----- -1<br>"-02" ----- -2<br>:<br>"-14" ----- -14<br>"-15" ----- -15<br>"UP" ----- Horizontal Position setting value + 1<br>"DN" ----- Horizontal Position setting value - 1 |                  |
| Details  | Set Horizontal Position<br>This command is available in normal Power ON status.<br>Note1) Screen mode is changed into Custom by receiving this command.<br>Note2) When there is no Input, projector returns 101 and the command does not execute.                                    |                  |
| Response | 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<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                            | "000"[CR]        |
|          | Unacceptable                                                                          | "Error Code"[CR] |

### 8.8.2 CF\_LAMPMODE Command

|          |                                                                                                                                                                                                                                                                                                                                        |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_LAMPMODE_%1"[CR]                                                                                                                                                                                                                                                                                                                   |                  |
| %1       | "HIGH" ----- Set lamp to High mode status<br>"NORMAL" ----- Set lamp to Normal mode status<br>"ECO" ----- Set lamp to 3L mode status<br>"AUTO" ----- Set lamp to Auto mode status<br>"UP" ----- Switch Lamp mode forward<br>(Auto → High → Normal → Eco...)<br>"DN" ----- Switch Lamp mode backward<br>(Eco → Normal → High → Auto...) |                  |
| Details  | Select Lamp Mode<br>The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br>This command is available in normal Power ON status.                                                                                                                                                      |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                             | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                           | "Error Code"[CR] |



## 8.9 Sound Command

### 8.9.1 CF\_VOLUME Command

|          |                                                                                                                                                                                                                                                                                                                                   |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_VOLUME_%1"[CR]                                                                                                                                                                                                                                                                                                                |                  |
| %1       | "000-063" ----- Directly select Volume setting value<br>"UP" ----- Current Volume setting value +1<br>"DN" ----- Current Volume setting value -1                                                                                                                                                                                  |                  |
| Details  | Control Volume value<br>The same operation of Volume Up/Down as projector and RC, and directly select Volume setting value. When setting Volume value, the Sound Mute ON status is canceled just like RC operation. The value set by this command is stored in Projector.<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                        | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                      | "Error Code"[CR] |

### 8.9.2 CF\_MUTE Command

|          |                                                                                   |                  |
|----------|-----------------------------------------------------------------------------------|------------------|
| Command  | "CF_MUTE_%1"[CR]                                                                  |                  |
| %1       | "ON" ----- Set Sound Mute to ON<br>"OFF" ----- Set Sound Mute to OFF              |                  |
| Details  | Control Sound Mute ON/OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                        | "000"[CR]        |
|          | Unacceptable                                                                      | "Error Code"[CR] |

## 8.10 Setting Command

### 8.10.1 CF\_LANG Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_LANG_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |
| %1       | "ENG" ----- Select English<br>"DEU" ----- Select German<br>"FRA" ----- Select French<br>"ITA" ----- Select Italian<br>"ESP" ----- Select Spanish<br>"POR" ----- Select Portuguese<br>"NED" ----- Select Dutch<br>"SVE" ----- Select Swedish<br>"RUS" ----- Select Russian<br>"CHI" ----- Select Chinese<br>"KOR" ----- Select Korean<br>"JPN" ----- Select Japanese<br>"FIN" ----- Select Finnish<br>"POL" ----- Select Polish<br>"HUN" ----- Select Hungarian<br>"ROM" ----- Select Romanian<br>"THA" ----- Select Thai |                  |
| Details  | Set language for OSD<br>The language set by this command is stored in EEPROM and its setting is effective after ALL is OFF.<br>This command is available in normal Power ON status.                                                                                                                                                                                                                                                                                                                                      |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | "Error Code"[CR] |

### 8.10.2 CF\_MENUPOSITION Command

|          |                                                                                                                                                                                                                                                                                 |                  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_MENUPOSITION_%1"[CR]                                                                                                                                                                                                                                                        |                  |
| %1       | "SET" ----- Move the menu display to next position                                                                                                                                                                                                                              |                  |
| Details  | Change the menu position<br>This command is available in normal Power ON status.<br>The language set by this command is stored in EEPROM and its setting is effective after ALL is OFF.<br><br>Position: top left - top right – center – bottom left-bottom right – top left... |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                      | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                    | "Error Code"[CR] |

### 8.10.3 CF\_AUTOSETUPPCADJ Command

|          |                                                                                                                                                                                                                                                                                                       |                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_AUTOSETUPPCADJ_%1"[CR]                                                                                                                                                                                                                                                                            |                  |
| %1       | "ON" ----- Set Auto PC ADJ. function to ON<br>"OFF" ----- Set Auto PC ADJ. function to OFF                                                                                                                                                                                                            |                  |
| Details  | Set/Cancel Auto PC adj. function<br>This command is available in normal Power ON status.<br>Note) It is unable to set Keystone, PC ADJ. and Input search to OFF at once.<br>e.g. If projector receives Auto PC ADJ. OFF command while Keystone and Input search are OFF, it returns error code "101". |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                            | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                          | "Error Code"[CR] |

**8.10.4 CF\_AUTOSETUPKEYSTONE Command**

|          |                                                                                                                                                                                                                                                                                                           |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_AUTOSETUPKEYSTONE_%1"[CR]                                                                                                                                                                                                                                                                             |                  |
| %1       | " AUTO " ----- Set Auto Keystone function to Auto<br>" MANUAL " ----- Set Auto Keystone function to Manual<br>" OFF " ----- Set Auto Keystone function to OFF                                                                                                                                             |                  |
| Details  | Set Keystone function of Auto setup<br>This command is available in normal Power ON status.<br>Note) It is unable to set Keystone, PC ADJ. and Input search to OFF at once.<br>e.g. If projector receives Keystone OFF command while Auto PC ADJ. and Input search are OFF, it returns error code "101".. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                              | "Error Code"[CR] |

**8.10.5 CF\_INPUTSEARCH Command**

|          |                                                                                                                                                                                                                                                                                                                                                                                                           |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_INPUTSEARCH_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                   |                  |
| %1       | " OFF " ----- Set Input search operation to OFF<br>" ON1 " ----- Set Input search operation to On1<br>" ON2 " ----- Set Input search operation to On2                                                                                                                                                                                                                                                     |                  |
| Details  | Set Input search operation mode.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.<br>Note) It is unable to set Keystone, PC ADJ. and Input search to OFF at once.<br>e.g. If projector receives Input search OFF command while Auto PC ADJ. and Keystone are OFF, it returns error code "101". |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                              | "Error Code"[CR] |

**8.10.6 CF\_AUTOSETUP Command**

|          |                                                                                                                                                                 |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_AUTOSETUP_%1"[CR]                                                                                                                                           |                  |
| %1       | "START" ----- Execute Auto Setup                                                                                                                                |                  |
| Details  | Execute Auto Setup<br>Note) CF commands does not execute while Auto setup is in process. If the command is sent during this, projector returns error code "302" |                  |
| Response | Acceptable                                                                                                                                                      | "000"[CR]        |
|          | Unacceptable                                                                                                                                                    | "Error Code"[CR] |

**8.10.7 CF\_BACKGND Command**

|          |                                                                                                                                                                                                                                                                                                                   |                   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Command  | "CF_BACKGND_%1" [CR]                                                                                                                                                                                                                                                                                              |                   |
| %1       | "BLUE" ----- Select Blue Back<br>"USER" ----- Select User<br>"BLACK" ----- Select Black Back<br>"UP" ----- Switch forward (Blue Back→User→Black Back→Blue Back)<br>"DN" ----- Switch backward (Blue Back→Black Back→User→Blue Back)                                                                               |                   |
| Details  | Set Screen status for no signal.(Available only in the normal Power ON status)<br>The status set by this command is stored in EEPROM and the setting remains even after the power is turned to ALL OFF status.<br>*When %1="USER" is received, error code "101" is returned, in the case of Capture non-practice. |                   |
| Response | Acceptable                                                                                                                                                                                                                                                                                                        | "000" [CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                      | "Error Code" [CR] |

### 8.10.8 CF\_DISP Command

|          |                                                                                                                                                                                                                                                                      |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_DISP_%1"[CR]                                                                                                                                                                                                                                                     |                  |
| %1       | "ON" ----- Select Display<br>"OFF" ----- Cancel Display<br>"CNTDWNOFF" ----- Count down OFF<br>"UP" ----- Switch Display mode forward<br>( On → Countdown OFF → Off → On →... )<br>"DN" ----- Switch Display mode backward<br>( On → Off → Countdown OFF → On →... ) |                  |
| Details  | Set / Cancel Display<br>The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br>This command is available in normal Power ON status.                                                                                |                  |
| Response | Acceptable                                                                                                                                                                                                                                                           | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                         | "Error Code"[CR] |

### 8.10.9 CF\_LOGO Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_LOGO_%1_%2"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |
| %1       | "0000"-9999" ----- Set LOGO PIN CODE directly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |
| %2       | "OFF" ----- Disable Logo function<br>"DFLT" ----- Display Default Logo<br>"USER" ----- Display Captured Logo<br>"UP" ----- Switch Logo setting forward<br>( OFF → DFLT → User → OFF → · · )<br>"DN" ----- Switch Logo setting backward<br>( OFF → User → DFLT → OFF → · · )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |
| Details  | Set / Cancel Logo<br>The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF<br>This command is available in normal Power ON status.<br><br>%1--- Set LOGO PIN CODE<br><br>- When LOGO LOCK is in operation<br>PIN CODE is correct ----- Command is valid (Acceptable)<br>PIN CODE is incorrect ----- Command is invalid (Error Code "102")<br>PIN CODE is out of %1 range ----- Command is invalid (Error Code "? ")<br><br>-When LOGO LOCK is not in operation<br>PIN CODE is within %1 range ----- Command is valid<br>PIN CODE is out of %1 range ----- Command is invalid (Error Code "? ")<br>Note) Receiving correct LOGO PIN CODE while LOGO LOCK is in operation enables to change LOGO setting, but it does not release LOGO LOCK. (LOGO LOCK continues.)<br><br>Projector returns Error Code "101" by receiving USER in %2 when capture has not operated. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | "Error Code"[CR] |

### 8.10.10 CF\_CEIL Command

|          |                                                                                                                                                                                             |                  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_CEIL_%1"[CR]                                                                                                                                                                            |                  |
| %1       | "ON" ----- Set Ceiling to ON<br>"OFF" ----- Set Ceiling to OFF                                                                                                                              |                  |
| Details  | Set/Cancel Ceiling setting.<br>The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                  | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                | "Error Code"[CR] |

### 8.10.11 CF\_REAR Command

|          |                                                                                                                                                                                                                                        |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_REAR_%1"[CR]                                                                                                                                                                                                                       |                  |
| %1       | "ON" ----- Set Rear to ON<br>"OFF" ----- Set Rear to OFF                                                                                                                                                                               |                  |
| Details  | Set/Cancel Rear setting.<br>When Rear is ON, image is left/right reversed.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                                                             | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                           | "Error Code"[CR] |

### 8.10.12 CF\_HDMI SETUP Command

|          |                                                                                                                                                                                              |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_HDMI SETUP_%1"[CR]                                                                                                                                                                       |                  |
| %1       | "NORMAL" ----- Select Normal mode<br>"ENHANCED" ----- Select Enhanced mode                                                                                                                   |                  |
| Details  | Select image mode of HDMI setup.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                 | "Error Code"[CR] |

### 8.10.13 CF\_HDMI SOUND Command

|          |                                                                                                                                                                                              |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_HDMI SOUND_%1"[CR]                                                                                                                                                                       |                  |
| %1       | "HDMI" ----- Select PCM sound (Digital sound)<br>"EXTERNAL" ----- Select External sound input                                                                                                |                  |
| Details  | Select sound mode of HDMI setup.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                 | "Error Code"[CR] |

### 8.10.14 CF\_TERMINAL Command

|          |                                                                                                                      |                                                                                                            |
|----------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Command  | "CF_TERMINAL_%1"[CR]                                                                                                 |                                                                                                            |
| %1       | "COMPUTER" -----Set Input mode<br>"MONITOR" ----- Set Monitor Out mode                                               |                                                                                                            |
| Details  | Set Terminal setup. This command is available in normal Power ON status.<br>Terminal means Computer 2 in this model. |                                                                                                            |
| Response | Acceptable                                                                                                           | "000"[CR]                                                                                                  |
|          | Unacceptable                                                                                                         | "Error Code"[CR]<br>When Input is Computer 2, the projector returns "101" and the command is not executed. |

### 8.10.15 CF\_POINTER Command

|          |                                                                                                                                                                                                                                                      |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_POINTER_%1"[CR]                                                                                                                                                                                                                                  |                  |
| %1       | "SPOTLIGHTMAX" ----- Select Maximum Spotlight<br>"SPOTLIGHTMID" ----- Select Medium Spotlight<br>"SPOTLIGHTMIN" ----- Select Minimum Spotlight<br>"ARROW" ----- Select Arrow<br>"FINGER" ----- Select Finger mark<br>"LASER" ----- Select Laser mark |                  |
| Details  | Select Pointer style<br>This command is available in normal Power ON status.                                                                                                                                                                         |                  |
| Response | Acceptable                                                                                                                                                                                                                                           | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                         | "Error Code"[CR] |

### 8.10.16 CF\_STANDBYMODE Command

|          |                                                                                      |                  |
|----------|--------------------------------------------------------------------------------------|------------------|
| Command  | "CF_STANDBYMODE_%1"[CR]                                                              |                  |
| %1       | "ECO" ----- Less standby electricity<br>"NORMAL" ----- Normal standby electricity    |                  |
| Details  | Switch Standby Mode setting.<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                           | "000"[CR]        |
|          | Unacceptable                                                                         | "Error Code"[CR] |

### 8.10.17 CF\_PIP Command

|          |                                                                                                                                                                                                                                                                                                                |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PIP_%1"[CR]                                                                                                                                                                                                                                                                                                |                  |
| %1       | "OFF" ----- Set Picture in Picture to OFF<br>"PINP" ----- Set Picture in Picture to PinP<br>"PByP" ----- Set Picture in Picture to PbyP<br>"UP" ----- Switch Picture in Picture mode forward<br>( PinP → PbyP → Off →... )<br>"DN" ----- Switch Picture in Picture mode backward<br>( Off → PbyP → PinP →... ) |                  |
| Details  | Select Picture in Picture mode.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.                                                                                                                    |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                     | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                   | "Error Code"[CR] |

**8.10.18 CF\_PIPSIZE Command**

|          |                                                                                                                                                                                                                                                                                                      |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PIPSIZE_%1"[CR]                                                                                                                                                                                                                                                                                  |                  |
| %1       | "SMALL" ----- Select Small<br>"MIDDLE" ----- Select Middle<br>"LARGE" ----- Select Large<br>"UP" ----- Switch Subpicture size forward<br>(Middle → Large → Small → Middle... )<br>"DN" ----- Switch Power management setting<br>(Small → Large → Middle → Small... )                                 |                  |
| Details  | Select Subpicture size of Picture in Picture.<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.<br>Note) Projector returns "101" by receiving this command when Picture in Picture is Off. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                           | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                         | "Error Code"[CR] |

**8.10.19 CF\_PIPPOSITION Command**

|          |                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PIPPOSITION_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                     |                  |
| %1       | "BTMRIGHT" ----- Move Subpicture to Bottom right<br>"BTMLEFT" ----- Move Subpicture to Bottom left<br>"TOPRIGHT" ----- Move Subpicture to Top right<br>"TOPLEFT" ----- Move Subpicture to Top left<br>"UP" ----- Switch Subpicture position forward<br>( Bottom right → Top right → Top left → Bottom left → )<br>"DN" ----- Switch Subpicture position backward<br>( Bottom left → Top left → Top right → Bottom right → ) |                  |
| Details  | Select Subpicture position of Picture in Picture.<br>This command is available in normal Power ON status.<br>Note) Projector returns "101" by receiving this command when Picture in Picture is Off.                                                                                                                                                                                                                        |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                  | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                | "Error Code"[CR] |

**8.10.20 CF\_P-MANE Command**

|          |                                                                                                                                                                                                                                                                                                                       |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_P - MANE_%1"[CR]                                                                                                                                                                                                                                                                                                  |                  |
| %1       | "OFF" ----- Set Power Management to OFF<br>"READY" ----- Set Power Management to Ready<br>"SHUTDOWN" ----- Set Power Management to Shut Down mode<br>"UP" ----- Switch Power management setting<br>( Off → Ready → Shutdown → Off )<br>"DN" ----- Switch Power management setting<br>( Off → Shutdown → Ready → Off ) |                  |
| Details  | Set/Cancel Power Management<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.                                                                                                                               |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                            | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                          | "Error Code"[CR] |

**8.10.21 CF\_P-MANETIME Command**

|          |                                                                                                                                                                                       |                  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_P-MANETIME_%1"[CR]                                                                                                                                                                |                  |
| % 1      | "01" ~ "30" ----- Directly select setting time by the minute<br>"UP" ----- Plus one minute (01 → 02 → ... → 30 → 01)<br>"DN" ----- Minus one minute(30 → 29 → ... → 01 → 30)          |                  |
| Details  | Set Power Management time<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                                                                                                            | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                          | "Error Code"[CR] |

**8.10.22 CF\_ON-STA Command**

|          |                                                                                                                                                                                                                            |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_ON - STA_%1"[CR]                                                                                                                                                                                                       |                  |
| %1       | "ON" ----- Set Power On Start to ON<br>"OFF" ----- Set Power On Start to OFF<br>"UP" ----- Switch setting (On → Off → On → ...)<br>"DN" ----- Switch setting (On → Off → On → ...)<br>Note) "UP" and "DN" behave the same. |                  |
| Details  | Set/Cancel Power ON Start<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.                                      |                  |
| Response | Acceptable                                                                                                                                                                                                                 | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                               | "Error Code"[CR] |

**8.10.23 CF\_CCAPTIONDISP Command**

|          |                                                                                                                                                                                                                                                                                                                                                                                             |                  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_CCAPTIONDISP_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                    |                  |
| %1       | "OFF" ----- Select Off<br>"CC1" ----- Select CC1<br>"CC2" ----- Select CC2<br>"CC3" ----- Select CC3<br>"CC4" ----- Select CC4                                                                                                                                                                                                                                                              |                  |
| Details  | Select channel of Closed caption.<br>The status set with this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br>This command is available in normal Power ON status.<br><br>Note)Closed caption is available under conditions below;<br>Entered signal is appropriate (Video, NTSC signal of S-video, Component=480i) and System is fixed to NTSC or 480i. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                  | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                | "Error Code"[CR] |



### 8.10.24 CF\_CCAPTIONCOLOR Command

|          |                                                                                                                                                                                                                                                                                                                                                                                           |                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_CCAPTIONCOLOR_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                 |                  |
| %1       | "COLOR" ----- Select Color<br>"WHITE" ----- Select White                                                                                                                                                                                                                                                                                                                                  |                  |
| Details  | Select color of Closed caption.<br>The status set with this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br>This command is available in normal Power ON status.<br><br>Note)Closed caption is available under conditions below;<br>Entered signal is appropriate (Video, NTSC signal of S-video, Component=480i) and System is fixed to NTSC or 480i. |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                              | "Error Code"[CR] |

### 8.10.25 CF\_RCODE Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_RCODE_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                   |                  |
| %1       | "001" ----- Select Code1<br>"002" ----- Select Code2<br>"003" ----- Select Code3<br>"004" ----- Select Code4<br>"005" ----- Select Code5<br>"006" ----- Select Code6<br>"007" ----- Select Code7<br>"008" ----- Select Code8<br>"UP" ----- Switch Code setting of Remote Control forward<br>(Code1 → Code2 → Code3 · · → Code8 → Code1)<br>"DN" ----- Switch Code setting of Remote Control backward<br>(Code8 → Code7 → Code6 · · → Code1 → Code8) |                  |
| Details  | Select Code of Remote Control<br>The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF<br>This command is available in normal Power ON status.                                                                                                                                                                                                                                                           |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                          | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                        | "Error Code"[CR] |

### 8.10.26 CF\_KEYDIS Command

|          |                                                                                                                                        |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_KEYDIS_%1"[CR]                                                                                                                     |                  |
| %1       | "NONE" ----- RC & Projector keys are valid (All are valid)<br>"RC" ----- RC keys are invalid<br>"KEY" ----- Projector keys are invalid |                  |
| Details  | Disable RC/Projector keys<br>This command is available in normal Power ON status.                                                      |                  |
| Response | Acceptable                                                                                                                             | "000"[CR]        |
|          | Unacceptable                                                                                                                           | "Error Code"[CR] |

**8.10.27 CF\_PJPINCODE Command**

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PJPINCODE_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
| %1       | "0000" – "9999" -----Set PJ PIN CODE directly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |
| Details  | <p>Set PJ PIN CODE to release PJ LOCK.<br/>PIN CODE cannot be changed by this command.</p> <p>-When PJ LOCK is in operation<br/> PIN CODE is correct ----- Command is valid (Acceptable)<br/> PIN CODE is incorrect ----- Command is invalid(Error Code"102")<br/> PIN CODE is out of %1 range ----- Command is invalid (Error Code "? ")</p> <p>-When PJ LOCK is not in operation<br/> PIN CODE is within %1 range ----- Command is valid (Acceptable)<br/> PIN CODE is out of %1 range ----- Command is invalid (Error Code "? ")</p> <p>This command is valid during a dialog "PJ PIN CODE" is displayed after Power On and Count down.<br/> Also when PJ LOCK setting is "On1", it is necessary to transmit this command every time lamp turns on.</p> |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | "Error Code"[CR] |

**8.10.28 CF\_FANMODE Command**

|          |                                                                                                                                                                                                                                                                                                                                                                    |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_FANMODE_%1"[CR]                                                                                                                                                                                                                                                                                                                                                |                  |
| %1       | "L1" ----- Set Fan Mode to L1<br>"L2" ----- Set Fan Mode to L2                                                                                                                                                                                                                                                                                                     |                  |
| Details  | <p>Switch Fan Mode<br/> When L1 is selected, fan noise after POWER OFF is louder.<br/> When L2 is selected, fan noise after POWER OFF becomes quiet. However fan rotates longer than L1.<br/> The status set by this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br/> This command is available in normal Power ON status.</p> |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                         | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                       | "Error Code"[CR] |

**8.10.29 CF\_FANCONTROL Command**

|          |                                                                                                                                                                                                       |                  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_FANCONTROL_%1"[CR]                                                                                                                                                                                |                  |
| %1       | "OFF" ----- Set Fan control to Off<br>"ON1" ----- Set Fan control to On1<br>"ON2" ----- Set Fan control to On2<br>"ON3" ----- Set Fan control to On3                                                  |                  |
| Details  | <p>Set Fan control setting.<br/> The status set by this command is stored in EEPROM and its setting is effective even after ALL is OFF.<br/> This command is available in normal Power ON status.</p> |                  |
| Response | Acceptable                                                                                                                                                                                            | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                          | "Error Code"[CR] |

**8.10.30 CF\_FILTERTIMER Command**

|          |                                                                                                                                                                                                                                                                            |                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_FILTERTIMER_%1"[CR]                                                                                                                                                                                                                                                    |                  |
| %1       | "100" ----- Set 100 hours<br>"200" ----- Set 200 hours<br>"300" ----- Set 300 hours<br>"OFF" ----- No warning display<br>"UP" ----- Switch Filter timer forward<br>( Off → 100 → 200 → 300 → Off )<br>"DN" ----- Switch Filter timer backward<br>( Off → 300 → 200 → 100 ) |                  |
| Details  | Set timer of Filter warning display.                                                                                                                                                                                                                                       |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                 | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                               | "Error Code"[CR] |

**8.10.31 CF\_FILH Command**

|          |                                   |                  |
|----------|-----------------------------------|------------------|
| Command  | "CF_FILH_%1"[CR]                  |                  |
| %1       | "RST" -----Reset Filter used time |                  |
| Details  | Reset filter used time            |                  |
| Response | Acceptable                        | "000"[CR]        |
|          | Unacceptable                      | "Error Code"[CR] |

**8.10.32 CF\_FDEFAULT Command**

|          |                                                                                          |                  |
|----------|------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_FDEFAULT_%1"[CR]                                                                     |                  |
| %1       | "RST"                                                                                    |                  |
| Details  | Set the value to Factory Default<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                               | "000"[CR]        |
|          | Unacceptable                                                                             | "Error Code"[CR] |

## 8.11 Other Command

### 8.11.1 CF\_KEYENU Command

|          |                                                                                                                                                                                                                                                                                                              |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_KEYENU_%1"[CR]                                                                                                                                                                                                                                                                                           |                  |
| %1       | "RIGHT" ----- Shift Pointer on OSD Menu to right<br>"LEFT" ----- Shift Pointer on OSD Menu to left<br>"UP" ----- Shift Pointer on OSD Menu to right<br>"DN" ----- Shift Pointer on OSD Menu to right<br>"SELECT" ----- Behave the same as Select key of Remote control<br>"AUTOPC" ----- Execute Auto PC adj |                  |
| Details  | This command behave the same as corresponding keys of Projector<br>Once Auto PC adj. is started with "AUTOPC" command, it does not stop with receiving the command another time.                                                                                                                             |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                 | "Error Code"[CR] |

### 8.11.2 CF\_MENU Command

|          |                                                                                                 |                  |
|----------|-------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_MENU_%1"[CR]                                                                                |                  |
| %1       | "ON" ----- Display OSD Menu<br>"OFF" ----- Cancel OSD menu                                      |                  |
| Details  | Display / Cancel On Screen Display Menu<br>This command is available in normal Power ON status. |                  |
| Response | Acceptable                                                                                      | "000"[CR]        |
|          | Unacceptable                                                                                    | "Error Code"[CR] |

### 8.11.3 CF\_POWER Command

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_POWER_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |
| %1       | "ON" -----Power ON projector<br>"OFF" ----- Power OFF Projector<br><br>Note1) Countdown can be terminated by sending this command.<br><br>Note2) Projector returns error code due to unable of command execution depends on its condition.<br><br>Note3) Although projector returns "OK", operation may not be proceeding properly. (e.g. After returning "000" for Power ON command, projector gets abnormal temperature.) Use Status read command to get projector states. |                  |
| Details  | Power ON / OFF projector.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |
| Response | Acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | "Error Code"[CR] |

### 8.11.4 CF\_FREEZE Command

|          |                                                                                                                                                                                                            |                  |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_FREEZE_%1"[CR]                                                                                                                                                                                         |                  |
| %1       | "ON" ----- Set Freeze to ON<br>"OFF" ----- Set Freeze to OFF<br>"UP" ----- Switch setting (On → Off → On → ...)<br>"DN" ----- Switch setting (On → Off → On → ...)<br>Note) "UP" and "DN" behave the same. |                  |
| Details  | Set/Cancel Freeze setting.<br>Although projector returns "000", receiving another Freeze command does not release Freeze operation.<br>This command is available in normal Power ON status.                |                  |
| Response | Acceptable                                                                                                                                                                                                 | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                               | "Error Code"[CR] |

### 8.11.5 CF\_VMUTE Command

|          |                                                                                                                                                                                                        |                  |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_VMUTE_%1"[CR]                                                                                                                                                                                      |                  |
| %1       | "ON" ----- Set No show ON<br>"OFF" ----- Set No show OFF<br>"UP" ----- Switch setting (On → Off → On → ...)<br>"DN" ----- Switch setting (On → Off → On → ...)<br>Note) "UP" and "DN" behave the same. |                  |
| Details  | Set/Cancel No show setting.<br>This command is available in normal Power ON status.                                                                                                                    |                  |
| Response | Acceptable                                                                                                                                                                                             | "000"[CR]        |
|          | Unacceptable                                                                                                                                                                                           | "Error Code"[CR] |

### 8.11.6 CF\_PTIMER Command

|          |                                                                                                                     |                  |
|----------|---------------------------------------------------------------------------------------------------------------------|------------------|
| Command  | "CF_PTIMER_%1"[CR]                                                                                                  |                  |
| %1       | "SET" -----Execute P-TIMER                                                                                          |                  |
| Details  | Display / Suspend / Cancel P-TIMER<br>This command behaves the same as "P-TIMER" key of Remote Control / Projector. |                  |
| Response | Acceptable                                                                                                          | "000"[CR]        |
|          | Unacceptable                                                                                                        | "Error Code"[CR] |

## 9. Status Read Command

### 9.1 Format

- 1) PC issues commands in format as below:

**“CR\_Command” [CR]**

Command: Character Line

- 2) When projector receives the appropriate command, it returns a character line as the required data

**“000\_”%1 [CR]**

%1: Required Data (Character Line. See [Basic Status Read Command Table])

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

### 9.2 Transfer Example

Get total dots of projector by Expand Commands

PC → PJ: “CR\_TDOTS” [CR]

PC ← PJ: “000\_1344” [CR]

### 9.3 Operation Condition

Basically Status Read Commands should be always operated.

## 9.4 Image Status Read Command

### 9.4.1 CR\_BRIGHT Command

|          |                                      |                  |
|----------|--------------------------------------|------------------|
| Command  | "CR_BRIGHT"[CR]                      |                  |
| Details  | Get Brightness value of user control |                  |
| Response | Acceptable                           | "000_ % a "[CR]  |
|          | %a                                   | "000"~"063"      |
|          | Unacceptable                         | "Error code"[CR] |

### 9.4.2 CR\_CONT Command

|          |                                    |                  |
|----------|------------------------------------|------------------|
| Command  | "CR_CONT"[CR]                      |                  |
| Details  | Get Contrast value of user control |                  |
| Response | Acceptable                         | "000_ % a "[CR]  |
|          | %a                                 | "000"~"063"      |
|          | Unacceptable                       | "Error code"[CR] |

### 9.4.3 CR\_COLOR Command

|          |                                 |                  |
|----------|---------------------------------|------------------|
| Command  | "CR_COLOR"[CR]                  |                  |
| Details  | Get Color value of user control |                  |
| Response | Acceptable                      | "000_ % a "[CR]  |
|          | %a                              | "000"~"063"      |
|          | Unacceptable                    | "Error code"[CR] |

### 9.4.4 CR\_TINT Command

|          |                                |                                                                                                                                            |
|----------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_TINT"[CR]                  |                                                                                                                                            |
| Details  | Get Tint value of user control |                                                                                                                                            |
| Response | Acceptable                     | "000_ % a "[CR]                                                                                                                            |
|          | %a                             | "000"~"063"                                                                                                                                |
|          | Unacceptable                   | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

### 9.4.5 CR\_SHARP Command

|          |                                     |                  |
|----------|-------------------------------------|------------------|
| Command  | "CR_SHARP"[CR]                      |                  |
| Details  | Get Sharpness value of user control |                  |
| Response | Acceptable                          | "000_ % a "[CR]  |
|          | %a                                  | "000"~"015"      |
|          | Unacceptable                        | "Error code"[CR] |

**9.4.6 CR\_GAMMA Command**

|          |                                 |                  |
|----------|---------------------------------|------------------|
| Command  | "CR_GAMMA"[CR]                  |                  |
| Details  | Get Gamma value of user control |                  |
| Response | Acceptable                      | "000_%a"[CR]     |
|          | %a                              | "000"~"015"      |
|          | Unacceptable                    | "Error code"[CR] |

**9.4.7 CR\_WBAL – R Command**

|          |                                             |                  |
|----------|---------------------------------------------|------------------|
| Command  | "CR_WBAL-R"[CR]                             |                  |
| Details  | Get White Balance Red value of user control |                  |
| Response | Acceptable                                  | "000_%a"[CR]     |
|          | %a                                          | "000"~"063"      |
|          | Unacceptable                                | "Error code"[CR] |

**9.4.8 CR\_WBAL – G Command**

|          |                                               |                  |
|----------|-----------------------------------------------|------------------|
| Command  | "CR_WBAL-G"[CR]                               |                  |
| Details  | Get White Balance Green value of user control |                  |
| Response | Acceptable                                    | "000_%a"[CR]     |
|          | %a                                            | "000"~"063"      |
|          | Unacceptable                                  | "Error code"[CR] |

**9.4.9 CR\_WBAL – B Command**

|          |                                              |                  |
|----------|----------------------------------------------|------------------|
| Command  | "CR_WBAL-B"[CR]                              |                  |
| Details  | Get White Balance Blue value of user control |                  |
| Response | Acceptable                                   | "000_%a"[CR]     |
|          | %a                                           | "000"~"063"      |
|          | Unacceptable                                 | "Error code"[CR] |

**9.4.10 CR\_COLTEMP Command**

|          |                               |                                                                                                                                                                                                                                  |
|----------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_COLTEMP"[CR]              |                                                                                                                                                                                                                                  |
| Details  | Get Color Temp. setting value |                                                                                                                                                                                                                                  |
| Response | Acceptable                    | "000_%a"[CR]                                                                                                                                                                                                                     |
|          | %a                            | "000" ----- Xlow<br>"001" ----- Low<br>"002" ----- Mid<br>"003" ----- High<br>"BLACK" ----- Blackboard is selected in Image menu.<br>"COLOR" ----- Colorboard is selected in Image menu<br>"BLANK" ----- Adjusting White Balance |
|          | Unacceptable                  | "Error code"[CR]                                                                                                                                                                                                                 |



**9.4.11 CR\_NZRED Command**

|          |                                       |                                                                                                                                |
|----------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_NZRED"[CR]                        |                                                                                                                                |
| Details  | Get setting status of Noise Reduction |                                                                                                                                |
| Response | Acceptable                            | "000_%1"[CR]                                                                                                                   |
|          | %1                                    | "L1" ----- Noise Reduction for moving image<br>"L2" ----- Noise Reduction for still image<br>"OFF" ---- Noise Reduction is OFF |
|          | Unacceptable                          | "Error code"[CR]                                                                                                               |

**9.4.12 CR\_PROGV Command**

|          |                                        |                                                                                                                                                                                         |
|----------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PROGV"[CR]                         |                                                                                                                                                                                         |
| Details  | Get setting status of Progressive scan |                                                                                                                                                                                         |
| Response | Acceptable                             | "000_%a"[CR]                                                                                                                                                                            |
|          | %a                                     | "L1" ----- Progressive Mode L1 is selected<br>"L2" ----- Progressive Mode L2 is selected<br>"FILM" ----- Progressive Model FILM is selected<br>"OFF" ----- Progressive scan is disabled |
|          | Unacceptable                           | "Error code"[CR]                                                                                                                                                                        |

**9.4.13 CR\_IMAGE Command**

|          |                                                                                                                                                 |                                                                                                                                                                                                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_IMAGE"[CR]                                                                                                                                  |                                                                                                                                                                                                         |
| Details  | Get image setting status<br>Required data "CUSTOM1" to "CUSTOM4" is the same as "Image1" to "Image4" displayed when selecting IMAGE on OSD menu |                                                                                                                                                                                                         |
| Response | Acceptable                                                                                                                                      | "000_%a"[CR]                                                                                                                                                                                            |
|          | %a                                                                                                                                              | "DYNAMIC" ----- Dynamic<br>"STAND" ----- Standard<br>"REAL" ----- Real<br>"CINEMA" ----- Cinema<br>"BLACKBOARD" ----- Blackboard<br>"COLORBOARD" ----- Colorboard<br>"CUSTOM1"~"CUSTOM4" ----- Image1~4 |
|          | Unacceptable                                                                                                                                    | "Error Code"[CR] ---- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received                                                               |

**9.4.14 CR\_IMGGMD Command**

|          |                                |                                                                                                                 |
|----------|--------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Command  | "CR_IMGGMD"[CR]                |                                                                                                                 |
| Details  | Get Image Gamma setting status |                                                                                                                 |
| Response | Acceptable                     | "000_%a"[CR]                                                                                                    |
|          | %a                             | "DYN" ----- Dynamic<br>"STD" ----- Standard<br>"REL" ----- Real<br>"CNM" ----- Cinema<br>"BKB" ----- Blackboard |
|          | Unacceptable                   | "Error code"[CR]                                                                                                |

## 9.5 PC Adjust Status Read Command

### 9.5.1 CR\_FSYNC Command

|          |                     |                                                                                                                                            |
|----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_FSYNC"[CR]      |                                                                                                                                            |
| Details  | Get Fine Sync value |                                                                                                                                            |
| Response | Acceptable          | "000_%a"[CR]                                                                                                                               |
|          | %a                  | "0000"~"0031"                                                                                                                              |
|          | Unacceptable        | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

### 9.5.2 CR\_TDOTS Command

|          |                      |                                                                                                                                            |
|----------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_TDOTS"[CR]       |                                                                                                                                            |
| Details  | Get Total Dots value |                                                                                                                                            |
| Response | Acceptable           | "000_%a"[CR]                                                                                                                               |
|          | %a                   | "nnnn"~"mmmm"<br>(nnnn = Display Dots + Horizontal Position)<br>(mmmm= Maximum value depends on input signal)                              |
|          | Unacceptable         | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

### 9.5.3 CR\_CLAMP Command

|          |                 |                                                                                                                                            |
|----------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_CLAMP"[CR]  |                                                                                                                                            |
| Details  | Get Clamp value |                                                                                                                                            |
| Response | Acceptable      | "000_%a"[CR]                                                                                                                               |
|          | %a              | "0001"~"nnnn"<br>("nnnn" depends on input signal)                                                                                          |
|          | Unacceptable    | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

### 9.5.4 CR\_H - POS Command

|          |                               |                                                                                                                                            |
|----------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_H - POS"[CR]              |                                                                                                                                            |
| Details  | Get Horizontal Position value |                                                                                                                                            |
| Response | Acceptable                    | "000_%a"[CR]                                                                                                                               |
|          | %a                            | "0000"~"nnnn"<br>(nnnn = Total Dots - Display Dots)                                                                                        |
|          | Unacceptable                  | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

**9.5.5 CR\_V – POS Command**

|          |                             |                                                                                                                                            |
|----------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_V - POS"[CR]            |                                                                                                                                            |
| Details  | Get Vertical Position value |                                                                                                                                            |
| Response | Acceptable                  | "000_%a"[CR]                                                                                                                               |
|          | %a                          | "0000"~"nnnn"<br>(nnnn = Total Line - Display Line)                                                                                        |
|          | Unacceptable                | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

**9.5.6 CR\_DDOTS Command**

|          |                        |                                                                                                                                            |
|----------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_DDOTS"[CR]         |                                                                                                                                            |
| Details  | Get Display Dots value |                                                                                                                                            |
| Response | Acceptable             | "000_%a"[CR]                                                                                                                               |
|          | %a                     | "0256"~"nnnn"<br>(nnnn = Total Dots – Horizontal Position value)                                                                           |
|          | Unacceptable           | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

**9.5.7 CR\_DLINE Command**

|          |                        |                                                                                                                                            |
|----------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_DLINE"[CR]         |                                                                                                                                            |
| Details  | Get Display Line value |                                                                                                                                            |
| Response | Acceptable             | "000_%a"[CR]                                                                                                                               |
|          | %a                     | "0100"~"nnnn"<br>(nnnn = Total Line – Vertical Position value)                                                                             |
|          | Unacceptable           | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received |

**9.5.8 CR\_PCSTORE Command**

|          |                                                                                                                                                                             |                                                                                                                                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PCSTORE"[CR]                                                                                                                                                            |                                                                                                                                                         |
| Details  | Get Free/Stored status of MODE1 - MODE5 for PC Adjust<br>Each data consists of 5 bytes.<br>Each byte indicates the status of MODE1~MODE5 respectively.<br>(F:Free S:Stored) |                                                                                                                                                         |
| Response | Acceptable                                                                                                                                                                  | "000_%a"[CR]                                                                                                                                            |
|          | %a                                                                                                                                                                          | "FFFF" ----- All Free<br>"SFFF" ----- MODE1 is Stored, others are Free<br>:<br>"FFFS" ----- MODE5 is Stored, others are Free<br>"SSSS" ----- All Stored |
|          | Unacceptable                                                                                                                                                                | "Error code"[CR]                                                                                                                                        |

## 9.6 Video Status Read Command

### 9.6.1 CR\_SERSYS Command

|          |                                                                                                                                            |                                                                                                                                                                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SERSYS"[CR]                                                                                                                            |                                                                                                                                                                                                                                                                                                                    |
| Details  | Get currently selected signal<br>Returns auto-detected signal in Auto mode<br>Only available for Video input. (N/A when Input is computer) |                                                                                                                                                                                                                                                                                                                    |
| Response | Acceptable                                                                                                                                 | "000_%a"[CR]                                                                                                                                                                                                                                                                                                       |
|          | %a                                                                                                                                         | "1080I60" ----- 1080i 60Hz<br>"1080I50" ----- 1080i 50Hz<br>"1035I". ----- 1035i<br>"720P" ----- 720p<br>"575P" ----- 575p<br>"480P" ----- 480p<br>"575I" ----- 575i (includes Composite signal such as PAL)<br>"480I" ----- 480i (includes Composite signal such as NTSC)<br>"NO_SIGNAL" ----- There is no signal |
|          | Unacceptable                                                                                                                               | "101"[CR] ----- When Input for PC is selected<br>"?"[CR]                                                                                                                                                                                                                                                           |

## 9.7 Input Status Read Command

### 9.7.1 CR\_INPUT Command

|          |                        |                  |
|----------|------------------------|------------------|
| Command  | "CR_INPUT"[CR]         |                  |
| Details  | Get selected INPUT No. |                  |
| Response | Acceptable             | "000_%1"[CR]     |
|          | Request data           | "1"-6"           |
|          | Unacceptable           | "Error code"[CR] |

### 9.7.2 CR\_SOURCE Command

|          |                     |                                                                                                                                                                                                                                                                                             |
|----------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SOURCE"[CR]     |                                                                                                                                                                                                                                                                                             |
| Details  | Get selected Source |                                                                                                                                                                                                                                                                                             |
| Response | Acceptable          | "000_%1"[CR]                                                                                                                                                                                                                                                                                |
|          | Request data        | "ANALOG" ----- Analog (RGB) Input is selected<br>"SCART" ----- SCART is selected<br>"HDMI" ----- HDMI is selected<br>"VIDEO" ----- Video Input is selected<br>"S-VIDEO" ----- S-Video Input is selected<br>"YPBPR" ----- Component Input is selected<br>"NETWORK" ----- Network is selected |
|          | Unacceptable        | "Error code"[CR]                                                                                                                                                                                                                                                                            |

### 9.7.3 CR\_SRCINP1 Command

|          |                                     |                                                                                                                           |
|----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SRCINP1" [CR]                   |                                                                                                                           |
| Details  | Get selected source of Input 1_CMP1 |                                                                                                                           |
| Response | Acceptable                          | "000_%1"[CR]                                                                                                              |
|          | Request data                        | "ANALOG" ----- Analog Input is selected<br>"YPBPR" ----- YPBPR Input is selected<br>"SCART" ----- Scart Input is selected |
|          | Unacceptable                        | "Error code"[CR]                                                                                                          |

### 9.7.4 CR\_SRCINP2 Command

|          |                                     |                                                                                |
|----------|-------------------------------------|--------------------------------------------------------------------------------|
| Command  | "CR_SRCINP2" [CR]                   |                                                                                |
| Details  | Get selected source of Input 2_CMP2 |                                                                                |
| Response | Acceptable                          | "000_%1"[CR]                                                                   |
|          | Request data                        | "ANALOG" ----- Analog Input is selected<br>"OUT" ----- Monitor out is selected |
|          | Unacceptable                        | "Error code"[CR]                                                               |

### 9.7.5 CR\_SRCINP3 Command

|          |                                     |                               |
|----------|-------------------------------------|-------------------------------|
| Command  | "CR_SRCINP3" [CR]                   |                               |
| Details  | Get selected source of Input 3_HDMI |                               |
| Response | Acceptable                          | "000_%1"[CR]                  |
|          | Request data                        | "HDMI" ----- HDMI is selected |
|          | Unacceptable                        | "Error code"[CR]              |

**9.7.6 CR\_SRCINP4 Command**

|          |                                      |                                                 |
|----------|--------------------------------------|-------------------------------------------------|
| Command  | "CR_SRCINP4" [CR]                    |                                                 |
| Details  | Get selected source of Input 4_Video |                                                 |
| Response | Acceptable                           | "000_%1"[CR]                                    |
|          | Request data                         | "VIDEO" ----- Composite Video Input is selected |
|          | Unacceptable                         | "Error code"[CR]                                |

**9.7.7 CR\_SRCINP5 Command**

|          |                                        |                                             |
|----------|----------------------------------------|---------------------------------------------|
| Command  | "CR_SRCINP5" [CR]                      |                                             |
| Details  | Get selected source of Input 5_S-video |                                             |
| Response | Acceptable                             | "000_%1"[CR]                                |
|          | Request data                           | "S - VIDEO" ----- S-Video Input is selected |
|          | Unacceptable                           | "Error code"[CR]                            |

**9.7.8 CR\_SRCINP6 Command**

|          |                                        |                                     |
|----------|----------------------------------------|-------------------------------------|
| Command  | "CR_SRCINP5" [CR]                      |                                     |
| Details  | Get selected source of Input 6_Network |                                     |
| Response | Acceptable                             | "000_%1"[CR]                        |
|          | Request data                           | "NETWORK" ----- Network is selected |
|          | Unacceptable                           | "Error Code"[CR]                    |

**9.7.9 CR\_SYSTEM Command**

|          |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SYSTEM"[CR]         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Details  | Get selected System     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Response | Acceptable              | "000_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|          | Input is PC Analog      | "VGA1" ----- VGA1 is selected<br>"VGA2" ----- VGA2 is selected<br>:<br>"XGA1"----- XGA1 is selected<br>:<br>"WXGA3" ----- WXGA3 is selected<br>"1080i" ----- 1080i is selected<br>"1035i" ----- 1035i is selected<br>"720p"----- 720p is selected<br>"575p"----- 575p is selected<br>"480p"----- 480p is selected<br>"575i"----- 575i is selected<br>"480i"----- 480i is selected<br>"MODE1" ----- Mode1 is selected<br>:<br>"MODE5" ----- Mode5 is selected<br>When there is no signal, projector returns error code"101"<br>[CR] |
|          | Input is HDMI           | "D - XGA1" ----- D-XGA1 is selected<br>:<br>"D - WXGA3" ----- D-WXGA3 is selected<br>"D - 1080i" ----- D-1080i is selected<br>"D - 1035i" ----- D-1035i is selected<br>"D - 720P" ----- D-720p is selected<br>"D - 575P" ----- D-575p is selected<br>"D - 480P" ----- D-480p is selected<br>When there is no signal, projector returns error code"101"<br>[CR]                                                                                                                                                                     |
|          | Input is Y,Pb/Cb,Pr /Cr | "AUTO" ----- Auto is selected<br>"1080i" -----1080i is selected<br>"1035i" ----- 1035i is selected<br>"720p"----- 720p is selected<br>"575p"----- 575p is selected<br>"480p"----- 480p is selected<br>"575i"----- 575i is selected<br>"480i"----- 480i is selected<br>Projector returns selected System status regardless of the signal input.                                                                                                                                                                                     |
|          | Input is Video, S-Video | "AUTO" ----- Auto is selected<br>"NTSC" ----- NTSC is selected<br>"NTSC443" ----- NTSC4.43 is selected<br>"PAL" ----- PAL is selected<br>"SECAM" ----- SECAM is selected<br>"PAL - M" ----- PAL-M is selected<br>"PAL - N" ----- AL-N is selected<br>Projector returns selected System status regardless of the signal input.                                                                                                                                                                                                      |
|          | Input is Network        | "NETWORK" ----- Network is selected<br>Projector returns selected System status regardless of the signal input.                                                                                                                                                                                                                                                                                                                                                                                                                    |
|          | Unacceptable            | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**9.7.10 CR\_SYSLIST Command**

|          |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SYSLIST"[CR]             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Details  | Get selectable System titles |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Response | Acceptable                   | "000_%1_%2_..._%x" [CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|          | %1                           | <p>- When Input is PC-Analog<br/>                     "XGA1" ----- XGA1is selectable<br/>                     "1080I" ----- 1080i is selectable<br/>                     Projector does not return Auto,Mode1-5<br/>                     When there is no signal, it returns Error Code "101"</p> <p>- When Input is HDMI<br/>                     "D-XGA" ----- D- XGA1is selectable<br/>                     "D-720P" ----- D-720P is selectable<br/>                     When there is no signal, projector returns Error Code "101"</p> <p>-When Input is Y,Pb/Cb,Pr/Cr<br/>                     Returns all the System titles on Menu including Auto<br/>                     "AUTO" ----- Auto is selectable<br/>                     "1080I" ----- 1080i is selectable<br/>                     "1035I" ----- 1035i is selectable<br/>                     :<br/>                     :<br/>                     "575I" ----- 575i is selectable<br/>                     "480I" ----- 480i is selectable<br/>                     Projector does not return Error Code "101" even if there is no signal.</p> <p>-When Input is Video, S-Video<br/>                     Returns all the System titles on Menu including Auto<br/>                     "AUTO" -----Auto is selectable<br/>                     "PAL" ----- PAL is selectable<br/>                     "SECAM" ----- SECAM is selectable<br/>                     :<br/>                     :<br/>                     "PAL-N" ----- SECAM is selectable<br/>                     Projector does not return Error Code "101" even if there is no signal.</p> |
|          | Unacceptable                 | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**9.7.11 CR\_MODELIST Command**

|          |                            |                                                                                                                                                                                                                                                                                                                                                                               |
|----------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_MODELIST"[CR]          |                                                                                                                                                                                                                                                                                                                                                                               |
| Details  | Get selectable Mode titles |                                                                                                                                                                                                                                                                                                                                                                               |
| Response | Acceptable                 | "000_%1_%2_..._%x" [CR]                                                                                                                                                                                                                                                                                                                                                       |
|          | %1<br>%2<br>:<br>%x        | <p>Returns Error code "101" when Input is other than PC-Analog<br/>                     Returns Error code "101" when Input is PC-Analog but no signal<br/>                     When Input is PC-Analog and signal is found, returns selectable Mode among Mode1 – 5</p> <p>"MODE1"<br/>                     :<br/>                     :<br/>                     "MODE5</p> |
|          | Unacceptable               | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                              |



## 9.8 Screen Status Read Command

### 9.8.1 CR\_SCREEN Command

|          |                                   |                                                                                                                                                                                                                                                                  |
|----------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_SCREEN"[CR]                   |                                                                                                                                                                                                                                                                  |
| Details  | Get selected on-screen image size |                                                                                                                                                                                                                                                                  |
| Response | Acceptable                        | "000_%a"[CR]                                                                                                                                                                                                                                                     |
|          | %a                                | Input is PC<br>"NORMAL" ----- Normal mode is selected<br>"TRUE" ----- True mode is selected<br>"FULL" ----- Full mode is selected<br>"CUSTOM" ----- Custom mode is selected<br>When the screen is set to D.Zoom, projector returns the previous status (NORMAL ) |
|          |                                   | Input is Video<br>"NORMAL" ----- Normal mode is selected<br>"ZOOM" ----- Zoom mode is selected<br>"NATURAL" ----- Natural wide is selected<br>"WIDE" -----Wide mode is selected<br>"FULL" ----- Full mode is selected<br>"CUSTOM" ----- Custom size is selected  |
|          | Unacceptable                      | "Error Code"[CR] ----- When the command is invalid due to condition such as Input source<br>"?"[CR] ----- When unclear command is received                                                                                                                       |

### 9.8.2 CR\_KYSTNMODE Command

|          |                                           |                                                                        |
|----------|-------------------------------------------|------------------------------------------------------------------------|
| Command  | "CR_KYSTNMODE"[CR]                        |                                                                        |
| Details  | Get setting status of Keystone Store Mode |                                                                        |
| Response | Acceptable                                | "000_%a"[CR]                                                           |
|          | %a                                        | "STR" ----- Store mode is "Store"<br>"RST" ----- Store mode is "Reset" |
|          | Unacceptable                              | "Error code"[CR]                                                       |

### 9.8.3 CR\_VSCALE Command

|          |                                                 |                  |
|----------|-------------------------------------------------|------------------|
| Command  | "CR_VSCALE"[CR]                                 |                  |
| Details  | Get setting status of Vertical Scale Store Mode |                  |
| Response | Acceptable                                      | "000_%1"[CR]     |
|          | %1                                              | "-32" ~ "032"    |
|          | Unacceptable                                    | "Error code"[CR] |

### 9.8.4 CR\_VPOS Command

|          |                                                    |                  |
|----------|----------------------------------------------------|------------------|
| Command  | "CR_VPOS"[CR]                                      |                  |
| Details  | Get setting status of Vertical Position Store Mode |                  |
| Response | Acceptable                                         | "000_%1"[CR]     |
|          | %1                                                 | "-15" ~ "015"    |
|          | Unacceptable                                       | "Error code"[CR] |

**9.8.5 CR\_HSCALE Command**

|          |                                                   |                  |
|----------|---------------------------------------------------|------------------|
| Command  | "CR_HSCALE"[CR]                                   |                  |
| Details  | Get setting status of Horizontal Scale Store Mode |                  |
| Response | Acceptable                                        | "000_%1"[CR]     |
|          | %1                                                | "-32" ~ "032"    |
|          | Unacceptable                                      | "Error code"[CR] |

**9.8.6 CR\_HPOS Command**

|          |                                                      |                  |
|----------|------------------------------------------------------|------------------|
| Command  | "CR_HPOS"[CR]                                        |                  |
| Details  | Get setting status of Horizontal Position Store Mode |                  |
| Response | Acceptable                                           | "000_%1"[CR]     |
|          | %1                                                   | "-15" ~ "015"    |
|          | Unacceptable                                         | "Error code"[CR] |

## 9.9 Lamp Status Read Command

### 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<br>"1N" ----- Within lamp replacement time<br><br>"1" means the number of lamps.<br>(1 lamp model→ "1")<br>"Y"/"N" means if it has reached its replacement time or not.<br>e.g. "1Y" -----projector is 1 lamp model and Lamp is over its replacement time |
|          | Unacceptable                             | "Error code"[CR]                                                                                                                                                                                                                                                                                |

### 9.9.2 CR\_LAMPH Command

|          |                                                                                             |                  |
|----------|---------------------------------------------------------------------------------------------|------------------|
| Command  | "CR_LAMPH"[CR]                                                                              |                  |
| Details  | Get total running time of lamp by hour (h)<br>*Actual running time, not corresponding value |                  |
| Response | Acceptable                                                                                  | "000_%1"[CR]     |
|          | %1                                                                                          | "00000"~"99999"  |
|          | Unacceptable                                                                                | "Error code"[CR] |

### 9.9.3 CR\_LAMPCORRESPH Command

|          |                                                                                              |                 |
|----------|----------------------------------------------------------------------------------------------|-----------------|
| Command  | "CR_LAMPCORRESPH"[CR]                                                                        |                 |
| Details  | Get total running time of lamp by hour (h)<br>* Corresponding value, not actual running time |                 |
| Response | Acceptable                                                                                   | "000_%1"[CR]    |
|          | %1                                                                                           | "00000"~"99999" |
|          | Unacceptable                                                                                 | Error code"[CR] |

### 9.9.4 CR\_LAMPMODE Command

|          |                                 |                                                                                                                                        |
|----------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_LAMPMODE"[CR]               |                                                                                                                                        |
| Details  | Get setting status of Lamp Mode |                                                                                                                                        |
| Response | Acceptable                      | "000_%1"[CR]                                                                                                                           |
|          | %1                              | "HIGH" ----- Lamp Mode is High<br>"NORMAL" ----- Lamp Mode is Normal<br>"ECO" ----- Lamp Mode is Eco<br>"AUTO" ----- Lamp Mode is Auto |
|          | Unacceptable                    | "Error code"[CR]                                                                                                                       |

**9.9.5 CR\_LAMPSTS Command**

|          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_LAMPSTS"[CR]            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Details  | Get Lighting status of lamp |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Response | Acceptable                  | "000_%1"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|          | %1                          | <p>"n ****" A number of * should be among 1-4.<br/>                     First character shows how many lamps are incorporated in projector. (1,2 or 4 )</p> <p>Second character shows following status in order of lamp number.<br/>                     "I" Lamp is ON<br/>                     "O" Lamp is OFF<br/>                     "X" Lamp failure</p> <p>e.g.<br/>                     "1I" ..... 1 lamp model and Lamp is ON<br/>                     "2IO..... 2 lamps model and No.1 Lamp is ON and No.2Lamp is OFF<br/>                     "4IOX" .... 4 lamps model and No.1,No.4 lamps are ON. No.2 lamp is OFF and No.3 model is failed.</p> |
|          | Unacceptable                | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**9.9.6 CR\_PROJH Command**

|          |                                                 |                     |
|----------|-------------------------------------------------|---------------------|
| Command  | "CR_PROJH"[CR]                                  |                     |
| Details  | Get total running time of Projector by hour (h) |                     |
| Response | Acceptable                                      | "000_%1"[CR]        |
|          | %1                                              | "0000000"~"0099999" |
|          | Unacceptable                                    | "Error code"[CR]    |

**9.9.7 CR\_HMLAMP Command**

|          |                  |                   |
|----------|------------------|-------------------|
| Command  | "CR_HMLAMP"[CR]  |                   |
| Details  | Get lamp number. |                   |
| Response | Acceptable       | "000_%1"[CR]      |
|          | %1               | "001"             |
|          | Unacceptable     | "Error Code" [CR] |

## 9.10 Sound Status Read Command

### 9.10.1 CR\_VOLUME Command

|          |                                  |                  |
|----------|----------------------------------|------------------|
| Command  | "CR_VOLUME"[CR]                  |                  |
| Details  | Get Volume value of user control |                  |
| Response | Acceptable                       | "000_%a"[CR]     |
|          | %a                               | "000"~"063"      |
|          | Unacceptable                     | "Error code"[CR] |

### 9.10.2 CR\_MUTE Command

|          |                               |                                                              |
|----------|-------------------------------|--------------------------------------------------------------|
| Command  | "CR_MUTE"[CR]                 |                                                              |
| Details  | Get sound mute setting status |                                                              |
| Response | Acceptable                    | "000_%a"[CR]                                                 |
|          | %a                            | "ON" ----- Sound Mute is ON<br>"OFF" ----- Sound Mute is OFF |
|          | Unacceptable                  | "Error code"[CR]                                             |

## 9.11 Setting Status Read Command

### 9.11.1 CR\_LANG Command

|          |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_LANG"[CR]         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Details  | Get selected language |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Response | Acceptable            | "000_%a"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|          | %a                    | "ENG" ----- English is selected<br>"DEU" ----- German is selected<br>"FRA" ----- French is selected<br>"ITA" ----- Italian is selected<br>"ESP" ----- Spanish is selected<br>"POR" ----- Portuguese is selected<br>"NED" ----- Dutch is selected<br>"SVE" ----- Swedish is selected<br>"JPN" ----- Japanese is selected<br>"CHI" ----- Chinese is selected<br>"KOR" ----- Korean is selected<br>"RUS" ----- Russian is selected<br>"FIN" ----- Finnish is selected<br>"POL" ----- Polish is selected<br>"HUN" ----- Hungarian is selected<br>"ROM" ----- Romanian is selected<br>"THA" ----- Thai is selected |
|          | Unacceptable          | "Error code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

### 9.11.2 CR\_AUTOSETUPPCADJ Command

|          |                                               |                                                                                              |
|----------|-----------------------------------------------|----------------------------------------------------------------------------------------------|
| Command  | "CR_AUTOSETUPPCADJ" [CR]                      |                                                                                              |
| Details  | Get Auto PC adj. setting status in Auto setup |                                                                                              |
| Response | Acceptable                                    | "000_%a"[CR]                                                                                 |
|          | %a                                            | "ON" ----- Auto PC ADJ. in Auto setup is ON<br>"OFF" ----- Auto PC ADJ. in Auto setup is OFF |
|          | Unacceptable                                  | "Error code"[CR]                                                                             |

### 9.11.3 CR\_AUTOSETUPKEYSTONE Command

|          |                                           |                                                                                                                  |
|----------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_AUTOSETUPKEYSTONE" [CR]               |                                                                                                                  |
| Details  | Get Keystone setting status in Auto setup |                                                                                                                  |
| Response | Acceptable                                | "000_%a"[CR]                                                                                                     |
|          | %a                                        | "AUTO" ----- Auto Keystone is Auto<br>"MANUAL" ----- Auto Keystone is Manual<br>"OFF" ----- Auto Keystone is OFF |
|          | Unacceptable                              | "Error code"[CR]                                                                                                 |

### 9.11.4 CR\_INPUTSEARCH Command

|          |                                    |                                                                                                       |
|----------|------------------------------------|-------------------------------------------------------------------------------------------------------|
| Command  | "CR_INPUTSEARCH"[CR]               |                                                                                                       |
| Details  | Get setting status of Input search |                                                                                                       |
| Response | Acceptable                         | "000_%a"[CR]                                                                                          |
|          | %a                                 | "OFF" ----- Input search is OFF<br>"ON1" ----- Input search is On1<br>"ON2" ----- Input search is On2 |
|          | Unacceptable                       | "Error Code"[CR]                                                                                      |

**9.11.5 CR\_BACKGND Command**

|          |                                            |                                                                                                             |
|----------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Command  | "CR_BACKGND" [CR]                          |                                                                                                             |
| Details  | Get setting status of Screen for no signal |                                                                                                             |
| Response | Acceptable                                 | "000_%1" [CR]                                                                                               |
|          | %1                                         | "BLUE" ----- Blue Back is selected<br>"USER" ----- User is selected<br>"BLACK" ----- Black Back is selected |
|          | Unacceptable                               | "Error Code" [CR]                                                                                           |

**9.11.6 CR\_DISP Command**

|          |                               |                                                                                           |
|----------|-------------------------------|-------------------------------------------------------------------------------------------|
| Command  | "CR_DISP"[CR]                 |                                                                                           |
| Details  | Get setting status of Display |                                                                                           |
| Response | Acceptable                    | "000_%a"[CR]                                                                              |
|          | %a                            | "ON" ----- Display is ON<br>"OFF" ----- Display is OFF<br>"CNTDWNOFF" ----- Countdown OFF |
|          | Unacceptable                  | "Error code"[CR]                                                                          |

**9.11.7 CR\_LOGO Command**

|          |                            |                                                                                                                 |
|----------|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Command  | "CR_LOGO"[CR]              |                                                                                                                 |
| Details  | Get setting status of Logo |                                                                                                                 |
| Response | Acceptable                 | "000_%1"[CR]                                                                                                    |
|          | %1                         | "OFF" ----- Logo function is OFF<br>"DFLT" ----- Default Logo is selected<br>"USER" ----- User Logo is selected |
|          | Unacceptable               | "Error code"[CR]                                                                                                |

**9.11.8 CR\_CEIL Command**

|          |                               |                                                        |
|----------|-------------------------------|--------------------------------------------------------|
| Command  | "CR_CEIL" [CR]                |                                                        |
| Details  | Get setting status of Ceiling |                                                        |
| Response | Acceptable                    | "000_%1"[CR]                                           |
|          | %1                            | "ON" ----- Ceiling is ON<br>"OFF" ----- Ceiling is OFF |
|          | Unacceptable                  | "Error Code" [CR]                                      |

**9.11.9 CR\_REAR Command**

|          |                            |                                                  |
|----------|----------------------------|--------------------------------------------------|
| Command  | "CR_REAR" [CR]             |                                                  |
| Details  | Get setting status of Rear |                                                  |
| Response | Acceptable                 | "000_%1"[CR]                                     |
|          | %1                         | "ON" ----- Rear is ON<br>"OFF" ----- Rear is OFF |
|          | Unacceptable               | "Error Code" [CR]                                |

**9.11.10 CR\_HDMI SETUP Command**

|          |                                        |                                                                                |
|----------|----------------------------------------|--------------------------------------------------------------------------------|
| Command  | "CR_HDMI SETUP"[CR]                    |                                                                                |
| Details  | Get status of Image mode in HDMI setup |                                                                                |
| Response | Acceptable                             | "000_%1"[CR]                                                                   |
|          | %1                                     | "NORMAL" ----- Image mode is Normal<br>"ENHANCED" ----- Image mode is Enhanced |
|          | Unacceptable                           | "Error code"[CR]                                                               |

**9.11.11 CR\_HDMI SETUPSOUND Command**

|          |                                        |                                                                                                           |
|----------|----------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Command  | "CR_HDMI SOUND"[CR]                    |                                                                                                           |
| Details  | Get status of Sound mode in HDMI setup |                                                                                                           |
| Response | Acceptable                             | "000_%1"[CR]                                                                                              |
|          | %1                                     | "HDMI" ----- PCM sound (Digital sound) is selected.<br>"EXTERNAL" ----- External sound input is selected. |
|          | Unacceptable                           | "Error code"[CR]                                                                                          |

**9.11.12 CR\_TERMINAL Command**

|          |                                |                                                                      |
|----------|--------------------------------|----------------------------------------------------------------------|
| Command  | "CR_TERMINAL" [CR]             |                                                                      |
| Details  | Get setting status of Terminal |                                                                      |
| Response | Acceptable                     | "000_%1"[CR]                                                         |
|          | %1                             | "COMPUTER"-----Computer Input mode<br>"MONITOR"-----Monitor Out mode |
|          | Unacceptable                   | "?"[CR]                                                              |

**9.11.13 CR\_PIP Command**

|          |                                          |                                                                                                             |
|----------|------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PIP" [CR]                            |                                                                                                             |
| Details  | Get status of mode of Picture in Picture |                                                                                                             |
| Response | Acceptable                               | "000_%1"[CR]                                                                                                |
|          | %1                                       | "OFF" ----- Picture in Picture is Off<br>"PINP" ----- P in P is selected<br>"PBYP" ----- P by P is selected |
|          | Unacceptable                             | "Error code"[CR]                                                                                            |

**9.11.14 CR\_PIPSIZE Command**

|          |                                                       |                                                                                                                              |
|----------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PIPSIZE" [CR]                                     |                                                                                                                              |
| Details  | Get selected size of Subpicture in Picture in Picture |                                                                                                                              |
| Response | Acceptable                                            | "000_%1"[CR]                                                                                                                 |
|          | %1                                                    | "SMALL" ----- Subpicture size is Small<br>"MIDDLE" ----- Subpicture size is Middle<br>"LARGE" ----- Subpicture size is Large |
|          | Unacceptable                                          | "Error code"[CR]                                                                                                             |



**9.11.15 CR\_PIPPOSITION Command**

|          |                                                  |                                                                                                                                                                                |
|----------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PIPPOSITION" [CR]                            |                                                                                                                                                                                |
| Details  | Get position of Subpicture in Picture in Picture |                                                                                                                                                                                |
| Response | Acceptable                                       | "000_%1"[CR]                                                                                                                                                                   |
|          | %1                                               | "BTMRIGHT" ----- Subpicture is Bottom right<br>"BTMLEFT" ----- Subpicture is Bottom left<br>"TOPRIGHT" ----- Subpicture is Top right<br>"TOPLEFT" ----- Subpicture is Top left |
|          | Unacceptable                                     | "Error code"[CR]                                                                                                                                                               |

**9.11.16 CR\_POINTER Command**

|          |                            |                                                                                                                                                                                                                                          |
|----------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_POINTER" [CR]          |                                                                                                                                                                                                                                          |
| Details  | Get Pointer setting status |                                                                                                                                                                                                                                          |
| Response | Acceptable                 | "000_%a"[CR]                                                                                                                                                                                                                             |
|          | %a                         | "SPOTLIGHTMAX" ----- Spotlight Maximum mode<br>"SPOTLIGHTMID" ----- Spotlight Medium mode<br>"SPOTLIGHTMIN" ----- Spotlight Minimum mode<br>"ARROW" ----- Arrow Mode<br>"FINGER" ----- Finger Mark Mode<br>"LASER" ----- Laser Mark Mode |
|          | Unacceptable               | "Error Code" [CR]                                                                                                                                                                                                                        |

**9.11.17 CR\_STANDBYMODE Command**

|          |                                 |                                                    |
|----------|---------------------------------|----------------------------------------------------|
| Command  | "CR_STANDBYMODE" [CR]           |                                                    |
| Details  | Get Standby Mode setting status |                                                    |
| Response | Acceptable                      | "000_%a"[CR]                                       |
|          | %a                              | "ECO" ----- Eco Mode<br>"NORMAL" ----- Normal Mode |
|          | Unacceptable                    | "Error code"[CR]                                   |

**9.11.18 CR\_P-MANE Command**

|          |                                     |                                                                                                                                             |
|----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_P-MANE"[CR]                     |                                                                                                                                             |
| Details  | Get Power management setting status |                                                                                                                                             |
| Response | Acceptable                          | "000_%a"[CR]                                                                                                                                |
|          | %a                                  | "OFF" ----- Power Management is OFF<br>"READY" ----- Power Management is Ready<br>"SHUTDOWN" ---- Power Management is set to Shut Down mode |
|          | Unacceptable                        | "Error code"[CR]                                                                                                                            |

**9.11.19 CR\_P-MANETIME Command**

|          |                                    |                                         |
|----------|------------------------------------|-----------------------------------------|
| Command  | "CR_P-MANETIME"[CR]                |                                         |
| Details  | Get time to start Power Management |                                         |
| Response | Acceptable                         | "000_%a"[CR]                            |
|          | %a                                 | "001"~"030" -----1 minute to 30 minutes |
|          | Unacceptable                       | "Error code"[CR]                        |

**9.11.20 CR\_ON-STA Command**

|          |                                   |                                                                      |
|----------|-----------------------------------|----------------------------------------------------------------------|
| Command  | "CR_ON-STA"[CR]                   |                                                                      |
| Details  | Get Power ON Start setting status |                                                                      |
| Response | Acceptable                        | "000_%a"[CR]                                                         |
|          | %a                                | "ON" ----- Power ON Start is ON<br>"OFF" ----- Power ON Start is OFF |
|          | Unacceptable                      | "Error code"[CR]                                                     |

**9.11.21 CR\_CCATIONDISP Command**

|          |                                        |                                                                                                                                             |
|----------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_CCATIONDISP"[CR]                   |                                                                                                                                             |
| Details  | Get selected channel of Closed caption |                                                                                                                                             |
| Response | Acceptable                             | "000_%a"[CR]                                                                                                                                |
|          | %a                                     | "OFF" ----- Off<br>"CC1" ----- CC1 is selected<br>"CC2" ----- CC2 is selected<br>"CC3" ----- CC3 is selected<br>"CC4" ----- CC4 is selected |
|          | Unacceptable                           | "Error Code"[CR]                                                                                                                            |

**9.11.22 CR\_CCATIONCOLOR Command**

|          |                                      |                                                                    |
|----------|--------------------------------------|--------------------------------------------------------------------|
| Command  | "CR_CCATIONCOLOR"[CR]                |                                                                    |
| Details  | Get selected color of Closed caption |                                                                    |
| Response | Acceptable                           | "000"[CR]                                                          |
|          | %a                                   | "COLOR" ----- Color is selected<br>"WHITE" ----- White is selected |
|          | Unacceptable                         | "Error Code"[CR]                                                   |

**9.11.23 CR\_RCODE Command**

|          |                                  |                                                                                                                                                                                                                                                                      |
|----------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_RCODE"[CR]                   |                                                                                                                                                                                                                                                                      |
| Details  | Get selected Remote Control Code |                                                                                                                                                                                                                                                                      |
| Response | Acceptable                       | "000_%a"[CR]                                                                                                                                                                                                                                                         |
|          | %a                               | "001" ----- Code1 is selected<br>"002" ----- Code2 is selected<br>"003" ----- Code3 is selected<br>"004" ----- Code4 is selected<br>"005" ----- Code5 is selected<br>"006" ----- Code6 is selected<br>"007" ----- Code7 is selected<br>"008" ----- Code8 is selected |
|          | Unacceptable                     | "Error code"[CR]                                                                                                                                                                                                                                                     |

**9.11.24 CR\_SECURITY Command**

|          |                                  |                                                                                                 |
|----------|----------------------------------|-------------------------------------------------------------------------------------------------|
| Command  | "CR_SECURITY" [CR]               |                                                                                                 |
| Details  | Get Security Mode setting status |                                                                                                 |
| Response | Acceptable                       | "000_%1[CR]                                                                                     |
|          | %1                               | "ON" ----- PJ Lock setting on Menu is ON-1 or ON-2<br>"OFF" -----PJ Lock setting on Menu is OFF |
|          | Unacceptable                     | "Error Code" [CR]                                                                               |

**9.11.25 CR\_KEYDIS Command**

|          |                                                               |                                                                                                                        |
|----------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_KEYDIS"(CR)                                               |                                                                                                                        |
| Details  | Get disability status of RC/Projector keys (valid or invalid) |                                                                                                                        |
| Response | Acceptable                                                    | "000_%a"[CR]                                                                                                           |
|          | %a                                                            | "NONE" ----- RC / Projector keys are valid<br>"RC" ----- RC keys are invalid<br>"KEY" ----- Projector keys are invalid |
|          | Unacceptable                                                  | "Error code"[CR]                                                                                                       |

**9.11.26 CR\_PJLOCKNOW Command**

|          |                                         |                                                                                                                                                                                                                                                                                                                     |
|----------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PJLOCKNOW" [CR]                     |                                                                                                                                                                                                                                                                                                                     |
| Details  | Get if PJ lock is actually in operation |                                                                                                                                                                                                                                                                                                                     |
| Response | Acceptable                              | "000_%1[CR]                                                                                                                                                                                                                                                                                                         |
|          | %1                                      | "LOCK" ----- PJ Lock is in operation. PJ Lock status is ON-1 or ON-2 on Menu, and PJ PIN CODE is not entered so that projector is actually locked.<br>"FREE" ----- PJ Lock is released. PJ Lock status is OFF, or, status is ON-1 or ON-2 on Menu but PJ PIN CODE is entered correctly so that PJ Lock is released. |
|          | Unacceptable                            | "Error Code" [CR]                                                                                                                                                                                                                                                                                                   |

**9.11.27 CR\_PJLOCKMENU Command**

|          |                               |                                                                                                               |
|----------|-------------------------------|---------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PJLOCKMENU" [CR]          |                                                                                                               |
| Details  | Get status of PJ Lock on Menu |                                                                                                               |
| Response | Acceptable                    | "000_%1[CR]                                                                                                   |
|          | %1                            | "ON1" ----- PJ Lock status is On-1<br>"ON2" ----- PJ Lock status is On-2<br>"OFF" ----- PJ Lock status is OFF |
|          | Unacceptable                  | "Error Code" [CR]                                                                                             |

**9.11.28 CR\_FANMODE Command**

|          |                       |                                                        |
|----------|-----------------------|--------------------------------------------------------|
| Command  | "CR_FANMODE"[CR]      |                                                        |
| Details  | Get selected Fan mode |                                                        |
| Response | Acceptable            | "000_%a"[CR]                                           |
|          | %a                    | "L1" ----- Fan mode is L1<br>"L2" ----- Fan mode is L2 |
|          | Unacceptable          | "Error code"[CR]                                       |

**9.11.29 CR\_FANCONTROL Command**

|          |                                         |                                                                                                                                      |
|----------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_FANCONTROL"[CR]                     |                                                                                                                                      |
| Details  | Get selected Fan control setting status |                                                                                                                                      |
| Response | Acceptable                              | "000_%a"[CR]                                                                                                                         |
|          | %a                                      | "OFF" ----- Fan control is OFF<br>"ON1" ----- Fan control is ON1<br>"ON2" ----- Fan control is ON2<br>"ON3" ----- Fan control is ON3 |
|          | Unacceptable                            | "Error code"[CR]                                                                                                                     |

**9.11.30 CR\_FILH Command**

|          |                      |                                             |
|----------|----------------------|---------------------------------------------|
| Command  | "CR_FILH"[CR]        |                                             |
| Details  | Get Filter used time |                                             |
| Response | Acceptable           | "000_%1"[CR]                                |
|          | %1                   | "00000"~"99999" ----- 0 hour to 99999 hours |
|          | Unacceptable         | "Error Code"[CR]                            |

**9.11.31 CR\_FILREPL Command**

|          |                                                |                                                                                      |
|----------|------------------------------------------------|--------------------------------------------------------------------------------------|
| Command  | "CR_FILREPL"[CR]                               |                                                                                      |
| Details  | Get the information of Filter replacement time |                                                                                      |
| Response | Acceptable                                     | "000_%1"[CR]                                                                         |
|          | %1                                             | "1Y" ----- Over filter replacement time<br>"1N" ----- Within filter replacement time |
|          | Unacceptable                                   | "Error Code"[CR]                                                                     |

**9.11.32 CR\_FILTIMER Command**

|          |                                                        |                                                                                                       |
|----------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Command  | "CR_FILTIMER" [CR]                                     |                                                                                                       |
| Details  | Get setting time which filter warning OSD is displayed |                                                                                                       |
| Response | Acceptable                                             | "000_%1"[CR]                                                                                          |
|          | %1                                                     | "100" ----- 100 hours<br>"200" ----- 200 hours<br>"300" ----- 300 hours<br>"OFF" ----- No OSD display |
|          | Unacceptable                                           | "Error Code"[CR]                                                                                      |

## 9.12 Other Status Read Command

### 9.12.1 CR\_STATUS Command

|          |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                      |
|----------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_STATUS"(CR)                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                      |
| Details  | Get status of Projector behavior.<br>This command affects the same as "CR0" of Basic Serial command, but this has an error code. |                                                                                                                                                                                                                                                                                                                                                      |
| Response | Acceptable                                                                                                                       | "000_%1"[CR]                                                                                                                                                                                                                                                                                                                                         |
|          | %1                                                                                                                               | "00"= Power ON<br>"80"= Stand by<br>"40"= Count down<br>"20"= Cooling down<br>"10"= Power failure<br>"28"= Cooling down due to abnormal temperature<br>"88"= Stand by after Cooling down<br>"24"= Power saving cooling down<br>"04"= Power saving<br>"21"= Cooling down due to Lamp failure<br>"81"= Stand by after Cooling down due to Lamp failure |
|          | Unacceptable                                                                                                                     | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                     |

### 9.12.2 CR\_SIGNAL Command

|          |                                             |                                                              |
|----------|---------------------------------------------|--------------------------------------------------------------|
| Command  | "CR_SIGNAL"(CR)                             |                                                              |
| Details  | Get Signal status if there is signal or not |                                                              |
| Response | Acceptable                                  | "000_%a"[CR]                                                 |
|          | %a                                          | "ON" ----- Signal is found<br>"OFF" ----- There is no signal |
|          | Unacceptable                                | "Error code"[CR]                                             |

### 9.12.3 CR\_VMUTE Command

|          |                               |                                                        |
|----------|-------------------------------|--------------------------------------------------------|
| Command  | "CR_VMUTE"[CR]                |                                                        |
| Details  | Get setting status of No Show |                                                        |
| Response | Acceptable                    | "000_%a"[CR]                                           |
|          | %a                            | "ON" ----- No Show is ON<br>"OFF" ----- No Show is OFF |
|          | Unacceptable                  | "Error code"[CR]                                       |

### 9.12.4 CR\_FREEZE Command

|          |                              |                                                      |
|----------|------------------------------|------------------------------------------------------|
| Command  | "CR_FREEZE"[CR]              |                                                      |
| Details  | Get setting status of Freeze |                                                      |
| Response | Acceptable                   | "000_%a"[CR]                                         |
|          | %a                           | "ON" ----- Freeze is ON<br>"OFF" ----- Freeze is OFF |
|          | Unacceptable                 | "Error code"[CR]                                     |

**9.12.5 CR\_PTIMER Command**

|          |                                  |                                                                                                                                               |
|----------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_PTIMER"[CR]                  |                                                                                                                                               |
| Details  | Get status of Presentation Timer |                                                                                                                                               |
| Response | Acceptable                       | "000_%a"[CR]                                                                                                                                  |
|          | %a                               | "ON" ----- Presentation timer is in operation<br>"STOP" ----- Presentation timer is paused<br>"OFF" ----- Presentation timer is not operating |
|          | Unacceptable                     | "Error code"[CR]                                                                                                                              |

**9.12.6 CR\_TEMPWARN Command**

|          |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_TEMPWARN"[CR]                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Details  | Get the temperature inside a projector and its condition if it is abnormal temperature or close to abnormal temperature<br>If there are several sensors installed, it is possible to get information from all the sensors at once. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Response | Acceptable                                                                                                                                                                                                                         | "000_%a_%b_%c"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|          | %a<br>%b<br>%c                                                                                                                                                                                                                     | %a ----- Sensor 1 status<br>%b ----- Sensor 2 status<br>%c ----- Sensor 3 status<br><br>"W" ---- Approach or reach abnormal temperature<br>(dangerous temperature)<br>"S" ---- Far from abnormal temperature (safe temperature)<br>"N" ---- Sensor detects no abnormal temperature<br><br>[Example]<br>"S_W_S"[CR] means Sensor 1 detects safe temperature, Sensor 2 detects abnormal temperature and Sensor 3 detects safe temperature<br>Note) When the temperature difference between Sensor 1 and 3 reaches specific value, some of the models detect it as Abnormal temperature. In this case, the 3rd data shows if the temperature difference between Sensor 1 and 3 is dangerous state or not. The 3rd data means temperature abnormality due to Sensor 3<br>When abnormal temperature is not detected by sensor, "N" (No connection with temperature abnormality) is returned. |
|          | Unacceptable                                                                                                                                                                                                                       | "Error code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**9.12.7 CR\_TEMP Command**

|          |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_TEMP"[CR]                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Details  | Get current temperature inside a projector.<br>If there are several sensors installed, it is possible to get information from all the sensors at once. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Response | Acceptable                                                                                                                                             | <p>"000_%1_%2_%3"[CR]</p> <p>%1= Sensor 1 temperature (Outside temperature)<br/>%2= Sensor 2 temperature (Inside temperature1)<br/>%3= Sensor 3 temperature (Inside temperature2)</p> <p>%1,%2 are consists of 6 bites fixed<br/>There must be 1 space between %1 and %2, and, %2 and %3</p> <p>e.g. _31.5F</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<br/>"W"-----Close to abnormal temperature(Temperature is as high to display Warning)<br/>"S" -----Not close to abnormal temperature (Temperature is low enough and safe.)<br/>"N"-----Applicable sensor does not detect abnormal temperature<br/>"E" -----Not able to return temperature data</p> <p>When several sensors are incorporated, projector returns values continuously.<br/>e.g. "_31.5F_35.2S_38.0W"[CR]</p> <p>A data of sensor 1 comes first and a data of sensor 2 follows after 1 space.</p> <p>As described respectively in e.g., sensor 1 detects abnormal temp., sensor 2 detects 35.2 degrees which means safety, and sensor 3 is 38 degrees which is close to abnormal temp.<br/>In case projector cannot return its data due to some hard ware 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.<br/>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                                                                                                                                           | "Error Code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

**9.12.8 CR\_TEMPFAIL Command**

|          |                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command  | "CR_TEMPFAIL"[CR]                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Details  | Get the temperature inside a projector when abnormal temperature occurs.<br>If there are several sensors installed, it is possible to get information from all the sensors at once. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Response | Acceptable                                                                                                                                                                          | "000_%a_%b_%c"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          | %a<br>%b<br>%c                                                                                                                                                                      | <p>%a ----- Sensor 1 temp. (External temp.)<br/>                 %b ----- Sensor 2 temp. (Internal temp.1)<br/>                 %c ----- Sensor 3 temp. (Internal temp.2)</p> <p>[Example]<br/>                 "_31.5F"[CR]<br/>                 "_" indicates a space. When the temperature sinks to -, the first character is "-" like "-05.5F"[CR]<br/>                 The last character means the sensor's status if it reaches abnormal temperature</p> <p>Exceeding critical temp. ----- "F"<br/>                 Temp. is safe ----- "S"<br/>                 Sensor detects no critical temp.----- "N"</p> <p>The example shows that sensor 1 indicates 31.5 degrees and the temperature is abnormal.<br/>                 When the temperature is safe, all data are represented as "□000S".<br/>                 When the projector is reset, "□000S" is set, and every time abnormal temperature occurs, it renews the data and returns it.<br/>                 In short, it only returns the renewed data of the latest abnormal temperature and the previous data is deleted.</p> |
|          | Unacceptable                                                                                                                                                                        | "Error code"[CR]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |