# EXPAND SERIAL COMMAND
# FUNCTIONAL SPECIFICATIONS

## DXT10L

Ver.1.00

SANYO Electric Co., Ltd
DI Company
Projector Division

# 1 Overview

- This Functional Specification defines Network communication for DXT10L.
- Commands are designed for Network communication, but most commands are also available to remote-control a projector through RS-232C from a computer. Therefore, commands are defined as Expand Serial Commands.
- The operation by some commands depends on Input or Source of the projector.

# 2 Serial Interface Specification

## 2.1 Transfer Specification

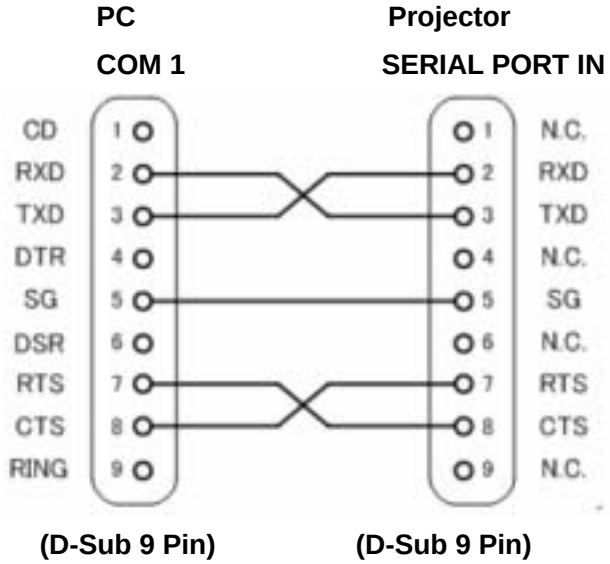
| Items | Specification |
|---|---|
| Synchronous System | Asynchronous |
| Transmission Speed | 4800/9600/19200/38400 |
| Data Length | 8 bit |
| Parity | N/A |
| Stop Bit | 1 |
| Flow Control | N/A |

1) Transmission Speed: Initial setting value is 38400.

2) Transmission Speed can be changed in Menu.

## 2.2 Connection

Use the dedicated serial cable that meets to following specifications for the connection between a computer and the projector.




Connect COM port of the computer to SERIAL PORT IN of the projector.

COM Port (COM1 or COM2) of a computer is specified by the control software of the computer.

## 3 Notes for communication

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

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

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

- Example of Functional Execution Command:”CF_BRIGHT_032” [CR]
- Example of Status Read Command: “CR_BRIGHT” [CR]

3.2.1.1.1 Note) “_” indicates a space

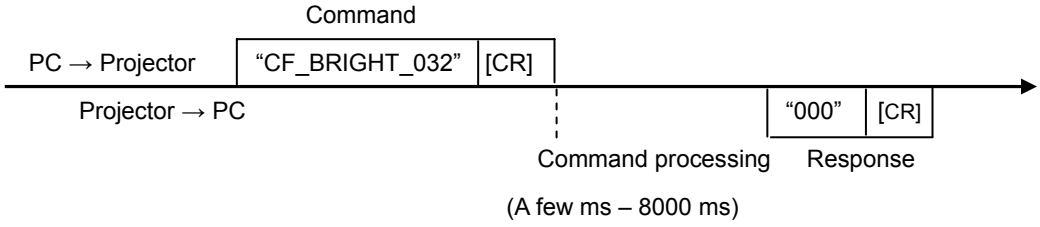
**3.3** It clears the information of buffer in the conditions bellow:

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

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

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

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




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

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

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

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

It takes about 8 seconds for the internal initialization after plugging in AC power. During the period cannot process commands. Do not issue any command.

# 4 Functional Execution Command Table

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

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

The command ends with carriage return code.

The response also ends with carriage return code.

**4.3** _: Space Code

All space code is indicated by (_).

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

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

**4.5** In this specifications,”Slot” notation is same as ”Input” notation. Etc.Slot1=Input1.

# 5 Functional Execution Command Table

## 5.1 Image Command Table

| Execute command | Item |
|---|---|
| **CF_BRIGHT_%1[CR]** | Set value of Brightness |
| **CF_CONT_%1[CR]** | Set value of Contrast |
| **CF_BBAL-%1_%2[CR]** | Set value of Contrast R,G,B |
| **CF_COLOR_%1[CR]** | Set value of Color |
| **CF_COLMN_%1_%2[CR]** | Set value of Color Correction |
| **CF_TINT_%1[CR]** | Set value of Hue |
| **CF_SHARP_%1[CR]** | Set value of Sharpness |
| **CF_GAMMA_%1[CR]** | Set value of Gamma Correction |
| **CF_WBAL-R_%1[CR]** | Set Brightness Red value of White Balance |
| **CF_WBAL-G_%1[CR]** | Set Brightness Green value of White Balance |
| **CF_WBAL-B_%1[CR]** | Set Brightness Blue value of White Balance |
| **CF_COLTEMP_%1[CR]** | Set level of Color Temperature |
| **CF_NZRED_%1[CR]** | Set ON/OFF of Noise Reduction |
| **CF_PROGV_%1[CR]** | Set mode of Deinterlace |
| **CF_IMAGE_%1[CR]** | Set Image mode Preset |
| **CF_IMAGEADJ_%1[CR]** | Set Store/Reset of values in Image Adjustment |
| **CF_BRTCOLOR_%1[CR]** | Set value of Brilliant Color |
| **CF_FILM_%1[CR]** | Set ON/OFF of Telecine |

## 5.2 PC Control Command Table

| Execute command | Item |
|---|---|
| **CF_FSYNC_%1[CR]** | Set value of Phase |
| **CF_TDOTS_%1[CR]** | Set value of Clock |
| **CF_H-POS_%1[CR]** | Set value of Horizontal Position |
| **CF_V-POS_%1[CR]** | Set value of Vertical Position |

## 5.3 Video Control Command Table

| Execute command | Item |
|---|---|
| **CF_AVOVSCN_%1[CR]** | Set value of Overscan |

## 5.4 Input Control Command Table

| Execute command | Item |
|---|---|
| **CF_INPUT_%1[CR]** | Select Input |
| **CF_SYSTEM_%1[CR]** | Select System in Video or S-Video input mode |

## 5.5 Screen Command Table

| Execute command | Item |
|---|---|
| **CF_SCREEN_%1[CR]** | Select Aspect Ratio. |
| **CF_KEYSTONE _%1[CR]** | Set Keystone Correction |

### 5.6 Lamp Command Table

| Execute command | Item |
|---|---|
| **CF_LAMPH_%1[CR]** | Reset total running time for each lamp |
| **CF_LAMPMODE_%1[CR]** | Select lamp mode (Full/Half) |
| **CF_AUTOLAMPCONTRL_%1[CR]** | Switch dimmer function levels of Normal/Eco |

### 5.7 Sound Command Table

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

### 5.8 Setting Command Table

| Execute command | Item |
|---|---|
| **CF_BACKGND_%1[CR]** | Set background image while no signal. |
| **CF_CEIL_%1[CR]** | Set ON/OFF of Ceiling |
| **CF_REAR_%1[CR]** | Set ON/OFF of Rear |
| **CF_RCSENSOR_%1[CR]** | Set Remote sensor On/Off |
| **CF_LANG_%1[CR]** | Select language for OSD |
| **CF_ON-STA_%1[CR]** | Set ON/OFF of Power ON Start |
| **CF_P-MANE_%1[CR]** | Set ON/OFF of Power Management |
| **CF_FANSPEED_%1[CR]** | Select Fan Speed |
| **CF_KEYDIS_%1[CR]** | Set limitation of RC/KEY control |
| **CF_FDEFAULT_%1[CR]** | Return the settings to Factory Default status |
| **CF_PJPINCODE_%1[CR]** | Set Security code to release Lock. |
| **CF_TESTPAT_%1[CR]** | Set test pattern. |
| **CF_FILH_%1[CR]** | Reset Filter Usage Time. |
| **CF_FILTIMER_%1[CR]** | Set timing to display alarm of cleaning and exchange filter. |
| **CF_FREEZE_%1[CR]** | Set Freeze on. |

# 6 Status Read Command Table

## 6.1 Image Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_BRIGHT [CR]** | Get value of Brightness |
| **CR_CONT [CR]** | Get value of Contrast |
| **CR_BBAL-%1_%2[CR]** | Get value of Contrast R,G,B |
| **CR_COLOR [CR]** | Get value of Color |
| **CR_COLMN_%1_%2[CR]** | Set value of Color Correction |
| **CR_TINT [CR]** | Get value of Tint |
| **CR_SHARP [CR]** | Get value of Sharpness |
| **CR_GAMMA [CR]** | Get value of Gamma |
| **CR_WBAL-R [CR]** | Get Red value of White Balance |
| **CR_WBAL-G [CR]** | Get Green value of White Balance |
| **CR_WBAL-B [CR]** | Get Blue value of Whit Balance |
| **CR_COLTEMP [CR]** | Get value of Color temperature |
| **CR_NZRED [CR]** | Get setting status of Noise Reduction |
| **CR_PROGV [CR]** | Get setting status of Deinterlace |
| **CR_IMAGE [CR]** | Get Selected Image Status |
| **CR_BRTCOLOR_%1[CR]** | Set value of Brilliant Color |
| **CR_FILM_%1[CR]** | Set ON/OFF of Telecine |

## 6.2 PC Status Read Command Table

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

## 6.3 Video Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_SERSYS [CR]** | Get currently selected signal. |
| **CR_AVOVSCN [CR]** | Get currently value of Overscan. |

### 6.4 Input Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_INPUT [CR]** | Get selected Input |
| **CR_SOURCE [CR]** | Get selected Source |
| **CR_SYSTEM [CR]** | Get selected System in Video Input mode |
| **CR_SYSLIST [CR]** | Get candidate of the signal system list |
| **CR_SRCINP1 [CR]** | Get selected source for Input 1 |
| **CR_SRCINP2 [CR]** | Get selected source for Input 2 |
| **CR_SRCINP3 [CR]** | Get selected source for Input 3 |
| **CR_SRCINP4 [CR]** | Get selected source for Input 4 |
| **CR_SRCINP5 [CR]** | Get selected source for Input 5 |
| **CR_SRCINP6 [CR]** | Get selected source for Input 6 |
| **CR_HMSLOT [CR]** | Get the total number of slots. |
| **CR_NMSLOT1 [CR]** | Get selected source for Input 1 |
| **CR_NMSLOT2 [CR]** | Get selected source for Input 2 |
| **CR_NMSLOT3 [CR]** | Get selected source for Input 3 |
| **CR_NMSLOT4 [CR]** | Get selected source for Input 4 |
| **CR_NMSLOT5 [CR]** | Get selected source for Input 5 |
| **CR_NMSLOT6 [CR]** | Get selected source for Input 6 |
| **CR_IDSLOT1 [CR]** | Get selected source for Input 1 |
| **CR_IDSLOT2 [CR]** | Get selected source for Input 2 |
| **CR_IDSLOT3 [CR]** | Get selected source for Input 3 |
| **CR_IDSLOT4 [CR]** | Get selected source for Input 4 |
| **CR_IDSLOT5 [CR]** | Get selected source for Input 5 |
| **CR_IDSLOT6 [CR]** | Get selected source for Input 6 |

### 6.5 Screen Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_SCREEN [CR]** | Get selected screen size |
| **CR_KYSTNMODE [CR]** | Get Keystone mode |

### 6.6 Lamp Status Read Command Table

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

### 6.7 Sound Status Read Command Table

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

### 6.8 Setting Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_BACKGND [CR]** | Get setting status of display while no signal |
| **CR_CEIL [CR]** | Get setting status of ceiling |
| **CR_REAR [CR]** | Get setting status of Rear |
| **CR_RCSENSOR [CR]** | Get setting status of rcsensor |
| **CR_LANG [CR]** | Get selected language |
| **CR_P-MANE [CR]** | Get setting status of Power management |
| **CR_P-MANETIME [CR]** | Get value of time when Power management |
| **CR_FANSPEED [CR]** | Get selected Fan Control Speed |
| **CR_KEYDIS [CR]** | Get setting status of RC/KEY control limitation |
| **CR_SECURITY [CR]** | Get setting status of security |
| **CR_PJLOCKKNOW [CR]** | Get actual setting status of security |
| **CR_PJLOCKMENU [CR]** | Get setting status of security of menu |
| **CR_TESTPAT[CR]** | Get setting status of testpattern |
| **CR_FILH[CR]** | Get tortal use time of filter |
| **CR_FILREPL[CR]** | Get information to replace filter |
| **CR_FILTIMER[CR]** | Get setting staFtus of filter message time |

### 6.9 Other Status Read Command Table

| Status read command | Item |
|---|---|
| **CR_STATUS [CR]** | Get status of projector. |
| **CR_SIGNAL [CR]** | Get status of signal existence. |
| **CR_VMUTE [CR]** | Get setting status of No Show. |
| **CR_FREEZE [CR]** | Get setting status of Freeze |
| **CR_ALLPFAIL[CR]** | Get information on Power Failure |
| **CR_HMPFAIL[CR]** | Get total number of Power failure possible to detect |
| **CR_PFAIL01[CR]** | Get name of No.01 of error list and get status. |
| **CR_PFAIL02[CR]**<br>**:**<br>**:**<br>**CR_PFAIL19[CR]** | Get name of No.02 of error list and get status.<br>**:**<br>**:**<br>Get name of No.19 of error list and get status. |
| **CR_TEMPWARN [CR]** | Get temperature status whether it is close to abnormal level or not. |
| **CR_TEMPFAIL [CR]** | Get temperature in abnormal temperature status. |
| **CR_TEMP [CR]** | Get temperature status of now. |

# 7 Error Code Table

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

# 8 Functional Execution Command

## 8.1 Format

①PC issues a command in the format below:

**Pattern1: “CF_Command” [CR]**

**Pattern2: “CF_Command_” %1 [CR]**

CF_: Header

Command: Text

%1: Parameter (Text)

_: Space (To separate Command and Parameter)

②The projector decodes the received command and when it gets ready to receive another command, it returns the Correspondence.

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

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

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

③When the projector cannot decode the command, it return “?” [CR].

## 8.2 Transfer Example

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

PC → PJ: “CF_TDOTS_1344” [CR]

PC ← PJ: “000” [CR] ---------- Acceptable

## 8.3 Operation Requirements

Functional Execution Commands are limited in the status bellow/

(Status Read Commands are available in following status.)

| Projector Status | Available Functional Execution Command |
|---|---|
| In Standby Mode | C00: POWER ON |
| Count Down in process | C00: POWER ON (Countdown is terminated) |
| Cooling Down in process | NONE (No Execution) |
| Cooling Down in process due to abnormal temperature | NONE (No Execution) |
| In Abnormal Temperature | NONE (No Execution) |
| Power Failure<br>(For 60 seconds after Power failed.) | NONE (No Execution) |
| Power Saving Cooling Down in process | NONE (No Execution) |
| In Power Saving status | C00: POWER ON<br>C01: POWER OFF |

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

## 8.4 Image Command

### 8.4.1 CF_ BRIGHT Command

| | | |
|---|---|---|
| Command | “CF_BRIGHT_%1” [CR] | |
| %1 | “000-100” ---------- Directly specify setting value of Brightness<br>“UP” ---------- Increment setting value of Brightness by 1<br>“DN” ---------- Decrement setting value of Brightness by 1 | |
| Details | Set user controlled value of Brightness. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.2 CF_CONT Command

| | | |
|---|---|---|
| Command | “CF_CONT_%1” [CR] | |
| %1 | “000-100”---------- Directly specify setting value of Contrast<br>“UP”---------- Increment setting value of Contrast by 1<br>“DN”---------- Decrement setting value of Contrast by 1 | |
| Details | Set user controlled value of Contrast. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.3 CF_BBAL Command

| Command | “CF_BBAL-%1_%2” [CR] | |
|---|---|---|
| %1 | “R” ----------Contrast R<br>“G” ----------Contrast G<br>“B” ----------Contrast B | |
| %2 | “000-100”---------- Directly specify setting value of Contrast<br>“UP”---------- Increment setting value of Contrast by 1<br>“DN”---------- Decrement setting value of Contrast by 1 | |
| Details | Set user controlled value of Contrast. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.4 CF_COLOR Command

| Command | “CF_COLOR_%1” [CR] | |
|---|---|---|
| %1 | “000-100”---------- Directly specify setting value of Color<br>“UP”---------- Increment setting value of Color by 1<br>“DN”---------- Decrement setting value of Color by 1 | |
| Details | Set user controlled value of Color. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.5 CF_COLMN Command

| Command | “CF_COLMN_%1_%2” [CR] | |
|---|---|---|
| %1 | “R” ----------Color Correction Red<br>“G” ---------- Color Correction Green<br>“B” ---------- Color Correction Blue<br>“Y” ---------- Color Correction Yellow<br>“M” ---------- Color Correction Magenta<br>“C” ---------- Color Correction Cyan | |
| %2 | “000-120”---------- Directly specify setting value of Color Correction<br>“UP”---------- Increment setting value of Color Correction by 1<br>“DN”---------- Decrement setting value of Color Correction by 1 | |
| Details | Set user controlled value of Color Correction (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.6 CF_TINT Command

| | | |
|---|---|---|
| Command | "CF_TINT_%1" [CR] | |
| %1 | "000-100"---------- Directly specify setting value of Tint<br>"UP"---------- Increment setting value of Tint by 1<br>"DN"---------- Decrement setting value of Tint by 1 | |
| Details | Set user controlled value of Tint (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.7 CF_SHARP Command

| | | |
|---|---|---|
| Command | "CF_SHARP_%1" [CR] | |
| %1 | "000-031" ---------- Directly specify setting value of Sharpness.<br>"UP"---------- Increment setting value of Sharpness by 1<br>"DN"---------- Decrement setting value of Sharpness by 1 | |
| Details | Set user controlled value of Sharpness. (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.8 CF_GAMMA Command

| | | |
|---|---|---|
| Command | "CF_GAMMA_%1" [CR] | |
| %1 | "000-002" ---------- Directly specify setting value of Gamma<br>"UP"---------- Increment setting value of Gamma by 1<br>"DN"---------- Decrement setting value of Gamma by 1 | |
| Details | Set user controlled value of Gamma. (Available only in the normal Power ON status)<br>000：Dynamic<br>001：Natural<br>002：Black Detail<br><br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.9 CF_WBAL- Command

| | | |
|---|---|---|
| Command | "CF_WBAL-%1_%2" [CR] | |
| %1 | "R" ---------- RED<br>"G" ---------- GREEN<br>"B" ---------- BLUE | |
| %2 | "000-100"------ Directly specify value of Color selected in %1 of Brightness.<br>"UP"---------- Increment setting value of Color specified in %1 of Brightness by 1<br>"DN"---------- Decrement setting value of Color specified in %1 of Brightness by 1 | |
| Details | Set value of Color specified in %1 of White Balance (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.10 CF_COLTEMP Command

| | | |
|---|---|---|
| Command | "CF_COLTEMP_%1" [CR] | |
| %1 | "000" – "005"<br>"UP" ----------Set Color Temp to UP<br>"DN" ----------Set Color Temp to DN | |
| Details | Set Color Temperature (Available only in the normal Power ON status)<br>000：5000<br>001：6500<br>002：7800<br>003：8500<br>004：9300<br>005：10500<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.11 CF_NZRED Command

| | | |
|---|---|---|
| Command | "CF_NZRED_%1" [CR] | |
| %1 | "OFF" ---------- Set Noise Reduction to OFF<br>"L1" ----------Set Noise Reduction to Low<br>"L2" ----------Set Noise Reduction to Medium<br>"L3" ----------Set Noise Reduction to High<br>"UP" ----------Set Noise Reduction to UP<br>"DN" ----------Set Noise Reduction to DN | |
| Details | Set or Cancel Noise Reduction. (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.12 CF_PROGV Command

| | | |
|---|---|---|
| Command | "CF_PROGV_%1" [CR] | |
| %1 | "OFF" ---------- Set Deinterlace to OFF<br>"L1" ---------- Set Deinterlace Still<br>"L2" ---------- Set Deinterlace to Normal<br>"L3" ---------- Set Deinterlace to Movie<br>"UP" ---------- Set Deinterlace to UP<br>"DN" ---------- Set Deinterlace to DN | |
| Details | Set or Cancel Deinterlace. (Valid only when it is in the normal Power ON status.)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.13 CF_IMAGE Command

| | | |
|---|---|---|
| Command | "CF_IMAGE__%1" [CR] | |
| %1 | "STANDPC" ---------High-Bright (Image adjustment value is set to High-Bright)<br>"PRESEN" ----------Presentation (Fixed value to display graphic image with Presentation)<br>"STANDAV" --------- Video (Fixed value to focus on tone reproduction for video)<br>"CINEMA" ----------Movie (Fixed value to focus on tone reproduction for Movie)<br>"REAL" ----------Graphic (Fixed value to focus on tone reproduction for Graphic)<br>"SRGB" ----------sRGB (Fixed value to focus on tone reproduction for sRGB) | |
| Details | Select Image mode. (Valid only when it is in the normal Power ON status.)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.14 CF_IMAGEADJ Command

| | | |
|---|---|---|
| Command | "CF_IMAGEADJ_%1"[CR] | |
| %1 | "RST"------ Reset adjusted value for the Image | |
| Details | Reset adjusted value for Image. (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.4.15 CF_BRTCOLOR Command

| | | |
|---|---|---|
| Command | “CF_BRTCOLOR_%1”[CR] | |
| %1 | “0001-0003”------ Directly specify setting value of BrilliantColor.<br>“UP”---- Set Brilliant Color to UP<br>“DN”---- Set Brilliant Color to DN | |
| Details | Reset or Store adjusted value for Image. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.4.16 CF_FILM Command

| | | |
|---|---|---|
| Command | “CF_FILM_%1”[CR] | |
| %1 | “OFF”------ Reset adjusted value for the Image<br>“AUTO”---- Set Telecine to 2-2/2-3AUTO<br>“22ON”---- Set Telecine to 2-2 ON<br>“23ON”---- Set Telecine to 2-3 ON<br>“UP”---- Set Telecine to UP<br>“DN”---- Set Telecine to DN | |
| Details | Reset or Store adjusted value for Image. (Available only in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.5 PC Control Command

### 8.5.1 CF_FSYNC Command

| | | |
|---|---|---|
| Command | "CF_FSYNC_%1" [CR] | |
| %1 | "0000-0063" ---------- Directly specify setting value of Phase<br>"UP" ---------- Increment setting value of Phase by 1<br>"DN" ---------- Decrement setting value of Phase Fine Sync by 1 | |
| Details | Set value of Phase in PC signal (Available only in the normal Power ON status).<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.5.2 CF_TDOTS Command

| | | |
|---|---|---|
| Command | "CF_TDOTS_%1" [CR] | |
| %1 | "nnnn - 9999" ---------- Directly specify setting value of Clock<br>"nnnn" indicates minimum value, which is current (Display Dots + Position H) value<br>"UP" ---------- Increment setting value of Clock by 1<br>"DN" ---------- Decrement setting value of Clock by 1 | |
| Details | Set value of Total Dots in PC signal (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.5.3 CF_H-POS Command

| | | |
|---|---|---|
| Command | "CF_H-POS_%1" [CR] | |
| %1 | "0000-nnnn" -------- Directly specify setting value of Horizontal Position<br>"nnnn" indicates maximum value, which is current value of (Total Dots - Display Dots)<br>"UP" ---------- Increment setting value of Horizontal Position by 1<br>"DN" ---------- Decrement setting value of Horizontal Position by 1 | |
| Details | Set value of Horizontal Position in PC signal (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.5.4 CF_V-POS Command

| | | |
|---|---|---|
| Command | "CF_V-POS_%1" [CR] | |
| %1 | "0000-nnnn" ---------- Directly specify setting value of Vertical Position<br>"nnnn" indicates maximum value, which is current (Total Line – Display Line) value<br>"UP" ---------- Increment setting value of Vertical Position by 1<br>"DN" ---------- Decrement setting value of Vertical Position by 1 | |
| Details | Set Vertical Position value in PC signal (Available only in the normal Power ON status)<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

## 8.6 Video Control Command

### 8.6.1 CF_AVOVSCN Command

| | | |
|---|---|---|
| Command | “CF_AVOVSCN_%1” [CR] | |
| %1 | “00-15” ---------- Set value of Overscan.<br>“UP” ---------- Set value of Overscan UP<br>“DN” ---------- Set value of Overscan DN | |
| Details | Select Slot (Only valid when it is in the normal Power ON status.)<br>This command works the same way as “SLOT” button of the projector and remote control.<br>However,if set by ”00-15”,value of 00,05,10,15(%) is only available.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.7 Input Control Command

### 8.7.1 CF_INPUT Command

| | | |
|---|---|---|
| Command | “CF_INPUT_%1” [CR] | |
| %1 | “1” ---------- Select Computer1<br>“2” ---------- Select Compouter2<br>“3” ---------- Select Computer3<br>"4" ---------- Select Component<br>“5” ---------- Select Video<br>"6" ---------- Select S-Video<br>“UP” ---------- Select Input UP<br>"DN" ---------- Select Input DN | |
| Details | Select Slot (Only valid when it is in the normal Power ON status.)<br>This command works the same way as “SOURCE” button of the projector and remote control.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.7.2 CF_SYSTEM Command

| | | |
|---|---|---|
| Command | “CF_SYSTEM_%1” [CR] | |
| %1 | Input is Video | “AUTO” ---------- Select MODE 1<br>“NTSC” ---------- Select MODE 2<br>“PAL” ---------- Select MODE 3<br>“SECAM” ---------- Select MODE 4 |
| | Input is S-Video | “AUTO” ---------- Select MODE 1<br>“NTSC” ---------- Select MODE 2<br>“PAL” ---------- Select MODE 3<br>“SECAM” ---------- Select MODE 4 |
| Details | Select system of the currently selected Input.<br>(Valid only when in the normal Power ON status.)<br>When selected Input does not meet the requirement for the specified %1, return “101” [CR] and the command is not executed.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.8 Screen Control Command

### 8.8.1 CF_SCREEN Command

| | | |
|---|---|---|
| Command | “CF_SCREEN_%1” [CR] | |
| %1 | “FULL” ---------- Select 4:3 screen display<br>“WIDE” ---------- Select 16:9 screen display<br>“CROP” ---------- Select the side-cut size screen display<br>“TRUE” ---------- Select True mode<br>“NORMAL” ----------Select Normal mode<br>“UP” ---------- Select screen UP<br>“DN” ---------- Select screen DN | |
| Details | Select screen size. (Valid only when in the normal Power ON status.)<br>When selected Slot does not meet the requirement for the specified %1, return “101” [CR] and the command is not executed.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.8.2 CF_KEYSTONE Command

| | | |
|---|---|---|
| Command | “CF_KEYSTONE _%1” [CR] | |
| %1 | “UP” ---------- Correct Keystone distortion to reduce upper part of image<br>“FUP” ---------- Correct Keystone distortion to reduce upper part largely<br>“DN” ---------- Correct Keystone distortion to reduce lower part of image<br>“FDN” ---------- Correct Keystone distortion to reduce lower part largely<br>“LEFT” ---------- Correct Keystone distortion to reduce lower part<br>“FLFT” ---------- Correct Keystone distortion to reduce lower part largely<br>“RIGHT” ---------- Correct Keystone distortion to reduce lower part<br>“FRGT” ---------- Correct Keystone distortion to reduce lower part largely<br>“RST” ---------- Set Keystone to OFF | |
| Details | Change the correction level of Keystone distortion. (Valid only when in the normal Power ON status.)<br>When the value reaches the correction limit, the projector accepts the command but does not execute it.<br>Display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.9 Lamp Command

### 8.9.1 CF_LAMPH Command

| | | |
|---|---|---|
| Command | “CF_LAMPH_%1” [CR] | |
| %1 | “RSTn” (n=1-2) ---------- Reset lamp 1-2 running time | |
| Details | Reset running time of the lamp specified in “n”.<br>(Valid only when it is in the normal Power ON status.)<br>This command works the same way as “Clear Lamp1 or Lamp2 Hours” in Reset menu.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.9.2 CF_LAMPMODE Command

| | | |
|---|---|---|
| Command | “CF_LAMPMODE_%1” [CR] | |
| %1 | “FULL” ---------- Set lamp mode to 2-lamp (FULL)<br>“HALF1” ---------- Set lamp mode to lamp1 mode (HALF)<br>“HALF2” ---------- Set lamp mode to lamp2 mode (HALF) | |
| Details | Select Lamp mode. (Valid only when in the normal Power ON status.)<br>The value set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.9.3 CF_AUTOLAMPCONTRL Command

| | | |
|---|---|---|
| Command | “CF_AUTOLAMPCONTRL_%1” [CR] | |
| %1 | “NORMAL” ---------- Set lamp control mode to NORMAL<br>“ECO” ---------- Set lamp control mode to ECO | |
| Details | Select Lamp control mode. (Valid only when in the normal Power ON status.)<br>The value set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.10 Sound Command

### 8.10.1 CF_VOLUME Command

| | | |
|---|---|---|
| Command | “CF_VOLUME_%1” [CR] | |
| %1 | “000-064”<br>“UP” ---------- Set Volume to UP<br>“DN” ---------- Set Volume to DN | |
| Details | Set value of Volume. (Valid only when in the normal Power ON status.)<br>Set Volume Up/Down as same as RC transmitter, and set Volume adjustment directly.<br>Set Volume adjustment, release state sound mute on, as same as RC transmitter.<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.10.2 CF_MUTE Command

| | | |
|---|---|---|
| Command | “CF_MUTE_%1” [CR] | |
| %1 | “ON” ---------- Set Sound Mute ON<br>“OFF” ---------- Set Sound Mute OFF | |
| Details | Set/Cancel Sound Mute. (Valid only when in the normal Power ON status.)<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

## 8.11 Setting Command

### 8.11.1 CF_BACKGND Command

| | | |
|---|---|---|
| Command | “CF_BACKGND_%1” [CR] | |
| %1 | “BLUE” ---------- Set Background to Blue<br>“BLACK” ---------- Set Background to Black<br>“MYLOGO” ---------- Set Background to Logo<br>“UP” ---------- Switch setting forward direction<br>(Blue -> Logo-> Black -> Blue)<br>“DN” ---------- Switch setting backward direction<br>(Blue -> Black -> Logo- > Blue) | |
| Details | Set Background setting. (Valid only when in the normal Power ON status.)<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.2 CF_CEIL Command

| | | |
|---|---|---|
| Command | “CF_CEIL_%1” [CR] | |
| %1 | “ON” ---------- Set Ceiling to ON(Ceiling /Front)<br>“OFF” ---------- Set Ceiling to OFF(Desktop/Front) | |
| Details | Set/Cancel Ceiling. (Valid only when in the normal Power ON status.)<br>When Ceiling is set to ON, image is left/right as well as top/bottom reversed.<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.3 CF_REAR Command

| | | |
|---|---|---|
| Command | “CF_REAR_%1” [CR] | |
| %1 | “ON” ---------- Set Rear to ON(Desktop/Rear)<br>“OFF” ---------- Set Rear to OFF(Desktop/Front) | |
| Details | Set/Cancel Rear. (Valid only when in the normal Power ON status.)<br>When Rear is set to ON, image is left/right reversed.<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.4 CF_RCSENSOR Command

| | | |
|---|---|---|
| Command | "CF_RCSENSOR_%1" [CR] | |
| %1 | "BOTH" ---------- Both RCsensor set to on<br>"FRONT" ---------- Set Front sensor only<br>"BACK" ---------- Set Rear sensor Only<br>"UP" ---------- Switch setting forward direction<br>(Both -> Front -> Back -> Both)<br>"DN" ---------- Switch setting backward direction<br>(Both -> Back -> Front -> Both) | |
| Details | Switch the validity of Remote Control Sensor of the projector. (Available only in the normal Power ON status)<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.11.5 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>"SVE" ---------- Select Swedish<br>"JPN" ---------- Select Japanese<br>"CHI" ---------- Select Chinese | |
| Details | Select language for OSD. (Valid only when in the normal Power ON status.)<br>The language set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.11.6 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" ---------- Toggle between ON and OFF (On -> Off -> On -> ‥)<br>"DN" ---------- Toggle between ON and OFF (On -> Off -> On -> ‥)<br>* "UP" and "DN" are exactly same operation. | |
| Details | Set/Cancel Power ON Start (Only valid when it is in the normal Power ON status)<br>The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don't display OSD when projector received command. | |
| Correspondence | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

### 8.11.7 CF_P-MANE Command

| | | |
|---|---|---|
| Command | “CF_P-MANE_%1” [CR] | |
| %1 | “OFF” ---------- Set Power Management to OFF<br>“05M” ---------- Set Power Management to ON by 5 min.<br>“10M” ---------- Set Power Management to ON by 10min.<br>“20M” ---------- Set Power Management to ON by 20min.<br>“30M” ---------- Set Power Management to ON by 30min. | |
| Details | Set/Cancel Power Management. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.8 CF_FANSPEED Command

| | | |
|---|---|---|
| Command | “CF_FANSPEED_%1” [CR] | |
| %1 | “MAX” ---------- Select Maximum speed of Fan Control<br>“NOR” ---------- Select Normal speed of Fan Control | |
| Details | Switch Fan Control Speed. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status.<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.9 CF_KEYDIS Command

| | | |
|---|---|---|
| Command | “CF_KEYDIS_%1” [CR] | |
| %1 | “NONE” ---------- RC & KEY are valid<br>“KEY” ---------- Projector KEY is invalid | |
| Details | Set the limitation of RC/KEY use (Valid only when in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.10 CF_FDEFAULT Command

| | | |
|---|---|---|
| Command | “CF_FDEFAULT_%1” [CR] | |
| %1 | “RST” | |
| Details | Return the settings to Factory Default status (Valid only when in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.11 CF_PJPINCODE Command

| | | |
|---|---|---|
| Command | “CF_PJPINCODE_%1” [CR] | |
| %1 | “0000000000-3333333333” | |
| Details | Set Security Password to release lock. (Valid only when in the normal Power ON status).<br>The input up to ten digits is accepted by the binary number.<br>This command is only valid when PJ PIN CODE password-dialog is displayed to enter PIN code after Power is ON.<br>0=UP<br>1=Down<br>2=left<br>3=right<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.12 CF_TESTPAT Command

| | | |
|---|---|---|
| Command | “CF_TESTPAT_%1” [CR] | |
| %1 | "CrossHatch"<br>"Raster(0%)"<br>"Raster(25%)"<br>"Raster(50%)"<br>"Raster(100%)"<br>"Raster Red"<br>"Raster Green"<br>"Raster Blue"<br>"Raster Blue 60"<br>"Gray Raster 10"<br>"Gray Raster 30"<br>"Ramp H"<br>"Ramp V"<br>Display OSD when projector received command. | |
| Details | Select Testpat and display(Valid only when in the normal Power ON status) | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.13 CF_FILH Command

| | | |
|---|---|---|
| Command | “CF_FILH_%1” [CR] | |
| %1 | “RST” | |
| Details | Return the Filter Hours to Factory Default status (Valid only when in the normal Power ON status)<br>Don’t display OSD when projector received command. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.14 CF_FILTIMER Command

| | | |
|---|---|---|
| Command | “CF_FILTIMER_%1” [CR] | |
| %1 | “OFF” ---------- OFF (No warning display)<br>“100H“---------- 100 hours<br>“200H” ---------- 200 hours<br>“500H“---------- 500 hours<br>“1000H“---------- 1000 hours<br>Don’t display OSD when projector received command. | |
| Dtails | Set time when display Filter Message. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

### 8.11.15 CF_FREEZE Command

| | | |
|---|---|---|
| Command | “CF_FREEZE_%1” [CR] | |
| %1 | “ON” ----------Set Freeze on<br>“OFF” ----------Set Freeze off<br>“UP” ----------Set Freeze Sequentially(On→Off→On→….)<br>“DN” ---------- Set Freeze reverse order (Off→On→Off→….)<br>Don’t display OSD when projector received command. | |
| Details | Set/Cancel Freeze function. (Available only in the normal Power ON status) Receiving FREEZE_ON command when the projector is Freeze enabled, Freeze status is kept. | |
| Correspondence | Acceptable | “000” [CR] |
| | Unacceptable | “Error Code” [CR] |

# 9 Status Read Command

## 9.1 Format

1) PC issues a command in the format below:

**“CR_Command” [CR]**

Command: String

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

**“000_” %1 [CR]**

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

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

## 9.2 Transfer Example

Getting total dots of the projector by Expand Serial Commands

PC → PJ: “CR_TDOTS” [CR]

PC ← PJ: “000_%1344” [CR]

## 9.3 OSD

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

## 9.4 Image Status Read Commands

### 9.4.1 CR_BRIGHT Command

| | | |
|---|---|---|
| Command | “CR_BRIGHT” [CR] | |
| Details | Get user controlled value of Brightness | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.2 CR_CONT Command

| | | |
|---|---|---|
| Command | “CR_CONT” [CR] | |
| Details | Get user controlled value of Contrast | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.3 CR_BBAL-R Command

| | | |
|---|---|---|
| Command | “CR_BBAL-R” [CR] | |
| Details | Get user controlled value of Brightness R | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.4 CR_BBAL-G Command

| | | |
|---|---|---|
| Command | “CR_BBAL-G” [CR] | |
| Details | Get user controlled value of Brightness G | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.5 CR_BBAL-B Command

| | | |
|---|---|---|
| Command | “CR_BBAL-B” [CR] | |
| Details | Get user controlled value of Brightness B | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.6 CR_COLOR Command

| | | |
|---|---|---|
| Command | “CR_COLOR” [CR] | |
| Details | Get user controlled value of Color | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.7 CR_COLMN-R Command

| | | |
|---|---|---|
| Command | “CR_COLMN-R” [CR] | |
| Details | Get user controlled value of Color Correction R | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.8 CR_COLMN-G Command

| | | |
|---|---|---|
| Command | “CR_COLMN-G” [CR] | |
| Details | Get user controlled value of Color Correction G | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.9 CR_COLMN-B Command

| | | |
|---|---|---|
| Command | “CR_COLMN-B” [CR] | |
| Details | Get user controlled value of Color Correction B | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.10 CR_COLMN-Y Command

| | | |
|---|---|---|
| Command | “CR_COLMN-Y” [CR] | |
| Details | Get user controlled value of Color Correction Y | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.11 CR_COLMN-M Command

| | | |
|---|---|---|
| Command | “CR_COLMN-M” [CR] | |
| Details | Get user controlled value of Color Correction M | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.12 CR_COLMN-C Command

| | | |
|---|---|---|
| Command | “CR_COLMN-C” [CR] | |
| Details | Get user controlled value of Color Correction C | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “-60” – “060” |
| | Unacceptable | “?” [CR] |

### 9.4.13 CR_TINT Command

| | | |
|---|---|---|
| Command | “CR_TINT” CR] | |
| Details | Get user controlled value of Tint | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “Error Code” [CR] ----------When command is invalid in the given condition (such as being selected Slot)<br>“?” [CR] --------- When unknown command is received |

### 9.4.14 CR_SHARP Command

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

### 9.4.15 CR_GAMMA Command

| | | |
|---|---|---|
| Command | “CR_GAMMA” [CR] | |
| Details | Get user controlled value of Gamma<br>000：Dynamic<br>001：Natural<br>002：Black Detail | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “002” |
| | Unacceptable | “?” [CR] |

### 9.4.16 CR_WBAL-R Command

| | | |
|---|---|---|
| Command | “CR_WBAL-R” [CR] | |
| Details | Get user controlled value of White Balance Red | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.17 CR_WBAL-G Command

| | | |
|---|---|---|
| Command | “CR_WBAL-G” [CR] | |
| Details | Get user controlled value of White Balance Green | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.18 CR_WBAL-B Command

| | | |
|---|---|---|
| Command | “CR_WBAL-B” [CR] | |
| Details | Get user controlled value of White Balance Blue | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “100” |
| | Unacceptable | “?” [CR] |

### 9.4.19 CR_COLTEMP Command

| | | |
|---|---|---|
| Command | “CR_COLTEMP” [CR] | |
| Details | Get Color Temp setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000”: 5000<br>“001”: 6500<br>“002”: 7800<br>“003”: 8500<br>“004”: 9300<br>“005”:10500 |
| | Unacceptable | “?” [CR] |

### 9.4.20 CR_NZRED Command

| | | |
|---|---|---|
| Command | “CR_NZRED” [CR] | |
| Details | Get Noise Reduction setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "OFF" ----------Noise Reduction OFF<br>"L1" ----------Noise Reduction Low<br>"L2" ----------Noise Reduction Medium<br>"L3" ----------Noise Reduction High |
| | Unacceptable | “?” [CR] |

### 9.4.21 CR_PROGV Command

| | | |
|---|---|---|
| Command | “CR_PROGV” [CR] | |
| Details | Get Progressive scan setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "OFF" ---------- Progressive OFF<br>"L1" ---------- Progressive Still<br>"L2" ---------- Progressive Normal<br>"L3" ---------- Progressive Movie |
| | Unacceptable | “?” [CR] |

### 9.4.22 CR_FILM Command

| | | |
|---|---|---|
| Command | “CR_FILM” [CR] | |
| Details | Get Film mode setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "OFF"---------- Film mode Off<br>"AUTO"----------Telecine 2-2/2-3AUTO<br>"22ON"---------- Telecine 2-2 ON<br>"23ON"---------- Telecine 2-3 ON |
| | Unacceptable | “?” [CR] |

### 9.4.23 CR_IMAGE Command

| | | |
|---|---|---|
| Command | “CR_IMAGE” [CR] | |
| Details | Get image setting status. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "STANDPC" ---------- High-Bright<br>"PRESEN" ---------- Presentation<br>"STANDAV" ---------- Video<br>"CINEMA" ---------- Movie<br>"REAL" ---------- Graphic<br>"SRGB" ---------- sRGB |
| | Unacceptable | “Error Code” [CR] ------- When the command is invalid due to condition such as Input source<br>“?” [CR] ----------When unknown command is received |

### 9.4.24 CR_BRTCOLOR Command

| | | |
|---|---|---|
| Command | “CR_BRTCOLOR” [CR] | |
| Details | Get setting status of Brilliant Color | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "0001-0008"------ Directly specify setting value of BrilliantColor. |
| | Unacceptable | “?” [CR] |

## 9.5 PC Status Read Commands

### 9.5.1 CR_FSYNC Command

| | | |
|---|---|---|
| Command | “CR_FSYNC” [CR] | |
| Details | Get value of Fine Sync | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | "0000-0063" ---------- Directly specify setting value of Phase |
| | Unacceptable | “Error Code” [CR] --------- When the command is invalid due to condition such as Input source<br>“?” [CR] --------- When unknown command is received |

### 9.5.2 CR_TDOTS Command

| | | |
|---|---|---|
| Command | “CR_TDOTS” [CR] | |
| Details | Get value of Total Dots | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “nnnn” – “ 9999”<br>(nnnn = Display Dots + Horizontal Position) |
| | Unacceptable | “Error Code” [CR] --------- When the command is invalid due to condition such as Input source<br>“?” [CR] --------- When unknown command is received |

### 9.5.3 CR_H-POS Command

| | | |
|---|---|---|
| Command | “CR_H-POS” [CR] | |
| Details | Get value of Horizontal Position | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “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 unknown command is received |

### 9.5.4 CR_V-POS Command

| | | |
|---|---|---|
| Command | “CR_V-POS” [CR] | |
| Details | Get value of Vertical Position | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “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 unknown command is received |

### 9.5.5 CR_SETPCADJ Command

| | | |
|---|---|---|
| Command | “CR_SETPCADJ” [CR] | |
| Details | Get value of Signal name. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | This command is available only Input is PC-Analog.<br>Get value of Signal name.<br><br>“640x480”----------VGA1 is input.<br>“1024x768”----------XGA1 is input<br>“1600x1200”----------UXGA1 is input |
| | Unacceptable | “?” [CR] --------- When unknown command is received |

## 9.6 Video Status Read Command

### 9.6.1 CR_SERSYS Command

| | | |
|---|---|---|
| Command | “CR_SERSYS” [CR] | |
| Details | Get currently selected signal.<br>Value only when Slot is video. (Invalid when Slot is computer) | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “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 | “?” [CR] |

### 9.6.2 CR_AVOVSCN Command

| | | |
|---|---|---|
| Command | “CR_AVOVSCN” [CR] | |
| Details | Get value of Overscan. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “00~15”<br>“UP”<br>“DN” |
| | Unacceptable | “?” [CR] |

## 9.7 Input States Read Command

### 9.7.1 CR_INPUT Command

| | | |
|---|---|---|
| Command | “CR_INPUT” [CR] | |
| Details | Get Setting of Input number. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “1”～”6” |
| | Unacceptable | “?” [CR] |

### 9.7.2 CR_SOURCE Command

| | | |
|---|---|---|
| Command | “CR_SOURCE” [CR] | |
| Details | Get selected Source | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ANALOG ---------- ANALOG RGB is selected<br>"YPBPR" ---------- Y/Pb/Pr Slot is selected<br>"YCBCR" ---------- Y/Cb/Cr Slot is selected<br>“DIGITAL” ---------- DVI Slot is selected<br>“VIDEO” ---------- Video Slot is selected<br>“S-VIDEO” ---------- S-VIDEO Slot is selected<br>“BLANK” ---------- without Source |
| | Unacceptable | “Error Code” [CR] ---------- When the command is invalid due to condition such as Input source<br>“?” [CR] --------- When unknown command is received |

### 9.7.3 CR_SYSTEM Command

| | | | |
|---|---|---|---|
| Command | “CR_SYSTEM” [CR] | | |
| Details | Get selected System | | |
| Correspondence | Acceptable | | “000_%1” [CR] |
| | %1 | Slot is PC signal | ”VGA1” ----------VGA1 is selected<br>“VGA2” ----------VGA2 is selected<br>:<br>:<br>“XGA1” ----------XGA1 is selected<br>:<br>:<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 |
| | | Slot is 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” ---------- PAL-N is selected<br>“1080i60” ---------- 1080i60Hz is selected<br>“1080i0” ---------- 1080i50Hz 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 |
| | Unacceptable | | “Error Code” [CR] ----- When the command is invalid due to condition such as Input source<br>“?” [CR] --------- When unknown command is received |

### 9.7.4 CR_SYSLIST Command

| | | |
|---|---|---|
| Command | “CR_SYSLIST” [CR] | |
| Details | Get Source of Selected Input | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same data as CR_SRCINP1 |
| | Unacceptable | “?” [CR] |

### 9.7.5 CR_SRCINP1 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP1” [CR] | |
| Details | Get Source of Slot1 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ANALOG”“ ---------- in Computer mode |
| | Unacceptable | “?” [CR] |

### 9.7.6 CR_SRCINP2 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP2” [CR] | |
| Details | Get Source of Slot 2 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ANALOG” ---------- in Computer mode<br>“YPBPR” ---------- in Y/Pb/Pr mode |
| | Unacceptable | “?” [CR] |

### 9.7.7 CR_SRCINP3 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP3” [CR] | |
| Details | Get Source of Slot 3 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “DIGITAL” ---------- in DVI mode |
| | Unacceptable | “?” [CR] |

### 9.7.8 CR_SRCINP4 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP4” [CR] | |
| Details | Get Source of Slot 4 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “YPBPR” ---------- in Y/Pb/Pr mode |
| | Unacceptable | “?” [CR] |

### 9.7.9 CR_SRCINP5 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP5” [CR] | |
| Details | Get Source of Slot 5 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “VIDEO” ---------- in Video mode |
| | Unacceptable | “?” [CR] |

### 9.7.10 CR_SRCINP6 Command

| | | |
|---|---|---|
| Command | “CR_SRCINP6” [CR] | |
| Details | Get Source of Slot 6 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “S-VIDEO” ---------- in S-video mode |
| | Unacceptable | “?” [CR] |

### 9.7.11 CR_HMSLOT Command

| | | |
|---|---|---|
| Command | “CR_HMSLOT” [CR] | |
| Details | Get the total number of Slots | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “006” |
| | Unacceptable | “?” [CR] |

### 9.7.12 CR_NMSLOT1 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT1” [CR] | |
| Details | Get the board name inserted to Slot 1 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “VGA” |
| | Unacceptable | “?” [CR] |

### 9.7.13 CR_NMSLOT2 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT2” [CR] | |
| Details | Get the board name inserted to Slot 2 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “5BNC” |
| | Unacceptable | “?” [CR] |

### 9.7.14 CR_NMSLOT3 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT3” [CR] | |
| Details | Get the board name inserted to Slot 3 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “DVI” |
| | Unacceptable | “?” [CR] |

### 9.7.15 CR_NMSLOT4 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT4” [CR] | |
| Details | Get the board name inserted to Slot 4 | |
| Correspondence | Acceptable | “5BNC” |
| | %1 | The same data as CR_NMSLOT1 |
| | Unacceptable | “?” [CR] |

### 9.7.16 CR_NMSLOT5 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT5” [CR] | |
| Details | Get the board name inserted to Slot 5 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “VIDEO” |
| | Unacceptable | “?” [CR] |

### 9.7.17 CR_NMSLOT6 Command

| | | |
|---|---|---|
| Command | “CR_NMSLOT6” [CR] | |
| Details | Get the board name inserted to Slot 6 | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “VIDEO” |
| | Unacceptable | “?” [CR] |

### 9.7.18 CR_IDSLOT1 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT1” [CR] | |
| Details | Get ID information on Slot 1.<br>This command is used to recognize the inserted board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “00” ---------- Video board<br>Valid Slot Source: VIDEO, S-VIDEO<br>“01” ---------- D-sub board<br>Valid Slot Source: ANALOG<br>“04” ---------- Component board<br>Valid Slot Source: YPBPR<br>“05” ---------- DVI board<br>Valid Slot Source: DIGITAL<br>“99” ---------- No board inserted |
| | Unacceptable | “?” [CR] |

### 9.7.19 CR_IDSLOT2 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT2” [CR] | |
| Details | Get ID information on Slot 2.<br>This command is to recognize the inserted slot board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same as CR_IDSLOT1 |
| | Unacceptable | “?” [CR] |

### 9.7.20 CR_IDSLOT3 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT3” [CR] | |
| Details | Get ID information on Slot 3.<br>This command is to recognize the inserted slot board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same as CR_IDSLOT1 |
| | Unacceptable | “?” [CR] |

### 9.7.21 CR_IDSLOT4 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT4” [CR] | |
| Details | Get ID information on Slot 4.<br>This command is to recognize the inserted slot board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same as CR_IDSLOT1 |
| | Unacceptable | “?” [CR] |

### 9.7.22 CR_IDSLOT5 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT5” [CR] | |
| Details | Get ID information on Slot 5.<br>This command is to recognize the inserted slot board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same as CR_IDSLOT1 |
| | Unacceptable | “?” [CR] |

### 9.7.23 CR_IDSLOT6 Command

| | | |
|---|---|---|
| Command | “CR_IDSLOT6” [CR] | |
| Details | Get ID information on Slot 6.<br>This command is to recognize the inserted slot board and specify the valid Slot source. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | The same as CR_IDSLOT1 |
| | Unacceptable | “?” [CR] |

## 9.8 Screen Status Read Commands

### 9.8.1 CR_SCREEN Command

| | | |
|---|---|---|
| Command | “CR_SCREEN” [CR] | |
| Details | Get currently selected screen image size | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “FULL” ----------4:3 screen display<br>“WIDE” ----------16:9 screen display<br>“CROP”----------the cropping size screen display<br>“TRUE” ----------TRUE mode<br>“NORMAL” ----------NORMAL mode |
| | Unacceptable | “Error Code” [CR] ---------- When the command is invalid due to condition such as Input source<br>“?” [CR] ---------- When unknown command is received |

### 9.8.2 CR_KYSTNMODE Command

| | | |
|---|---|---|
| Command | “CR_KYSTNMODE” [CR] | |
| Details | Get currently setting of keystone | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “STR” |
| | Unacceptable | “Error Code” [CR] ---------- When the command is invalid due to condition such as Input source<br>“?” [CR] ---------- When unknown command is received |

## 9.9 Lamp Status Read Commands

### 9.9.1 CR_LAMPREPL Command

| | | |
|---|---|---|
| Command | "CR_LAMPREPL" [CR] | |
| Details | Get the information of Lamp Replacement time | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "2**"<br>2 ---------- indicates 2 lamps are used in this model.<br>* ---------- indicates the status of each lamp in lamp number order.<br>"Y" means the lamp operating time is over the threshold for lamp replacement, and "N" means it has not reached to.<br>e.g.<br>"2NY" ---------- This indicates it is 2-lamp system, and Lamp #1 has not been reached to the replacement time while #2 should be replaced. |
| | Unacceptable | "?" [CR] |

### 9.9.2 CR_LAMPH Command

| | | |
|---|---|---|
| Command | "CR_LAMPH" [CR] | |
| Details | Get actual Lamp used time(measure : Hours(h)). | |
| Correspondence | Acceptable | "000_%1_%2" [CR] |
| | %1, %2 | %1 is lamp1 data, %2 is lamp2 dat,<br>%1 and %2 uses 5 digits.<br><br>e.g.<br>Lamp1 & Lamp2<br>"00410 00200"[CR]<br>----------Lamp NO.1 = 410[H]<br>Lamp No.2 = 200[H] |
| | Unacceptable | "?" [CR] |

### 9.9.3 CR_LAMPMODE Command

| | | |
|---|---|---|
| Command | "CR_LAMPMODE" [CR] | |
| Details | Get value of Lamp Select | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "FULL" ---------- Lamp Select is Dual<br>"HALF1"---------- Lamp Select is Lamp1<br>"HALF2"---------- Lamp Select is Lamp2 |
| | Unacceptable | "?" [CR] |

### 9.9.4 CR_AUTOLAMPCONTRL Command

| | | |
|---|---|---|
| Command | "CR_AUTOLAMPCONTRL" [CR] | |
| Details | Get Lamp mode setting status | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "NORMAL" ---------- NORMAL is selected.<br>"ECO" ---------- ECO is selected. |
| | Unacceptable | "Error Code" [CR] |

### 9.9.5 CR_LAMPSTS Command

| | | |
|---|---|---|
| Command | "CR_LAMPSTS" [CR] | |
| Details | Get the information of Lamp lighting status | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "2**"<br>The first character indicates 2 lamps are used in this model. The following characters indicate each lamp status in lamp number order as showed below.<br>"I" ---------- Lamp is ON<br>"O" ---------- Lamp is OFF<br>"X" ---------- Lamp Failure<br>e.g.<br>"2IO" ---------- This indicates it is 2-lamp system, Lamp #1 is ON, #2 is OFF. |
| | Unacceptable | "?" [CR] |

### 9.9.6 CR_INFLAMP Command

| | | |
|---|---|---|
| Command | "CR_INFLAMP" [CR] | |
| Details | Get Lamp mode switching status | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "NML" --------- in Normal status (lamp switching operation is not active.)<br>"CNG" ---------- during lamp switching operation |
| | Unacceptable | "?" [CR] |

### 9.9.7 CR_PROJH Command

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

### 9.9.8 CR_HMLAMP Command

| | | |
|---|---|---|
| Command | "CR_HMLAMP" [CR] | |
| Details | Get total lamp number | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "002" |
| | Unacceptable | "?" [CR] |

## 9.10 SOUND status Read Commands

### 9.10.1 CR_VOLUME Command

| | | |
|---|---|---|
| Command | “CR_VOLUME” [CR] | |
| Details | Get value of volume setting | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “064” |
| | Unacceptable | “?” [CR] |

### 9.10.2 CR_MUTE Command

| | | |
|---|---|---|
| Command | “CR_MUTE” [CR] | |
| Details | Get setting status of MUTE | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ---------- Sound mute on<br>“OFF” ---------- Sound mute off |
| | Unacceptable | “?” [CR] |

## 9.11 Setting Status Read Commands

### 9.11.1 CR_BACKGND Command

| | | |
|---|---|---|
| Command | “CR_BACKGND” [CR] | |
| Details | Get Background setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “BLUE” ---------- Blue Back is set to on.<br>“BLACK” ---------- Black Back is set to on.<br>“USER” ---------- Logo is set to on. |
| | Unacceptable | “?” [CR] |

### 9.11.2 CR_CEIL Command

| | | |
|---|---|---|
| Command | “CR_CEIL” [CR] | |
| Details | Get Ceiling setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ----------CeilingRear or CeilingFront is set to ON.<br>“OFF” ---------- Desktop Front or Desktop Rear is set to ON. |
| | Unacceptable | “?” [CR] |

### 9.11.3 CR_REAR Command

| | | |
|---|---|---|
| Command | “CR_REAR” [CR] | |
| Details | Get Rear setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ----------Ceiling Rear or Desktop Rear is set to on.<br>“OFF” ----------Desktop Front or Ceiling Front is set to on. |
| | Unacceptable | “?” [CR] |

### 9.11.4 CR_RCSENSOR Command

| | | |
|---|---|---|
| Command | “CR_RCSENSOR” [CR] | |
| Details | Get Remote sensor setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “BOTH” ----------Front /Back is set to ON.<br>“FRONT” ----------Front is set to ON.<br>“BACK” ----------Back is set to ON. |
| | Unacceptable | “?” [CR] |

### 9.11.5 CR_LANG Command

| Command | "CR_LANG" [CR] | |
|---|---|---|
| Details | Get selected language | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "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>"SVE" ---------- Swedish is selected<br>"CHI" ---------- Chinese is selected<br>"JPN" ---------- Japanese is selected |
| | Unacceptable | "?" [CR] |

### 9.11.6 CR_P-MANE Command

| Command | "CR_P-MANE" [CR] | |
|---|---|---|
| Details | Get Power management setting status | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "OFF" ---------- Power Management is set to OFF.<br>"SHUTDOWN" ---------- Power Management is available. |
| | Unacceptable | "?" [CR] |

### 9.11.7 CR_P-MANETIME Command

| Command | "CR_P-MANETIME" [CR] | |
|---|---|---|
| Details | Get value of Power management time. | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "000" – "030"(Only available value) |
| | Unacceptable | "?" [CR] |

### 9.11.8 CR_FANSPEED Command

| Command | "CR_FANSPEED" [CR] | |
|---|---|---|
| Details | Get currently selected Fan Control Speed. | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "MAX" ---------- High speed of Fan Control is selected<br>"NOR" ---------- Fan Control Auto is selected |
| | Unacceptable | "?" [CR] |

### 9.11.9 CR_KEYDIS Command

| Command | "CR_KEYDIS" [CR] | |
|---|---|---|
| Details | Get setting status of RC/KEY use limitation (valid or invalid) | |
| Correspondence | Acceptable | "000_%1" [CR] |
| | %1 | "NONE" ---------- RC & KEY are valid<br>"KEY" ---------- KEY is invalid |
| | Unacceptable | "?" [CR] |

### 9.11.10 CR_SECURITY Command

| | | |
|---|---|---|
| Command | “CR_SECURITY” [CR] | |
| Details | Get setting status of Security setting. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ---------- Pin code is Locked.<br>“OFF” ---------- Pin code is Free. |
| | Unacceptable | “?” [CR] |

### 9.11.11 CR_PJLOCKNOW Command

| | | |
|---|---|---|
| Command | “CR_PJLOCKNOW” [CR] | |
| Details | Get setting status of PJ Lock on now | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “LOCK” ---------- Security is on.Menu is on,and Password is not inputed,actually Locked.<br>“FREE” ---------- Security is Off.Menu is off ,or Password was inputed,Lock released. |
| | Unacceptable | “?” [CR] |

### 9.11.12 CR_PJLOCKMENU Command

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

### 9.11.13 CR_TESTPAT Command

| | | |
|---|---|---|
| Command | “CR_TESTPAT” [CR] | |
| Details | Get setting status of Test pattern. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “CrossHatch”<br>“Raster1”<br>“Raster2”<br>“Raster3”<br>“Raster4”<br>“Raster5”<br>“Raster6”<br>“Raster7”<br>“Raster8”<br>“Raster9”<br>“Raster10”<br>“RampH”<br>“RampV”<br>“OFF” |
| | Unacceptable | “?” [CR] |

### 9.11.14 CR_FILH Command

| | | |
|---|---|---|
| Command | “CR_FILH” [CR] | |
| Details | Get value of time filter used. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “0000” – “99999” |
| | Unacceptable | “?” [CR] |

### 9.11.15 CR_FILREPL Command

| | | |
|---|---|---|
| Command | “CR_FILREPL” [CR] | |
| Details | Get setting status of time to change filter | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “1Y”----------Filter Exchange time is over value of Filter Message.<br>“1N” ----------Filter Exchange time is not over value of Filter Message. |
| | Unacceptable | “?” [CR] |

### 9.11.16 CR_FILTIMER Command

| | | |
|---|---|---|
| Command | “CR_FILTIMER” [CR] | |
| Details | Get setting status of Filter Massage. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “OFF” ----------Off<br>“100” ---------- Display massage by 100h used.<br>“300” ---------- Display massage by 300h used.<br>“500” ---------- Display massage by 500h used. |
| | Unacceptable | “?” [CR] |

## 9.12 Other Status Read Commands

### 9.12.1 CR_STATUS Command

| | | |
|---|---|---|
| Command | “CR_STATUS” [CR] | |
| Details | Get status of Projector.<br>This command is same as “CR0”, except it has an error code. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “00” = Power on<br>“80”= Standby<br>“40= Power up Counttdown<br>“20”= Cooling<br>“10”= Power Error<br>“28”= Temperature Error cooling<br>“88”= Standby after Temperature Error cooling<br>“02”= Cannot Receive RS232C Commands<br>“24”= Power Management Cooling<br>“21”= Cooling after Lamp Error<br>“81”= Standby after Lamp Error |
| | Unacceptable | “?” [CR] |

### 9.12.2 CR_SIGNAL Command

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

### 9.12.3 CR_VMUTE Command

| | | |
|---|---|---|
| Command | “CR_VMUTE” [CR] | |
| Details | Get No Show setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ---------- No Show is set to ON.<br>“OFF” ---------- No Show is set to OFF. |
| | Unacceptable | “?” [CR] |

### 9.12.4 CR_FREEZE Command

| | | |
|---|---|---|
| Command | “CR_FREEZE” [CR] | |
| Details | Get Freeze setting status | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “ON” ---------- Freeze is set to ON.<br>“OFF” ---------- Freeze is set to OFF. |
| | Unacceptable | “?” [CR] |

### 9.12.5 CR_ALLPFAIL Command

<table>
<tr><td>Command</td><td colspan="2">“CR_ALLPFAIL” [CR]</td></tr>
<tr><td>Details</td><td colspan="2">Get all information and status of power fail.<br>It returns it bringing “CR_PFAIL01” “CR - PFAIL50” together.<br>Max Length of bytes is 1200bytes content 24bytes x 50.</td></tr>
<tr><td rowspan="3">Correspondence</td><td>Acceptable</td><td>“000_%1_%2” [CR]<br>“000_%3_%4” [CR]<br>"000_%5_%6" [CR]<br>:<br>“000_%97_%98” [CR]<br>“000_%99_%100” [CR]<br><br>The above-mentioned 50 blocks transmission collectively<br>If content is less 50 blocks, transmission until availableness.<br>It depends on specification of DXT10 projector.</td></tr>
<tr><td>%1<br>~%100</td><td>%1, %3, ……, %99 (odd number)<br>---Name of Failure status(16bytes fixed length)<br><br>*Status notation<br><br>1)Power error<br>====>Power.err<br>2)Fan error<br>====>Fan.err<br>3) FPGA error<br>====>FPGA.err<br>4)Formatter error<br>====>Formatter.err<br>5)A foreign object sensor error<br>====>foreignobj.sens<br>6)Temperature error(Bimetal)<br>====>Temp.Bimetal<br>7)Temperature error(Sensor)<br>====>Temp.Sensor<br>8)High temperature due to dust pile-up<br>====>High-temp.dust<br>9)Lamp cover error<br>====>Lampcover.err<br>10)Lamp(or Lamp1) error<br>====>Lamp1.err<br>11)Lamp(or Lamp1) has reached its end of life<br>====>Lamp1.endof.life<br>12)Lamp(or Lamp1) has been used beyond its limit<br>====>Lamp.over.limit<br>13)Lamp(or Lamp1) housing error<br>====>Lamp1.housing<br>14)Lamp(or Lamp1) data error<br>====>Lamp1.data.err<br>15)Lamp2 has reached its end of life<br>====>Lamp2.endof.life<br>16)Lamp2 has been used beyond its limit<br>====>Lamp2.over.limit<br>17)Lamp2 housing error<br>====>Lamp2.housing<br>18)Lamp2 data error<br>====>Lamp2.data.err<br>19)Lamp2 error<br>====>Lamp2.err<br><br>%2, %4, ……, %100 (even number)<br>---Status of Failure accrual (2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”</td></tr>
<tr><td>Unacceptable</td><td>“error code” [CR]<br>Confirm P18</td></tr>
</table>

### 9.12.6 CR_HMPFAIL Command

| | | |
|---|---|---|
| Command | “CR_HMPFAIL [CR] | |
| Details | Get total number of Power failure possible to detect | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “000” – “050”<br><br>DXT10 reply “019” |
| | Unacceptable | “error code” [CR]<br>Confirm P18 |

### 9.12.7 CR_PFAIL01 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL01” [CR] | |
| Details | Get name of No.01 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.8 CR_PFAIL02 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL02” [CR] | |
| Details | Get name of No.02 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.9 CR_PFAIL03 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL03” [CR] | |
| Details | Get name of No.03 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.10 CR_PFAIL04 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL04” [CR] | |
| Details | Get name of No.04<br>of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.11 CR_PFAIL05 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL05” [CR] | |
| Details | Get name of No.05 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.12 CR_PFAIL06 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL06” [CR] | |
| Details | Get name of No.06 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.13 CR_PFAIL07 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL07” [CR] | |
| Details | Get name of No.07 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.14 CR_PFAIL08 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL08” [CR] | |
| Details | Get name of No.08 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.15 CR_PFAIL09 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL09” [CR] | |
| Details | Get name of No.09 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.16 CR_PFAIL10 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL10” [CR] | |
| Details | Get name of No.10 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.17 CR_PFAIL11 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL11” [CR] | |
| Details | Get name of No.11 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.18 CR_PFAIL12 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL12” [CR] | |
| Details | Get name of No.12 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.19 CR_PFAIL13 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL13” [CR] | |
| Details | Get name of No.13 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.20 CR_PFAIL14 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL14” [CR] | |
| Details | Get name of No.14 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.21 CR_PFAIL15 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL15” [CR] | |
| Details | Get name of No.15 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.22 CR_PFAIL16 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL16” [CR] | |
| Details | Get name of No.16 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.23 CR_PFAIL17 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL17” [CR] | |
| Details | Get name of No.17 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.24 CR_PFAIL18 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL18” [CR] | |
| Details | Get name of No.18 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.25 CR_PFAIL19 Command

| | | |
|---|---|---|
| Command | “CR_PFAIL19” [CR] | |
| Details | Get name of No.19 of error list and get status. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2 | %1 = name of Power failure status(16bytes fixed length)<br>%2 = status of failure accrual(2bytes fixed length)<br>Failure accrual : “NG”<br>Not failure : “OK”<br><br>If item is invalid, transmission “NOTHING”<br>e.g. “000 NOTHING OK” [CR] |
| | Unacceptable | “?” [CR] |

### 9.12.26 CR_TEMPWARN Command

| | | |
|---|---|---|
| Command | “CR_TEMPWARN” [CR] | |
| Details | Get the information about the temperature inside the projector (close to the abnormal or in the abnormal status/in the safe temperature level/abnormal status is not detected).<br>It is possible to get the information about more than one sensor all at once if it is applicable. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | “* *”<br>Sensor 1 data comes first, and then one space, after that sensor 2 data is followed.<br>Each data is as below:<br>“W”--- in or close to the abnormal temp. (Warning Temp.)<br>“S”--- in the safe level of temperature (Safe Temp.).<br>“N”--- the given sensor does not detect abnormal temp.<br><br>e.g. “S_W” [CR] indicates that the temperature detected at Sensor 1 is in the safe level while Sensor 2 in the abnormal temperature. |
| | Unacceptable | “?” [CR] |

### 9.12.27 CR_TEMPFAIL Command

| | | |
|---|---|---|
| Command | “CR_TEMPFAIL” [CR] | |
| Details | Get the temperature inside the projector when the abnormal status occurs.<br>It is possible to get the temperatures for more than one sensor all at once if it is applicable. | |
| Correspondence | Acceptable | “000_%1” [CR] |
| | %1 | e.g. “_31.5F”[CR]<br>_ indicates a space. When the temperature goes under 0, the first character is “-”, not a space, as in “-05.5F”.<br>With more than one temperature sensors installed, projector returns the Correspondences for each sensor in a row.<br><br>e.g. “_31.5F_35.2S” [CR]<br>The first data indicates sensor 1 data, then one space, and sensor 2 data is followed.<br>Last character in each data indicates the sensor’s status.<br>In the abnormal temperature ---------- “F”<br>In the safe level of temperature ---------- “S”<br>Neither in or close to the abnormal temp. ------- “N”<br><br>The second example above indicates that the temperature detected by sensor 1 is 31.5 which means in the abnormal temperature, and at sensor 2 is 32.5 degrees which is in the safe temperature.<br><br>When the abnormal temperature status is not occurred the data should be “_00.0S”.<br>When the projector is reset, “_00.0S” is set. Every time abnormal temperature status is detected, it renews the data and returns it. It only returns the renewed data of the latest abnormal temperature and the previous data is cleared. |
| | Unacceptable | “?” [CR] |

### 9.12.28 CR_TEMP Command

| Command | “CR_TEMP” [CR] | |
|---|---|---|
| Details | Get the information about the temperature inside the projector (close to the abnormal or in the abnormal status/in the safe temperature level/abnormal status is not detected).<br>It is possible to get the information about more than one sensor all at once if it is applicable. | |
| Correspondence | Acceptable | “000_%1_%2” [CR] |
| | %1,%2,%3 | %1=Temperature of sensor1<br>%2=Temperature of sensor2<br><br>%1, %2----------fixed 6 digits.<br>Between %1 and %2 is space 1 character.<br><br>“_31.5Ｆ”<br><br>“_” means a space. if temperature becomes -, the first digit become “-” from “_” .<br>Etc.“-05.5F”<br><br>Last character in each data indicates the sensor’s status.<br>"F"・・・ In the abnormal temperature.<br>"W"・・・ It is near abnormal temperature. Temperature in which it warns of danger.<br>"S"・・・ It is far from abnormal temperature.(When it is safe.)<br>"N"・・・ Temperature sensor of correspondence is not detection temperature warning.<br>"E"・・・ Temperature sensor cannot return the data.<br><br>If temperature sensor is equipped with two or more pieces, returns data continues.<br>Etc. "_31.5F__35.2S"[CR]<br>There is data of temperature sensor 1 in the head, and space 1 digit, and the following data of temperature sensor 2 continues.<br>In the above-mentioned example, Temperature sensor 1 is Temp warning by 31.5. Temperature sensor 2 is not abnormal by 35.2.<br>If hardware is in some abnormalities, cannot return the temperature data, return data what last digit is “E” like "_00.0E”.<br>There is a situation when depending on the model.<br>When stand-by, and tens of seconds after Power-On, temperature rises by resicual heat of Lamp Ballast, becomes abnormal temperature.<br>Therefore, when in standby and tens of seconds after Power-On, Projector doesn’t process temp warning, but temperature data become “_----N” in this case. |
| | Unacceptable | “?” [CR] |