

EXPAND SERIAL COMMAND FUNCTIONAL SPECIFICATIONS

PLC-ZM5000
PLC-ZM5000L

Ver.1.00

SANYO Electric Co., Ltd
DS Company
Projector Division

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1 Overview

- This Functional Specification defines communication with PJ-Net organizer for PLC-ZM5000 / ZM5000L.
- Supporting Firmware Ver. 1.x of the projector.
- Commands in this document are to communicate with PJ-Net organizer, but most commands are used to control a projector remotely from a computer with RS-232C. Therefore commands in this document are defined as Expand Serial Commands.

2 Serial Interface Specification

2.1 Transfer Specification

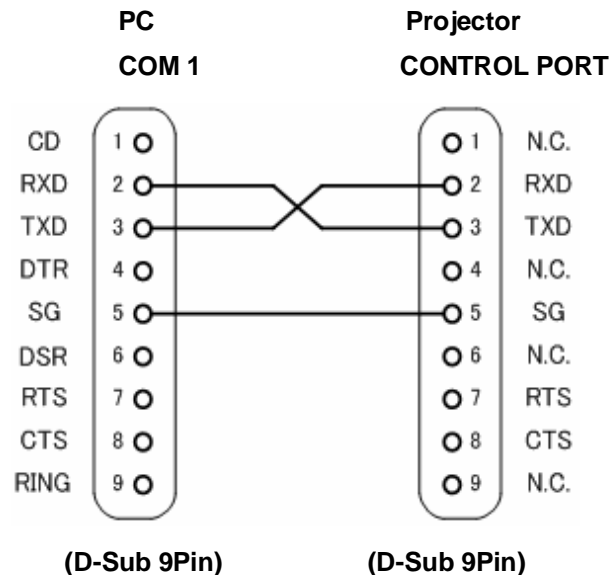
| Item | Specification |
|--------------------|---------------|
| Synchronous System | Asynchronous |
| Transmission Speed | 9600 / 19200 |
| Data Length | 8 bits |
| Parity | N/A |
| Stop Bit | 1 |
| Flow Control | N/A |

Note1) Transmission Speed: initial setting value is 19200

Note2) Transmission Speed can be changed in Service mode.

2.2 Connection

Dedicated serial cables must be used for the connection between a computer and a projector.



Connect COM port of the computer to CONTROL PORT of the projector.

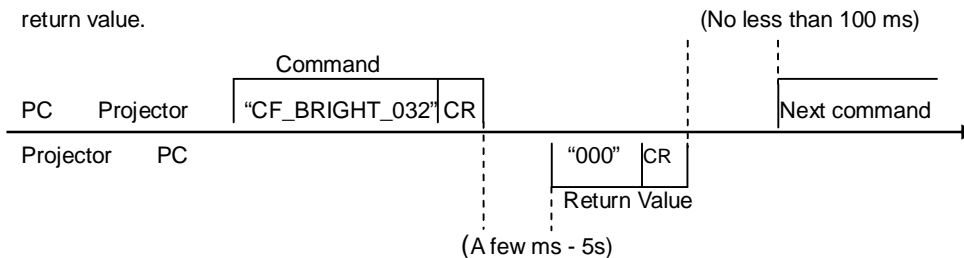
COM Port (COM1 or COM2) of a computer is specified by control software of the computer.

3 Notes for communication

1. Expand Serial Command is defined as a single command per line that starts with "C" and ends with carriage return (0x0D).
2. There are two types of commands; Functional Execution Commands and Status Read Command.
 - Example of Functional Execution Command: "CF_BRIGHT_032" [CR]
 - Example of Status Read Command: "CR_BRIGHT" [CR]

Note) "_" means a space

3. When it takes more than a second to receive a single command, it is not executed.
When it takes more than a second to receive carriage return (0x0D) since the reception of the first data "C", it clears the information of the receive buffer.
4. When the command pipelining, allow the interval time of no less than 100ms after receiving return value.



5. Do not send another command before the reception of the return value; the operation by the command is not ensured.
However this is not the case when no response is returned after more than 5 seconds.
6. It takes about 5 seconds for internal initialization after plugging in AC power. During this time, it cannot process commands. Do not issue any command.

4 Notation Convention

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.
2. [CR]: Carriage Return Code
Carriage Return code is added to the end of the command.
Response is also followed by carriage return code.
3. _: Space Code
Space Code is represented as (_).
4. %1: Parameter included in Command
When there are more than one parameter, they are defined as %2, %3...
5. %%%: Error Code returned from a projector
Acceptable: "000".
Unacceptable: See [7. Error Code Table].

5 Functional Execution Command Table

5.1 Image Command Table

| Execute command | Item |
|----------------------------|---|
| CF_BRIGHT_%1 [CR] | Set value of Brightness |
| CF_CONT_%1 [CR] | Set value of Contrast |
| CF_COLOR_%1 [CR] | Set value of Color |
| CF_TINT_%1 [CR] | Set value of Tint |
| CF_IRIS_%1 [CR] | Set ON/OFF of Iris function |
| CF_SHARP_%1 [CR] | Set value of Sharpness |
| CF_GAMMA_%1 [CR] | Set value of Gamma |
| CF_WBAL-R_%1 [CR] | Set Red value of White Balance |
| CF_WBAL-G_%1 [CR] | Set Green value of White Balance |
| CF_WBAL-B_%1 [CR] | Set Blue value of White Balance |
| CF_COLTEMP_%1 [CR] | Set level of Color Temperature |
| CF_OFFSET-R_%1 [CR] | Set Red value of Offset |
| CF_OFFSET-G_%1 [CR] | Set Green value of Offset |
| CF_OFFSET-B_%1 [CR] | Set Blue value of Offset |
| CF_NZRED_%1 [CR] | Set ON/OFF of Noise reduction |
| CF_PROGV_%1 [CR] | Set mode of Progressive scan |
| CF_IMAGE_%1 [CR] | Set Image mode |
| CF_IMAGEADJ_%1 [CR] | Set Store/Reset of values in Image Adjustment |

5.2 PC Adjust Control Command Table

| Execute command | Item |
|------------------------------|---|
| CF_FSYNC_%1 [CR] | Set value of Fine Sync |
| CF_TDOTS_%1 [CR] | Set value of Total Dots |
| CF_CLPPHASE_%1 [CR] | Set value of Clamp Phase |
| CF_H-POS_%1 [CR] | Set value of Horizontal Position |
| CF_V-POS_%1 [CR] | Set value of Vertical Position |
| CF_DDOTS_%1 [CR] | Set value of Display Dots |
| CF_DLINE_%1 [CR] | Set value of Display Line |
| CF_SETPCADJ_%1 [CR] | Apply values set in PC Adjust menu to screen image |
| CF_ORGMODE_%1 [CR] | Specify the original signal for PC mode |
| CF_PCSTORE_%1 [CR] | Store current setting values in PC Adjust menu to Mode %1 |
| CF_PCMODEFREE_%1 [CR] | Delete the values registered in Mode %1 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 Source of selected Input |
| CF_INPUT1_%1 [CR] | Select Input1 and also set input source to %1 |
| CF_INPUT2_%1 [CR] | Select Input2 and also set input source to %1 |
| CF_INPUT3_%1 [CR] | Select Input3 and also set input source to %1 |
| CF_INPUT4_%1 [CR] | Select Input4 and also set input source to %1 |
| CF_SYSTEM_%1 [CR] | Select System of currently selected Input |

5.4 Screen Control Command Table

| Execute command | Item |
|-------------------------|--|
| CF_SCREEN_%1[CR] | Select Screen size |
| CF_DZCENT_%1[CR] | Cancel Digital Zoom mode |
| CF_VSCALE_%1[CR] | Set V Scale |
| CF_VPOS_%1[CR] | Set V Position |
| CF_HSCALE_%1[CR] | Set H Scale |
| CF_HPOS_%1[CR] | Set H Position |
| CF_KEYSTONE_%1[CR] | Set Keystone correction |
| CF_KYSTNMODE_%1[CR] | Set Keystone store mode |
| CF_CORNER-UL_%1[CR] | Correct top-left corner |
| CF_CORNER-UR_%1[CR] | Correct top-right corner |
| CF_CORNER-DL_%1[CR] | Correct bottom-left corner |
| CF_CORNER-DR_%1[CR] | Correct bottom-right corner |
| CF_CORNERTESTPAT_%1[CR] | Select test pattern for Corner correction. |
| CF_CEIL_%1[CR] | Set ON/OFF of Ceiling |
| CF_REAR_%1[CR] | Set ON/OFF of Rear |
| CF_SCREENASPECT_%1[CR] | Set Screen aspect function |

5.5 Lamp Command Table

| Execute command | Item |
|-------------------------|-----------------------|
| CF_LAMPMODE_%1[CR] | Select Lamp mode |
| CF_LAMPLIFCONTRL_%1[CR] | Select Lamp life mode |

5.6 Sound Command Table

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

5.7 Setting Command Table

| Execute command | Item |
|-------------------------|--|
| CF_LANG_%1[CR] | Select language for OSD |
| CF_MENUPOSITION_%1[CR] | Select the position of the On-Screen Menu. |
| CF_MENUSIZE_%1[CR] | Set Menu size |
| CF_INPUTBUTTON_%1[CR] | Set up Input search function |
| CF_DISP_%1[CR] | Set ON/OFF of On Screen Display |
| CF_BACKGND_%1[CR] | Select screen for no signal |
| CF_LOGO_%1[CR] | Set PIN code and mode for Logo |
| CF_PIP_%1[CR] | Set "Picture in Picture" |
| CF_PIPMODE_%1[CR] | Set mode of "Picture in Picture" |
| CF_PIPMAININP_%1_%2[CR] | Select Input and Source for "Picture in Picture" (Main picture) |
| CF_PIPSUBINP_%1_%2[CR] | Select Input and Source for "Picture in Picture" (Sub picture) |
| CF_PIPSIZE_%1_%2[CR] | Set picture size in "Picture in Picture" |
| CF_PIPPOSITION_%1[CR] | Set position in "Picture in Picture" |
| CF_PIPFRAMELOCK_%1[CR] | Set Frame lock in "Picture in Picture" |
| CF_PIPSTORE_%1[CR] | Store current status in "Picture in Picture" to User1-5 |
| CF_PIPMODEFREE_%1[CR] | Clear registration value in User %1 and return to state of Free. |
| CF_PIPRST_%1[CR] | Reset setting of "Picture in Picture" |
| CF_HDMISETUP_%1[CR] | Set Image mode of HDMI menu. |
| CF_HDMISOUND_%1[CR] | Set Sound mode of HDMI menu. |
| CF_FILH_%1[CR] | Reset Filter used time |

| | |
|---------------------------------|---|
| CF_FILTIMER_%1[CR] | Set time to display Filter cleaning / replacement warning on screen |
| CF_FILCTL_%1[CR] | Execute operation of scroll of filter |
| CF_FILSCL_%1[CR] | Reset Filter scroll counter |
| CF_FANSPEED_%1 [CR] | Set level of Fan Speed |
| CF_SIMPLEMODE_%1 [CR] | Set Simple mode function |
| CF_RCODE_%1 [CR] | Select Remote Control Code |
| CF_RSNS_%1 [CR] | Select location of infrared remote receiver of remote control |
| CF_P-MANE_%1 [CR] | Set Power Management function |
| CF_P-MANETIME_%1 [CR] | Set time of Power Management |
| CF_STANDBYMODE_%1 [CR] | Set Standby mode |
| CF_ON-STA_%1 [CR] | Set Direct on function |
| CF_POINTER_%1[CR] | Set Pointer function |
| CF_PTIMEMODE_%1[CR] | Set count up / count down in P-timer function |
| CF_PTIMER_%1[CR] | Set the status of P-timer |
| CF_PTIME_%1[CR] | Set the time for count down mode in P-timer function |
| CF_KEYDIS_%1 [CR] | Prohibit RC/KEY control |
| CF_PJPINCODE_%1[CR] | Enter PJ PIN code to cancel PJ lock |
| CF_SHUTPROT_%1[CR] | Set valid / invalid of Side panel or RC key on Shutter control function |
| CF_SHUTRELEASE_%1[CR] | Set release key of Shutter |
| CF_SHUTH_%1[CR] | Set time of operating shutter management function |
| CF_CCAPTIONDISP_%1[CR] | Set channel of Closed caption |
| CF_CCAPTIONCOLOR_%1 [CR] | Set color of Closed caption |
| CF_DELAYCTRL_%1[CR] | Set Video delay control function |
| CF_TESTPAT_%1[CR] | Set Test pattern display function |
| CF_FDEFAULT_%1 [CR] | Reset to Factory Default settings |

5.8 Other Command Table

| Execute command | Item |
|--------------------------|-----------------------------------|
| CF_KEYEMU_%1 [CR] | The same operation as Control Key |
| CF_MENU_%1 [CR] | Set ON/OFF of Menu |
| CF_POWER_%1 [CR] | Set ON/OFF of Power |
| CF_FREEZE_%1 [CR] | Set ON/OFF of Freeze |
| CF_VMUTE_%1 [CR] | Set ON/OFF of Video Mute |

6 Status Read Command Table

6.1 Image Status Read Command Table

| Status Read command | Item |
|------------------------|--|
| CR_BRIGHT [CR] | Get value of Brightness |
| CR_CONT [CR] | Get value of Contrast |
| CR_COLOR [CR] | Get value of Color |
| CR_TINT [CR] | Get value of Tint |
| CR_IRIS [CR] | Get setting status of Iris function |
| 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 White Balance |
| CR_COLTEMP [CR] | Get value of Color temperature |
| CR_OFFSET-R[CR] | Get Offset Red |
| CR_OFFSET-G[CR] | Get Offset Green |
| CR_OFFSET-B[CR] | Get Offset Blue |
| 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_IMGMD [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_CLPPHASE [CR] | Get setting value of Clamp phase |
| 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_ORGMODE [CR] | Get the original signal for PC-Adjusted mode |
| CR_PCSTORE [CR] | Get status Free/ Stored for PC Adj. mode 1-10 |
| CR_SETPCADJ [CR] | Get currently displayed PC signal in system |

6.3 Video Status Read Command Table

| Status Read command | Item |
|-----------------------|---|
| CR_SERSYS [CR] | Get currently selected signal. In Auto mode, it returns a result by Auto detection. |

6.4 Input Status Read Command Table

| Status Read command | Item |
|-------------------------|---|
| CR_INPUT [CR] | Get selected Input |
| CR_SOURCE [CR] | Get selected Source |
| 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_SYSTEM [CR] | Get selected system in current Input mode |
| CR_SYSLIST [CR] | Get possible system list |
| CR_MODELIST [CR] | Get possible mode list |
| CR_HMSLOT [CR] | Get total number of Inputs |
| CR_NMSLOT1 [CR] | Get terminal information of Input1. |
| CR_NMSLOT2[CR] | Get terminal information of Input2. |
| CR_NMSLOT3[CR] | Get terminal information of Input3 |

| | |
|-----------------------|-------------------------------------|
| CR_NMSLOT4[CR] | Get terminal information of Input4. |
| CR_IDSLOT1[CR] | Get ID information of Input1 |
| CR_IDSLOT2[CR] | Get ID information of Input2 |
| CR_IDSLOT3[CR] | Get ID information of Input3 |
| CR_IDSLOT4[CR] | Get ID information of Input4 |

6.5 Screen Status Read Command Table

| Status Read command | Item |
|------------------------------|--|
| CR_SCREEN [CR] | Get selected screen size |
| CR_VSCALE[CR] | Get setting status of V Scale |
| CR_VPOS[CR] | Get setting status of V Position |
| CR_HSCALE[CR] | Get setting status of H Scale |
| CR_HPOS[CR] | Get setting status of H Position |
| CR_KYSTNMODE[CR] | Get selected Keystone store mode |
| CR_CORNERTESTPAT [CR] | Get setting of test pattern for Corner correction. |
| CR_CEIL [CR] | Get setting status of Ceiling |
| CR_REAR [CR] | Get setting status of Rear |
| CR_SCREENASPECT[CR] | Get setting status of Screen aspect |

6.6 Lamp Status Read Command Table

| Status Read command | Item |
|------------------------------|---|
| CR_LAMPREPL [CR] | Get information of Lamp replacement time |
| CR_LAMPH [CR] | Get information of actual Lamp running time |
| CR_LAMPCORRESPH [CR] | Get lamp running time multiplied by a coefficient |
| CR_LAMPMODE [CR] | Get selected Lamp mode |
| CR_LAMPSTS [CR] | Get status of the Lamp |
| CR_PROJH [CR] | Get total running time of projector |
| CR_HMLAMP [CR] | Get the total number of lamps |
| CR_LAMPLIFECNTRL [CR] | Get selected mode in Lamp life control function |

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 Sound Mute |
| CR_BLTINSP [CR] | Get setting status of Built-in speaker |

6.8 Setting Status Read Command Table

| Status Read command | Item |
|----------------------------|--|
| CR_LANG [CR] | Get selected language |
| CR_MENUSize [CR] | Get setting status of Menu size |
| CR_INPUTBUTTON [CR] | Get setting status of Input button function |
| CR_DISP [CR] | Get setting status of Display |
| CR_BACKGND [CR] | Get setting status of Screen for no signal |
| CR_LOGO [CR] | Get setting status of Logo |
| CR_LOGOLOCK[CR] | Get setting status of Logo Lock |
| CR_PIP[CR] | Get setting status of "Picture in Picture" |
| CR_PIPMODE[CR] | Get setting status of Mode in "Picture in Picture" |
| CR_PIPMAININP[CR] | Get setting status of Input / Source for "Picture in Picture" (Main picture) |
| CR_PIPSUBINP[CR] | Get setting status of Input / Source for "Picture in Picture" (Sub picture) |
| CR_PIPSIZE[CR] | Get picture size in "Picture in Picture" |
| CR_PIPFRAMELOCK[CR] | Get setting status of Frame lock in "Picture in Picture" |
| CR_PIPSTORE[CR] | Get stored status in "Picture in Picture" |
| CR_HDMISETUP[CR] | Get status of Image mode of HDMI setup. |

| | |
|------------------------------|---|
| CR_HDMISOUND[CR] | Get status of Sound mode of HDMI setup. |
| CR_FILREMAIN[CR] | Get remaining number of usable Filter scroll |
| CR_FILH[CR] | Get Filter used time |
| CR_FILTIMER[CR] | Get time to display Filter cleaning / replacement warning on screen |
| CR_FILCOND[CR] | Get status of filter clog |
| CR_FILREPL[CR] | Get status of Filter cleaning / replacement time |
| CR_FANSPEED [CR] | Get selected Fan Control Speed |
| CR_SIMPLEMODE [CR] | Get selected mode in Simple mode function |
| CR_RCODE [CR] | Get selected Remote Control code |
| CR_RSENS [CR] | Get selected location of infrared remote receiver of remote control |
| CR_RTYPE [CR] | Get supported Remote Control type (IR/RF) |
| CR_P-MANE [CR] | Get Power management setting status |
| CR_P-MANETIME [CR] | Get setting time for Power Management |
| CR_STANDBYMODE [CR] | Get selected mode of Standby function |
| CR_ON-STA [CR] | Get setting status of Direct on |
| CR_POINTER[CR] | Get setting status of Pointer |
| CR_PTIME[CR] | Get setting mode of P-timer |
| CR_PTIMER[CR] | Get status of P-timer |
| CR_PTIME[CR] | Get setting time for count down mode in P-timer |
| CR_KEYDIS [CR] | Get RC/KEY prohibited status |
| CR_SECURITY [CR] | Get setting status of Security |
| CR_PJLOCKNOW [CR] | Get setting status of current PJ Lock |
| CR_PJLOCKMENU [CR] | Get PJ Lock setting status on the menu |
| CR_SHUTPROT[CR] | Get disability state of Side panel and RC key for controlling shutter |
| CR_SHUTRELEASE[CR] | Get setting status of release key of shutter |
| CR_SHUTH[CR] | Get time setting to begin the shutter management |
| CR_CCAPTIONDISP[CR] | Get setting status of channel of Closed caption |
| CR_CCAPTIONCOLOR [CR] | Get setting status of color of Closed caption |
| CR_DELAYCTRL[CR] | Get selected mode of Video delay control |
| CR_TESTPAT[CR] | Get setting status of Test pattern |

6.9 Other Status Read Command Table

| Status Read command | Item |
|-------------------------|--|
| CR_STATUS [CR] | Get operating status of Projector |
| CR_SIGNAL [CR] | Get status of signal existence |
| CR_VMUTE [CR] | Get setting status of video mute |
| CR_FREEZE [CR] | Get setting status of Freeze |
| CR_TEMPFAIL [CR] | Get temperature when sensors approach abnormal temperature |
| CR_TEMP [CR] | Get current temperature |
| CR_SHUTCOND [CR] | Get setting status of Shutter |
| CR_SERIALNO [CR] | Get value of SERIAL NO. |

7 Error Code Table

| Error Code | Contents |
|------------|---|
| ? | -When the received data cannot be decoded -Parameter designation error (wrong digit number, including invalid value, etc.) |
| 000 | Normal reception (This is “Not” error) |
| 101 | The function is not available in the selected Mode |
| 102 | Selected value is out of range (Not reflected) |
| 103 | Command mismatched to Hardware (the command is for Optional function which is not implemented) |
| 201 | Incremented or decremented value or values are beyond upper or lower limits. |
| 301 | Not executable due to screen capturing in process. Prompting reissue of the command after a while. |
| 402 | Not executable due to PIN code in operation. Prompting reissue of 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: String

%1: Parameter (String)

_: 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 for 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

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

However, Status Read Command is still effective under following conditions.

| Projector Status | Available Functional Execution Command |
|---|--|
| Standby Mode | C00: Power ON CF POWER ON |
| Countdown in process | C00: Power ON CF POWER ON (Terminates Count Down) |
| Cooling Down in process | N/A |
| Cooling Down due to Abnormal Temperature | N/A |
| Abnormal Temperature | N/A |
| Power Failure (60 seconds after Power failure occurred) | N/A |
| Abnormal Filter | N/A |
| Power-Save Cooling Down in process | N/A |
| Cooling Down in process due to Shutter management | N/A |
| Power Save in process | C00: Power ON C01: Power OFF CF POWER ON CF POWER OFF |

Note) When projector receives another command in the above status, it returns error code which shows the status.

2. Functional Execution Commands are invalid when projector is in standby under Eco mode

8.4 Image Command

8.4.1 CF_BRIGHT Command

| | | |
|----------|---|-------------------|
| Command | "CF_BRIGHT_%1" [CR] | |
| %1 | "000-063"----- Directly specify setting value of Brightness "UP"----- Increment setting value of Brightness by 1 "DN"----- Decrement setting value of Brightness by 1 | |
| Details | Set user controlled value of Brightness (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.2 CF_CONT Command

| | | |
|----------|--|-------------------|
| Command | "CF_CONT_%1" [CR] | |
| %1 | "000-063"----- Directly specify setting value of Contrast "UP"----- Increment setting value of Contrast by 1 "DN"----- Decrement setting value of Contrast by 1 | |
| Details | Set user controlled value of Contrast (Available only in the normal Power ON status) The value set by this command will not be stored in the projector. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.3 CF_COLOR Command

| | | |
|----------|--|-------------------|
| Command | "CF_COLOR_%1" [CR] | |
| %1 | "000-063"----- Directly specify setting value of Color "UP"----- Increment setting value of Color by 1 "DN"----- Decrement setting value of Color by 1 | |
| Details | Set user controlled value of Color (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.4 CF_TINT Command

| | | |
|----------|---|-------------------|
| Command | "CF_TINT_%1" [CR] | |
| %1 | "000-063"----- Directly specify setting value of Tint "UP"----- Increment setting value of Tint by 1 "DN"----- Decrement setting value of Tint by 1 | |
| Details | Set Tint value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.5 CF_IRIS Command

| | | |
|----------|--|-------------------|
| Command | "CF_IRIS_%1" [CR] | |
| %1 | "OFF" ----- Set Iris function to OFF "ON" ----- Set Iris function to ON | |
| Details | Set Iris function to ON/OFF. (Available only in the normal Power ON status) The setting status with this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.6 CF_SHARP Command

| | | |
|----------|---|-------------------|
| Command | "CF_SHARP_%1" [CR] | |
| %1 | "000-031"----- Directly specify setting value of Sharpness "UP"----- Increment setting value of Sharpness by 1 "DN"----- Decrement setting value of Sharpness by 1 | |
| Details | Set user controlled value of Sharpness (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.7 CF_GAMMA Command

| | | |
|----------|---|-------------------|
| Command | "CF_GAMMA_%1" [CR] | |
| %1 | "000-015"----- Directly specify setting value of Gamma "UP"----- Increment setting value of Gamma by 1 "DN"----- Decrement setting value of Gamma by 1 | |
| Details | Set user controlled value of Gamma (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.8 CF_WBAL- Command

| | | |
|----------|---|------------------|
| Command | "CF_WBAL-%1_%2" [CR] | |
| %1 | "R" ----- RED "G" ----- GREEN "B" ----- BLUE | |
| %2 | "000-063"----- Directly specify value of Color selected in %1 of White Balance. "UP"----- Increment setting value of Color specified in %1 of White Balance by 1 "DN"----- Decrement setting value of Color specified in %1 of White Balance by 1 | |
| Details | Set value of Color specified in %1 of White Balance (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code"[CR] |

8.4.9 CF_COLTEMP Command

| | | |
|----------|--|-------------------|
| Command | "CF_COLTEMP_%1" [CR] | |
| %1 | "000" ----- Xlow "001" ----- Low "002" ----- Mid "003" ----- High | |
| Details | Set Color Temperature The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.10 CF_OFFSET- Command

| | | |
|----------|--|------------------|
| Command | "CF_OFFSET-%1_%2" [CR] | |
| %1 | "R" ----- RED "G" ----- GREEN "B" ----- BLUE | |
| %2 | "000-063"----- Directly specify value of Color selected in %1 of Offset. "UP"----- Increment setting value of Color specified in %1 of Offset by 1 "DN"----- Decrement setting value of Color specified in %1 of Offset by 1 | |
| Details | Set value of Color specified in %1 of Offset (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code"[CR] |

8.4.11 CF_NZRED Command

| | | |
|----------|---|-------------------|
| Command | "CF_NZRED_%1" [CR] | |
| %1 | "OFF" ----- Cancel Noise Reduction "ON" ----- Set Noise Reduction "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key **"UP" and "DN" are exactly same operation. | |
| Details | Set Noise Reduction level (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It returns to the original setting in Suspend mode as well.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.12 CF_PROGV Command

| | | |
|----------|---|-------------------|
| Command | "CF_PROGV_%1" [CR] | |
| %1 | "ON" ----- Set Progressive scan to On. "FILM" ----- Set Progressive scan to Film. "OFF" ----- Set Progressive scan to OFF. "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key | |
| Details | Set Progressive scan mode. (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. (It is stored in Suspend mode.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.13 CF_IMAGE Command

| | | |
|----------|---|-------------------|
| Command | "CF_IMAGE_%1" [CR] | |
| %1 | "DYNAMIC" --- Dynamic (Fixed value to enable projection with a sharp, powerful picture tone) "STAND" ----- Standard(Image adjust value is set to factory default for Still Image) "REAL"----- Real (Fixed value to display graphic image with natural tone) "NATURAL"--- Natural (Fixed value to provide image with more natural color and tone) "CINEMA"----- Cinema (Fixed value to focus on tone reproduction for movie) "CUSTOM1" ----- Image1 (the value adjusted and stored by user) "CUSTOM2" ----- Image2 (the value adjusted and stored by user) "CUSTOM3" ----- Image3 (the value adjusted and stored by user) "CUSTOM4" ----- Image4 (the value adjusted and stored by user) "CUSTOM5" ----- Image5 (the value adjusted and stored by user) "CUSTOM6" ----- Image6 (the value adjusted and stored by user) "CUSTOM7" ----- Image7 (the value adjusted and stored by user) "CUSTOM8" ----- Image8 (the value adjusted and stored by user) "CUSTOM9" ----- Image9 (the value adjusted and stored by user) "CUSTOM10" ----- Image10 (the value adjusted and stored by user) | |
| Details | Select Image Mode (Available only in the normal Power ON status) Parameter "CUSTOM1" to "CUSTOM10" corresponds to "Image1" to "Image10" displayed in projector OSD menu on selecting Image. The value set by this command is stored in EEPROM so that the setting can remain effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.4.14 CF_IMAGEADJ Command

| | | |
|----------|--|-------------------|
| Command | "CF_IMAGEADJ_%1"[CR] | |
| %1 | <p>"RST"----- Reset adjusted value for the Image "STR1"---- Store current adjusted value to Image 1 "STR2"---- Store current adjusted value to Image 2 "STR3"---- Store current adjusted value to Image 3 "STR4"---- Store current adjusted value to Image 4 "STR5"---- Store current adjusted value to Image 5 "STR6"---- Store current adjusted value to Image 6 "STR7"---- Store current adjusted value to Image 7 "STR8"---- Store current adjusted value to Image 8 "STR9"---- Store current adjusted value to Image 9 "STR10"---- Store current adjusted value to Image 10</p> | |
| Details | <p>Reset or Store adjusted value for Image. (Available only in the normal Power ON status) "STR1"-"STR10" corresponds to "Image1"-"Image10" displayed in projector OSD menu on selecting "Store" for adjusted value of Image. The setting value set in "Image1" to "Image10" is stored and can be retrieved when turning on the projector again after the power is turned to ALL OFF 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 specify setting value of Fine Sync "UP" ----- Increment setting value of Fine Sync by 1 "DN" ----- Decrement setting value of Fine Sync by 1 | |
| Details | Set value of Fine Sync in PC signal (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.2 CF_TDOTS Command

| | | |
|----------|---|--|
| Command | "CF_TDOTS_%1" [CR] | |
| %1 | "mmmm - nnnn" ----- Directly specify setting value of Total Dots "mmmm" indicates minimum value, which is current (Display area H + Position H) value "nnnn" indicates maximum value, which is <i>less than 140 MHz in Dot Clocks</i> "UP" ----- Increment setting value of Total Dots by 1 "DN" ----- Decrement setting value of Total Dots by 1 | |
| Details | Set value of Total Dots in PC signal (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.3 CF_CLPPHASE Command

| | | |
|----------|--|--|
| Command | "CF_CLPPHASE_%1" [CR] | |
| %1 | "0000-0255" ----- Directly specify setting value of Clamp Phase "UP" ----- Increment setting value of Clamp Phase by 1 "DN" ----- Decrement setting value of Clamp Phase by 1 | |
| Details | Set value of Clamp Phase (Available only in the normal Power ON status) The value set by this command will not be stored in the projector. Therefore, when the power is turned to ALL OFF, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.4 CF_H-POS Command

| | | |
|----------|--|--|
| Command | "CF_H-POS_%1" [CR] | |
| %1 | "0000-nnnn" ----- Directly specify setting value of Horizontal Position "nnnn" indicates maximum value, which is current value of (Total dots - Display area H) "UP" ----- Increment setting value of Horizontal Position by 1 "DN" ----- Decrement setting value of Horizontal Position by 1 | |
| Details | Set value of Horizontal Position in PC signal (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.5 CF_V-POS Command

| | | |
|----------|---|---|
| Command | "CF_V-POS_%1" [CR] | |
| %1 | "0000-nnnn" ----- Directly specify setting value of Vertical Position "nnnn" indicates maximum value, which is current (Total Line – Display Area V) value "UP" ----- Increment setting value of Vertical Position by 1 "DN" ----- Decrement setting value of Vertical Position by 1 | |
| Details | Set Vertical Position value (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] ---- When input is Video signal --- When input is no signal |

8.5.6 CF_DDOTS Command

| | | |
|----------|---|--|
| Command | "CF_DDOTS_%1" [CR] | |
| %1 | "0100-nnnn" ----- Directly specify setting value of Display Dots "nnnn" indicates maximum value, which is current value of (Total Dots - Position H). In this projector, the value should be "even number" and if "odd number" is specified, it adds 1 to make the value even number. "UP" ----- Increment setting value of Display Dots by 2 "DN" ----- Decrement setting value of Display Dots by 2 | |
| Details | Set setting value of Display Dots in PC signal (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.7 CF_DLINE Command

| | | |
|----------|--|--|
| Command | "CF_DLINE_%1" [CR] | |
| %1 | "0100-nnnn" ----- Directly specify setting value of Display Line "nnnn" indicates maximum value, which is current value of (Total Line - Position V). "UP" ----- Increment setting value of Display Line by 1 "DN" ----- Decrement setting value of Display line by 1 | |
| Details | Set setting value of Display Line in PC signal (Available only in the normal Power ON status) The value set by this command will not be stored in the projector's memory. Therefore, when the power is turned to ALL OFF status, the value returns to the original setting. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.8 CF_SETPCADJ Command

| | | |
|----------|---|--|
| Command | "CF_SETPCADJ_%1" [CR] | |
| %1 | None "EXT11-60" | |
| Details | 1. Apply setting value of PC adj. to the projecting image. Projecting image can be corrected with this command as well as when PC control command and Screen control command below directly apply its value to the image. (Available only in the normal Power ON status) <ul style="list-style-type: none"> • CF_FSYNC • CF_TDOTS • CF_CLAMPPAHSE • CF_H - POS • CF_V - POS • CF_DDOTS • CF_DLINE 2. When "EXT11-60" is specified in %1, "Ex Mode" (not like XGA1) is displayed in "SYSTEM" menu. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.9 CF_ORGMODE Command

| | | |
|----------|--|---|
| Command | "CF_ORGMODE_%1" [CR] | |
| %1 | <p>When input signal is PC Analog;</p> <p>"VGA1" ----- Specify VGA1 "VGA2" ----- Specify VGA2 : "XGA1" ----- Specify XGA1 : "WXGA3" ----- Specify WXGA3 "1080i60" ----- Specify 1080i60 "1080i50" ----- Specify 1080i50 "1035i" ----- Specify 1035i "720P60" ----- Specify 720p60 "720P50" ----- Specify 720p50 "575P" ----- Specify 575p "480P" ----- Specify 480p "575i" ----- Specify 575i "480i" ----- Specify 480i "1080PSF/24" ----- Specify 1080psf/24 "1080PSF/25" ----- Specify 1080psf/25 "1080PSF/30" ----- Specify 1080psf/30 "1080P24" ----- Specify 1080p24 "1080P25" ----- Specify 1080p25 "1080P30" ----- Specify 1080p30 "1080P50" ----- Specify 1080p50 "1080P60" ----- Specify 1080p60</p> <p>* When input signal is not PC Analog, error code "101" is returned.</p> | |
| Details | <p>After "EXT n" is set by PC control command such as CF_FSYNC/CF_TDOTS and CF_SETPCADJ command, specify the signal originated with by issuing this command.</p> <p>This command is used to specify projector internal settings such as whether or not to get PC signal through IP (Available only in the normal Power ON status) Note; To differentiate between 60Hz and 50Hz in 1080i and 720p, "60" or "50" is necessary to add to the parameter in this command.</p> | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input isn't PC analog |

8.5.10 CF_PCSTORE Command

| | | |
|----------|---|--|
| Command | "CF_PCSTORE_%1" [CR] | |
| %1 | <p>"1" ----- Store current value of PC Adjust to Mode1 "2" ----- Store current value of PC Adjust to Mode2 "3" ----- Store current value of PC Adjust to Mode3 "4" ----- Store current value of PC Adjust to Mode4 "5" ----- Store current value of PC Adjust to Mode5 "6" ----- Store current value of PC Adjust to Mode6 "7" ----- Store current value of PC Adjust to Mode7 "8" ----- Store current value of PC Adjust to Mode8 "9" ----- Store current value of PC Adjust to Mode9 "10" ----- Store current value of PC Adjust to Mode10</p> | |
| Details | <p>Store current value of PC Adjust (each parameter status such as Total dots) to Mode1-10. This command operates the same way as storing to Mode1-10 in PC Adjust Menu. (Available only in the normal Power ON status)</p> | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.5.11 CF_PCMODEFREE Command

| | | |
|----------|--|--|
| Command | "CF_PCMODEFREE_%1" [CR] | |
| %1 | "1" ----- Set Mode1 to Free status "2" ----- Set Mode2 to Free status "3" ----- Set Mode3 to Free status "4" ----- Set Mode4 to Free status "5" ----- Set Mode5 to Free status "6" ----- Set Mode6 to Free status "7" ----- Set Mode7 to Free status "8" ----- Set Mode8 to Free status "9" ----- Set Mode9 to Free status "10" ----- Set Mode10 to Free status | |
| Details | Delete the data registered in Custom Mode1-10 and returns it to Free status. This command operates the same way as storing to Mode1-10 in PC Adjust Menu. (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] --- When input is Video signal --- When input is no signal |

8.6 Input Control Command

8.6.1 CF_INPUT Command

| | | |
|----------|---|-------------------|
| Command | "CF_INPUT_%1" [CR] | |
| %1 | "1"----- Select Input 1 (not switching Source) "2"----- Select Input 2 (not switching Source) "3"----- Select Input 3 (not switching Source) "4"----- Select Input 4 (Network viewer) "UP"----- Increment Input No. by 1 "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key | |
| Details | Select Input (Available only in the normal Power ON status) This command switches only Input No, not Source. For instance, when Input 1 has been selected, receiving the command to select Input 1 does not invoke source-switching operation. That means it operates differently from "INPUT" button of Projector or Remote Control. *When selecting Input4 on a projector with PJ-Net unattached, it comes to "103". *When selecting Input4on a projector with PJ-Net attached and power OFF, it comes to "101". | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.2 CF_SOURCE Command

| | | |
|----------|---|---|
| Command | "CF_SOURCE_%1" [CR] | |
| %1 | Input 1 | "DIGITAL" ----- Select RGB (PC Digital) Input "ANALOG" ----- Select RGB (PC Analog) Input "SCART" ----- Select RGB (Scart) input "HDCP" ----- Select RGB (AV HDCP) input "HDMI" ----- Select HDMI input "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key |
| | Input 2 | "VIDEO" ----- Select Video input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input "ANALOG" ----- Select RGB input "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key |
| | Input 3 | "VIDEO" -----Select Video input "S-VIDEO" ----- Select S-Video input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key |
| | Input 4 | "NETWORK" "UP" "DN" *Input can not be selected, but above parameter is processed as acceptable. |
| Details | Select Source of currently selected Input (Available only in the normal Power ON status) When selected input does not include specified %1, error code "101" is returned and it is not executed. When Input No is 4 and PJ-Net power is OFF, error code "101" is returned. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.3 CF_INPUT 1 Command

| | | |
|----------|--|-------------------|
| Command | "CF_INPUT1_%1" [CR] | |
| %1 | "DIGITAL" ----- Select PC Digital Input "ANALOG" ----- Select PC Analog Input "SCART" ----- Select SCART Input "HDCP" ----- Select DVI HDCP Input "HDMI" ----- Select HDMI Input | |
| Details | Select Input 1 as well as Source specified in %1 (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.4 CF_INPUT 2 Command

| | | |
|----------|---|-------------------|
| Command | "CF_INPUT2_%1" [CR] | |
| %1 | "VIDEO" ----- Select Composite Video Input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input "ANALOG" ----- Select RGB Input | |
| Details | Select Input 2 as well as Source specified in %1. (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.5 CF_INPUT 3 Command

| | | |
|----------|--|-------------------|
| Command | "CF_INPUT3_%1" [CR] | |
| %1 | "VIDEO" ----- Select Composite Video Input "S-VIDEO" ----- Select S-Video Input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input | |
| Details | Select Input 3 as well as Source specified in %1. (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.6 CF_INPUT 4 Command

| | | |
|----------|--|-------------------|
| Command | "CF_INPUT4_%1" [CR] | |
| %1 | "NETWORK" ----- Select input from PJ-Net | |
| Details | Select Input 4 as well as Source specified in %1. (Available only in the normal Power ON status) *With PJ-Net unattached, this command is invalid and error code "103" is returned. *With PJ-Net attached and the power OFF, error code "101" is returned. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.6.7 CF_SYSTEM Command

| | | |
|----------|-------------------------------------|---|
| Command | "CF_SYSTEM_%1" [CR] | |
| %1 | Input is PC Analog | "VGA1" ----- Select VGA1 "VGA2" ----- Select VGA2 : "XGA1" ----- Select XGA1 : "WXGA3" ----- Select WXGA3 "1080P" ----- Select 1080p "1080I" ----- Select 1080i "1035I" ----- Select 1035i "720P" ----- Select 720p "575P" ----- Select 575p "480P" ----- Select 480p "575I" ----- Select 575i "480I" ----- Select 480i "1080PSF/24" ----- Select 1080psf/24 "1080PSF/25" ----- Select 1080psf/25 "1080PSF/30" ----- Select 1080psf/30 "MODE1 - 10" ----- Select MODE1 – MODE10 "EXT11 - 60" ----- Select Ex Mode11-60 * EX1-10 is not returned. |
| | Input is PC Digital / AV HDCP | "D-XGA1" ----- Select D-XGA1 : "D-WXGA3" ----- Select D-WXGA3 "D-1080P" ----- Select D-1080p "D-1080I" ----- Select D-1080i "D-1035I" ----- Select D-1035i "D-720P" ----- Select D-720p "D-575P" ----- Select D-575p "D-480P" ----- Select D-480p "D-1080PSF/24" ----- Select D-1080psf/24 "D-1080PSF/25" ----- Select D-1080psf/25 "D-1080PSF/30" ----- Select D-1080psf/30 |
| | Input is Y,Pb/Cb,Pr/Cr | "AUTO" ----- Select System "Auto" "1080P" ----- Select 1080p "1080I" ----- Select 1080i "1035I" ----- Select 1035i "720P" ----- Select 720p "575P" ----- Select 575p "480P" ----- Select 480p "575I" ----- Select 575i "480I" ----- Select 480i |
| | Input is Video / S-Video | "AUTO" ----- Select System "Auto" "NTSC" ----- Select NTSC "NTSC443" ----- Select NTSC.4.43 "PAL" ----- Select PAL "SECAM" ----- Select SECAM "PAL-M" ----- Select PAL-M "PAL-N" ----- Select PAL-N |
| | Details | Select System of currently selected Input (Available only in the normal Power ON status) When selected input does not include specified %1, error code "101" [CR] is returned and it is not executed. When Input No is 4, error code "101" [CR] is returned and it is not executed. |
| 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 | "NORMAL" ----- Select Normal mode "FULL" ----- Select Full screen mode "WIDE" ----- Select Wide(16:9) mode "ZOOM" ----- Select Zoom mode "TRUE" ----- Select True mode "CUSTOM" ----- Select Custom mode "DZOOM_UP" ----- Scale up with Digital zoom "DZOOM_DN" ----- Scale down with Digital zoom "UP" ----- The same operation as pressing Up key or Left key "DN" ----- The same operation as pressing Down key or Right key |
| | Input is Video | "NORMAL" ----- Select Normal mode "FULL" ----- Select Full screen mode "WIDE" ----- Select Wide(16:9) mode "ZOOM" ----- Select Zoom mode "NATURAL" ----- Select Natural wide mode "CUSTOM" ----- Select Custom mode "UP" ----- The same operation as pressing Up key or Left key "DN" ----- The same operation as pressing Down key or Right key |
| | Common in AV/PC | "RST" ----- Reset Screen adjustment |
| Details | Select screen size (Available only in the normal Power ON status) When selected input does not include specified %1, error code "101" [CR] is returned and it is not executed. Receiving "DZOOM_UP" or "DZOOM_DN" command immediately executes the function. | |
| 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 | Cancel Digital Zoom (Available only in the normal Power ON status and Input for Computer is selected) Release the image setting in case the image is enlarged or reduced. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "101" [CR] ----- When input is Video |

8.7.3 CF_VSCALE Command

| | | |
|----------|--|-------------------|
| Command | "CF_VSCALE_%1" [CR] | |
| %1 | "035" ----- +35 "031" ----- +31 : "002" ----- +2 "001" ----- +1 "000" ----- ±0 " 01" ----- 1 " 02" ----- 2 : " 31" ----- 31 " 32" ----- 32 "UP" ----- Increment setting value of Vscale by 1 "DN" ----- Decrement setting value of Vscale by 1 | |
| Details | Set Vscale (Available only in the normal Power ON status) *When the screen mode is not in "Custom", projector changes image mode into Custom by receiving this command. *When there is no signal detected, projector returns 101 and the command does not execute. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.4 CF_VPOS Command

| | | |
|----------|--|-------------------|
| Command | "CF_VPOS_%1" [CR] | |
| %1 | "015" ----- +15 "014" ----- +14 : "002" ----- +2 "001" ----- +1 "000" ----- ±0 " 01" ----- 1 " 02" ----- 2 : " 14" ----- 14 " 15" ----- 15 "UP" ----- Increment setting value of Vposition by 1 "DN" ----- Decrement setting value of Vposition by 1 | |
| Details | Set V Position (Available only in the normal Power ON status) *When the screen mode is not in "Custom", projector changes image mode into Custom by receiving this command. *When there is no signal detected, projector returns 101 and the command does not execute. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.5 CF_HSCALE Command

| | | |
|----------|--|-------------------|
| Command | "CF_HSCALE_%1" [CR] | |
| %1 | "035" ----- +35 "031" ----- +31 : "002" ----- +2 "001" ----- +1 "000" ----- ±0 " 01" ----- 1 " 02" ----- 2 : " 31" ----- 31 " 32" ----- 32 "UP" ----- Increment setting value of Hscale by 1 "DN" ----- Decrement setting value of Hscale by 1 | |
| Details | Set Hscale (Available only in the normal Power ON status) *When the screen mode is not in "Custom", projector changes image mode into Custom by receiving this command. *When there is no signal detected, projector returns 101 and the command does not execute. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.6 CF_HPOS Command

| | | |
|----------|--|-------------------|
| Command | "CF_HPOS_%1" [CR] | |
| %1 | "015" ----- +15 "014" ----- +14 : "002" ----- +2 "001" ----- +1 "000" ----- ±0 " 01" ----- 1 " 02" ----- 2 : " 14" ----- 14 " 15" ----- 15 "UP" ----- Increment setting value of Hposition by 1 "DN" ----- Decrement setting value of Hposition by 1 | |
| Details | Set H Position (Available only in the normal Power ON status) *When the screen mode is not in "Custom", projector changes image mode into Custom by receiving this command. *When there is no signal detected, projector returns 101 and the command does not execute. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.7 CF_KEYSTONE Command

| | | |
|----------|--|-------------------|
| Command | "CF_KEYSTONE_%1" [CR] | |
| %1 | "UP" ----- Correct Keystone distortion to reduce upper part of image "FUP" ----- Correct Keystone distortion to reduce upper part by 2 steps "DN" ----- Correct Keystone distortion to reduce lower part of image "FDN" ----- Correct Keystone distortion to reduce lower part by 2 steps "LEFT" ----- Correct Keystone distortion to reduce left part of image "FLFT" ----- Correct Keystone distortion to reduce left part by 2 steps "RIGHT" ----- Correct Keystone distortion to reduce right part of image "FRGT" ----- Correct Keystone distortion to reduce right part by 2 steps "RST" ----- Return Keystone and Corner to default setting | |
| Details | Change level of Keystone distortion correction (Available only in the normal Power ON status). When reached the limit of the correction level, projector accepts the command but does not execute it. Receiving this command immediately invokes the operation. When trying to set the value beyond available range, error code "201" is returned and the operation is not executed. Example 1: When the correction level of the right part has reached its upper limit and then the command "RIGHT" is received Example 2: When the upper part correction allows only another step, and then the command "FUP" is received. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.8 CF_KYSTONMODE Command

| | | |
|----------|--|-------------------|
| Command | "CF_KYSTNMODE_%1" [CR] | |
| %1 | "STR" ----- Set Keystone store mode to Store "RST" ----- Set Keystone store mode to Reset | |
| Details | Set Keystone or Corner store mode (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.9 CF_CORNER-UL Command

| | | |
|----------|--|------------------|
| Command | "CF_CORNER-UL_%1"[CR] | |
| %1 | "UP" ----- Correct the horizontal line of image upwards "DN" ----- Correct the horizontal line of image downwards "LEFT" ----- Correct the vertical line of image to the left "RIGHT" ----- Correct the vertical line of image to the right | |
| Details | Correct the top-left corner of the image. (Available in normal Power ON status only) The correction starts with the first command received Projector returns error code ""101 and no operation is made when exceeding the correction limit, | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.7.10 CF_CORNER-UR Command

| | | |
|----------|---|------------------|
| Command | "CF_CORNER-UR_%1"[CR] | |
| %1 | "UP" ----- Correct the horizontal line of image upwards "DN" ----- Correct the horizontal line of image downwards "LEFT" ----- Correct the vertical line of image to the left "RIGHT" ----- Correct the vertical line of image to the right | |
| Details | Correct the top-right corner of the image. (Available in normal Power ON status only) The correction starts with the first command received Projector returns error code ""101 and no operation is made when exceeding the correction limit, | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.7.11 CF_CORNER-DL Command

| | | |
|----------|---|------------------|
| Command | "CF_CORNER-DL%1"[CR] | |
| %1 | "UP" ----- Correct the horizontal line of image upwards "DN" ----- Correct the horizontal line of image downwards "LEFT" ----- Correct the vertical line of image to the left "RIGHT" ----- Correct the vertical line of image to the right | |
| Details | Correct the bottom-left corner of the image. (Available in normal Power ON status only) The correction starts with the first command received Projector returns error code ""101 and no operation is made when exceeding the correction limit, | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.7.12 CF_CORNER-DR Command

| | | |
|----------|--|------------------|
| Command | "CF_CORNER-DR_%1"[CR] | |
| %1 | "UP" ----- Correct the horizontal line of image upwards "DN" ----- Correct the horizontal line of image downwards "LEFT" ----- Correct the vertical line of image to the left "RIGHT" ----- Correct the vertical line of image to the right | |
| Details | Correct the bottom-right corner of the image. (Available in normal Power ON status only) The correction starts with the first command received Projector returns error code ""101 and no operation is made when exceeding the correction limit, | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.7.13 CF_CORNERTESTPAT Command

| | | |
|----------|---|------------------|
| Command | "CF_CORNERTESTPAT_%1"[CR] | |
| %1 | "RED" -----Select Red "WHITE" ----- Select White "BLUE" ----- Select Blue "OFF" ----- Select Off | |
| Details | Display test patterns for Corner correction. (Available in normal Power ON status only) The value set by this command is stored in EEPROM and its setting is effective even after ALL is OFF. | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.7.14 CF_CEIL Command

| | | |
|----------|--|-------------------|
| Command | "CF_CEIL_%1" [CR] | |
| %1 | "ON" ----- Set Ceiling to ON. "OFF" ----- Set Ceiling to OFF. | |
| Details | Set/Cancel Ceiling mode.(Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.15 CF_REAR Command

| | | |
|----------|---|-------------------|
| Command | "CF_REAR_%1" [CR] | |
| %1 | "ON" ----- Set Rear to ON. "OFF" ----- Set Rear to OFF. | |
| Details | Set/Cancel Rear mode (Available only in the normal Power ON status) When Rear is ON, projected image is left/right reversed. The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.7.16 CF_SCREENASPECT Command

| | | |
|----------|--|------------------|
| Command | "CF_SCREENASPECT_%1"[CR] | |
| %1 | "43MODE" Select 4:3 mode "169MODE" Select 16:9 mode "1610MODE" Select 16:10 mode | |
| Details | Set Screen aspect mode. This command is available in normal Power ON status. | |
| Response | Acceptable | "000"[CR] |
| | Unacceptable | "Error Code"[CR] |

8.8 Lamp Command

8.8.1 CF_LAMPMODE Command

| | | |
|----------|---|-------------------|
| Command | "CF_LAMPMODE_%1" [CR] | |
| %1 | "NORMAL" ----- Set Lamp status to Normal mode "ECO1" ----- Set Lamp status to Eco1 mode "ECO2" ----- Set Lamp status to Eco2 mode "AUTO" ----- Set Lamp status to Auto mode | |
| Details | Select Lamp mode (Available only in the normal Power ON status) The value set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.8.2 CF_LAMPLIFECNTRL Command

| | | |
|----------|--|-------------------|
| Command | "CF_LAMPLIFECNTRL_%1" [CR] | |
| %1 | "MODE1" ----- Set Lamp life control to Mode 1 "MODE2" ----- Set Lamp life control to Mode 2 | |
| Details | Select Lamp life control function (Available only in the normal Power ON status) The value set by this command is stored in EEPROM and the setting remains effective after the power is turned to ALL OFF status. | |
| 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 specify value of Volume. "UP" ----- Increment setting value of Volume by 1 "DN" ----- Decrement setting value of Volume by 1 | |
| Details | Control level of Volume (Available only in the normal Power ON status) Set Volume Up/Down the same way as RC and also directly specify value of Volume. 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's memory. * When input signal is Network, error code "101" is returned. | |
| 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 "OFF" ----- Set Sound Mute to OFF | |
| Details | Control ON/OFF of Sound Mute (Available only in the normal Power ON status) * When input signal is Network, error code "101" is returned. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.9.3 CF_BLTINSP Command

| | | |
|----------|---|-------------------|
| Command | "CF_BLTINSP_%1" [CR] | |
| %1 | "ON" ----- Set Built-in speaker to ON "OFF" ----- Set Built-in speaker to OFF | |
| Details | Control ON/OFF of Built-in speaker (Available only in the normal Power ON status) * When input signal is Network, error code "101" is returned. | |
| 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 "DEU" ----- Select German "FRA" ----- Select French "ITA" ----- Select Italian "ESP" ----- Select Spanish "POR" ----- Select Portuguese "NED" ----- Select Dutch "SVE" ----- Select Swedish "JPN" ----- Select Japanese "CHI" ----- Select Chinese "KOR" ----- Select Korean "RUS" ----- Select Russian | |
| Details | Set language for OSD (Available only in the normal Power ON status) The language set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF 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 (Available in normal Power ON status only). The position set by this command is stored in EEPROM and its setting is effective after ALL is OFF. Position: center – bottom left – bottom right – top left – top right – center – ... Menu display appears with the first command when menu display is not shown on the screen | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.3 CF_MENUSIZE Command

| | | |
|----------|--|-------------------|
| Command | "CF_MENUSIZE_%1" [CR] | |
| %1 | "NORMAL" ----- Select Menu size to Normal. "DOUBLE" ----- Select Menu size to Double. | |
| Details | Select Menu size. (Valid only when in the normal Power ON status.) The status set by this command is stored in EEPROM and the setting remains even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.4 CF_INPUTBUTTON Command

| | | |
|----------|--|-------------------|
| Command | "CF_INPUTBUTTON_%1" [CR] | |
| %1 | "MODE1" ----- Set Input button operation to MODE1 "MODE2" ----- Set Input button operation to MODE2 "MODE3" ----- Set Input button operation to MODE3 | |
| Details | Set Input button operation mode. (Available in normal Power ON status only). The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.5 CF_DISP Command

| | | |
|----------|---|-------------------|
| Command | "CF_DISP_%1" [CR] | |
| %1 | "ON" ----- Set Display to On "CNTDWN OFF" ----- Set Display to Count down Off "OFF" ----- Set Display to Off "UP" ----- The same operation as pressing Up key or Left key "DN" ----- The same operation as pressing Down key or Right key | |
| Details | Set Display mode.(Available only in the normal Power ON status) The value set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.6 CF_BACKGND Command

| | | |
|----------|--|-------------------|
| Command | "CF_BACKGND_%1" [CR] | |
| %1 | "BLUE" ----- Select Blue Back "USER" ----- Select User "BLACK" ----- Select Black Back "UP" ----- The same operation as pressing Up key or Left key "DN" ----- The same operation as pressing Down key or Right key | |
| Details | Set Screen status for no signal. (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and the setting remains even after the power is turned to ALL OFF status. *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] |

8.10.7 CF_LOGO Command

| | | |
|----------|---|-------------------|
| Command | "CF_LOGO_%1_%2" [CR] | |
| %1 | "0000 – 9999" ----- Directly set Logo PIN code | |
| %2 | "OFF" -----Cancel Logo display "DFLT" ----- Select Logo of Factory Default "USER" ----- Select User "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key | |
| Details | Set Logo mode.(Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. Set Logo PIN code in %1. When Logo Lock is enabled: PIN code is matched ----- Command is valid (Acceptable) PIN code is mismatched----- Command is invalid (Error code "102") PIN code is beyond %1 available range -----Command is invalid (Error code"?)") When Logo Lock is disabled: PIN code is within %1 available range ----- Command is valid (Acceptable) PIN code is out of %1 available range ----- Command is invalid (Error code "?") Note: When Logo Lock is enabled, matching Logo PIN code switches Logo but Logo Lock is not cancelled (Lock status is kept). *When %2="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_PIP Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIP_%1" [CR] | |
| %1 | "OFF" ----- Select Off "USER1" ----- Select User1 "USER2" ----- Select User2 "USER3" ----- Select User3 "USER4" ----- Select User4 "USER5" ----- Select User5 | |
| Details | Set "Picture in Picture" status.(Available only in the normal Power ON status) The status set by this command is stored in EEPROM and the setting remains even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.9 CF_PIPMODE Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPMODE_%1" [CR] | |
| %1 | "PINP" ----- Select P in P mode "PBYP" ----- Select P by P mode | |
| Details | Set mode in "Picture in Picture". (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.10 CF_PIPMAININP Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPMAININP_%1_%2" [CR] | |
| %1 | "1" ----- Select Input 1 "2" ----- Select Input 2 "3" ----- Select Input 3 | |
| %2 | "DIGITAL" ----- Select DVI Input "ANALOG" ----- Select Analog Input "VIDEO" ----- Select Composite Video Input "S-VIDEO" ----- Select S-Video input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input "SCART" ----- Select SCART Input "HDCP" ----- Select HDCP Input "HDMI" ----- Select HDMI Input | |
| Details | Select input and source of Main picture of "Picture in Picture". (Valid only when in the normal Power ON status.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.11 CF_PIPSUBINPU Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPSUBINPU_%1_%2" [CR] | |
| %1 | "1" ----- Select Input 1 "2" ----- Select Input 2 "3" ----- Select Input 3 | |
| %2 | "DIGITAL" ----- Select DVI Input "ANALOG" ----- Select Analog Input "VIDEO" ----- Select Composite Video Input "S-VIDEO" ----- Select S-Video input "YPBPR" ----- Select Y, Pb/Cb, Pr/Cr Input "YCBCR" ----- Select Y, Pb/Cb, Pr/Cr Input "SCART" ----- Select SCART Input "HDCP" ----- Select HDCP Input "HDMI" ----- Select HDMI Input | |
| Details | Select input and source of Sub picture of "Picture in Picture". (Valid only when in the normal Power ON status.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.12 CF_PIPSIZE Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPSIZE_%1_%2" [CR] | |
| %1 | "1" ----- Set main picture size to 10% "2" ----- Set main picture size to 20% "3" ----- Set main picture size to 30% "4" ----- Set main picture size to 40% "5" ----- Set main picture size to 50% "6" ----- Set main picture size to 60% "7" ----- Set main picture size to 70% "8" ----- Set main picture size to 80% "9" ----- Set main picture size to 90% "10" ----- Set main picture size to 100% | |
| %2 | "1" ----- Set sub picture size to 10% "2" ----- Set sub picture size to 20% "3" ----- Set sub picture size to 30% "4" ----- Set sub picture size to 40% "5" ----- Set sub picture size to 50% | |
| Details | Set display size of "Picture in Picture". (Valid only when in the normal Power ON status.) *When "Picture in Picture" is set to Off, return "101" [CR] | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.13 CF_PIPPOSITION Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPPOSITION_%1" [CR] | |
| %1 | "POS1" ----- Move main picture position to up "POS2" ----- Move main picture position to down "POS3" ----- Move main picture position to left "POS4" ----- Move main picture position to right "POS5" ----- Move sub picture position to up "POS6" ----- Move sub picture position to down "POS7" ----- Move sub picture position to left "POS8" ----- Move sub picture position to right | |
| Details | Set position of "Picture in Picture". (Valid only when in the normal Power ON status.) This function is worked from the first reception of Command. * When setting beyond the area of movement is carried out, return Error Code "101" [CR] and the command is not executed. Ex.) When movement to right side has already reached limit; and "RIGHT" is received. *When "Picture in Picture" is set to Off, return "101" [CR] | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.14 CF_PIPFRAMELOCK Command

| | | |
|----------|---|-------------------|
| Command | "CF_PIPFRAMELOCK_%1" [CR] | |
| %1 | "MAIN" ----- Set to main picture "SUB" ----- Set to sub picture | |
| Details | Set Frame lock of "Picture in Picture". (Valid only when in the normal Power ON status.) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.15 CF_PIPSTORE Command

| | | |
|----------|---|-------------------|
| Command | "CF_PIPSTORE_%1" [CR] | |
| %1 | "USER1"---- Store current setting status to User 1 "USER2"---- Store current setting status to User 2 "USER3"---- Store current setting status to User 3 "USER4"---- Store current setting status to User 4 "USER5"---- Store current setting status to User 5 | |
| Details | Store setting status of "Picture in Picture". (Valid only when in the normal Power ON status.) This command operates the same way as storing to User1-5 in "Picture in Picture" Menu. The status set by this command is stored in EEPROM and the setting remains even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.16 CF_PIPMODEFREE Command

| | | |
|----------|--|-------------------|
| Command | "CF_PIPMODEFREE_%1" [CR] | |
| %1 | "USER1" ----- Set User1 to Free status "USER 2" ----- Set User2 to Free status "USER 3" ----- Set User3 to Free status "USER 4" ----- Set User4 to Free status "USER 5" ----- Set User5 to Free status | |
| Details | Delete the data registered in Custom User1–5 and returns it to Free status. This command operates the same way as setting Mode free for User1-5 in "Picture in Picture" Menu. (Available only in the normal Power ON status) *When there is only one user mode of stored state, return "101" [CR] | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.17 CF_PIPRST Command

| | | |
|----------|---|-------------------|
| Command | "CF_PIPRST_%1" [CR] | |
| %1 | "RST" ----- Reset current setting status | |
| Details | Reset current setting status of "Picture in Picture". (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.18 CF_HDMI SETUP Command

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

8.10.19 CF_HDMI SOUND Command

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

8.10.20 CF_FILH Command

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

8.10.21 CF_FILTERTIMER Command

| | | |
|----------|--|-------------------|
| Command | "CF_FILTERTIMER_%1" [CR] | |
| %1 | "0400" ----- Set 400 hours "0700" ----- Set 700 hours "1000" ----- Set 1000 hours "OFF" ----- Set Off(Do not warning display) | |
| Details | Set time to display Filter cleaning / replacement warning on screen | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.22 CF_FILCTL Command

| | | |
|----------|--|-------------------|
| Command | "CF_FILCTL_%1" [CR] | |
| %1 | "ROLL" ----- Execute operation of scroll of filter | |
| Details | Execute operation of scroll of filter | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.23 CF_FILSCRL Command

| | | |
|----------|---|-------------------|
| Command | "CF_FILSCRL_%1" [CR] | |
| %1 | "RST" ----- Reset Filter scroll counter | |
| Details | Reset Filter scroll counter | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.24 CF_FANSPEED Command

| | | |
|----------|--|-------------------|
| Command | "CF_FANSPEED_%1" [CR] | |
| %1 | "MAX" ----- Select maximum fan speed "NOR" ----- Select normal fan speed | |
| Details | Switch Fan Control Speed mode.(Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.25 CF_SIMPLEMODE Command

| | | |
|----------|--|-------------------|
| Command | "CF_SIMPLEMODE_%1" [CR] | |
| %1 | "ON" ----- Set Simple mode to ON "OFF" ----- Set Simple mode to OFF | |
| Details | Set Simple mode.(Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.26 CF_RCODE Command

| | | |
|----------|---|-------------------|
| Command | "CF_RCODE_%1" [CR] | |
| %1 | "001" ----- Select Code 1 "002" ----- Select Code 2 "003" ----- Select Code 3 "004" ----- Select Code 4 "005" ----- Select Code 5 "006" ----- Select Code 6 "007" ----- Select Code 7 "008" ----- Select Code 8 "UP" ----- The same operation as pressing Up key or Left key "DN" ----- The same operation as pressing Down key or Right key | |
| Details | Select Code of Remote Control (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.27 CF_RSENS Command

| | | |
|----------|---|-------------------|
| Command | "CF_RSENS_%1" [CR] | |
| %1 | "ALL" ----- Select top, front and back receiver of projector "FRONTTOP" ----- Select front and top receivers of projector "BACKTOP" ----- Select only back and top receivers of projector "FRONTBACK" ----- Select only front and back receivers of projector "FRONT" ----- Select only front receiver of projector "TOP" ----- Select only top receiver of projector "BACK" ----- Select only back receiver of projector "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key | |
| Details | Select location of infrared remote receiver of remote control (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.28 CF_P-MANE Command

| | | |
|----------|---|-------------------|
| Command | "CF_P-MANE_%1" [CR] | |
| %1 | "OFF" ----- Set Power Management to Off "READY" ----- Set Power Management to Ready "SHUTDOWN" ----- Set Power Management to Shut Down mode "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key | |
| Details | Set/Cancel Power Management (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.29 CF_P-MANETIME Command

| | | |
|----------|---|-------------------|
| Command | "CF_P-MANETIME_%1" [CR] | |
| %1 | "01" - "30" ---- Directly specify setting time by the minute "UP" ----- Increment value by 1 (Switched in 01→02→ --- → 30 → 01 order) "DN" ----- Decrement value by 1 (Switched in 30→29→ --- → 01 → 30 order) | |
| Details | Set time of Power Management time (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.30 CF_STANDBYMODE Command

| | | |
|----------|---|-------------------|
| Command | "CF_STANDBYMODE_%1" [CR] | |
| %1 | "ECO" ----- Less standby electricity "NORMAL" ----- Normal standby electricity | |
| Details | Switch Standby Mode setting. (Available in normal Power ON status only). | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.31 CF_ON-STA Command

| | | |
|----------|--|-------------------|
| Command | "CF_ON-STA_%1" [CR] | |
| %1 | "ON" ----- Set Direct on active. "OFF" ----- Set Direct on inactive. "UP" ----- The same operation as pressing Up key or Left key "DN" -----The same operation as pressing Down key or Right key **"UP" and "DN" are exactly same operation. | |
| Details | Set/Cancel Direct Power On (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting value remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.32 CF_POINTER Command

| | | |
|----------|--|-------------------|
| Command | "CF_POINTER_%1" [CR] | |
| %1 | "ARROW" ----- Select Arrow Pointer "FINGER" ----- Select Finger Pointer "LASER" ----- Select Dot Pointer | |
| Details | Select indication of Pointer. (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting value remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.33 CF_PTIMEMODE Command

| | | |
|----------|---|-------------------|
| Command | "CF_PTIMEMODE_%1" [CR] | |
| %1 | "COUNTUP" ----- Set P-timer to Count up mode "COUNTDN" ----- Set P-timer to Count down mode | |
| Details | Select count up/down mode of P-timer. (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting value remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.34 CF_PTIMER Command

| | | |
|----------|---|-------------------|
| Command | "CF_PTIMER_%1" [CR] | |
| %1 | "START" ----- Start P-timer "STOP" ----- Stop P-timer "RESTART" ----- Resume P-timer "RST" ----- Reset P-timer "EXIT" ----- Exit P-timer function | |
| Details | Select the status of P-timer. (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.35 CF_PTIME Command

| | | |
|----------|--|-------------------|
| Command | "CF_PTIME_%1" [CR] | |
| %1 | "001" – "180" ----- Directly specify setting time | |
| Details | Set the time for Count down mode of P-timer. (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and setting value remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.36 CF_KEYDIS Command

| | | |
|----------|---|-------------------|
| Command | "CF_KEYDIS_%1" [CR] | |
| %1 | "NONE" ----- RC and KEY are both enabled. "RC" ----- RC is disabled. "KEY" ----- KEY is disabled. | |
| Details | Disable RC and/or KEY functions (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.37 CF_PJPINCODE Command

| | | |
|----------|---|-------------------|
| Command | "CF_PJPINCODE_%1" [CR] | |
| %1 | "0000 – 9999" ----- Directly specify PJ PIN code | |
| Details | <p>Enter PIN code to cancel PIN code lock (Available only in the normal Power ON status) PIN code can not be changed. (Only PIN code lock is canceled.)</p> <p>*When PIN code Lock is enabled: PIN code is matched ----- Command is valid (Acceptable) PIN code is mismatched ----- Command is invalid (Error code "102") PIN code is beyond %1 available range ---- Command is invalid (Error code "?")</p> <p>*When PIN code lock is canceled: PIN code is within %1 range ----- Command is valid (Acceptable) PIN code is out of %1 range ----- Command is invalid (Error code is 102)</p> <p>This command is only valid when "PJ PIN code" dialog is displayed to enter PIN code after Power is ON and Countdown is completed.</p> <p>When PIN code lock is set to "On1", it needs to send this command every time the projector is turned on.</p> | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.38 CF_SHUTPROT Command

| | | |
|----------|---|-------------------|
| Command | "CF_SHUTPROT_%1" [CR] | |
| %1 | "OFF" ----- RC and Side panel are both enabled. "RC" ----- RC is disabled. "KEY" ----- Side panel is disabled. "BOTH" ----- RC and Side panel are both disabled. | |
| Details | Set valid / invalid of Side panel or RC key on Shutter control function (Valid only when in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.39 CF_SHUTRELEASE Command

| | | |
|----------|--|-------------------|
| Command | "CF_SHUTRELEASE_%1" [CR] | |
| %1 | "ANY"-----Enable to release Shutter with any key "SHUTTER" ----- Enable to release Shutter with only "SHUTTER" key | |
| Details | Set Release key of Shutter. (Valid only when in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.40 CF_SHUTH Command

| | | |
|----------|---|-------------------|
| Command | "CF_SHUTH_%1" [CR] | |
| %1 | "005"- "480"-----Specify setting time directly "UP" ----- Add 1 minute "DN" -----Decrease 1 minute | |
| Details | Set time of operating shutter management function. (Valid only when in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.41 CF_CCAPTIONDISP Command

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

8.10.42 CF_CCAPTIONCOLOR Command

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

8.10.43 CF_DELAYCTRL Command

| | | |
|----------|---|-------------------|
| Command | "CF_DELAYCTRL_%1" [CR] | |
| %1 | "OFF"----- Set Video delay control to OFF "LOW"----- Set Video delay control to LOW "MID"----- Set Video delay control to MID "HIGH"----- Set Video delay control to HIGH | |
| Details | Select the mode of Video delay control (Valid only when in the normal Power ON status) The status set by this command is stored in EEPROM and setting remains effective even after the power is turned to ALL OFF status. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.44 CF_TESTPAT Command

| | | |
|----------|---|-------------------|
| Command | "CF_TESTPAT_%1" [CR] | |
| %1 | "COLOR" ----- Display Color bar "GRAD1" ----- Display 16step(white→black) "GRAD2" ----- Display 16step(white←black) "GRAD3" ----- Display 16step(white↓black) "GRAD4" ----- Display 16step(white↑black) "WHITE" ----- Display all white "BLACK" ----- Display all black "CROSS" ----- Display Cross "OFF" -----Do not show test pattern display | |
| Details | Execute test pattern display. (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.10.45 CF_FDEFAULT Command

| | | |
|----------|--|-------------------|
| Command | "CF_FDEFAULT_%1" [CR] | |
| %1 | "RST" | |
| Details | Reset to Factory Default setting (Available only in the normal Power ON status) | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.11 Other Commands

8.11.1 CF_KEYEMU Command

| | | |
|----------|---|-------------------|
| Command | "CF_KEYEMU_%1" [CR] | |
| %1 | <p>"RIGHT" ----- Move Pointer rightward in On-Screen Display Menu "LEFT" ----- Move Pointer leftward in On-Screen Display Menu "UP" ----- Move Pointer to upward On-Screen Display Menu "DN" ----- Move Pointer to downward in On-Screen Display Menu "SELECT" ----- The same operation as "SELECT" button of RC "AUTOPC" ----- Execute Auto PC Adj. operation "LENSSHIFT" ----- Return the Lens to center position</p> | |
| Details | <p>This command is behaving the same as corresponding keys of Projector. Once Auto PC adj. is started with "AUTOPC" command, it does not stop with receiving the command another time.</p> <p>*When transmit command of CF_KEYEMU parameter - When User menu is displayed: function is carried out with having displayed User menu. - When User menu isn't displayed: error code "000" is returned, function is non-practice.</p> <p>* "101" is not returned even if a command of CF_KEYEMU is transmitted when cursor moves to the item which cannot toggle at an edge of the main menu.</p> <p>EX): Display main menu, and move to second menu of Image adj. Move a cursor to "Quit" position, and transmit a command of KEYEMU_DN. Then a cursor doesn't toggle and "000" is returned.</p> <p>*When transmit command of CF_KEYEMU AUTOPC - When practice of Auto pc adj is possible: Function is practice, "000" is returned. - When practice of Auto pc adj is impossible: display exclamation mark, "000" is returned.</p> | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.11.2 CF_MENU Command

| | | |
|----------|---|-------------------|
| Command | "CF_MENU_%1" [CR] | |
| %1 | <p>"ON" ----- Display On-Screen Display Menu "OFF" ----- Hide On-Screen Display Menu</p> | |
| Details | <p>Set On-Screen Display mode. (Available only in the normal Power ON status)</p> | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.11.3 CF_POWER Command

| | | |
|----------|--|-------------------|
| Command | "CF_POWER_%1" [CR] | |
| %1 | <p>"ON" ----- Power ON "OFF" ----- Power OFF</p> <p>* Issuing another command during countdown process forced countdown operation to be terminated.</p> <p>* Error Code is returned in some projector statuses, which indicates the command is impossible to be executed. (See [8.3] for details)</p> <p>* Returning the response "000" [CR] (acceptable) does not always mean that the status has already changed to Power ON. Ex) When the temperature approaches abnormal status after returning "000" [CR] to the command CF_POWER ON. Therefore, to get the projector status requires using Status Read command.</p> | |
| Details | Set Power to ON/OFF | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.11.4 CF_FREEZE Command

| | | |
|----------|--|-------------------|
| Command | "CF_FREEZE_%1" [CR] | |
| %1 | <p>"ON" ----- Set Freeze to ON. "OFF" ----- Set Freeze to OFF. "UP" ----- Switch between ON and OFF. "DN" ----- Switch between ON and OFF. * The same operation for "UP" and "DN" as this model has only "ON" / "OFF".</p> | |
| 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. | |
| Response | Acceptable | "000" [CR] |
| | Unacceptable | "Error Code" [CR] |

8.11.5 CF_VMUTE Command

| | | |
|----------|--|-------------------|
| Command | "CF_VMUTE_%1" [CR] | |
| %1 | <p>"ON"----- Set Video Mute (Shutter Close) "OFF" -----Cancel Video Mute (Shutter Open)</p> | |
| Details | Set / Cancel Video Mute. (Available only in the normal Power ON status) | |
| 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: String
- 2) When projector receives the appropriate command, it returns the required data as a string.
"000_" %1 [CR]
%1: Required Data (String)
- 3) When the received data cannot be decoded, the projector returns "?" [CR]

9.2 Transfer Example

Get total dots of projector by Expand Serial Commands

PC → PJ: "CR_TDOTS" [CR]

PC ← PJ: "000_1344" [CR]

9.3 Operation Condition

1. Basically it should be always operated.
2. Status Read Commands are invalid when projector is in standby under Eco mode selected in Standby mode menu

9.4 Image Status Read Command

9.4.1 CR_BRIGHT Command

| | | |
|----------|---|-------------------|
| Command | "CR_BRIGHT" [CR] | |
| Details | Get user controlled value of Brightness | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.2 CR_CONT Command

| | | |
|----------|---------------------------------------|-------------------|
| Command | "CR_CONT" [CR] | |
| Details | Get user controlled value of Contrast | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.3 CR_COLOR Command

| | | |
|----------|------------------------------------|-------------------|
| Command | "CR_COLOR" [CR] | |
| Details | Get user controlled value of Color | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.4 CR_TINT Command

| | | |
|----------|-----------------------------------|---|
| Command | "CR_TINT" [CR] | |
| Details | Get user controlled value of Tint | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] --- When command is not available in the given condition (such as being selected input). "?" [CR] --- When unknown command is received |

9.4.5 CR_IRIS Command

| | | |
|----------|----------------------------------|--|
| Command | "CR_IRIS" [CR] | |
| Details | Get Iris function setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Set Iris function On "OFF" ----- Set Iris function Off |
| | Unacceptable | "Error Code" [CR] |

9.4.6 CR_SHARP Command

| | | |
|----------|--|-------------------|
| Command | "CR_SHARP" [CR] | |
| Details | Get user controlled value of Sharpness | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 031" |
| | Unacceptable | "Error Code" [CR] |

9.4.7 CR_GAMMA Command

| | | |
|----------|------------------------------------|-------------------|
| Command | "CR_GAMMA" [CR] | |
| Details | Get user controlled value of Gamma | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 015" |
| | Unacceptable | "Error Code" [CR] |

9.4.8 CR_WBAL-R Command

| | | |
|----------|--|-------------------|
| Command | "CR_WBAL-R" [CR] | |
| Details | Get user controlled Red value of White Balance | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.9 CR_WBAL-G Command

| | | |
|----------|--|-------------------|
| Command | "CR_WBAL-G" [CR] | |
| Details | Get user controlled Green value of White Balance | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.10 CR_WBAL-B Command

| | | |
|----------|---|-------------------|
| Command | "CR_WBAL-B" [CR] | |
| Details | Get user controlled Blue value of White Balance | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.11 CR_COLTEMP Command

| | | |
|----------|--------------------------------------|--|
| Command | "CR_COLTEMP" [CR] | |
| Details | Get Color Temperature setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000" ----- Xlow "001" ----- Low "002" ----- Mid "003" ----- High "BLANK" ---- OSD Menu is blank (Neither of Xlow / Low / Mid / High) |
| | Unacceptable | "Error Code" [CR] |

9.4.12 CR_OFFSET-R Command

| | | |
|----------|---|-------------------|
| Command | "CR_OFFSET-R" [CR] | |
| Details | Get user controlled Red value of Offset | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.13 CR_OFFSET-G Command

| | | |
|----------|---|-------------------|
| Command | "CR_OFFSET-G" [CR] | |
| Details | Get user controlled Green value of Offset | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.14 CR_OFFSET-B Command

| | | |
|----------|--|-------------------|
| Command | "CR_OFFSET-B" [CR] | |
| Details | Get user controlled Blue value of Offset | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.4.15 CR_NZRED Command

| | | |
|----------|------------------------------------|--|
| Command | "CR_NZRED" [CR] | |
| Details | Get Noise Reduction setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "OFF" ----- Cancel Noise Reduction "ON" ----- Set Noise Reduction |
| | Unacceptable | "Error Code" [CR] |

9.4.16 CR_PROGV Command

| | | |
|----------|-------------------------------------|---|
| Command | "CR_PROGV" [CR] | |
| Details | Get Progressive scan setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Set Progressive scan On "FILM" ----- Select FILM mode "OFF" ----- Set Progressive scan Off |
| | Unacceptable | "Error Code" [CR] |

9.4.17 CR_IMAGE Command

| | | |
|----------|--------------------------|--|
| Command | "CR_IMAGE" [CR] | |
| Details | Get image setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "DYNAMIC" ----- Dynamic "STAND" ----- Standard "REAL" ----- Real "NATURAL" ----- Natural "CINEMA" ----- Cinema "CUSTOM1" ----- "Image1" "CUSTOM2" ----- "Image2" "CUSTOM3" ----- "Image3" "CUSTOM4" ----- "Image4" "CUSTOM5" ----- "Image5" "CUSTOM6" ----- "Image6" "CUSTOM7" ----- "Image7" "CUSTOM8" ----- "Image8" "CUSTOM9" ----- "Image9" "CUSTOM10" ----- "Image10" |
| | Unacceptable | "Error Code" [CR] ----- When the command is invalid due to condition such as Input source. "?" [CR] ----- When unknown command is received |

9.4.18 CR_IMGGMD Command

| | | |
|----------|---|--|
| Command | "CR_IMGGMD" [CR] | |
| Details | Get setting status of Standard/Real/Cinema in Image Gamma | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "DYN" ----- Dynamic "STD" ----- Standard "REL" ----- Real "NTR" ----- Natural "CNM" ----- Cinema |
| | Unacceptable | "Error Code" [CR] |

9.5 PC Adjust Status Read Command

9.5.1 CR_FSYNC Command

| | | |
|----------|------------------------|--|
| Command | "CR_FSYNC" [CR] | |
| Details | Get value of Fine Sync | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0000 – 0031" |
| | Unacceptable | "Error Code" [CR] --- When command is not available in the given condition (such as being selected input) "?" [CR] --- When unknown command is received |

9.5.2 CR_TDOTS Command

| | | |
|----------|-------------------------|---|
| Command | "CR_TDOTS" [CR] | |
| Details | Get value of Total Dots | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "mmmm" – "nnnn" (mmmm = Display area H + Position H) (nnnn = Maximum value less than 140 MHz of Dot Clock) |
| | Unacceptable | "Error Code" [CR] ----- When command is not available in the given condition (such as being selected input "?" [CR] ----- When unknown command is received |

9.5.3 CR_CLPPHASE Command

| | | |
|----------|--------------------------------|-------------------|
| Command | "CR_CLPPHASE" [CR] | |
| Details | Get value of Clamp Phase value | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0000 – 0255" |
| | Unacceptable | "Error Code" [CR] |

9.5.4 CR_H-POS Command

| | | |
|----------|----------------------------------|---|
| Command | "CR_H-POS" [CR] | |
| Details | Get value of Horizontal Position | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0000 – nnnn" (nnnn = Total Dots – Display area H) |
| | Unacceptable | "Error Code" [CR] ----- When command is not available in the given condition (such as being selected input "?" [CR] ----- When unknown command is received |

9.5.5 CR_V-POS Command

| | | |
|----------|--------------------------------|---|
| Command | "CR_V-POS" [CR] | |
| Details | Get value of Vertical Position | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0000 – nnnn" (nnnn = Total Line – Display area V) |
| | Unacceptable | "Error Code" [CR] ----- When command is not available in the given condition (such as being selected input "?" [CR] ----- When unknown command is received |

9.5.6 CR_DDOTS Command

| | | |
|----------|---------------------------|--|
| Command | "CR_DDOTS" [CR] | |
| Details | Get value of Display Dots | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0100 – nnnn" (nnnn = Total Dots – Position H) |
| | Unacceptable | "Error Code" [CR] ---- When command is not available in the given condition (such as being selected input "?" [CR] ----- When unknown command is received |

9.5.7 CR_DLINE Command

| | | |
|----------|---------------------------|---|
| Command | "CR_DLINE" [CR] | |
| Details | Get value of Display Line | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0100 – nnnn" (nnnn = Total Line – Position V) |
| | Unacceptable | "Error Code" [CR] ---- When command is not available in the given condition (such as being selected input) "?" [CR] ----- When unknown command is received |

9.5.8 CR_ORGMODE Command

| | | |
|----------|--|--|
| Command | "CR_ORGMODE" [CR] | |
| Details | Get the original signal of current selected Mode that is set in PC Adj. When MODE1- 10 or EXT11-50 is not selected, get the current signal. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | When input signal is PC Analog; "VGA1" ----- Indicates signal is VGA1 "VGA2" ----- Indicates signal is VGA2 : "XGA1" ----- Indicates signal is XGA1 : "WXGA3" ----- Indicates signal is WXGA3 "1080I60" ----- Indicates signal is 1080i60 "1080I50" ----- Indicates signal is 1080i50 "1035I" ----- Indicates signal is 10350i "720P60" ----- Indicates signal is 720p60 "720P50" ----- Indicates signal is 720p50 "575P" ----- Indicates signal is 575p "480P" ----- Indicates signal is 480p "575I" ----- Indicates signal is 575i "480I" ----- Indicates signal is 480i "1080PSF/24" ----- Indicates signal is 1080psf/24 "1080PSF/25" ----- Indicates signal is 1080psf/25 "1080PSF/30" ----- Indicates signal is 1080psf/30 "1080P24" ----- Indicates signal is 1080p24 "1080P25" ----- Indicates signal is 1080p25 "1080P30" ----- Indicates signal is 1080p30 "1080P50" ----- Indicates signal is 1080p50 "1080P60" ----- Indicates signal is 1080p60 Note; To differentiate between 60Hz and 50Hz in 1080i and 720p, "60" or "50" is necessary to add to the parameter in this command * When input signal is not PC Analog, error code "101" is returned. |
| | Unacceptable | "Error Code" [CR] |

9.5.9 CR_PCSTORE Command

| | | |
|----------|---|---|
| Command | "CR_PCSTORE" [CR] | |
| Details | Get Free or Stored status of MODE1 - 10 in PC Adjust. Data consists of 10 bytes and each byte represents MODE1-10. (F:Free, S:Stored) | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "FFFFFFFF" ----- ALL Free "SFFFFFFFF" ----- Mode1 is Stored, others are Free : "FFFFFFFFFS" ----- Mode10 is Stored, others are Free "SSSSSSSSSS" ----- ALL Stored |
| | Unacceptable | "Error Code" [CR] |

9.5.10 CR_SETPCADJ Command

| | | |
|----------|----------------------------------|--|
| Command | "CR_SETPCADJ" [CR] | |
| Details | Get PC signal for current system | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | <p>When input signal is PC Analog;</p> <p>"VGA1" ----- Indicates VGA1 is selected</p> <p>"VGA2" ----- Indicates VGA2 is selected</p> <p> :</p> <p>"XGA1" ----- Indicates XGA1 is selected</p> <p> :</p> <p>"WXGA3" ----- Indicates WXGA3 is selected</p> <p>"1080P" ----- Indicates 1080p is selected</p> <p>"1080I" ----- Indicates 1080i is selected</p> <p>"1035I" ----- Indicates 10350i is selected</p> <p>"720P" ----- Indicates 720p is selected</p> <p>"575P" ----- Indicates 575p is selected</p> <p>"480P" ----- Indicates 480p is selected</p> <p>"575I" ----- Indicates 575i is selected</p> <p>"480I" ----- Indicates 480i is selected</p> <p>"1080PSF/24" ----- Indicates 1080psf/24 is selected</p> <p>"1080PSF/25" ----- Indicates 1080psf/25 is selected</p> <p>"1080PSF/30" ----- Indicates 1080psf/30 is selected</p> <p> :</p> <p>"MODE10" ----- Indicates Mode10 is selected</p> <p>"EXT11" ----- EXT11 is selected</p> <p> :</p> <p>"EXT60" ----- EXT60 is selected</p> <p>* Error Code "101" [CR] is returned for no signal.</p> <p>* When input signal is not PC Analog, error code "101" is returned.</p> |
| | Unacceptable | "Error Code" [CR] |

9.6 Video Status Read Command

9.6.1 CR_SERSYS Command

| | | |
|----------|---|--|
| Command | "CR_SERSYS" [CR] | |
| Details | <p>Get selected current signal. Auto detected signal is returned in Auto mode Only available when Input is Y,Pb/Cb,Pr/Cr, S-Video or Video. (This is not the case for PC-Analog and HDMI signals)</p> | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | <p>"1080PSF/24" ----- 1080psf 24Hz "1080P60" ----- 1080p 60Hz "1080P50" ----- 1080p 50Hz "1080P30" ----- 1080p 30Hz "1080P25" ----- 1080p 25Hz "1080P24" ----- 1080p 24Hz "1080i60" ----- 1080i 60Hz , 1080psf 30Hz "1080i50" ----- 1080i 50Hz , 1080psf 25Hz "1035i" ----- 1035i "720P60" ----- 720p 60Hz "720P50" ----- 720p 50Hz "575P" ----- 575p "480P" ----- 480p "575i" ----- 575i (includes Composite signal such as PAL) "480i" ----- 480i (includes Composite signal such as NTSC) "NO_SIGNAL" ----- No signal</p> <p>*When 1080psf30 or 1080psf25 is inputted in System Auto, parameter same as 1080i60/1080i50 is returned.</p> |
| | Unacceptable | "101" [CR] --- When input signal is PC-Analog, PC-Digital, AV HDCP, or HDMI |

9.7 Input Read Command

9.7.1 CR_INPUT Command

| | | |
|----------|------------------------|-------------------|
| Command | "CR_INPUT" [CR] | |
| Details | Get selected INPUT No. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "1 – 4" |
| | Unacceptable | "Error Code" [CR] |

9.7.2 CR_SOURCE Command

| | | |
|----------|---------------------|---|
| Command | "CR_SOURCE" [CR] | |
| Details | Get selected source | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "DIGITAL" ----- RGB (PC Digital) is selected "ANALOG" ----- RGB (PC Analog) is selected "SCART" ----- RGB (Scart) is selected "HDCP" ----- RGB (AV HDCP) is selected "HDMI" -----HDMI is selected "VIDEO" ----- Video is selected "S-VIDEO" ----- S-Video is selected "YPBPR" ----- Y,Pb/Cb,Pr/Cr is selected "NETWORK" ----- Network is selected |
| | Unacceptable | "Error Code" [CR] --- When command is not available in the given condition (such as being selected input) "?" [CR] ----- When unknown command is received |

9.7.3 CR_SRCINP1 Command

| | | |
|----------|----------------------|--|
| Command | "CR_SRCINP1" [CR] | |
| Details | Get Source of INPUT1 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "DIGITAL" ----- in PC Digital mode "ANALOG" ----- in PC Analog mode "SCART" ----- in Scart mode "HDCP" ----- in AV HDCP mode "HDMI" ----- in HDMI mode |
| | Unacceptable | "Error Code" [CR] |

9.7.4 CR_SRCINP2 Command

| | | |
|----------|----------------------|--|
| Command | "CR_SRCINP2" [CR] | |
| Details | Get Source of INPUT2 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "VIDEO" ----- in Video mode "YPBPR" ----- in Y,Pb/Cb,Pr/Cr mode "ANALOG" ----- in RGB mode |
| | Unacceptable | "Error Code" [CR] |

9.7.5 CR_SRCINP3 Command

| | | |
|----------|----------------------|---|
| Command | "CR_SRCINP3" [CR] | |
| Details | Get Source of INPUT3 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "VIDEO" ----- in Video mode "S-VIDEO" ----- in S-video mode "YPBPR" ----- in Y,Pb/Cb,Pr/Cr mode |
| | Unacceptable | "Error Code" [CR] |

9.7.6 CR_SRCINP4 Command

| | | |
|----------|----------------------|---|
| Command | "CR_SRCINP4" [CR] | |
| Details | Get Source of INPUT4 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "NETWORK" ----- With PJ-Net attached and the power ON |
| | Unacceptable | "101" [CR] ----- With PJ-Net attached and the power ON "103" [CR] ----- With PJ-Net unattached "?" [CR] ----- When unknown command is received. |

9.7.7 CR_SYSTEM Command

| | | | |
|--------------|---------------------|------------------------------|--|
| Command | "CR_SYSTEM" [CR] | | |
| Details | Get selected System | | |
| Response | Acceptable | "000_%1" [CR] | |
| | %1 | Input is PC Analog | "VGA1" ----- indicates VGA1 is selected "VGA2" ----- indicates VGA2 is selected : "XGA1" ----- indicates XGA1 is selected : "WXGA3" ----- indicates WXGA3 is selected "1080P" ----- indicates 1080p is selected "1080I" ----- indicates 1080i is selected "1035I" ----- indicates 1035i is selected "720P" ----- indicates 720p is selected "575P" ----- indicates 575p is selected "480P" ----- indicates 480p is selected "575I" ----- indicates 575i is selected "480I" ----- indicates 480i is selected "1080PSF/24" ----- indicates 1080psf/24 is selected "1080PSF/25" ----- indicates 1080psf/25 is selected "1080PSF/30" ----- indicates 1080psf/30 is selected "MODE1" ----- indicates Mode1 is selected : "MODE10" ----- indicates Mode10 is selected "EXT11" ----- indicates EXT11 is selected : "EXT60" ----- indicates EXT60 is selected * Error Code "101" [CR] is returned for no signal |
| | | Input is PC-Digital/ AV-HDCP | "D-XGA1" ----- indicates D-XGA1 is selected : "D-WXGA3" ----- indicates D-WXGA3 is selected "D-1080P" ----- indicates D-1080p is selected "D-1080I" ----- indicates D-1080i is selected "D-1035I" ----- indicates D-1035i is selected "D-720P" ----- indicates D-720p is selected "D-575P" ----- indicates D-575p is selected "D-480P" ----- indicates D-480p is selected "D-1080PSF/24" ----- indicates D-1080psf/24 is selected "D-1080PSF/25" ----- indicates D-1080psf/25 is selected "D-1080PSF/30" ----- indicates D-1080psf/30 is selected * Error Code "101" [CR] is returned for no signal |
| | | Input is Y,Pb/Cb,Pr/Cr | "AUTO" ----- indicates Auto is selected "1080P" ----- indicates 1080p is selected "1080I" ----- indicates 1080i is selected "1035I" ----- indicates 1035i is selected "720P" ----- indicates 720p is selected "575P" ----- indicates 575p is selected "480P" ----- indicates 480p is selected "575I" ----- indicates 575i is selected "480I" ----- indicates 480i is selected * Selected System is returned, whether or not signal is coming. |
| | | Input is Video or S-video | "AUTO" ----- indicates Auto is selected "NTSC" ----- indicates NTSC is selected "NTSC443" ----- indicates NTSC4.43 is selected "PAL" ----- indicates PAL is selected "SECAM" ----- indicates SECAM is selected "PAL-M" ----- indicates PAL-M is selected "PAL-N" ----- indicates PAL-N is selected * Selected System is returned, whether or not signal is coming. |
| Unacceptable | "Error Code" [CR] | | |

9.7.8 CR_SYSLIST Command

| | | |
|----------|--------------------------------------|--|
| Command | "CR_SYSLIST" [CR] | |
| Details | Get possible systems for System list | |
| Response | Acceptable | "000_%1_%2_---_%x" [CR] |
| | %1 | <p>Error Code "101" is returned for no signal. Otherwise following values are returned according to Source.</p> <p>When input is PC-Analog; "XGA1" ----- XGA1 is in the list "1080I" ----- 1080i is in the list "1080PSF/24" ----- 1080psf/24 is in the list "1080PSF/25" ----- 1080psf/25 is in the list "1080PSF/30" ----- 1080psf/30 is in the list * Auto, Mode1-10 shall not be returned.</p> <p>When input is PC-digital, AV-HDCP or HDMI; "D-XGA" ----- D-XGA is in the list "D-720P" ----- D720p is in the list "D-1080PSF/24" ----- D1080psf/24 is in the list "D-1080PSF/25" ----- D1080psf/25 is in the list "D-1080PSF/30" ----- D1080psf/30 is in the list</p> <p>When input is Y,Pb/Cb,Pr/Cr; All possible systems in Menu, including Auto, are returned; "AUTO" ----- Auto is in the list "1080I" ----- 1080i is in the list "1035I" ----- 1035i is in the list : "575I" ----- 575i is in the list "480I" ----- 480i is in the list</p> <p>When input is Video or S-video; All possible systems in Menu, including Auto, are returned; "AUTO" ----- Auto is in the list "PAL" ----- PAL is in the list "SECAM" ----- SECAM is in the list : "PAL-N" ----- PAL-N is in the list</p> |
| | Unacceptable | "Error Code" [CR] |

9.7.9 CR_MODELIST Command

| | | |
|----------|----------------------------------|--|
| Command | "CR_MODELIST" [CR] | |
| Details | Get possible modes for Mode list | |
| Response | Acceptable | "000_%1_%2_---_%x" [CR] |
| | %1 | <p>Error Code "101" is returned except for PC-Analog and for no signal with PC-Analog Possible modes in Mode1-10 are returned when PC-Analog signal is coming.</p> <p>"MODE1" "MODE2" "MODE3" : : "MODE8" "MODE9" "MODE10"</p> |
| | Unacceptable | "Error Code" [CR] |

9.7.10 CR_HMSLOT Command

| | | |
|----------|--------------------------------|--|
| Command | "CR_HMSLOT" [CR] | |
| Details | Get the total number of Input. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "004" ----- When PJ-Net is attached. "003" ----- When PJ-Net is not attached. |
| | Unacceptable | "Error Code" [CR] |

9.7.11 CR_NMSLOT1 Command

| | | |
|----------|------------------------------------|-------------------|
| Command | "CR_NMSLOT1" [CR] | |
| Details | Get terminal information of Input1 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "RGB-HDMI" |
| | Unacceptable | "Error Code" [CR] |

9.7.12 CR_NMSLOT2 Command

| | | |
|----------|------------------------------------|-------------------|
| Command | "CR_NMSLOT2" [CR] | |
| Details | Get terminal information of Input2 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "5BNC" |
| | Unacceptable | "Error Code" [CR] |

9.7.13 CR_NMSLOT3 Command

| | | |
|----------|------------------------------------|-------------------|
| Command | "CR_NMSLOT3" [CR] | |
| Details | Get terminal information of Input3 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "VIDEO" |
| | Unacceptable | "Error Code" [CR] |

9.7.14 CR_NMSLOT4 Command

| | | |
|----------|------------------------------------|---|
| Command | "CR_NMSLOT4" [CR] | |
| Details | Get terminal information of Input4 | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "NETWORK" ----- When PJ-Net is attached. *With PJ-Net unattached, this command is invalid and error code "103" is returned. *With PJ-Net attached and the power OFF, error code "101" is returned. *In models not supporting PJ-Net, error code "103" is returned. |
| | Unacceptable | "Error Code" [CR] |

9.7.15 CR_IDSLOT1 Command

| | | |
|----------|---|--|
| Command | "CR_IDSLOT1" [CR] | |
| Details | Get ID information of Input1. This command is to determine sources possible to input. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "32" ----- On-board (HDMI and D-Sub) Available source: DIGITAL, ANALOG, SCART, HDCP, HDMI |
| | Unacceptable | "Error Code" [CR] |

9.7.16 CR_IDSLOT2 Command

| | | |
|----------|---|--|
| Command | "CR_IDSLOT2" [CR] | |
| Details | Get ID information of Input2. This command is to determine sources possible to input. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "41" ----- On-board (5BNC) Available source: ANALOG, VIDEO, YPBPR |
| | Unacceptable | "Error Code" [CR] |

9.7.17 CR_IDSLOT3 Command

| | | |
|----------|---|---|
| Command | "CR_IDSLOT3" [CR] | |
| Details | Get ID information of Input3. This command is to determine sources possible to input. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "51" ----- On-board (3BNC and S-VIDEO) Available source: VIDEO, S-VIDEO, YPBPR |
| | Unacceptable | "Error Code" [CR] |

9.7.18 CR_IDSLOT4 Command

| | | |
|----------|---|--|
| Command | "CR_IDSLOT4" [CR] | |
| Details | Get ID information of Input4. This command is to determine sources possible to input. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "13" ----- PJ-Net (Viewer capable) Available source: Network *With PJ-Net unattached, this command is invalid and error code "103" is returned. *With PJ-Net attached and the power OFF, error code "101" is returned. *In models not supporting PJ-Net, error code "103" is returned. |
| | Unacceptable | "Error Code" [CR] |

9.8 Screen Status Read Command

9.8.1 CR_SCREEN Command

| | | |
|----------|--------------------------------|---|
| Command | "CR_SCREEN" [CR] | |
| Details | Get selected screen image size | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "NORMAL" ----- Normal mode "FULL" ----- Full screen mode "WIDE" ----- Wide(16:9) mode "TRUE" ----- True mode "ZOOM" ----- Zoom mode "NATURAL" ----- Natural mode "CUSTOM" ----- Custom mode |
| | Unacceptable | "Error Code" [CR] --- When command is not available in the given condition (such as being selected input). "?" [CR] --- When unknown command is received |

9.8.2 CR_VSCALE Command

| | | |
|----------|-------------------------------|-------------------|
| Command | "CR_VSCALE" [CR] | |
| Details | Get setting status of V scale | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "-32" - "035" |
| | Unacceptable | "Error Code" [CR] |

9.8.3 CR_VPOS Command

| | | |
|----------|----------------------------------|-------------------|
| Command | "CR_VPOS" [CR] | |
| Details | Get setting status of V Position | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "-15" - "015" |
| | Unacceptable | "Error Code" [CR] |

9.8.4 CR_HSCALE Command

| | | |
|----------|-------------------------------|-------------------|
| Command | "CR_HSCALE" [CR] | |
| Details | Get setting status of H scale | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "-32" - "035" |
| | Unacceptable | "Error Code" [CR] |

9.8.5 CR_HPOS Command

| | | |
|----------|----------------------------------|-------------------|
| Command | "CR_HPOS" [CR] | |
| Details | Get setting status of H Position | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "-15" - "015" |
| | Unacceptable | "Error Code" [CR] |

9.8.6 CR_KYSTNMODE Command

| | | |
|----------|---|--|
| Command | "CR_KYSTNMODE" [CR] | |
| Details | Get setting status of Keystone Store Mode | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "STR" ----- Store mode is "Store" "RST" ----- Store mode is "Reset" |
| | Unacceptable | "?" [CR] ----- When unknown command is received |

9.8.7 CR_CORNERTESTPAT Command

| | | |
|----------|--|--|
| Command | "CR_CORNERTESTPAT" [CR] | |
| Details | Get setting status of test pattern for Corner correction | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "RED" ----- Test pattern is red "WHITE" ----- Test pattern is white "BLUE" ----- Test pattern is blue "OFF" ----- Test pattern is not displayed |
| | Unacceptable | "Error Code" [CR] |

9.8.8 CR_CEIL Command

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

9.8.9 CR_REAR Command

| | | |
|----------|-------------------------------------|--|
| Command | "CR_REAR" [CR] | |
| Details | Get setting status of Rear function | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Rear projection is enabled "OFF" ----- Rear projection is disabled |
| | Unacceptable | "Error Code" [CR] |

9.8.10 CR_SCREENASPECT Command

| | | |
|----------|-----------------------------|--|
| Command | "CR_SCREENASPECT"[CR] | |
| Details | Get status of Screen aspect | |
| Response | Acceptable | "000_%1"[CR] |
| | %1 | "43MODE" Select 4:3 mode "169MODE" Select 16:9 mode "1610MODE" Select 16:10 mode |
| | 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" ----- indicates over lamp replacement time "1N" ----- indicates under lamp replacement time |
| | Unacceptable | "?" [CR] |

9.9.2 CR_LAMPH Command

| | | |
|----------|---|-------------------|
| Command | "CR_LAMPH" [CR] | |
| Details | Get Lamp running time (in hours) * return actual lamp running time | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "00000 - 99999" |
| | Unacceptable | "Error Code" [CR] |

9.9.3 CR_LAMPCORRESPH Command

| | | |
|----------|---|-------------------|
| Command | "CR_LAMPCORRESPH" [CR] | |
| Details | Get Lamp running time (in hours) *return lamp running time multiplied by a coefficient (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 | "NORMAL" ----- Lamp mode is Normal status "ECO1" ----- Lamp mode is Eco1 status "ECO2" ----- Lamp mode is Eco2 status "AUTO" ----- Lamp mode is Auto status |
| | Unacceptable | "?" [CR] |

9.9.5 CR_LAMPSTS Command

| | | |
|----------|-------------------|---|
| Command | "CR_LAMPSTS" [CR] | |
| Details | Get Lamp status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "1" ----- Lamp is ON "10" ----- Lamp is OFF "1X" ----- Lamp Failure |
| | Unacceptable | "Error Code" [CR] |

9.9.6 CR_PROJH Command

| | | |
|----------|--|---------------------|
| Command | "CR_PROJH" [CR] | |
| Details | Get total running time of Projector (in hours) | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0000000 – 0099999" |
| | Unacceptable | "Error Code" [CR] |

9.9.7 CR_HMLAMP Command

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

9.9.8 CR_LAMPLIFECNTRL Command

| | | |
|----------|---|--|
| Command | "CR_LAMPLIFECNTRL" [CR] | |
| Details | Get setting status of Lamp life control | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "MODE1" ----- Lamp life control is Mode1 status "MODE2" ----- Lamp life control is Mode2 status |
| | Unacceptable | "Error Code" [CR] |

9.10 Sound Status Read Command

9.10.1 CR_VOLUME Command

| | | |
|----------|---|-------------------|
| Command | "CR_VOLUME" [CR] | |
| Details | Get volume value by user control * When input signal is Network, error code "101" is returned. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "000 – 063" |
| | Unacceptable | "Error Code" [CR] |

9.10.2 CR_MUTE Command

| | | |
|----------|--|--|
| Command | "CR_MUTE" [CR] | |
| Details | Get setting status of Sound Mute. * When input signal is Network, error code "101" is returned. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Sound Mute is ON. "OFF" ----- Sound Mute is OFF. |
| | Unacceptable | "Error Code" [CR] |

9.10.3 CR_BLTINSP Command

| | | |
|----------|---|---|
| Command | "CR_BLTINSP" [CR] | |
| Details | Get setting status of Built- in speaker. * When input signal is Network, error code "101" is returned. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Built-in speaker is ON. "OFF" ----- Built-in speaker 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_%1" [CR] |
| | %1 | "ENG" ----- English is selected "DEU" ----- German is selected "FRA" ----- French is selected "ITA" ----- Italian is selected "ESP" ----- Spanish is selected "POR" ----- Portuguese is selected "NED" ----- Dutch is selected "SVE" ----- Swedish is selected "JPN" ----- Japanese is selected "CHI" ----- Chinese is selected "KOR" ----- Korean is selected "RUS" ----- Russian is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.2 CR_MENUSIZE Command

| | | |
|----------|---------------------------------|--|
| Command | "CR_MENUSIZE" [CR] | |
| Details | Get setting status of Menu size | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "NORMAL" ----- Normal is selected "DOUBLE" ----- Double is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.3 CR_INPUTBUTTON Command

| | | |
|----------|------------------------------------|---|
| Command | "CR_INPUTBUTTON" [CR] | |
| Details | Get setting status of Input button | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "MODE1" ----- Input button mode is Mode1. "MODE2" ----- Input button mode is Mode2. "MODE3" ----- Input button mode is Mode3. |
| | Unacceptable | "Error Code" [CR] |

9.11.4 CR_DISP Command

| | | |
|----------|-------------------------------|--|
| Command | "CR_DISP" [CR] | |
| Details | Get setting status of Display | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Display is ON "CNTDWNNOFF" ----- Count down is OFF "OFF" ----- Display is OFF |
| | 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 "USER" ----- User is selected "BLACK" ----- Black Back is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.6 CR_LOGO Command

| | | |
|----------|----------------------------|--|
| Command | "CR_LOGO" [CR] | |
| Details | Get setting status of Logo | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "DFLT" ----- Default Logo is enabled "USER" ----- User is enabled "OFF" ----- Logo is disabled |
| | Unacceptable | "Error Code" [CR] |

9.11.7 CR_LOGOLOCK Command

| | | |
|----------|--|--|
| Command | "CR_LOGOLOCK" [CR] | |
| Details | Get setting status of Logo Lock function | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Logo Lock is ON "OFF" ----- Logo Lock is OFF |
| | Unacceptable | "Error Code" [CR] |

9.11.8 CR_PIP Command

| | | |
|----------|--|--|
| Command | "CR_PIP" [CR] | |
| Details | Get status of "Picture in Picture" setting | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "OFF" ----- Off is selected "USER1" ----- User1 is selected "USER2" ----- User2 is selected "USER3" ----- User3 is selected "USER4" ----- User4 is selected "USER5" ----- User5 is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.9 CR_PIPMODE Command

| | | |
|----------|----------------------------------|--|
| Command | "CR_PIP" [CR] | |
| Details | Get Mode in "Picture in Picture" | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "PINP" ----- P in P is selected "PBYP" ----- P by P is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.10 CR_PIPMAININP Command

| | | |
|----------|---|--|
| Command | "CR_PIPMAININP" [CR] | |
| Details | Get Input and Source for "Picture in Picture". (Main picture) | |
| Response | Acceptable | "000_%1_%2" [CR] |
| | %1 | "1" ----- Input1 is selected "2" ----- Input2 is selected "3" ----- Input3 is selected |
| | %2 | "DIGITAL" ----- DVI Input is selected "ANALOG" ----- ANALOG RGB is selected "VIDEO" ----- Video Input is selected "S-VIDEO" ----- S-VIDEO Input is selected "YPBPR" ----- Y, Pb/Cb, Pr/Cr Input is selected "SCART" ----- SCART Input is selected "HDCP" ----- HDCP Input is selected "HDMI" ----- HDMI Input is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.11 CR_PIPSUBINPU Command

| | | |
|----------|--|--|
| Command | "CR_PIPSUBINP" [CR] | |
| Details | Get Input and Source for "Picture in Picture". (Sub picture) | |
| Response | Acceptable | "000_%1_%2" [CR] |
| | %1 | "1" ----- Input1 is selected "2" ----- Input2 is selected "3" ----- Input3 is selected |
| | %2 | "DIGITAL" ----- DVI Input is selected "ANALOG" ----- ANALOG RGB is selected "VIDEO" ----- Video Input is selected "S-VIDEO" ----- S-VIDEO Input is selected "YPBPR" ----- Y, Pb/Cb, Pr/Cr Input is selected "SCART" ----- SCART Input is selected "HDCP" ----- HDCP Input is selected "HDMI" ----- HDMI Input is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.12 CR_PIPSIZE Command

| | | |
|----------|--|--|
| Command | "CR_PIPSIZE" [CR] | |
| Details | Get picture size for "Picture in Picture". (Sub picture) | |
| Response | Acceptable | "000_%1_%2" [CR] |
| | %1 | "1" ----- 10% is selected(Main size) "2" ----- 20% is selected(Main size) "3" ----- 30% is selected(Main size) "4" ----- 40% is selected(Main size) "5" ----- 50% is selected(Main size) "6" ----- 60% is selected(Main size) "7" ----- 70% is selected(Main size) "8" ----- 80% is selected(Main size) "9" ----- 90% is selected(Main size) "10" ----- 100% is selected(Main size) |
| | %2 | "1" ----- 10% is selected(Sub size) "2" ----- 20% is selected(Sub size) "3" ----- 30% is selected(Sub size) "4" ----- 40% is selected(Sub size) "5" ----- 50% is selected(Sub size) |
| | Unacceptable | "Error Code" [CR] |

9.11.13 CR_PIPFRAMELOCK Command

| | | |
|----------|---|--|
| Command | "CR_PIPFRAMELOCK" [CR] | |
| Details | Get setting status of Frame lock in "Picture in Picture". | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "MAIN" ----- Main picture is selected "SUB" ----- Sub picture is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.14 CR_PIPSTORE Command

| | | |
|----------|---|---|
| Command | "CR_PIPSTORE" [CR] | |
| Details | Get status (Free or Stored) of User1-User5 for "Picture in Picture". Data consists of 5 bytes and each byte represents User1-5. (F:Free, S:Stored) | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "SFFFF" ----- Only User1 is Stored, others are Free : "FFFFS" ----- Only User5 is Stored, others are Free "SSSSS" ----- All Stored |
| | Unacceptable | "Error Code" [CR] |

9.11.15 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 "ENHANCED" ----- Image mode is Enhanced |
| | Unacceptable | "Error code"[CR] |

9.11.16 CR_HDMI SOUND 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. "EXTERNAL" ----- External sound input is selected. |
| | Unacceptable | "Error code"[CR] |

9.11.17 CR_FILREMAIN Command

| | | |
|----------|--|---|
| Command | "CR_FILREMAIN" [CR] | |
| Details | Get remaining number of usable Filter scroll | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "09" = Remaining number of usable Filter scroll : 9 times "00" = Remaining number of usable Filter scroll : 0 time |
| | Unacceptable | "Error Code" [CR] |

9.11.18 CR_FILH Command

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

9.11.19 CR_FILTIMER Command

| | | |
|---|----------------------|---|
| Command | "CR_FILTIMER" [CR] | |
| Details | Get Filter used time | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "0400" ----- Display message by 400h used. |
| | | "0700" ----- Display message by 700h used. |
| | | "1000" ----- Display message by 1000h used. |
| "OFF" ----- Off(Warning display is not displayed) | | |
| Unacceptable | "Error Code" [CR] | |

9.11.20 CR_FILCOND Command

| | | |
|----------|---------------------------|--|
| Command | "CR_FILCOND" [CR] | |
| Details | Get status of filter clog | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "CLOG" = Filter is clogged "WARN" = Filter is nearly clogged "CLEAN" = Filter is not clogged |
| | Unacceptable | "Error Code" [CR] |

9.11.21 CR_FILREPL Command

| | | |
|----------|--|---|
| Command | "CR_FILREPL" [CR] | |
| Details | Get status of Filter cleaning / replacement time | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "1Y"-----Filter Exchange time is over value of Filter Message. "1N"--Filter Exchange time is not over value of Filter Message. |
| | Unacceptable | "Error Code" [CR] |

9.11.22 CR_FANSPEED Command

| | | |
|----------|--------------------------------------|---|
| Command | "CR_FANSPEED" [CR] | |
| Details | Get selected Fan Control Speed mode. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "MAX" ----- Max mode is selected "NOR" ----- Normal mode is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.23 CR_SIMPLEMODE Command

| | | |
|----------|------------------------------------|--|
| Command | "CR_SIMPLEMODE" [CR] | |
| Details | Get setting status of Simple mode. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Simple mode is ON "OFF" ----- Simple mode is OFF |
| | Unacceptable | "Error Code" [CR] |

9.11.24 CR_RCODE Command

| | | |
|----------|----------------------------------|--|
| Command | "CR_RCODE" [CR] | |
| Details | Get selected Remote Control Code | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "001" ----- Code 1 is selected "002" ----- Code 2 is selected "003" ----- Code 3 is selected "004" ----- Code 4 is selected "005" ----- Code 5 is selected "006" ----- Code 6 is selected "007" ----- Code 7 is selected "008" ----- Code 8 is selected |
| | Unacceptable | "Error Code" [CR] |

9.11.25 CR_RSENS Command

| | | |
|----------|---|--|
| Command | "CR_RSENS" [CR] | |
| Details | Get selected location of infrared remote receiver of remote control | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ALL" ----- Select top, front and back receiver of projector "FRONTTOP" ----- Select front and top receiver of projector "BACKTOP" ----- Select back and top receiver of projector "FRONTBACK" ----- Select front and back receiver of projector "FRONT" ----- Select only front receiver of projector "TOP" ----- Select only top receiver of projector "BACK" ----- Select only back receiver of projector |
| | Unacceptable | "Error Code" [CR] |

9.11.26 CR_RTYPE Command

| | | |
|----------|---|---|
| Command | "CR_RTYPE" [CR] | |
| Details | Get status of supported Remote Control (IR/RF). | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "IR" ----- IR "RF" ----- RF (cannot be returned as this model supports only IR remote control) |
| | Unacceptable | "Error Code" [CR] |

9.11.27 CR_P-MANE Command

| | | |
|----------|--|--|
| Command | "CR_P-MANE" [CR] | |
| Details | Get setting status of Power management | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "OFF" ----- Power Management is disabled "READY" ----- Power Management is set to Ready "SHUTDOWN" ----- Power Management is set to Shut Down mode |
| | Unacceptable | "Error Code" [CR] |

9.11.28 CR_P-MANETIME Command

| | | |
|----------|---|-----------------------------------|
| Command | "CR_P-MAETIME" [CR] | |
| Details | Get setting time for starting Power Management function | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "001 – 030" ----- 1 to 30 minutes |
| | Unacceptable | "Error Code" [CR] |

9.11.29 CR_STANDBYMODE Command

| | | |
|----------|------------------------------------|---|
| Command | "CR_STANDBYMODE" [CR] | |
| Details | Get setting status of Standby mode | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ECO" ----- Less standby electricity "NORMAL" ----- Normal standby electricity |
| | Unacceptable | "Error Code" [CR] |

9.11.30 CR_ON-STA Command

| | | |
|----------|------------------------------|---|
| Command | "CR_ON-STA" [CR] | |
| Details | Get Direct on setting status | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Direct on is active "OFF" ----- Direct on is inactive |
| | Unacceptable | "Error Code" [CR] |

9.11.31 CR_POINTER Command

| | | |
|----------|-------------------------------|--|
| Command | "CR_POINTER" [CR] | |
| Details | Get setting status of Pointer | |
| Response | Acceptable | "000_%a" [CR] |
| | %1 | "ARROW" ----- Arrow Pointer mode "FINGER" ----- Finger Pointer mode "LASER" ----- Dot Pointer mode |
| | Unacceptable | "Error Code" [CR] |

9.11.32 CR_PTIMEMODE Command

| | | |
|----------|---|--|
| Command | "CR_PTIMEMODE" [CR] | |
| Details | Get setting status of count up/down mode in P-timer | |
| Response | Acceptable | "000_%a" [CR] |
| | %1 | "COUNTUP" ----- Set P-timer to Count up mode "COUNTDN" ----- Set P-timer to Count down mode |
| | Unacceptable | "Error Code" [CR] |

9.11.33 CR_PTIMER Command

| | | |
|----------|-------------------------------|---|
| Command | "CR_PTIMER" [CR] | |
| Details | Get setting status of P-timer | |
| Response | Acceptable | "000_%a" [CR] |
| | %1 | "ON" ----- P-timer is activated "STOP" ----- P-timer is temporarily suspended "OFF" ----- Exit P-timer function |
| | Unacceptable | "Error Code" [CR] |

9.11.34 CR_PTIME Command

| | | |
|----------|---|--------------------------------------|
| Command | "CR_PTIME" [CR] | |
| Details | Get setting time for count down mode of P-timer | |
| Response | Acceptable | "000_%a" [CR] |
| | %1 | "001" – "180" ----- 1 to 180 minutes |
| | Unacceptable | "Error Code" [CR] |

9.11.35 CR_KEYDIS Command

| | | |
|----------|---|---|
| Command | "CR_KEYDIS" [CR] | |
| Details | Get status of RC/KEY (valid or invalid) | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "NONE" ----- RC and KEY, both are valid "RC" ----- RC is invalid "KEY" ----- KEY is invalid |
| | Unacceptable | "Error Code" [CR] |

9.11.36 CR_SECURITY Command

| | | |
|----------|--|--|
| Command | "CR_SECURITY" [CR] | |
| Details | Get ON/OFF setting status of Security on menu. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- PJ is locked "OFF" ----- PJ is not locked. |
| | Unacceptable | "Error Code" [CR] |

9.11.37 CR_PJLOCKNOW Command

| | | |
|----------|--|--|
| Command | "CR_PJLOCKNOW" [CR] | |
| Details | Get actual setting status of PIN code lock | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "LOCK" ----- PJ is locked PIN code lock is set to ON1/ON2 on the menu and PJ PIN code is not entered, therefore PJ is actually locked. "FREE" ----- PJ is unlocked (either A or B) A) PJ lock is set to OFF on the menu B) PJ lock is set to ON1/ON2 on the menu, but PIN code Lock mode is released because PJ PIN code is entered. |
| | Unacceptable | "Error Code" [CR] |

9.11.38 CR_PJLOCKMENU Command

| | | |
|----------|--|--|
| Command | "CR_PJLOCKMENU" [CR] | |
| Details | Get ON/OFF setting status of PIN code lock on menu | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON1" ----- PIN code lock ON 1 is set on the menu "ON2" ----- PIN code lock ON 2 is set on the menu "OFF" ----- PIN code lock OFF is set on the menu |
| | Unacceptable | "Error Code" [CR] |

9.11.39 CR_SHUTPROT Command

| | | |
|----------|---|---|
| Command | "CR_SHUTPROT" [CR] | |
| Details | Get disability state of Side panel and RC key for controlling shutter | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "OFF" ----- RC and Side panel are both valid. "RC" ----- RC is invalid "KEY" ----- KEY is invalid "BOTH" ----- RC and Side panel are both invalid. |
| | Unacceptable | "Error Code" [CR] |

9.11.40 CR_SHUTRELEASE Command

| | | |
|----------|---|---|
| Command | "CR_SHUTRELEASE" [CR] | |
| Details | Get status of Shutter release key function. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ANY"-----Enable to release Shutter with any key "SHUTTER" ----- Enable to release Shutter with only "SHUTTER" key |
| | Unacceptable | "Error Code" [CR] |

9.11.41 CR_SHUTH Command

| | | |
|----------|--|---|
| Command | "CR_SHUTH" [CR] | |
| Details | Get time setting to start the shutter management | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "005" ----- 5 minutes "006" ----- 6 minutes : "479" ----- 479 minutes "480" ----- 480 minutes |
| | Unacceptable | "Error Code" [CR] |

9.11.42 CR_CCATIONDISP Command

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

9.11.43 CR_CCATIONCOLOR Command

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

9.11.44 CR_DELAYCTRL Command

| | | |
|----------|---|--|
| Command | "CR_DELAYCTRL" [CR] | |
| Details | Get setting status of Video delay control | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "OFF"----- Set Video delay control to OFF "LOW"----- Set Video delay control to LOW "MID"----- Set Video delay control to MID "HIGH"----- Set Video delay control to HIGH |
| | Unacceptable | "Error Code" [CR] |

9.11.45 CR_TESTPAT Command

| | | |
|----------|------------------------------------|---|
| Command | "CR_TESTPAT" [CR] | |
| Details | Get setting status of Test pattern | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "COLOR" ----- Color bar is displayed "GRAD1" ----- 16step(white→black) is displayed "GRAD2" ----- 16step(white←black) is displayed "GRAD3" ----- 16step(white↓black) is displayed "GRAD4" ----- 16step(white↑black) is displayed "WHITE" ----- All white is displayed "BLACK" ----- All black is displayed "CROSS" ----- Cross is displayed "OFF" ----- Test pattern display is not displayed |
| | Unacceptable | "Error Code" [CR] |

9.12 Other Status Read Commands

9.12.1 CR_STATUS Command

| | | |
|----------|---|--|
| COMMAND | "CR_STATUS" [CR] | |
| Detail | Get operating status of Projector Same as "CR0" in basic command except error code follows it. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "00" = Power ON "80" = Standby "40" = Countdown in process "20" = Cooling Down in process "10" = Power Failure "28" = Cooling Down in process due to abnormal temperature "88" = Standby after Cooling Down due to abnormal temperature "24" = Power Save/Cooling Down in process "04" = Power Save "21" = Cooling Down in process after turned Off due to lamp failure "81" = Standby after Cooling Down due to lamp failure "2C" = Cooling Down in process after Power Off due to Shutter management "8C" = Standby after Cooling Down due to Shutter management |
| | Unacceptable | "Error Code" [CR] |

9.12.2 CR_SIGNAL Command

| | | |
|----------|--|--|
| Command | "CR_SIGNAL" [CR] | |
| Details | Get status whether there is any signal or not. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- There is signal "OFF" ----- There is no signal |
| | Unacceptable | "Error Code" [CR] |

9.12.3 CR_VMUTE Command

| | | |
|----------|-----------------------------------|---|
| Command | "CR_VMUTE" [CR] | |
| Details | Get setting status of Video Mute. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Set Video Mute (Shutter CLOSE) "OFF" ----- Cancel Video Mute (Shutter OPEN) |
| | Unacceptable | "Error Code" [CR] |

9.12.4 CR_FREEZE Command

| | | |
|----------|-------------------------------|--|
| Command | "CR_FREEZE" [CR] | |
| Details | Get setting status of Freeze. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | "ON" ----- Freeze is enabled "OFF" ----- Freeze is disabled |
| | Unacceptable | "Error Code" [CR] |

9.12.5 CR_TEMPFAIL Command

| | | |
|----------|---|---|
| Command | "CR_TEMPFAIL" [CR] | |
| Details | Get the temperature inside a projector when abnormal temperature status occurs. It is possible to get the temperatures all at once when several sensors installed. | |
| Response | Acceptable | "000_%1_%2_%3" [CR] |
| | %1,%2,%3 | <p>%1 ----- Sensor 1 temp. %2 ----- Sensor 2 temp. %3 ----- Sensor 3 temp. e.g. "_31.5F" "_" indicates a space. When the temperature goes under 0, the first character is "-", not a space, as in "-05.5F". With more than one temperature sensors installed, projector returns responses in a row. e.g. "_31.5F _35.2S _38.0W" [CR] The first data indicates sensor 1 data, then one space, and sensor 2 data. Last character in each data indicates the sensor's status. "F" ----- Exceeding critical temp. (abnormal temp.) "W" ----- Approaching critical temp. (Warning temp.) "S" ----- Sensor temp. is safe (Safe temp.) "N" ----- Sensor detects no critical temp. "E" ----- Unable to return the temp. data</p> <p>The example 1 shows that sensor 1 indicates 31.5 degrees and the temperature is abnormal, sensor 2 indicates 35.2 degrees and the temperature is safe, sensor 3 indicates 38.0 degrees and the temperature is approaching critical state. When the temperature is safe, all data is represented as "_00.0S". When the projector is reset, "_00.0S" is set, and every time abnormal temperature occurs, it renews the data and returns it. In short, it only returns the renewed data of the latest abnormal temperature and the previous data is deleted.</p> |
| | Unacceptable | "Error Code" [CR] |

9.12.6 CR_TEMP Command

| | | |
|----------|---|---|
| Command | "CR_TEMP" [CR] | |
| Details | Get the current temperature information inside a projector. It is possible to get the temperatures all at once when several sensors installed. | |
| Response | Acceptable | "000_%1_%2_%3" [CR] |
| | %1, %2, %3 | <p>%1 ----- Sensor 1 temp. (External temp.) %2 ----- Sensor 2 temp. (Internal temp.1) %3 ----- Sensor 3 temp. (Internal temp.2) %1, %2 are fixed 6 characters There is one space between %1 and %2 There is one space between %2 and %3 e.g. "_31.5F"]</p> <p>"_" indicates a space. When the temperature goes under 0, the first character is "-", not a space, as in "-05.5F". Last character in each data indicates the sensor's status. "F" ----- Exceeding critical temp. (abnormal temp.) "W" ----- Approaching critical temp. (Warning temp.) "S" ----- Sensor temp. is safe (Safe temp.) "N" ----- Sensor detects no critical temp. "E" ----- Unable to return the temp. data</p> <p>With more than one temperature sensors installed, projector returns responses in a row. e.g. "_31.5F _35.2S _38.0W" [CR] The first data indicates sensor 1 data, then one space, and sensor 2 data.</p> <p>The example 1 shows that sensor 1 indicates 31.5 degrees and the temperature is abnormal, sensor 2 indicates 35.2 degrees and the temperature is safe, sensor 3 indicates 38.0 degrees and the temperature is approaching critical state. When it cannot return the temperature data due to hardware error, the last character is "E" as in "_00.0E" It might happen for some projectors that the temperature continues to go up to abnormal status as long as lamp ballasts are hot. Therefore when in Standby mode or for several tens of seconds after Power is ON, any treatment of Power Failure is not processed. In that case, the temperature data is represented as "_ - - - N".</p> |
| | Unacceptable | "Error Code" [CR] |

9.12.7 CR_SHUTCOND Command

| | | |
|----------|--------------------------------|---|
| Command | "CR_SHUTCOND" [CR] | |
| Details | Get setting status of Shutter. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | <p>"SAFE" ----- Shutter operation is normal. "FAIL" ----- Shutter operation is abnormal.</p> |
| | Unacceptable | "Error Code" [CR] |

9.12.8 CR_SERIALNO Command

| | | |
|----------|---------------------------------|---|
| Command | "CR_SERIALNO" [CR] | |
| Details | Get value of the serial number. | |
| Response | Acceptable | "000_%1" [CR] |
| | %1 | Eight digits of alphanumeric characters |
| | Unacceptable | "Error Code" [CR] |