LC-X6 / LC-SX6

EXPAND SERIAL COMMAND

FUNCTIONAL SPECIFICATIONS

Records of Modification

Rev.	Date	Page	Content
	2004.11.8		New released

- CONTENTS -

1. Overview

1.1 This Functional Specification defines communication functions with Network cards for LC-X6 / LC-SX6.

1.2 Compatible to Farmware Ver. 1.x of the projector.

1.3 Commands are to communicate with Network cards, but most commands are used to remote control a projector through RS-232C from a computer. That's why commands are defined as Expand Serial Commands.

1.4 When using commands with address, see [10. Command with Address Specification].

2. Serial Interface Specification

2.1 Transfer Specification

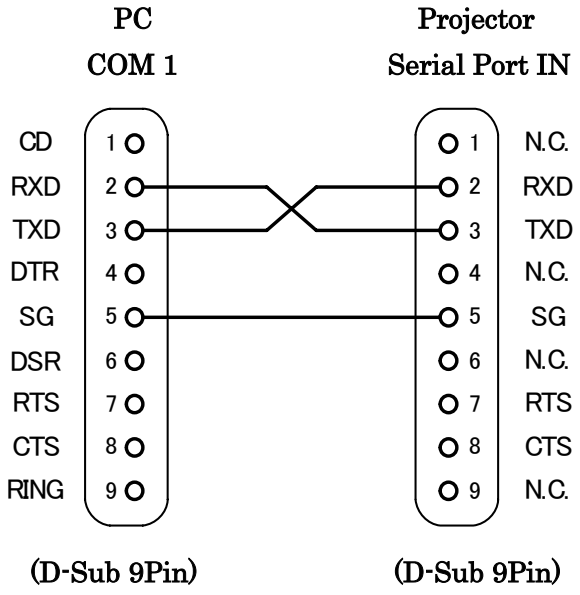
Item	Specification
Synchronoun System	Asynchronou
Transmission Speed	9600 / 19200
Data Length	8 bit
Parity	N/A
Stop Bit	1
Flow Control	N/A

Note1) Transmission Speed: initial setting value is 19200

Note2) Transmission Speed can be changed in "SPECIAL" – "RS-232C" in the menu.

2.2 Connection

Dedicated serial cables that come with the projector must be used for a connection to a computer and a projector.



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

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

3. Notes for communication

3.1 Expand Serial Command is defined as one command/one line that starts with "C" and ends with carriage return (0x0D)

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

3.3 There are two types of commands: Functional Execution Command and Status Read Command.

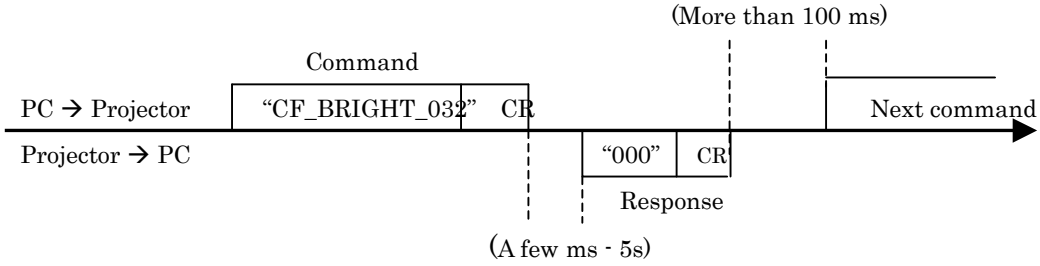
- Example of Functional Execution Command: "CF_BRIGHT_032" [CR]
- Example of Status Read Command: "CR_BRIGHT" [CR]

Note) "_" means a space

3.4 When it takes more than one second to receive one command, it is not executed.

When it takes more than one second to receive carriage return (0x0D) since the projector has received the first data "C", it clears the information of buffer.

3.5 When the command pipelining, it must wait sending next command for 100 ms after the response.



3.5.1 When a computer sends next command before receiving a response, the projector may not operate properly.

3.5.2 Except when there is no response for more than 5 seconds.

3.6 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.

3.7 Expand Serial Commands are not available when Service Mode is displayed.

4. Name Definition

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

4.2 [CR]: Carriage Return Code

Command end with carriage return code.

Response command also ends with carriage return code.

4.3 _: Space Code

All space Code is indicated by (_).

4.4 %1: Parameter in Command

When there are some parameters, they are defined as %2, %3…

4.5 %%%: 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 Brightness value
CF_CONT_%1 [CR]	Set Contrast value
CF_COLOR_%1 [CR]	Set Color value
CF_TINT_%1 [CR]	Set Tint value
CF_SHARP_%1 [CR]	Set Sharpness value
CF_GAMMA_%1 [CR]	Set Gamma value
CF_WBAL-R_%1 [CR]	Set White Balance Red value
CF_WBAL-G_%1 [CR]	Set White Balance Green value
CF_WBAL-B_%1 [CR]	Set White Balance Blue value
CF_COLTEMP_%1 [CR]	Set Color Temp. value
CF_DENHCR_%1 [CR]	Set Detail Enhancer value of Faroudja
CF_NZRED_%1 [CR]	Set/Cancel Noise reduction
CF_PROGV_%1 [CR]	Set/Cancel Progressive scan
CF_FILM_%1 [CR]	Set Film mode
CF_IMAGE_%1 [CR]	Set Image mode
CF_IMAGEADJ_%1 [CR]	Reset/Store for Image Adjustment
CF_APCTRL_%1 [CR]	Set Auto Picture Control
CF_COLMNSAV_%1 [CR]	Store the current Color Management setting
CF_COLMNLD_%1 [CR]	Load Color Management setting

5.2 PC Adjust Control Command Table

Execute command	Item
CF_FSYNC_%1 [CR]	Set Fine Sync value
CF_TDOTS_%1 [CR]	Set Total Dots value
CF_CLPPHASE_%1 [CR]	Set Phase for Clamp
CF_CLPWIDTH_%1 [CR]	Set Width for Clamp
CF_H-POS_%1 [CR]	Set Horizontal Position value
CF_V-POS_%1 [CR]	Set Vertical Position value
CF_DLINE_%1 [CR]	Set Display Area V value
CF_DDOTS_%1 [CR]	Set Display Area H value
CF_VSPHASE_%1 [CR]	Set Phase for V-Sync
CF_SETPCADJ_%1 [CR]	Execute the setting value in PC Adjust menu to show up on the screen
CF_ORGMODE_%1 [CR]	Select original signal that is specified by PC mode
CF_PCSTORE_%1 [CR]	Store the setting value in PC Adjust menu (each parameter's status such as Total dots) to Mode%1
CF_PCMODEFREE_%1 [CR]	Delete the registered value 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 curretnlty 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_INPUT5_%1 [CR]	Select Input5 and also set input source to %1
CF_SYSTEM_%1 [CR]	Select System of curretnlty selected Input

5.4 Screen Control Command Table

Execute command	Item
CF_SCREEN_%1 [CR]	Select Screen size
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_DZOOM _%1 [CR]	Set Digital Zoom
CF_DZCENT _%1 [CR]	Cancel Digital Zoom mode
CF_KEYSTONE _%1 [CR]	Set Keystone
CF_KYSTNMODE _%1 [CR]	Set Keystone Store mode

5.5 Lamp Command Table

Execute command	Item
CF_LAMPH_%1 [CR]	Reset total running time for each lamp
CF_LAMPMODE_%1 [CR]	Select Lamp mode (Full/Half)
CF_AUTOLAMPCONTROL_%1 [CR]	Switch ON/OFF of Lamp Control

5.6 Sound Command Table

Execute command	Item
CF_VOLUME_%1 [CR]	Set Volume value
CF_MUTE_%1 [CR]	Control ON/OFF of Sound Mute
CF_BASS_%1 [CR]	Set Bass value
CF_TREBLE_%1 [CR]	Set Treble value

5.7 Setting Command Table

Execute command	Item
CF_BACKGND_1[CR]	Set scr een when there is no signal
CF_DISP_%1 [CR]	Set On Screen Display function
CF_LOGO_%1_%2 [CR]	Set Logo function
CF_CEIL_%1 [CR]	Set Ceiling function
CF_REAR_%1 [CR]	Set Rear Function
CF_RFCH_%1 [CR]	Select Remote Control Reception Channel
CF_RFID_%1 [CR]	Select Remote Control Reception ID
CF_LANG_%1 [CR]	Select language for OSD
CF_ON-STA_%1 [CR]	Set Power ON Start function
CF_P-MANE_%1 [CR]	Set Power Management function
CF_P-MANETIME_%1 [CR]	Set Power Management time
CF_FANSPEED_%1 [CR]	Select Fan Speed
CF_KEYDIS_%1 [CR]	Prohibit RC/KEY
CF_SHUTLVL_%1 [CR]	Control Open/Close of Shutter
CF_SHUTRCPROT_%1 [CR]	Set Shutter operation by Remote Control
CF_SHUTKEYPROT_%1 [CR]	Set Shutter operation by Control Key
CF_SHUTH_%1 [CR]	Set Shutter management time
CF_SHUTMGR_%1 [CR]	Set Shutter management function
CF_FDEFAULT_%1 [CR]	Set to Factory Default setting value
CF_MONIOUT_%1 [CR]	Set Monitor Out function
CF_PJPINCODE_%1[CR]	Enter PJ PIN code to cancel PJ lock

5.8 Special Command Table

Execute command	Item
CF_FILH_%1 [CR]	Reset the filter running time of Projector
CF_SMKH_%1 [CR]	Reset the filter running time of Smoke Resistant Box

5.9 Other Command Table

Execute command	Item
CF_KEYEMU_%1 [CR]	The same operation as RC/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 Freeze function

6. Status Read Command Table

6.1 Image Status Read Command Table

Status Read command	Item
CR_BRIGHT [CR]	Get Brightness value
CR_CONT [CR]	Get Contrast value
CR_COLOR [CR]	Get Color value
CR_TINT [CR]	Get Tint value
CR_SHARP [CR]	Get Sharpness value
CR_GAMMA [CR]	Get Gamma value
CR_WBAL-R [CR]	White Balance Red value
CR_WBAL-G [CR]	White Balance Green value
CR_WBAL-B [CR]	White Balance Blue value
CR_COLTEMP [CR]	Get Color temperature setting value
CR_DENHCR [CR]	Get Detail Enhancer setting value of Faroudja
CR_NZRED [CR]	Get Noise reduction setting status
CR_PROGV [CR]	Get Progressive scan setting status
CR_FILM [CR]	Get Film mode setting status
CR_IMAGE [CR]	Get Selected Image status
CR_IMGGMD [CR]	Get Image Gamma setting value
CR_APCTRL [CR]	Get Auto Picture Control setting status

6.2 PC Adjust Status Read Command Table

Status Read command	Item
CR_FSYNC [CR]	Get Fine Sync setting value
CR_TDOTS [CR]	Get Total Dots setting value
CR_CLPPHASE [CR]	Get Phase setting value for Clamp
CR_CLPWIDTH [CR]	Get Width setting value for Clamp
CR_H-POS [CR]	Get Horizontal Position setting value
CR_V-POS [CR]	Get Vertical Position setting value
CR_DLINE [CR]	Get Display Area V setting value
CR_DDOTS [CR]	Get Display Area H setting value
CR_VSPHASE [CR]	Get Phase setting value for V-Sync
CR_ORGMODE [CR]	Get the original signal for PC Adj. mode
CR_PCSTORE [CR]	Get Free or Stored status for PC Adj. mode 1-50
CR_SETPCADJ [CR]	Get current PC signal for PC display status

6.3 Video Status Read Command Table

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

6.4 Input Status Read Command Table

Status Read command	Item
CR_INPUT [CR]	Get selected Input status
CR_SOURCE [CR]	Get selected source of currently selected Input
CR_SRCINP1 [CR]	Get selected source for Input 1
CR_SRCINP2 [CR]	Get selected source for Input 2
CR_SRCINP3 [CR]	Get selected source for Input 3
CR_SRCINP4 [CR]	Get selected source for Input 4
CR_SRCINP5 [CR]	Get selected source for Input 5
CR_SYSTEM [CR]	Get selected system of currently selected Input
CR_HMSLOT [CR]	Get the total number of Input (3) + Slot (2)
CR_NMSLOT1 [CR]	Get a card type inserted to Input 1
CR_NMSLOT2 [CR]	Get a card type inserted to Input 2
CR_NMSLOT3 [CR]	Get a card type inserted to Input 3
CR_NMSLOT4 [CR]	Get a card type inserted to Input 4
CR_NMSLOT5 [CR]	Get a card type inserted to Input 5
CR_IDSLOT1 [CR]	Get ID for Input 1
CR_IDSLOT2 [CR]	Get ID for Input 2
CR_IDSLOT3 [CR]	Get ID for Input 3
CR_IDSLOT4 [CR]	Get ID for Input 4
CR_IDSLOT5 [CR]	Get ID for Input 5

6.5 Screen Status Read Command Table

Status Read command	Item
CR_SCREEN [CR]	Get selected screen size
CR_VSCALE [CR]	Get V Scale setting status
CR_VPOS [CR]	Get V Position setting status
CR_HSCALE [CR]	Get H Scale setting status
CR_HPOS [CR]	Get H Position setting status
CR_KYSTNMODE [CR]	Get Keystone Store Mode setting status

6.6 Lamp Status Read Command Table

Status Read command	Item
CR_LAMPREPL [CR]	Get the information for Lamp replacement time
CR_LAMPH [CR]	Get the information for Lamp runnig time
CR_LAMPMODE [CR]	Get Lamp Mode status
CR_AUTOLAMPCONTRL [CR]	Get Auto Lamp Control setting status
CR_LAMPSTS [CR]	Get Lamp status
CR_INFLAMP [CR]	Get Lamp switching status
CR_PROJH [CR]	Get projector total running time
CR_HMLAMP [CR]	Get total number of lamps

6.7 Sound Status Read Command Table

Status Read command	Item
CR_VOLUME [CR]	Get Volume value
CR_MUTE [CR]	Get Sound Mute setting status
CR_BASS [CR]	Get Bass value
CR_TREBLE [CR]	Get Treble value

6.8 Setting Status Read Command Table

Status Read command	Item
CR_BACKGND [CR]	Get Screen setting status when there is no signal
CR_DISP [CR]	Get Display setting status
CR_LOGO [CR]	Get Logo setting status
CR_LOGOLOCK [CR]	Get Logo Lock setting status
CR_CEIL [CR]	Get Ceiling setting status
CR_REAR [CR]	Get Rear setting status
CR_RFCH [CR]	Get selected RF Remote Control Reception Channel
CR_RFID [CR]	Get selected RF Remote Control ID
CR_RTYPE [CR]	Get IR or RF Remote Control status
CR_LANG [CR]	Get selected language
CR_ON-STA [CR]	Get ON Start setting status
CR_P-MANE [CR]	Get Power management setting status
CR_P-MANETIME [CR]	Get setting time for Power Management
CR_FANSPEED [CR]	Get selected Fan Control Speed
CR_KEYDIS [CR]	Get RC/KEY prohibited status
CR_SHUTLVL [CR]	Get operating status for Shutter
CR_SHUTRCPROT [CR]	Get selected status for Shutter operation by RC
CR_SHUTKEYPROT [CR]	Get selected status for Shutter operation by Control Key
CR_SHUTH [CR]	Get time setting for Shutter management
CR_SHUTMGR [CR]	Get function setting for Shutter management
CR_SECURITY [CR]	Get Security setting
CR_PJLOCKNOW [CR]	Get current PJ Lock setting status
CR_PJLOCKMENU [CR]	Get PJ Lock setting status on the menu
CR_MONIOUT [CR]	Get Monitor Out setting status

6.9 Special Status Read Command Table

Status Read command	Item
CF_FILH_%1 [CR]	Get the filter running time of Projector
CF_FILCOND_%1 [CR]	Get the filter clogged status of Projector
CF_FILREPL_%1 [CR]	Get the information of filter replacement time of Projector
CF_SMKH_%1 [CR]	Get the filter running time of Smoke Resistant Box
CF_SMKCOND_%1 [CR]	Get the filter clogged status of Smoke Resistant Box
CF_SMKREPL_%1 [CR]	Get the information of filter replacement time of Smoke Resistant Box

6.10 Other Status Read Command Table

Status Read command	Item
CR_STATUS [CR]	Get the operating status of Projector
CR_PRESSURE [CR]	Get Air Pressure data
CR_SIGNAL [CR]	Get Signal status if there is a signal or not
CR_VMUTE [CR]	Get Shutter ON/OFF setting status
CR_FREEZE [CR]	Get Freeze setting status
CR_PTIMER [CR]	Get the operating status of Presentation Timer
CR_ALLPFAIL [CR]	Get all the information of Power Failure
CR_HMPFAIL [CR]	Get total number of detectable Power Failure
CR_PFAIL01 [CR]	Get Item name of Power Failure No.01 and error status
CR_PFAIL02 [CR] | CR_PFAIL50 [CR]	Get Item name of Power Failure No.02 and error status | Get Item name of Power Failure No.50 and error status
CR_TEMPFAIL [CR]	Get temperature when sensors approach abnormal temperature
CR_TEMP [CR]	Get current temperature

7. Error Code Table

Error Code	Contents
?	-When the received data cannot be decoded -Parameter determination error (digit number error, including invalid value, etc.)
000	Normal reception (No 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 (command for Optional function which is not installed)
201	When reached upper or lower limit of increasing or decreasing data

8. Functional Execution Command

8.1 Format

1) PC issues commands in format as below:

Pattern1: "CF_ COMMAND" [CR]

Pattern2: "CF_ COMMAND _" %1 [CR]

CF_: Header

COMMAND: Character line

%1: Parameter (Character line)

_: Space (To separate COMMAND and Parameter)

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

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

"nnn" [CR]: Except "000", when it is nable 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

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

However, Status Read Command is effective under these conditions.

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

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

8.4 Image Command

8.4.1 CF_ BRIGHT Command

Command	"CF_BRIGHT_%1" [CR]	
%1	"000-063"---------- Directly select Brightness setting value "UP"---------- Current Brightness setting value +1 "DN"---------- Current Brightness setting value -1	
Details	Set Brightness value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.2 CF_CONT Command

Command	"CF_CONT_%1" [CR]	
%1	"000-063"---------- Directly select Contrast setting value "UP"---------- Current Contrast setting value +1 "DN"---------- Current Contrast setting value -1	
Details	Set Contrast value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.3 CF_COLOR Command

Command	"CF_COLOR_%1" [CR]	
%1	"000-063"---------- Directly select Color setting value "UP"---------- Current Color setting value +1 "DN"---------- Current Color setting value -1	
Details	Set Color value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.4 CF_TINT Command

Command	"CF_TINT_%1" [CR]	
%1	"000-063"---------- Directly select Tint setting value "UP"---------- Current Tint setting value +1 "DN"---------- Current Tint setting value -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. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.5 CF_SHARP Command

Command	"CF_SHARP_%1" [CR]	
%1	"000-015"---------- Directly select Sharpness setting value "UP"---------- Current Sharpness setting value +1 "DN"---------- Current Sharpness setting value -1	
Details	Set Sharpness value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.6 CF_GAMMA Command

Command	"CF_GAMMA_%1" [CR]	
%1	"000-015"---------- Directly select Gamma setting value "UP"---------- Current Gamma setting value +1 "DN"---------- Current Gamma setting value -1	
Details	Set Gamma value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.7 CF_WBAL-R Command

Command	"CF_WBAL-R_%1" [CR]	
%1	"000-063"------ Directly select White Balance Red value "UP"---------- Current White Balance Red setting value +1 "DN"---------- Current White Balance Red setting value -1	
Details	Set White Balance Red value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.8 CF_WBAL-G Command

Command	"CF_WBAL-G_%1" [CR]	
%1	"000-063"------ Directly select White Balance Green value "UP"---------- Current White Balance Green setting value +1 "DN"---------- Current White Balance Green setting value -1	
Details	Set White Balance Green value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.9 CF_WBAL-B Command

Command	"CF_WBAL-B_%1" [CR]	
%1	"000-063"------ Directly select White Balance Blue value "UP"---------- Current White Balance Blue setting value +1 "DN"---------- Current White Balance Blue setting value -1	
Details	Set White Balance Blue value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.10 CF_COLTEMP Command

Command	"CF_COLTEMP_%1" [CR]	
%1	"000" ---------- Xlow "001" ---------- Low "002" ---------- Mid "003" ---------- High "UP" ---------- Switch forward (Xlow→Low→Mid→High→Xlow) "DN" ---------- Switch backward (Xlow→High→Mid→Low→Xlow)	
Details	Set Color Temp. (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.11 CF_DENHCR Command

Command	"CF_DENHCR_%1" [CR]	
%1	"000"-"015"---------- Directly set Detail Enhancer value "UP" ---------- Current Detail Enhancer setting value +1 "DN" ---------- Current Detail Enhancer setting value -1	
Details	Set Detail Enhancer value for Faroudja Input (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.12 CF_NZRED Command

Command	"CF_NZRED_%1" [CR]	
%1	"OFF" ---------- Cancel Noise Reduction "L1" ---------- Set Noise Reduction L1 "L2" ---------- Set Noise Reduction L2 "UP" ---------- Switch forward (OFF→L1→L2→OFF) "DN" ---------- Switch backward (OFF→L2→L1→OFF)	
Details	Set/Cancel Noise Reduction (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.13 CF_PROGV Command

Command	"CF_PROGV_%1" [CR]	
%1	"OFF" ---------- Cancel Progressive scan "ON" ---------- Select Progressive scan "UP" ---------- Switch forward "DN" ---------- Switch backward	
Details	Set/Cancel Progressive scan (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.14 CF_FILM Command

Command	"CF_FILM_%1" [CR]	
%1	"OFF" ---------- Cancel Film mode "ON" ---------- Select Film mode "UP" ---------- Switch forward "DN" ---------- Switch backward	
Details	Set/Cancel Film mode (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It also returns to the original setting in Standby mode.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.15 CF_IMAGE Command

Command	"CF_IMAGE__%1" [CR]	
%1	"STANDPC" --------- Standard (PC) (Image adjust value is set to factory default for Still Image) "STANDAV" --------- Standard (AV) (Image adjust value is set to factory default for Moving Image) "REAL---------- Real (Fixed value to display graphic image with natural tone) "CINEMA"------- Cinema (Fixed value to focus on tone reproduction for movie) "CUSTOM1" ---------- Image1 (the value set and stored by a user) "CUSTOM2" ---------- Image2 (the value set and stored by a user) "CUSTOM3" ---------- Image3 (the value set and stored by a user) "CUSTOM4" ---------- Image4 (the value set and stored by a user) "CUSTOM5" ---------- Image5 (the value set and stored by a user) "CUSTOM6" ---------- Image6 (the value set and stored by a user) "CUSTOM7" ---------- Image7 (the value set and stored by a user) "CUSTOM8" ---------- Image8 (the value set and stored by a user) "CUSTOM9" ---------- Image9 (the value set and stored by a user) "CUSTOM10" ---------- Image10 (the value set and stored by a user)	
Details	Select Image Mode (Available only in the normal Power ON status) Parameter "CUSTOM1" to "CUSTOM10" is the same as "Image1" to "Image10" displayed when selecting Image on OSD menu. Parameter "IMAGE1" to "IMAGE4" is the same as "CUSTOM1" to "CUSTOM4". The value 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]

8.4.16 CF_IMAGEADJ Command

Command	"CF_IMAGEADJ_%1"[CR]	
%1	"RST"------ Reset Image adjustment "STR1"---- Store current image adjustment to Image 1 "STR2"---- Store current image adjustment to Image 2 "STR3"---- Store current image adjustment to Image 3 "STR4"---- Store current image adjustment to Image 4 "STR5"---- Store current image adjustment to Image 5 "STR6"---- Store current image adjustment to Image 6 "STR7"---- Store current image adjustment to Image 7 "STR8"---- Store current image adjustment to Image 8 "STR9"---- Store current image adjustment to Image 9 "STR10"---- Store current image adjustment to Image 10	
Details	Reset/Store Image adjustment (Available only in the normal Power ON status) "STR1"-"STR10" is the same as "Image1"-"Image10" displayed when selecting "Store" for Image adjustment on OSD menu. The setting value set in "Image1" to "Image10" is stored and can be loaded when turning on the projector again after ALL is OFF.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.17 CF_APCTRL Command

Command	"CF_APCTRL_%1" [CR]	
%1	"L1" ---------- Set Auto Picture Control to L1 operation "L2" ---------- Set Auto Picture Control to L2 operation "OFF" ---------- Set Auto Picture Control OFF	
Details	Set Auto Picture Control (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.18 CF_COLMNSAV Command

Command	"CF_COLMNSAV_%1" [CR]	
%1	"000" – "019" ---------- Specify the area to store	
Details	Store current setting status of Color Management to the area specified by %1. (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.4.19 CF_COLMNLD Command

Command	"CF_COLMNLD_%1" [CR]	
%1	"000" – "019" ---------- Specify the area to store	
Details	Load Color Management setting status from the area specified by %1. (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5 PC Adjust Control Command

8.5.1 CF_FSYNC Command

Command	"CF_FSYNC_%1" [CR]	
%1	"0000-0031" ---------- Directly select Fine Sync setting value "UP" ---------- Current Fine Sync setting value +1 "DN" ---------- Current Fine Sync setting value -1	
Details	Set Fine Sync value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.2 CF_TDOTS Command

Command	"CF_TDOTS_%1" [CR]	
%1	"mmmm - nnnn" ---------- Directly select Total Dots setting value "mmmm" shows minimum value, it is current Display area H + Position H value "nnnn" shows maximum value less than Dot clock 140 MHz for LC-X6 and 170 MHz for LC-SX6 "UP" ---------- Current Total Dots setting value +1 "DN" ---------- Current Total Dots setting value -1	
Details	Set Total Dots value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.3 CF_CLPPHASE Command

Command	"CF_CLPPHASE_%1" [CR]	
%1	"0000-0500" ---------- Directly select Clamp Phase setting value "UP" ---------- Current Clamp Phase setting value +1 "DN" ---------- Current Clamp Phase setting value -1	
Details	Set Clamp Phase value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ Command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.4 CF_CLPWIDTH Command

Command	"CF_CLPWIDTH_%1" [CR]	
%1	"0000-0255" ---------- Directly select Clamp Width setting value "UP" ---------- Current Clamp Width setting value +1 "DN" ---------- Current Clamp Width setting value -1	
Details	Set Clamp Width value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ Command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.5 CF_H-POS Command

Command	"CF_H-POS_%1" [CR]	
%1	"0000-nnnn" -------- Directly select Horizontal Position setting value "nnnn" shows maximum value, it is current Total dots - Display area H value "UP" ---------- Current Horizontal Position setting value +1 "DN" ---------- Current Horizontal Position setting value -1	
Details	Set Horizontal Position (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ Command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.6 CF_V-POS Command

Command	"CF_V-POS_%1" [CR]	
%1	"0000-nnnn" ---------- Directly select Vertical Position setting value "nnnn" shows maximum value, it is current Total Line – Display Area V value "UP" ---------- Current Vertical Position setting value +1 "DN" ---------- Current Vertical Position setting value -1	
Details	Set Vertical Position value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.7 CF_DLINE Command

Command	"CF_DLINE_%1" [CR]	
%1	"0100-nnnn" ---------- Directly select Display Area V setting value "nnnn" shows maximum value, it is current Total Line –Position V value "UP" ---------- Current Display Area V setting value +1 "DN" ---------- Current Display Area V setting value -1	
Details	Set Display Area V value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.8 CF_DDOTS Command

Command	"CF_DDOTS_%1" [CR]	
%1	"0100-nnnn" ---------- Directly select Display Area H setting value Value should be "even number" and if "odd number" is selected, it will be cut down like "0123"→ "0122" "nnnn" shows maximum value, it is current Total Dots - Position H value "UP" ---------- Current Display Area H setting value +1 "DN" ---------- Current Display Area H setting value -1	
Details	Set Display Area H value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.9 CF_VSPHASE Command

Command	"CF_VSPHASE_%1" [CR]	
%1	"0000-0015" ---------- Directly select V-Sync Phase setting value "UP" ---------- Current V-Sync Phase setting value +1 "DN" ---------- Current V-Sync Phase setting value -1	
Details	Set V-Sync Phase value (Available only in the normal Power ON status) The value set by this command will not be saved to the projector. Therefore, when ALL is OFF, the value returns to the original setting. (It stays in Standby mode.) **Note: When %1 is directly specified, it is enable to reflect on the screen only with this command. To show up on the image, issue CF_SETPCADJ Command.**	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.10 CF_SETPCADJ Command

Command	"CF_SETPCADJ_%1" [CR]	
%1	None	
Details	Execute the setting value in PC Adjust Menu to show up on the screen. When %1 of PC Adjust command (Nine commands as below) is directly set by value, they will not be executed. This command "CF_SETPCADJ_%1" is to execute the setting value. (Available only in the normal Power ON status) ---------- CF_FSYNC ---------- CF_TDOTS ---------- CF_CLPPHASE ---------- CF_CLPWIDTH ---------- CF_H-POS ---------- CF_V-POS ---------- CF_DLINE ---------- CF_DDOTS ---------- CF_VSPAHSE	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.11 CF_ORGMODE Command

Command	"CF_ORGMODE_%1" [CR]	
%1	"XGA1", "1080I60" ---------- Etc	
Details	Select original signal of the mode set by PC Adjust (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.12 CF_PCSTORE Command

Command	"CF_PCSTORE_%1" [CR]	
%1	"1" ---------- Store current PC Adjust status to Mode1 "2" ---------- Store current PC Adjust status to Mode2 "3" ---------- Store current PC Adjust status to Mode3 "4" ---------- Store current PC Adjust status to Mode4 "5" ---------- Store current PC Adjust status to Mode5 "6" ---------- Store current PC Adjust status to Mode6 "7" ---------- Store current PC Adjust status to Mode7 "8" ---------- Store current PC Adjust status to Mode8 "9" ---------- Store current PC Adjust status to Mode9 "10" ---------- Store current PC Adjust status to Mode10 "11" ---------- Store current PC Adjust status to Mode11 | "50" ---------- Store current PC Adjust status to Mode50	
Details	Store the current PC Adjust status (each parameter status such as Total dots) to Mode1- Mode50. This command operates the same as storing to Mode1-Mode50 in PC Adjust Menu. (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.5.13 CF_PCMODEFREE Command

Command	"CF_PCMODEFREE_%1" [CR]	
%1	"1" ---------- Free current PC Adjust data in Mode1 "2" ---------- Free current PC Adjust data in Mode2 "3" ---------- Free current PC Adjust data in Mode3 "4" ---------- Free current PC Adjust data in Mode4 "5" ---------- Free current PC Adjust data in Mode5 "6" ---------- Free current PC Adjust data in Mode6 "7" ---------- Free current PC Adjust data in Mode7 "8" ---------- Free current PC Adjust data in Mode8 "9" ---------- Free current PC Adjust data in Mode9 "10" ---------- Free current PC Adjust data in Mode10 "11" ---------- Free current PC Adjust data in Mode11 | "50" ---------- Free current PC Adjust data in Mode50	
Details	Delete the registered data in Custom Mode1 – Mode 50 and turns it to Free. This command operates the same as storing to Mode1-Mode50 in PC Adjust Menu. (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.6 Input Control Command

8.6.1 CF_INPUT Command

Command	"CF_INPUT_%1" [CR]	
%1	"1"---------- Select Input 1 "2"---------- Select Input 2 "3"---------- Select Input 3 "4"---------- Select Input 4 "5"---------- Select Input 5 "UP"---------- Input No.+1 (*Input5 +1 → Input1) "DN"---------- Input No.-1 (*Input1 -1 → Input5)	
Details	Select Input (Available only in the normal Power ON status) The same operation as "INPUT" button of Projector or Remote Control.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.6.2 CF_SOURCE Command

Command	"CF_SOURCE_%1" [CR]	
%1	"DIGITAL" ---------- Select DVI Digital Input for computer "ANALOG" ---------- Select Analog (RGB) Input for computer "VIDEO" ---------- Select Composite Video Input "S-VIDEO" ---------- Select S-Video Input "SCART" ---------- Select SCART Input "HDCP" ---------- Select HDCP Input "YC" ---------- Select Y/C Input "YPBPR" ---------- Select Y,Pb/Cb,Pr/Cr Input "YCBCR" ---------- Select Y,Pb/Cb,Pr/Cr Input "SDI1" ---------- Select SDI1 Input "SDI2" ---------- Select SDI2 Input "NETWORK" ---------- Select Network Capture Input "UP" ---------- Forward select sources to choose for current Input "DN" ---------- Backward select sources to choose for current Input	
Details	Select Source of currently selected Input (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.6.3 CF_INPUT1～5 Command

Command	"CF_INPUT%1_%2" [CR]	
%1	"1" ---------- Specify Input 1 "2" ---------- Specify Input 2 "3" ---------- Specify Input 3 "4" ---------- Specify Input 4 "5" ---------- Specify Input 5	
%2	"DIGITAL" ---------- Select DVI Digital Input for computer "ANALOG" ---------- Select Analog (RGB) Input for computer "VIDEO" ---------- Select Composite Video Input "S-VIDEO" ---------- Select S-Video Input "SCART" ---------- Select SCART Input "HDCP" ---------- Select HDCP Input "YC" ---------- Select Y/C Input "YPBPR" ---------- Select Y,Pb/Cb,Pr/Cr Input "YCBCR" ---------- Select Y,Pb/Cb,Pr/Cr Input "SDI1" ---------- Select SDI1 Input "SDI2" ---------- Select SDI2 Input "NETWORK" ---------- Select Network Capture Input	
Details	Select Input specified by %1 and also Source specified by %2 (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.6.4 CF_SYSTEM Command

Command	"CF_SYSTEM_%1" [CR]	
%1	Input is Computer	"VGA1" ---------- Select VGA1 "VGA2" ---------- Select VGA2 "D-WXGA3" ---------- Select MODE3 "MODE1"–"MODE50" ------- Select MODE1 – MODE50
	Input is Video	"AUTO" ---------- Select System "Auto" "NTSC" ---------- Select NTSC "NTSC443" ---------- Select NTSC4.43 "PAL" ---------- Select PAL "SECAM" ---------- Select SECAM "PAL-M" ---------- Select PAL-M "PAL-N" ---------- Select PAL-N "1080I60" ---------- Select 1080i 60Hz "1080I50" ---------- Select 1080i 50Hz "1035I" ---------- Select 1035i "720P" ---------- Select 720p "575P" ---------- Select 575p "480P" ---------- Select 480p "575I" ---------- Select 575i "480I" ---------- Select 480i "1080P30" ---------- Select 1080p30 "1080PSF30" ---------- Select 1080psf30
Details	Select System of currently selected Input (Available only in the normal Power ON status)	
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	"NORMAL" ---------- Select Normal mode "WIDE" ---------- Select Wide mode "TRUE" ---------- Select True mode "FULL" ---------- Select Full Screen mode "CUSTOM" ---------- Select Custom mode "UP" ---------- Forward select the screen size to choose "DN" ---------- Backward select the screen size to choose	
Details	Select screen size (Available only in the normal Power ON status) The selected screen setting stays after Power is OFF.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.2 CF_VSCALE Command

Command	"CF_VSCALE _%1" [CR]	
%1	"032" ---------- +32 "031" ---------- +31 ⋮ "002" ---------- +2 "001" ---------- +1 "000" ---------- +/- 0 "-01" ---------- -1 "-02" ---------- -2 ⋮ "-31" ---------- -31 "-32" ---------- -32 "UP" ---------- V Scale setting value +1 "DN" ---------- V Scale setting value -1	
Details	Set V Scale value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.3 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" ---------- V Position setting value +1 "DN" ---------- V Position setting value -1	
Details	Set V Position value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.4 CF_HSCALE Command

Command	"CF_HSCALE _%1" [CR]	
%1	"032" ---------- +32 "031" ---------- +31 ⋮ "002" ---------- +2 "001" ---------- +1 "000" ---------- +/- 0 "-01" ---------- -1 "-02" ---------- -2 ⋮ "-31" ---------- -31 "-32" ---------- -32 "UP" ---------- H Scale setting value +1 "DN" ---------- H Scale setting value -1	
Details	Set H Scale value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.5 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" ---------- H Position setting value +1 "DN" ---------- H Position setting value -1	
Details	Set H Position value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.6 CF_DZOOM Command

Command	"CF_DZOOM _%1" [CR]	
%1	"UP" ---------- Expand image size with Digital Zoom "DN" ---------- Compress image size with Digital Zoom	
Details	Set Digital Zoom (Available only in the normal Power ON status and Input for Computer is selected)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.7 CF_DZCENT Command

Command	"CF_DZCENT_%1" [CR]	
%1	"CENT" ---------- Cancel Digital Zoom (CENT: "CENTER")	
Details	Cancel Digital Zoom function (Available only in the normal Power ON status and Input for Computer is selected)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.8 CF_KEYSTONE Command

Command	"CF_KEYSTONE _%1" [CR]	
%1	**For LC-X6 (XGA model)** "UP" ---------- Correct Keystone distortion to reduce upper part of image "FUP" ---------- Correct Keystone distortion to reduce upper part largely "DN" ---------- Correct Keystone distortion to reduce lower part of image "FDN" ---------- Correct Keystone distortion to reduce lower part largely "LEFT" ---------- Correct Keystone distortion to reduce left part of image "FLFT" ---------- Correct Keystone distortion to reduce left part largely "RIGHT" -------- Correct Keystone distortion to reduce right part of image "FRGT" --------- Correct Keystone distortion to reduce right part largely "RST" ---------- Set Keystone OFF **For LC-SX6 (SXGA+ model)** "UP" ---------- Correct Keystone distortion to reduce upper part of image "FUP" ---------- Correct Keystone distortion to reduce upper part largely "DN" ---------- Correct Keystone distortion to reduce lower part of image "FDN" ---------- Correct Keystone distortion to reduce lower part largely "RST" ---------- Set Keystone OFF	
Details	Change Keystone distortion correction (Available only in the normal Power ON status) When reached the correction limit, it accepts the command but does not execute it.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.7.9 CF_KYSTNMODE Command

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

8.8 Lamp Command

8.8.1 CF_LAMPH Command

Command	"CF_LAMPH_%1" [CR]	
%1	"RSTn"(n=1-2) ---------- Reset lamp 1-2 running time	
Details	Reset lamp 1-2 running time (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.8.2 CF_LAMPMODE Command

Command	"CF_LAMPMODE_%1" [CR]	
%1	"FULL" ---------- Set Full Lamp mode status "HALF" ---------- Set 3L mode status (Auto) "1xxx" ---------- Set Lamp1 Fixed mode status "x2xx" ---------- Set Lamp2 Fixed mode status	
Details	Select Lamp mode (Available only in the normal Power ON status) The value set by this command is stored in EEPROM and its setting is effective after ALL is OFF. "FULL" mode means all lamps are ON. "3L" mode means one lamp is ON and the lamp is automatically set. (Tha lamp of less total running time is chosen.)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.8.3 CF_AUTOLAMPCONTRL Command

Command	"CF_AUTOLAMPCONTRL_%1" [CR]	
%1	"NORMAL" ---------- Set Lamp status to Normal mode "ECO" ---------- Set Lamp status to Eco 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 its setting is effective after ALL is OFF.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.9 Sound Command

8.9.1 CF_VOLUME Command

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

8.9.2 CF_BASS Command

Command	"CF_BASS_%1" [CR]	
%1	"–15" - "015" ---------- Directly select Bass (Audio) setting value "015" ---------- +15 "014" ---------- +14 | "002" ---------- +2 "001" ---------- +1 "000" ---------- +/- 0 "-01" ---------- -1 "-02" ---------- -2 | "-14" ---------- -14 "-15" ---------- -15 "UP" ---------- Current setting value +1 "DN" ---------- Current setting value -1	
Details	Set Bass (Audio) value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.9.3 CF_TREBLE Command

Command	"CF_TREBLE_%1" [CR]	
%1	"–15" - "015" ---------- Directly select Treble (Audio) setting value "015" ---------- +15 "014" ---------- +14 | "002" ---------- +2 "001" ---------- +1 "000" ---------- +/- 0 "-01" ---------- -1 "-02" ---------- -2 | "-14" ---------- -14 "-15" ---------- -15 "UP" ---------- Current setting value +1 "DN" ---------- Current setting value -1	
Details	Set Treble (Audio) setting value (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.9.4 CF_MUTE Command

Command	"CF_MUTE_%1" [CR]	
%1	"ON" ---------- Set Sound Mute ON "OFF" ---------- Set Sound Mute OFF	
Details	Control Sound Mute ON/OFF (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10 Setting Command

8.10.1 CF_BACKGND Command

Command	"CF_BACKGND_%1" [CR]	
%1	"BLUE" ---------- Select Blue Back "MYLOGO" ---------- Select My Logo "BLACK" ---------- Select Black Back "UP" ---------- Switch forward (Blue Back→My Logo→Black Back→Blue Back) "DN" --------- Switch backward (Blue Back→Black Back→My Logo→Blue Back)	
Details	Set Screen status when there is no signal (Available only in the normal Power ON status) 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]

8.10.2 CF_DISP Command

Command	"CF_DISP_%1" [CR]	
%1	"ON" ---------- Select On Screen Display "OFF" ---------- Cancel On Screen Display "UP" ---------- Switch forward (ON→OFF→ON→---) "DN" ---------- Switch backward (ON→OFF→ON→---) * The same operation for "UP" and "DN" as this model has only "ON" / "OFF".	
Details	Set/Cancel On Screen Display (Available only in the normal Power ON status) The value 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]

8.10.3 CF_LOGO Command

Command	"CF_LOGO_%1_%2" [CR]	
%1	"0000" – "9999" ---------- Directly set Logo PIN code	
%2	"DFLT" ---------- Select Logo of Factory Default "MYLOGO" ---------- Select My Logo "OFF" ----------Cancel Logo display "UP" ---------- Select functions to choose forward "DN" ---------- Select functions to choose backward	
Details	Set Logo status (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF. Set Logo PIN code at %1 When Logo Lock is set: PIN code accords ---------- Command is valid (Acceptable) PIN code differs ---------- Command is invalid (Error code is 102) PIN code is out of %1 range ---------- Command is invalid (Error code is 102) When Logo 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) Note) When Logo Lock is set and Logo PIN code is accorded by this command, it can switch Logo but cannot cancel Logo Lock (Stays in Logo Lock set status).	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.4 CF_CEIL Command

Command	"CF_CEIL_%1" [CR]	
%1	"ON" ---------- Select Ceiling "OFF" ---------- Cancel Ceiling	
Details	Set/Cancel Ceiling (Available only in the normal Power ON status) 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_REAR Command

Command	"CF_REAR_%1" [CR]	
%1	"ON" ---------- Select Rear "OFF" ---------- Cancel Rear	
Details	Set/Cancel Rear (Available only in the normal Power ON status) When Rear is ON, image is left/right reversed. 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]

8.10.6 CF_RFCH Command

Command	"CF_RFCH_%1" [CR]	
%1	"001"-"004" ---------- Select Channel1 - Channcel4	
Details	Select RF Remote Control Channel (Available only in the normal Power ON status) 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]

8.10.7 CF_RFID Command

Command	"CF_RFID_%1" [CR]	
%1	"001"-"008" ---------- Select ID1 - ID8	
Details	Select RF Remote Control Code (Available only in the normal Power ON status) 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]

8.10.8 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 "CHI" ---------- Select Chinese "KOR" ---------- Select Korean "JPN" ---------- Select Japanese "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 its setting is effective after ALL is OFF.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.9 CF_ON-STA Command

Command	"CF_ON-STA_%1" [CR]	
%1	"ON" ---------- Select Power On Start "OFF" ---------- Cancel Power On Start	
Details	Set/Cancel Power ON Start (Available only in the normal Power ON status) 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]

8.10.10 CF_P-MANE Command

Command	"CF_P-MANE_%1" [CR]	
%1	"OFF" ---------- Set Power Management OFF "READY" ---------- Set Power Management Ready "SHUTDOWN" ---------- Set Power Management to Shut Down mode "UP" ---------- Switch forward (Off→Ready→Shut down→Off) "DN" ---------- Switch backward (Off→Shut down→Ready→Off)	
Details	Set/Cancel Power Management. (Available only in the normal Power ON status) 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]

8.10.11 CF_P-MANETIME Command

Command	"CF_P-MANETIME_%1" [CR]	
%1	"01" - "60" ---------- Directly select setting time by the minute "UP" ---------- Plus one minute "DN" ---------- Minus one minute	
Details	Set Power Management time. (Available only in the normal Power ON status) 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]

8.10.12 CF_FANSPEED Command

Command	"CF_FANSPEED_%1" [CR]	
%1	"MAX" ---------- Select maximum fan speed "NOR" ---------- Select normal fan speed	
Details	Switch Fan Control Speed (Available only in the normal Power ON status) 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]

8.10.13 CF_KEYDIS Command

Command	"CF_KEYDIS_%1" [CR]	
%1	"NONE" ---------- RC & KEY are valid "RC" ---------- RC is invalid "KEY" ---------- KEY is invalid	
Details	Set a ban on the use of RC/KEY (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.14 CF_SHUTLVL Command

Command	"CF_SHUTLVL_%1" [CR]	
%1	"ON" ---------- Release Shutter "NORMAL" ---------- Open Shutter "HCONT" ---------- Release Shutter in High Contrast mode "UP" ---------- Forward select functions to choose "DN" ---------- Backward select functions to choose	
Details	Control Shutter Release/Opening (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.15 CF_SHUTRCPROT Command

Command	"CF_SHUTRCPROT_%1" [CR]	
%1	"ON" ---------- Prohibit RC operation of Shutter (Protection On) "OFF" ---------- Permit RC operation of Shutter (Protection Off)	
Details	Set a ban on RC operation of Shutter (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.16 CF_SHUTKEYPROT Command

Command	"CF_SHUTKEYPROT_%1" [CR]	
%1	"ON" ---------- Prohibit Control Key operation of Shutter (Protection On) "OFF" ---------- Permit Control Key operation of Shutter (Protection Off)	
Details	Set a ban on Control Key operation of Shutter (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.17 CF_SHUTH Command

Command	"CF_SHUTH_%1" [CR]	
%1	"005" – "180" ---------- Directly select setting time by the minute "UP" ---------- Plus one minute "DN" ---------- Minus one minute	
Details	Set Shutter Management time (Available only in the normal Power ON status) 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]

8.10.18 CF_FDEFAULT Command

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

8.10.19 CF_MONIOUT Command

Command	"CF_MONIOUT_%1" [CR]	
%1	"ON" ---------- Select Monitor Out "OFF" ---------- Cancel Monitor Out	
Details	Set Monitor Out (Available only in the normal Power ON status)	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.10.20 CF_PJPINCODE Command

Command	"CF_PJPINCODE_%1" [CR]	
%1	"0000" – "9999" ---------- Directly set PJ PIN code	
Details	Set Logo status (Available only in the normal Power ON status) The status set by this command is stored in EEPROM and its setting is effective after ALL is OFF. Set PJ PIN code at %1 When PJ Lock is set: PIN code accords ---------- Command is valid (Acceptable) PIN code differs ---------- Command is invalid (Error code is 102) PIN code is out of %1 range ---------- Command is invalid (Error code is 102) When PJ 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) This command is only valid when "PJ PIN code" dialog is displayed to enter PIN code after Power is ON and Countdown is completed. When PJ lock is set to "On 1", it needs to send this command every time the projector is turned on.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.11 Special Command

8.11.1 CF_FILH Command

Command	"CF_FILH_%1" [CR]	
%1	"RST" ---------- Reset "NOP" --------- No Reset	
Details	Reset the filter running time of Projector	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.11.2 CF_SMKH Command

Command	"CF_SMKH_%1" [CR]	
%1	"RST" ---------- Reset "NOP" --------- No Reset	
Details	Reset the filter running time of Smoke Resistant Box	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.12 Other Command

8.12.1 CF_KEYEMU Command

Command	"CF_KEYEMU_%1" [CR]	
%1	"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 "AUTOPC" ---------- Execute Auto PC Adj. The same operation as "AUTO PC" button of RC When it is sent during Auto PC Adj. operation, the operation is stopped. The same is done when pressing "AUTO PC" button of RC.	
Details	The same operation as RC/Control Key.	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.12.2 CF_MENU Command

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

8.12.3 CF_FREEZE Command

Command	"CF_FREEZE_%1" [CR]	
%1	"ON" ---------- Set Freeze "OFF" ---------- Cancel Freeze "UP" ---------- Switch forward (ON→OFF→ON→---) "DN" ---------- Switch backward (ON→OFF→ON→---) * The same operation for "UP" and "DN" as this model has only "ON" / "OFF".	
Details	Set Freeze ON/OFF	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

8.12.4 CF_POWER Command

Command	"CF_POWER_%1" [CR]	
%1	"ON" ---------- Power ON "OFF" ---------- Power OFF Note) It returns "Error Code" [CR], which shows the command execution is not possible, depening on the projector status. (See [8.3] for details) Note) Returning the response "000" [CR] does not always mean that the status has already moved to Power ON. Ex: When the temperature approaches abnormal status after returning "000" [CR] to the command CF POWER ON. Therefore, it needs to get the projector status with Status Read command.	
Details	Set Power ON/OFF	
Response	Acceptable	"000" [CR]
	Unacceptable	"Error Code" [CR]

9. Status Read Command

9.1 Format

1) PC issues commands in format as below:

"CR_ COMMAND" [CR]

Command: Character Line

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

"000_" %1 [CR]

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

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

9.2 Transfer Example

Get total dots of projector by Expand Serial Commands

PC → PJ: "CR_TDOTS" [CR]

PC ← PJ: "000_1344" [CR]

9.3 Operation Condition

Basically it should be always operated.

9.4 Image Status Read Command

9.4.1 CR_BRIGHT Command

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

9.4.2 CR_CONT Command

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

9.4.3 CR_COLOR Command

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

9.4.4 CR_TINT Command

Command	"CR_TINT" CR]	
Details	Get Tint value	
Response	Acceptable	"000_%1" [CR]
	%1	"000" – "063"
	Unacceptable	"Error Code" [CR]

9.4.5 CR_SHARP Command

Command	"CR_SHARP" [CR]	
Details	Get Sharpness value	
Response	Acceptable	"000_%1" [CR]
	%1	"000" – "015"
	Unacceptable	"Error Code" [CR]

9.4.6 CR_GAMMA Command

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

9.4.7 CR_WBAL-R Command

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

9.4.8 CR_WBAL-G Command

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

9.4.9 CR_WBAL-B Command

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

9.4.10 CR_COLTEMP Command

Command	"CR_COLTEMP" [CR]	
Details	Get Color Temp. 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]

9.4.11 CR_DENHCR Command

Command	"CR_DENHCR" [CR]	
Details	Get Detail Enhancer setting value for Faroudja Input	
Response	Acceptable	"000_%1" [CR]
	%1	"000" – "015"
	Unacceptable	"Error Code" [CR]

9.4.12 CR_NZRED Command

Command	"CR_NZRED" [CR]	
Details	Get Noise Reduction setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"OFF" ---------- Cancel Noise Reduction "L1" ---------- Noise Reduction L1 "L2" ---------- Noise Reduction L2
	Unacceptable	"Error Code" [CR]

9.4.13 CR_PROGV Command

Command	"CR_PROGV" [CR]	
Details	Get Progressive scan setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"OFF" ---------- Cancel Progressive scan "ON" ---------- Set Progressive scan
	Unacceptable	"Error Code" [CR]

9.4.14 CR_FILM Command

Command	"CR_FILM" [CR]	
Details	Get Film mode setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"OFF" ---------- Cancel Film mode "ON" ---------- Set Film mode
	Unacceptable	"Error Code" [CR]

9.4.15 CR_IMAGE Command

Command	"CR_IMAGE" [CR]	
Details	Get image setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"STANDPC" ---------- Standard (PC) "STANDAV" ---------- Standard (AV) "REAL" ---------- Real "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]

9.4.16 CR_IMGGMD Command

Command	"CR_IMGGMD" [CR]	
Details	Get Standard (PC) / Standard (AV) / Real / Cinema of Image Gamma setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"STDPC" ---------- Standard (PC) "STDAV" ---------- Standard (AV) "REL" ---------- Real "CNM" ---------- Cinema
	Unacceptable	"Error Code" [CR]

9.4.17 CR_APCTRL Command

Command	"CR_APCTRL" [CR]	
Details	Get Auto Picture Control setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"L1" ---------- Operate Auto Picture Control with Level1 "L2" ---------- Operate Auto Picture Control with Level2 "OFF" ---------- Set Auto Picture Control OFF
	Unacceptable	"Error Code" [CR]

9.5 PC Adjust Status Read Command

9.5.1 CR_FSYNC Command

Command	"CR_FSYNC" [CR]	
Details	Get Fine Sync value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – "0031"
	Unacceptable	"Error Code" [CR]

9.5.2 CR_TDOTS Command

Command	"CR_TDOTS" [CR]	
Details	Get Total Dots value	
Response	Acceptable	"000_%1" [CR]
	%1	"mmmm" – "nnnn" (mmmm = Display area H + Position H) (nnnn = Maximum value less than Dot clock 140 MHz for LC-X6 and 170 MHz for LC-SX6)
	Unacceptable	"Error Code" [CR]

9.5.3 CR_CLPPHASE Command

Command	"CR_CLPPHASE" [CR]	
Details	Get Clamp Phase value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – " 0500"
	Unacceptable	"Error Code" [CR]

9.5.4 CR_CLPWIDTH Command

Command	"CR_CLPWIDTH" [CR]	
Details	Get Clamp Width value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – " 0255"
	Unacceptable	"Error Code" [CR]

9.5.5 CR_H-POS Command

Command	"CR_H-POS" [CR]	
Details	Get Horizontal Position value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – "nnnn" (nnnn = Total Dots – Display area H)
	Unacceptable	"Error Code" [CR]

9.5.6 CR_V-POS Command

Command	"CR_V-POS" [CR]	
Details	Get Vertical Position value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – " nnnn" (nnnn = Total Line – Display area V)
	Unacceptable	"Error Code" [CR]

9.5.7 CR_DLINE Command

Command	"CR_DLINE" [CR]	
Details	Get Display Line value	
Response	Acceptable	"000_%1" [CR]
	%1	"0100" – " nnnn" (nnnn = Total Line – Position V)
	Unacceptable	"Error Code" [CR]

9.5.8 CR_DDOTS Command

Command	"CR_DDOTS" [CR]	
Details	Get Display Dots value	
Response	Acceptable	"000_%1" [CR]
	%1	"0100" – "nnnn" (nnnn = Total Dots – Position H)
	Unacceptable	"Error Code" [CR]

9.5.9 CR_VSPHASE Command

Command	"CR_VSPHASE" [CR]	
Details	Get V-Sync Phase value	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – " 0015"
	Unacceptable	"Error Code" [CR]

9.5.10 CR_ORGMODE Command

Command	"CR_ORGMODE" [CR]	
Details	Get the original signal of current selected Mode that is set by PC Adj. When MODE1-MODE50 is not selected, get the current signal.	
Response	Acceptable	"000_%1" [CR]
	%1	"XGA1" "1080I60" ---------- Etc
	Unacceptable	"Error Code" [CR]

9.5.11 CR_PCSTORE Command

Command	"CR_PCSTORE" [CR]	
Details	Get Free or Stored status of MODE1 - MODE50 for PC Adjust. Each data consist of 13 bytes and each byte represents 4 modes data in hexadecimal. Bit3 Bit2 Bit1 Bit0 +———————————— -- -- MODE50, MODE49 | +————————————-- MODE48, MODE47, MODE46, MODE45 | | +————————————-- MODE44, MODE43, MODE42, MODE41 | | | +—— MODE40, MODE39, MODE38, MODE37 | | | | +— MODE36, MODE35, MODE34, MODE33 | | | | | +— MODE32, MODE31, MODE30, MODE29 | | | | | | +— MODE28, MODE27, MODE26, MODE25 | | | | | | | +— MODE24, MODE23, MODE22, MODE21 | | | | | | | | +— MODE20, MODE19, MODE18, MODE17 | | | | | | | | | +— MODE16, MODE15, MODE14, MODE13 | | | | | | | | | | +——— MODE12, MODE11, MODE10, MODE 9 | | | | | | | | | | | +—— MODE 8, MODE 7, MODE 6, MODE 5 | | | | | | | | | | | | +— MODE 4, MODE 3, MODE 2, MODE 1 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ 0 0 0 0 0 0 0 0 0 0 0 0 0 （0：Free、1：Stored）	
Response	Acceptable	"000_%1" [CR]
	%1	"0000000000000" ---------- ALL Free "0000000000001" ---------- Mode1 is Stored, others are Free "2000000000000" ---------- Mode50 is Stored, others are Free "3FFFFFFFFFFFF" ------- ALL Stored
	Unacceptable	"Error Code" [CR]

9.5.12 CR_SETPCADJ Command

Command	"CR_SETPCADJ" [CR]	
Details	Get PC signal for current system	
Response	Acceptable	"000_%1" [CR]
	%1	"PAL" "SECAM" "XGA1" "1080I60" "MODE16" -------- Etc.
	Unacceptable	"Error Code" [CR]

9.6 Video Status Read Command

9.6.1 CR_SERSYS Command

Command	"CR_SERSYS" [CR]	
Details	Get current selected signal Only available when Input is video (N/A when Input is computer)	
Response	Acceptable	"000_%1" [CR]
	%1	"1080I60" --------- 1080i 60Hz "1080I50" --------- 1080i 50Hz "1035I". ---------- 1035i "720P" ---------- 720p "575P" ---------- 575p "480P" ---------- 480p "575I" -------- 575i (includes Composite signal such as PAL) "480I" -------- 480i (includes Composite signal such as NTSC) "NO_SIGNAL" ---------- There is no signal
	Unacceptable	"Error Code" [CR]

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" – "5"
	Unacceptable	"Error Code" [CR]

9.7.2 CR_SOURCE Command

Command	"CR_SOURCE" [CR]	
Details	Get selected source of currently selected Input	
Response	Acceptable	"000_%1" [CR]
	%1	"DIGITAL" ------ DVI Digital Input for computer is selected "ANALOG" ----- Analog (RGB) Input for computer is selected "VIDEO" --------- Video Input is selected "S-VIDEO" ------ S-VIDEO Input is selected "SCART" -------- SCART Input is selected "HDCP" ---------- HDCP Input is selected "YC" ---------- Y/C Input is selected "YCBCR" --------- Y,Pb/Cb,Pr/Cr Input is selected "SDI1" ---------- SDI1 Input is selected "SDI2" ---------- SDI2 Input is selected "NETWORK" -------- Network Capture Input is selected "BLANK" ---------- Mode status with no Source
	Unacceptable	"Error Code" [CR]

9.7.3 CR_SRCINP1 Command

Command	"CR_SRCINP1" [CR]	
Details	Get Source of INPUT1	
Response	Acceptable	"000_%1" [CR]
	%1	"DIGITAL" ------ DVI Digital Input for computer is selected "ANALOG" ----- Analog (RGB) Input for computer is selected "SCART" -------- SCART Input is selected "HDCP" ---------- HDCP Input is selected "BLANK" -------- There is no source
	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	"ANALOG" ----- Analog (RGB) Input for computer is selected "VIDEO" -------- Video Input is selected "YCBCR" ------- Y,Pb/Cb,Pr/Cr Input is selected "BLANK" ------- There is no source
	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" ---------- Video Input is selected "S-VIDEO" --------- S-VIDEO Input is selected "YCBCR" ---------- Y,Pb/Cb,Pr/Cr Input is selected "BLANK" ---------- There is no source
	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	"DIGITAL" ------ DVI Digital Input for computer is selected "ANALOG" ----- Analog (RGB) Input for computer is selected "VIDEO" --------- Video Input is selected "S-VIDEO" ------ S-VIDEO Input is selected "SCART" -------- SCART Input is selected "HDCP" ---------- HDCP Input is selected "YC" ---------- Y/C Input is selected "YCBCR" --------- Y,Pb/Cb,Pr/Cr Input is selected "SDI1" ---------- SDI1 Input is selected "SDI2" ---------- SDI2 Input is selected "NETWORK" ---- Network Capture Input is selected "BLANK" --------- There is no source "NOCARD" ------- There is no card inserted
	Unacceptable	"Error Code" [CR]

9.7.7 CR_SRCINP5 Command

Command	"CR_SRCINP5" [CR]	
Details	Get Source of INPUT5	
Response	Acceptable	"000_%1" [CR]
	%1	"DIGITAL" ------- DVI Digital Input for computer is selected "HDCP" ---------- HDCP Input is selected "SDI1" ---------- SDI1 Input is selected "SDI2" ---------- SDI2 Input is selected "NETWORK" ---- Network Capture Input is selected "BLANK" --------- There is no source "NOCARD" ------ There is no card inserted
	Unacceptable	"Error Code" [CR]

9.7.8 CR_SYSTEM Command

Command	"CR_SYSTEM" [CR]		
Details	Get selected system of currently selected Input		
Response	Acceptable		"000_%1" [CR]
	%1	Input is PC	"VGA1" ---------- VGA1 is selected "VGA2" ---------- VGA2 is selected "D-WXGA3" ---------- D-WXGA3 is selected "MODE1" – "MODE50" ---------- MODE1-50 is selected
		Input is Video	"AUTO" ---------- Auto is selected "NTSC" ---------- NTSC is selected "NTSC443" ---------- NTSC4.43 is selected "PAL" ---------- PAL is selected "SECAM" ---------- SECAM is selected "PAL-M" ---------- PAL-M is selected "PAL-N" ---------- PAL-N is selected "1080I60" ---------- 1080i60Hz is selected "1080I50" ---------- 1080i50Hz is selected "1035I" ---------- 1035i is selected "720P ---------- 720p is selected "575P" ---------- 575p is selected "480P" ---------- 480p is selected "575I" ---------- 575i is selected "480I" ---------- 480i is selected "1080P30" ---------- 1080p30 is selected "1080PSF30" ---------- 1080psf30 is selected
	Unacceptable		"Error Code" [CR]

9.7.9 CR_SYSLIST Command

Command	"CR_SYSLIST" [CR]	
Details	Get valid items in System list	
Response	Acceptable	"000_%1_%2_---_%x" [CR]
	%1	Example: "XGA1" ---------- XGA1 is in the list "AUTO" ---------- Auto is in the list "NTSC" ---------- NTSC is in the list "1080I60" ---------- 1080i60Hz is in the list "575I" ---------- 575i is in the list "480I" ---------- 480i is in the list
	Unacceptable	"Error Code" [CR]

9.7.10 CR_MODELIST Command

Command	"CR_MODELIST" [CR]	
Details	Get valid items in Mode list	
Response	Acceptable	"000_%1_%2_---_%x" [CR]
	%1	"MODE1" "MODE2" "MODE3" ⏐ "MODE48" "MODE49" "MODE50"
	Unacceptable	"Error Code" [CR]

9.7.11 CR_NMSLOT4 Command

Command	"CR_NMSLOT4" [CR]	
Details	Get a card type inserted to Input4	
Response	Acceptable	"000_%1" [CR]
	%1	"VIDEO" ---------- Video Card "Progressive" ---------- Faroudja Card "NETWORK" ---------- Network Card "5BNC ---------- 5BNC Card "DVI" ---------- DVI Card "HDCP-DVI" ---------- HDCP-DVI Card "DUAL-SDI" ---------- DUAL-SDI Card "WARP" ---------- Warp & Blending Card "VGA" ---------- D-Sub Card "NOTERMINAL" ---------- There is no card inserted
	Unacceptable	"Error Code" [CR]

9.7.12 CR_NMSLOT5 Command

Command	"CR_NMSLOT5" [CR]	
Details	Get a card type inserted to Input5	
Response	Acceptable	"000_%1" [CR]
	%1	"NETWORK" ---------- Network Card "DVI" ---------- DVI Card "HDCP-DVI" ---------- HDCP-DVI Card "DUAL-SDI" ---------- DUAL-SDI Card "WARP" ---------- Warp & Blending Card "NOTERMINAL" ---------- There is no card inserted
	Unacceptable	"Error Code" [CR]

9.7.13 CR_IDSLOT4 Command

Command	"CR_IDSLOT4" [CR]	
Details	Get ID information of Input4. This command is to recognize the inserted card and specify the valid Input source.	
Response	Acceptable	"000_%1" [CR]
	%1	"00" ---------- Video Card Valid Input Source: VIDEO, YC, S-VIDEO "01" ---------- D-sub Card Valid Input Source: ANALOG "02" ---------- Faroudja Card Valid Input Source: VIDEO, YC, S-VIDEO, YCBCR "05" ---------- DVI Card Valid Input Source: DIGITAL, ANALOG "08" ---------- HD-SDI Card Valid Input Source: SDI1, SDI2 "10" ---------- Warp & Blending Card Valid Input Source: DIGITAL, HDCP "11" ---------- HDCP-DVI Card (Not for SCART) Valid Input Source: DIGITAL, ANALOG, HDCP "12" ---------- Component Card (Not for YPBPR) Valid Input Source: ANALOG "13" ---------- Network Card (Viewer compatible) Valid Input Source: Network (No selection) "99" ---------- There is no card inserted
	Unacceptable	"Error Code" [CR]

9.7.14 CR_IDSLOT5 Command

Command	"CR_IDSLOT5" [CR]	
Details	Get ID information of Input5. This command is to recognize the inserted card and specify the valid Input source.	
Response	Acceptable	"000_%1" [CR]
	%1	"13" ---------- Network Card (Viewer compatible) Valid Input Source: Network (No selection) "14" ---------- DVI Card (Not for ANALOG) Valid Input Source: DIGITAL "08" ---------- HD-SDI Card Valid Input Source: SDI1, SDI2 "10" ---------- Warp & Blending Card Valid Input Source: DIGITAL, HDCP "15" ---------- HDCP-DVI Card (Not for ANALOG/SCART) Valid Input Source: DIGITAL, HDCP "99" ---------- There is no card inserted
	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 "WIDE" ---------- Wide mode "TRUE" ---------- True mode "FULL" ---------- Full Screen mode "CUSTOM" ---------- Custom mode
	Unacceptable	"Error Code" [CR]

9.8.2 CR_ VSCALE Command

Command	"CR_VSCALE" [CR]	
Details	Get V Scale setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"-32" – "032"
	Unacceptable	"Error Code" [CR]

9.8.3 CR_ VPOS Command

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

9.8.4 CR_ HSCALE Command

Command	"CR_HSCALE" [CR]	
Details	Get H Scale setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"-32" – "032"
	Unacceptable	"Error Code" [CR]

9.8.5 CR_ HPOS Command

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

9.8.6 CR_ KYSTNMODE Command

Command	"CR_KYSTNMODE" [CR]	
Details	Get Keystone Store Mode setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"STR" ---------- Store mode is "Store" "RST" ---------- Store mode is "Reset"
	Unacceptable	"Error Code" [CR]

9.9 Lamp Status Read Command

9.9.1 CR_LAMPREPL Command

Command	"CR_LAMPREPL" [CR]	
Details	Get the information of Lamp Replacement time	
Response	Acceptable	"000_%1" [CR]
	%1	"n##" n ---------- shows 2 lamps are used # ---------- "Y"means over lamp replacement time, and "N" means inside lamp replacement time. Show the status for each lamp orderly. Example: "2YN" ---------- It needs a new lamp for No.1 but does not need for No.2.
	Unacceptable	"?" [CR]

9.9.2 CR_LAMPH Command

Command	"CR_LAMPH" [CR]	
Details	Get Lamp running time	
Response	Acceptable	"000_%1_%2" [CR]
	%1	There is Lamp No.1 data, one space, and Lamp No.2 data… Lamp running time is represented as a 5-digit number. %1 = Lamp No.1 %2 = Lamp No.2 Example: "00410_00410" [CR] →Lamp No.1 = 410 Hours Lamp No.2 = 410 Hours
	Unacceptable	"Error Code" [CR]

9.9.3 CR_LAMPMODE Command

Command	"CR_LAMPMODE" [CR]	
Details	Get Lamp Mode setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"FULL"---------- Select Full Lamp mode "HALF"---------- Select 3L Lamp mode (Auto) "1xxx" ---------- Select Lamp 1 fixed mode "x2xx" ---------- Select Lamp 2 fixed mode
	Unacceptable	"Error Code" [CR]

9.9.4 CR_AUTOLAMPCONTRL Command

Command	"CR_AUTOLAMPCONTRL" [CR]	
Details	Get Lamp adjustment mode (Available only in the normal Power ON status)	
Response	Acceptable	"000_%1" [CR]
	%1	"NORMAL" ---------- Lamp mode is Normal status "ECO" ---------- Lamp mode is Eco status "AUTO" ---------- Lamp mode is Auto status
	Unacceptable	"Error Code" [CR]

9.9.5 CR_LAMPSTS Command

Command	"CR_LAMPSTS" [CR]	
Details	Get Lamp status	
Response	Acceptable	"000_%1" [CR]
	%1	"n##" The first character shows 2-Lamp system. Subsequent characters show the lamp status orderly as below: "I" ---------- Lamp is ON "O" ---------- Lamp is OFF "X" ---------- Lamp Failure Example: "2IO" ---------- Lamp No.1 is ON and Lamp No.2 is OFF
	Unacceptable	"Error Code" [CR]

9.9.6 CR_INFLAMP Command

Command	"CR_INFLAMP" [CR]	
Details	Get Lamp mode switching status	
Response	Acceptable	"000_%1" [CR]
	%1	"NML" ---------- Normal (not switching lamp) "CNG" ---------- Ready to switch lamp
	Unacceptable	"Error Code" [CR]

9.9.7 CR_PROJH Command

Command	"CR_PROJH" [CR]	
Details	Get total running time of Projector by hour (h)	
Response	Acceptable	"000_%1" [CR]
	%1	"0000000" – "0065535"
	Unacceptable	"Error Code" [CR]

9.9.8 CR_HMLAMP Command

Command	"CR_HMLAMP" [CR]	
Details	Get total lamp number	
Response	Acceptable	"000_%1" [CR]
	%1	"001" – "002"
	Unacceptable	"Error Code" [CR]

9.10 Sound Status Read Command

9.10.1 CR_VOLUME Command

Command	"CR_VOLUME "[CR]	
Details	Get volume value of user control	
Response	Acceptable	"000_%1" [CR]
	%1	"000" – "063"
	Unacceptable	"Error Code" [CR]

9.10.2 CR_MUTE Command

Command	"CR_MUTE" [CR]	
Details	Get sound mute setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Set Sound Mute ON "OFF" ---------- Cancel Sound Mute
	Unacceptable	"Error Code" [CR]

9.10.3 CR_BASS Command

Command	"CR_BASS" [CR]	
Details	Get BASS (Audio) setting value	
Response	Acceptable	"000_%1" [CR]
	%1	"-15" – "015"
	Unacceptable	"Error Code" [CR]

9.10.4 CR_TREBLE Command

Command	"CR_TREBLE" [CR]	
Details	Get TREBLE (Audio) setting value	
Response	Acceptable	"000_%1" [CR]
	%1	"-15" – "015"
	Unacceptable	"Error Code" [CR]

9.11 Setting Status Read Command

9.11.1 CR_BACKGND Command

Command	"CR_BACKGND" [CR]	
Details	Get screen setting status when there is no signal	
Response	Acceptable	"000_%1" [CR]
	%1	"BLUE" ---------- Set Blue Back "MY LOGO" ---------- Set My Logo "BLACK" ---------- Set Black Back
	Unacceptable	"Error Code" [CR]

9.11.2 CR_DISP Cmmand

Command	“CR_DISP” [CR]	
Details	Get Display setting status	
Response	Acceptable	“000_%1” [CR]
	%1	“ON” ---------- Set Display ON “OFF” ---------- Cancel Display
	Unacceptable	“Error Code” [CR]

9.11.3 CR_LOGO Command

Command	“CR_LOGO” [CR]	
Details	Get Logo setting status	
Response	Acceptable	“000_%1” [CR]
	%1	“DFLT” ---------- Set Default Logo “MY LOGO” ---------- Set My Logo “OFF” ---------- Cancel Logo
	Unacceptable	“Error Code” [CR]

9.11.4 CR_LOGOLOCK Command

Command	“CR_LOGOLOCK” [CR]	
Details	Get Logo Lock ON/OFF setting status	
Response	Acceptable	“000_%1” [CR]
	%1	“ON” ---------- Set Logo Lock ON “OFF” ---------- Set Logo Lock OFF
	Unacceptable	“Error Code” [CR]

9.11.5 CR_CEIL Command

Command	“CR_CEIL” [CR]	
Details	Get Ceiling setting status	
Response	Acceptable	“000_%1” [CR]
	%1	“ON” ---------- Set Ceiling “OFF” ---------- Cancel Ceiling
	Unacceptable	“Error Code” [CR]

9.11.6 CF_REAR Command

Command	“CF_REAR” [CR]	
Details	Get Rear setting status	
Response	Acceptable	“000_%1” [CR]
	%1	“ON” ---------- Set Rear “OFF” ---------- Cancel Rear
	Unacceptable	“Error Code” [CR]

9.11.7 CF_RFCH Command

Command	"CF_RFCH" [CR]	
Details	Get selected Channel status of RF Remote Control	
Response	Acceptable	"000_%1" [CR]
	%1	"001" ---------- Channel 1 "002" ---------- Channel 2 "003" ---------- Channel 3 "004" ---------- Channel 4
	Unacceptable	"Error Code" [CR]

9.11.8 CF_RFID Command

Command	"CR_RFID" [CR]	
Details	Get selected ID status of RF Remote Control	
Response	Acceptable	"000_%1" [CR]
	%1	"001" ---------- ID 1 "002" ---------- ID 2 : "007" ---------- ID 7 "008" ---------- ID 8
	Unacceptable	"Error Code" [CR]

9.11.9 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 "CHI" ---------- Chinese is selected "KOR" ---------- Korean is selected "JPN" ---------- Japanese is selected "RUS" ---------- Russian is selected
	Unacceptable	"Error Code" [CR]

9.11.10 CR_ON-STA Command

Command	"CR_ON-STA" [CR]	
Details	Get Power ON Start setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Set Power ON Start "OFF" ---------- Cancel Power ON Start
	Unacceptable	"Error Code" [CR]

9.11.11 CR_P-MANE Command

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

9.11.12 CR_P-MANETIME Command

Command	"CR_P-MAETIME" [CR]	
Details	Get time setting to start Power Management	
Response	Acceptable	"000_%1" [CR]
	%1	"01" – "60" ---------- 1 minute to 60 minutes
	Unacceptable	"Error Code" [CR]

9.11.13 CR_FANSPEED Command

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

9.11.14 CR_KEYDIS Command

Command	"CR_FANSPEED" [CR]	
Details	Get selected Fan Control Speed	
Response	Acceptable	"000_%1" [CR]
	%1	"NONE" ---------- RC & KEY are valid "RC" ---------- RC is invalid "KEY" ---------- KEY is invalid
	Unacceptable	"Error Code" [CR]

9.11.15 CR_SHUTLVL Command

Command	"CR_SHUTLVL" [CR]	
Details	Get Shutter Release/Opening status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Shutter is released "NORMAL" ------ Shutter is opened "HCONT" --------- Shutter is released in High Contrast mode
	Unacceptable	"Error Code" [CR]

9.11.16 CR_SHUTRCPROT Command

Command	"CR_SHUTRCPROT_%1" [CR]	
Details	Get the status if RC operation of Shutter is prohibited or not	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- RC operation of Shutter is prohibited "OFF" ---------- RC operation of Shutter is permitted
	Unacceptable	"Error Code" [CR]

9.11.17 CR_SHUTKEYPROT Command

Command	"CR_ SHUTKEYPROT" [CR]	
Details	Get the status if Key operation of Shutter is prohibited or not	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Key operation of Shutter is prohibited "OFF" ---------- Key operation of Shutter is permited
	Unacceptable	"Error Code" [CR]

9.11.18 CR_SHUTH Command

Command	"CR_SHUTH" [CR]	
Details	Get Shutter Management setting time	
Response	Acceptable	"000_%1" [CR]
	%1	"005" ---------- 5 minutes "006" ---------- 6 minutes : "179" ---------- 179 minutes "180" ---------- 180 minutes
	Unacceptable	"Error Code" [CR]

9.11.19 CR_SECURITY Command

Command	"CR_ SECURITY" [CR]	
Details	Get Security ON/OFF status on the menu.	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- PJ/USB is locked "OFF" ---------- PJ/USB is freed
	Unacceptable	"Error Code" [CR]

9.11.20 CR_PJLOCKNOW Command

Command	"CR_PJLOCKNOW" [CR]	
Details	Get the actual PJ Lock status if it is locked or unlocked	
Response	Acceptable	"000_%1" [CR]
	%1	"LOCK" ---- PJ is locked PJ lock is set 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 OFF on the menu B. PJ lock is set ON1/ON2 on the menu, but PJ Lock is canceled because PJ PIN code is entered.
	Unacceptable	"Error Code" [CR]

9.11.21 CR_PJLOCKMENU Command

Command	"CR_PJLOCKMENU" [CR]	
Details	Get PJ Lock ON/OFF setting status on the menu	
Response	Acceptable	"000_%1" [CR]
	%1	"ON1" ---------- Set PJ Lock ON 1 on the menu "ON2" ---------- Set PJ Lock ON 2 on the menu "OFF" ---------- Set PJ Lock OFF on the menu
	Unacceptable	"Error Code" [CR]

9.11.22 CR_MONIOUT Command

Command	"CR_ MONIOUT" [CR]	
Details	Get Monitor Out setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Monitor Out is selected "OFF" ---------- Monitor Out is canceled
	Unacceptable	"Error Code" [CR]

9.12 Special Status Read Commands

9.12.1 CR_FILH Command

Command	"CR_ FILH" [CR]	
Details	Get the filter running time of Projector	
Response	Acceptable	"000_%1" [CR]
	%1	"00000" – "99999" (Deals with 0-99999 hours) Ex: "00005" ---------- Filter running time is 5 hours
	Unacceptable	"Error Code" [CR]

9.12.2 CR_FILCOND Command

Command	"CR_ FILCOND" [CR]	
Details	Get the filter clogged status of Projector	
Response	Acceptable	"000_%1" [CR]
	%1	"CLOG" ---------- Filter is clogged "WARN" ---------- Filter is nearly clogged (Warning status) "CLEAN" ---------- Filter is not clogged
	Unacceptable	"Error Code" [CR]

9.12.3 CR_FILREPL Command

Command	"CR_ FILREPL" [CR]	
Details	Get the information of the filter replacement time of Projector	
Response	Acceptable	"000_%1" [CR]
	%1	"1#" 1 ---------- indicates the number of filters # -------- indicates status orderly. "Y" means the filter running time reached replacement time, "N" means the filter running time is not over. Example: "1Y" --- 1-Fitler model, Filter time reached replacement time
	Unacceptable	"Error Code" [CR]

9.12.4 CR_SMKH Command

Command	"CR_ FILREPL" [CR]	
Details	Get the information of the filter running time of Smoke Resistant Box.	
Response	Acceptable	"000_%1" [CR]
	%1	"00000" – "99999" (Deals with 0-99999 hours) Example: "00005" ---------- The filter running time is 5 hours
	Unacceptable	"Error Code" [CR] "103" [CR] -------- Smoke Resistant Box is not attached

9.12.5 CR_SMKCOND Command

Command	"CR_ FILREPL" [CR]	
Details	Get the information of the filter clogged status of Smoke Resistant Box.	
Response	Acceptable	"000_%1" [CR]
	%1	"CLOG" ----- Filter is clogged "WARN" ---- Filter is nearly clogged (Warning status) "CLEAN" --- Filter is not clogged "FAIL" ------- Failed (Fan stopped, etc. Prior to above status)
	Unacceptable	"Error Code" [CR] "103" [CR] -------- Smoke Resistant Box is not attached

9.12.6 CR_SMKREPL Command

Command	"CR_ SMKREPL" [CR]	
Details	Get the information of filter replacement time of Smoke Resistant Box	
Response	Acceptable	"000_%1" [CR]
	%1	"1#" 1 ---------- indicates the number of filters # -------- indicates status orderly. "Y" means the filter running time reached replacement time, "N" means the filter running time is not over. Example: "1Y" ----- Filter time reached replacement time
	Unacceptable	"Error Code" [CR] "103" [CR] -------- Smoke Resistant Box is not attached

9.13 Other Status Read Commands

9.13.1 CR_STATUS Command

Command	"CR_STATUS" [CR]	
Details	Get the operating status of Projector	
Response	Acceptable	"000_%1" [CR]
	%1	"00" = Power ON "80" = Standby "40" = Processing Countdown "20" = Processing Cooling Down "10" = Power Failure "28" = Processing Cooling Down due to abnormal temperature "88" = Standby after Cooling Down due to abnormal temperature "02" = Invalid RS-232C Command "24" = Processing Power Save/Cooling Down "04" = Power Save "21" = Processing Cooling Down after Off due to lamp failure "81" = Standby after Cooling Down due to lamp failure "2C" = Processing Cooling Down after Off due to Shutter management "8C" = Standby after Cooling Down due to Shutter management
	Unacceptable	"Error Code" [CR]

9.13.2 CR_PRESSURE Command

Command	"CR_PRESSURE" [CR]	
Details	Get Air Pressure sensor value The value is DC voltage converted by 10-Bit AD converter that is output from air pressure sensor. Here is the formula as below ("Vn" represents the value): **Air Pressure (hPa) = (5*Vn / 1024 – 0.204) / 0.00459 + 150** Obtains accuracy of +/- 2%	
Response	Acceptable	"000_%1" [CR]
	%1	"0000" – "1023"
	Unacceptable	"Error Code" [CR]

9.13.3 CR_SIGNAL Command

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

9.13.4 CR_VMUTE Command

Command	"CR_VMUTE" [CR]	
Details	Get Shutter ON/OFF setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Set Shutter function ON "OFF" ---------- Cancel Shutter function
	Unacceptable	"Error Code" [CR]

9.13.5 CR_FREEZE Command

Command	"CR_FREEZE" [CR]	
Details	Get Freeze setting status	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Set Freeze "OFF" ---------- Cancel Freeze
	Unacceptable	"Error Code" [CR]

9.13.6 CR_PTIMER Command

Command	"CR_PTIMER" [CR]	
Details	Get the operating status of Presentation Timer	
Response	Acceptable	"000_%1" [CR]
	%1	"ON" ---------- Presentation timer is in operation "STOP" ---------- Presentation timer is paused "OFF" ---------- Presentation timer is not operated
	Unacceptable	"Error Code" [CR]

9.13.7 CR_ALLPFAIL Command

Command	"CR_ALLPFAIL" [CR]	
Details	Get all the information on Power Failure Return all the responses of "CR_PFAIL01" – "PFAIL50" Therefore it consists of 1200 (24 bytes x 50) bytes totally	
Response	Acceptable	"000_%1_%2" [CR] "000_%3_%4" [CR] "000_%5_%6" [CR] : "000_%97_%98" [CR] "000_%99_%100" [CR] (Send all 50 blocks above)
	%1 - %100	%1, %3, • • •%99 (Odd number) ------ Item name of Power Failure (16-byte fixed length) %2, %4, • • •%100 (Even number) ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.8 CR_HMPFAIL Command

Command	"CR_ HMPFAIL" [CR]	
Details	Get the total number of detectable Power Failure	
Response	Acceptable	"000_%1" [CR]
	%1	"000" – "050"
	Unacceptable	"Error Code" [CR]

9.13.9 CR_PFAIL01 Command

Command	"CR_PFAIL01" [CR]	
Details	Get the item name and status of Power Failure No.1	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.10 CR_PFAIL02 Command

Command	"CR_PFAIL02" [CR]	
Details	Get the item name and status of Power Failure No.2	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.11 CR_PFAIL03 Command

Command	"CR_PFAIL03" [CR]	
Details	Get the item name and status of Power Failure No.3	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.12 CR_PFAIL04 Command

Command	"CR_PFAIL04" [CR]	
Details	Get the item name and status of Power Failure No.4	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.13 CR_PFAIL05 Command

Command	"CR_PFAIL05" [CR]	
Details	Get the item name and status of Power Failure No.5	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.14 CR_PFAIL06 Command

Command	"CR_PFAIL06" [CR]	
Details	Get the item name and status of Power Failure No.6	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.15 CR_PFAIL07 Command

Command	"CR_PFAIL07" [CR]	
Details	Get the item name and status of Power Failure No.7	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.16 CR_PFAIL08 Command

Command	"CR_PFAIL08" [CR]	
Details	Get the item name and status of Power Failure No.8	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.17 CR_PFAIL09 Command

Command	"CR_PFAIL09" [CR]	
Details	Get the item name and status of Power Failure No.9	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.18 CR_PFAIL10 Command

Command	"CR_PFAIL10" [CR]	
Details	Get the item name and status of Power Failure No.10	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.19 CR_PFAIL11 Command

Command	"CR_PFAIL11" [CR]	
Details	Get the item name and status of Power Failure No.11	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.20 CR_PFAIL12 Command

Command	"CR_PFAIL12" [CR]	
Details	Get the item name and status of Power Failure No.12	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.21 CR_PFAIL13 Command

Command	"CR_PFAIL13" [CR]	
Details	Get the item name and status of Power Failure No.13	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.22 CR_PFAIL14 Command

Command	"CR_PFAIL14" [CR]	
Details	Get the item name and status of Power Failure No.14	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.23 CR_PFAIL15 Command

Command	"CR_PFAIL15" [CR]	
Details	Get the item name and status of Power Failure No.15	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.24 CR_PFAIL16 Command

Command	"CR_PFAIL16" [CR]	
Details	Get the item name and status of Power Failure No.16	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.25 CR_PFAIL17 Command

Command	"CR_PFAIL17" [CR]	
Details	Get the item name and status of Power Failure No.17	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.26 CR_PFAIL18 Command

Command	"CR_PFAIL18" [CR]	
Details	Get the item name and status of Power Failure No.18	
Response	Acceptable	"000_%1_%2" [CR]
		%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.27 CR_PFAIL19 Command

Command	"CR_PFAIL19" [CR]	
Details	Get the item name and status of Power Failure No.19	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
		"Error Code" [CR]

9.13.28 CR_PFAIL20 Command

Command	"CR_PFAIL20" [CR]	
Details	Get the item name and status of Power Failure No.20	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.29 CR_PFAIL21 Command

Command	"CR_PFAIL21" [CR]	
Details	Get the item name and status of Power Failure No.21	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.30 CR_PFAIL22 Command

Command	"CR_PFAIL22" [CR]	
	Get the item name and status of Power Failure No.22	
Response		"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.31 CR_PFAIL23 Command

Command	"CR_PFAIL23" [CR]	
Details	Get the item name and status of Power Failure No.23	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.32 CR_PFAIL24 Command

Command	"CR_PFAIL24" [CR]	
Details	Get the item name and status of Power Failure No.24	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.33 CR_PFAIL25 Command

Command	"CR_PFAIL25" [CR]	
Details	Get the item name and status of Power Failure No.25	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.34 CR_PFAIL26 Command

Command	"CR_PFAIL26" [CR]	
Details	Get the item name and status of Power Failure No.26	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.35 CR_PFAIL27 Command

Command	"CR_PFAIL27" [CR]	
Details	Get the item name and status of Power Failure No.27	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.36 CR_PFAIL28 Command

Command	"CR_PFAIL28" [CR]	
Details	Get the item name and status of Power Failure No.28	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.37 CR_PFAIL29 Command

Command	"CR_PFAIL29" [CR]	
Details	Get the item name and status of Power Failure No.29	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
		"Error Code" [CR]

9.13.38 CR_PFAIL30 Command

Command	"CR_PFAIL30" [CR]	
Details	Get the item name and status of Power Failure No.30	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.39 CR_PFAIL31 Command

Command	"CR_PFAIL31" [CR]	
Details	Get the item name and status of Power Failure No.31	
Response	Acceptable	"000_%1_%2" [CR]
		%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.40 CR_PFAIL32 Command

Command	"CR_PFAIL32" [CR]	
Details	Get the item name and status of Power Failure No.32	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.41 CR_PFAIL33 Command

Command	"CR_PFAIL33" [CR]	
Details	Get the item name and status of Power Failure No.33	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.42 CR_PFAIL34 Command

Command	"CR_PFAIL34" [CR]	
Details	Get the item name and status of Power Failure No.34	
Response	Acceptable	"000_%1_%2" [CR]
		%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.43 CR_PFAIL35 Command

Command	"CR_PFAIL35" [CR]	
Details	Get the item name and status of Power Failure No.35	
Response		"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.44 CR_PFAIL36 Command

Command	"CR_PFAIL36" [CR]	
Details	Get the item name and status of Power Failure No.36	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.45 CR_PFAIL37 Command

Command	"CR_PFAIL37" [CR]	
Details	Get the item name and status of Power Failure No.37	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.46 CR_PFAIL38 Command

Command	"CR_PFAIL38" [CR]	
Details	Get the item name and status of Power Failure No.38	
Response		"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.47 CR_PFAIL39 Command

Command	"CR_PFAIL39" [CR]	
	Get the item name and status of Power Failure No.39	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.48 CR_PFAIL40 Command

Command	"CR_PFAIL40" [CR]	
Details	Get the item name and status of Power Failure No.40	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.49 CR_PFAIL41 Command

Command	"CR_PFAIL41" [CR]	
	Get the item name and status of Power Failure No.41	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.50 CR_PFAIL42 Command

Command	"CR_PFAIL42" [CR]	
	Get the item name and status of Power Failure No.42	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
		"Error Code" [CR]

9.13.51 CR_PFAIL43 Command

Command	"CR_PFAIL43" [CR]	
Details	Get the item name and status of Power Failure No.43	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.52 CR_PFAIL44 Command

Command	"CR_PFAIL44" [CR]	
Details	Get the item name and status of Power Failure No.44	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.53 CR_PFAIL45 Command

Command	"CR_PFAIL45" [CR]	
Details	Get the item name and status of Power Failure No.45	
Response		"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.54 CR_PFAIL46 Command

Command	"CR_PFAIL46" [CR]	
Details	Get the item name and status of Power Failure No.46	
Response		"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.55 CR_PFAIL47 Command

Command	"CR_PFAIL47" [CR]	
Details	Get the item name and status of Power Failure No.47	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.56 CR_PFAIL48 Command

Command	"CR_PFAIL48" [CR]	
Details	Get the item name and status of Power Failure No.48	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.57 CR_PFAIL49 Command

Command	"CR_PFAIL49" [CR]	
Details	Get the item name and status of Power Failure No.49	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.58 CR_PFAIL50 Command

Command	"CR_PFAIL50" [CR]	
Details	Get the item name and status of Power Failure No.50	
Response	Acceptable	"000_%1_%2" [CR]
	%1, %2	%1 ------ Item name of Power Failure (16-byte fixed length) %2 ------ Power status (2-byte fixed length) Power is failed: "NG" Power status is normal: "OK"
	Unacceptable	"Error Code" [CR]

9.13.59 CR_TEMPFAIL Command

<table>
<tr><td>Command</td><td colspan="2">“CR_TEMPFAIL” [CR]</td></tr>
<tr><td>Details</td><td colspan="2">Get the temperature inside a projector when abnormal temperature occurs.
It is possible to get the temperatures all at once with some sensors installed.</td></tr>
<tr><td rowspan="3">Response</td><td>Acceptable</td><td>“000_%1_%2_%3_%4” [CR]</td></tr>
<tr><td>%1, %2
%3, %4</td><td>%1 ---------- Sensor 1 temp. (External temp.)
%2 ---------- Sensor 2 temp. (Internal temp.1)
%3 ---------- Sensor 3 temp. (Internal temp.2)
%4 ---------- Sensor 4 temp. (“_XX.X” Fixed)

%1, %2 are fixed six characters
There is one space between %1 and %2
There is one space between %2 and %3
There is one space between %3 and %4

(Ex.) “□31.5F”]
□ indicates a space. When the temperature sinks to -, the first character is “-” like “-05.5F”.

With some temperature sensors installed, the projector returns the response continuously.
(Ex.1) “□31.5F□□35.2S□□38.0W□□XX.XS” [CR]
The first data indicates sensor 1 data, then one space, and sensor 2 data.
Last character indicates the sensor’s status.
“F” ---------- Exceeding critical 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

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, sensor 4 indicates the temperature is safe.
Because %4 indicates the sensor 4 data which can only detect two states of “Normal” or “Abnormal”, the temperature is shown as “_XX.XF” or “_XX.XS”. When 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.</td></tr>
<tr><td>Unacceptable</td><td>“Error Code” [CR]</td></tr>
</table>

9.13.60 CR_TEMP Command

<table>
<tr><td>Command</td><td colspan="2">“CR_TEMP” [CR]</td></tr>
<tr><td>Details</td><td colspan="2">Get the current temperature information inside a projector.
It is possible to get the temperatures all at once with some sensors installed.</td></tr>
<tr><td rowspan="3">Response</td><td>Acceptable</td><td>“000_%1_%2_%3_%4” [CR]</td></tr>
<tr><td>%1, %2
%3, %4</td><td>%1 ---------- Sensor 1 temp. (External temp.)
%2 ---------- Sensor 2 temp. (Internal temp.1)
%3 ---------- Sensor 3 temp. (Internal temp.2)
%4 ---------- Sensor 4 temp. (“_XX.X” Fixed)

%1, %2 are fixed six characters
There is one space between %1 and %2
There is one space between %2 and %3
There is one space between %3 and %4

(Ex.) “□ 31.5F” [CR]
□ indicates a space. When the temperature sinks to -, the first character is “-” like “-05.5F” [CR].

Last character indicates the sensor’s status.
“F” ---------- Exceeding critical 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

With some temperature sensors installed, the projector returns the response continuously.
(Ex.1) “□ 31.5F □ □ 35.2S □ □ 38.0W □ □ XX.XS” [CR]
The first data indicates sensor 1 data, then one space, and sensor 2 data.
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, sensor 4 indicates the temperature is safe.
Because %4 indicates the sensor 4 data which can only detect two states of “Normal” or “Abnormal”, the temperature is shown as “_XX.XF” or “_XX.XS”.
When temperature is safe, all data is represented as “_00.0S”.

(Ex.2) “□ 00.0E □ □ 00.0E □ □ – – – – N □ □ XX.XS” [CR]
When it cannot return the temperature data due to hardware error, the last character is “E” like “□ 00.0E”.
It might happen for some projectors that 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”.</td></tr>
<tr><td>Unacceptable</td><td>“Error Code” [CR]</td></tr>
</table>

１０. Command with Address Specification

１０.１. Overview

１０.１.１. Commands with address are used to remote control multiple projectors through RS-232C by one computer.

１０.１.２. The command with address is defined one command/one line that starts with ”A” and ends with carriage return (0x0D).

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

１０.１.４. This command is represented as Basic Serial Command or Expand Serial Command with address such as “A001”.

(Ex) Functional Execution Command

“A001C05”[CR]

(Ex) Status Read Command

“A001CR0”[CR]

１０.１.５. Projector has a function to set up its address in “SPECIAL” – “RS-232C” – “Projector ID” in the menu.

Initial setting is “No. 001”

Possible range is “001” to “999”

１０.１.６. It clears the received buffer in the case as below.

- When receiving LF (0xoA) or EOF (0x1A)
- When it takes more than one second to receive one command.

(When it takes more than 1 second to receive carriage return since the projector has received the first data.)

１０.１.７. Wait the interval up to 60 ms for the response.

１０.２. Functional Execution Command with address

１０.２.１. Format

1) PC issues commands in format as below:

“A” Address “C” Command [CR]

or

“C” Address “CF □” Command “□” Parameter [CR]

Address: 3-digit number (“001” – “999”)

Commands with “FFF” as the address are available for all projectors.

Command: Character line (See Basic or Expand Serial Command)

2) The only projector with the appropriate address decodes received commands, and when it is ready to receive next commands, it returns the response.

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

“?” [CR]: When the received data cannot be decoded

However, when address is “FFF”, it executes the function but does not return the response.

10.2.2. When it needs command pipelining, the operation is the same as the remote control.

1) PC issues commands every 100 ms

2) When receiving the appropriate command, projector executes it continuously for 120 ms.

3) When receiving the same command in 120 ms, the projector executes it continuously for another 120 ms from the moment.

4) When there is no command after 120 ms, this execution is stopped.

5) When receiving other commands in 120 ms, this execution is stopped.

10.3. Status Read Command with Address

10.3.1. Format

1) PC issues commands in format as below:

"A" Address "CR" COMMAND [CR]

or

"A" Address "CR_" COMMAND [CR]

Address: 3 digits number ("001" – "999")

Command: Character line (See Basic or Expand Serial Command)

2) The only projector with the appropriate address decodes received commands and returns the character line as the required data.

Required Data [CR]

Required Data: Character Line (See Basic Status Read Command)

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