

# RS232 Command List for EK-830 Series

2020.3.27 komoda

Ver.1.00

## ●Connection

### <Port setting>

Baud Rate 9600 bps  
Parity None  
Data Length 8 bit  
Stop Bit Length 1 bit

### <Wiring>

Connect the computer and projector with RS232 cross cable

## ●Format

### <Command format>

Header: '\*'  
Delimiter CR (0x0Dh)  
Command 3Byte (ASCII Character)  
Separator "=" Command and Parameter  
Parameter Variable length

### <Response format>

Header: '#'  
Delimiter CR (0x0Dh)  
Command 3Byte (ASCII Character, command echo)  
Separator "=" Command and Parameter  
Parameter Variable length

## ●Details and examples

### <Setting Command>

#### Get

'\*' 'X' 'X' 'X' CR

PARAM: None

#### Example

Get Picture Mode (Standard = 1)

'\*' 'P' 'I' 'M' CR

#### Set

'\*' 'X' 'X' 'X' '=' PARAM CR

PARAM: [ASCII number] Set the value (See the conversion table.)

#### Example

Set Picture Mode (Standard = 1)

'\*' 'P' 'I' 'M' '=' '1' CR

## ●Response of Illegal command

### <Unsupported command>

#### Example

Unknown Command

'\*' 'A' 'B' 'C' CR

### <Command error>

Command is correct but unable to execute.

#### Parameter Error (unknown)

'\*' 'P' 'I' 'M' '=' 'X' 'Y' 'Z' CR

#### Parameter Error (out of range)

'\*' 'P' 'I' 'M' '=' '8' CR

A get command is sent for command that status is not available.

'\*' 'P' 'I' 'M' CR

Load lens command is sent when the lens memory #2 is empty.

'\*' 'L' 'E' 'N' '=' '2' CR

'#' 'X' 'X' 'X' '=' PARAM CR

PARAM: Current value (ASCII number)  
(See the conversion table in the command list.)

'#' 'P' 'I' 'M' '=' '1' CR

'#' 'X' 'X' 'X' '=' PARAM CR

PARAM: The value after setting

'#' 'P' 'I' 'M' '=' '1' CR

'#' 'E' 'R' 'R' 'O' CR

'#' 'E' 'R' 'R' 'O' CR

'#' 'X' 'X' 'X' '=' 'E' 'R' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'R' 'O' CR

'#' 'P' 'I' 'M' '=' 'E' 'R' 'R' 'O' CR

'#' 'L' 'E' 'N' '=' 'E' 'R' 'R' 'O' CR

Function	Command Name	standby	EXE	GET	Command	Response
Picture Mode	PIM		V		*'P' 'I' 'M' CR	#'P' 'I' 'M' '=' PARAM : 0 to 4 CR
PictureMode 1 = 0 (Bright)					*'P' 'I' 'M' '=' '0' CR	#'P' 'I' 'M' '=' '0' CR
PictureMode 2 = 1 (Standard)					*'P' 'I' 'M' '=' '1' CR	#'P' 'I' 'M' '=' '1' CR
PictureMode 3 = 2 (Vivid)					*'P' 'I' 'M' '=' '2' CR	#'P' 'I' 'M' '=' '2' CR
PictureMode 4 = 3 (sRGB)					*'P' 'I' 'M' '=' '3' CR	#'P' 'I' 'M' '=' '3' CR
PictureMode 5 = 4 (DICOM SIM)					*'P' 'I' 'M' '=' '4' CR	#'P' 'I' 'M' '=' '4' CR
Aspect	ASP		V		*'A' 'S' 'P' CR	#'A' 'S' 'P' '=' PARAM : 0 to 3 CR
Auto = 0					*'A' 'S' 'P' '=' '0' CR	#'A' 'S' 'P' '=' '0' CR
4:3 = 1					*'A' 'S' 'P' '=' '1' CR	#'A' 'S' 'P' '=' '1' CR
16:9 = 2					*'A' 'S' 'P' '=' '2' CR	#'A' 'S' 'P' '=' '2' CR
16:10 = 3					*'A' 'S' 'P' '=' '3' CR	#'A' 'S' 'P' '=' '3' CR
Projection Mode	PRJ		V		*'P' 'R' 'J' CR	#'P' 'R' 'J' '=' PARAM : 0 to 3 CR
Standard = 0					*'P' 'R' 'J' '=' '0' CR	#'P' 'R' 'J' '=' '0' CR
Rear = 1					*'P' 'R' 'J' '=' '1' CR	#'P' 'R' 'J' '=' '1' CR
Ceiling = 2					*'P' 'R' 'J' '=' '2' CR	#'P' 'R' 'J' '=' '2' CR
Rear Ceiling = 3					*'P' 'R' 'J' '=' '3' CR	#'P' 'R' 'J' '=' '3' CR
Auto Power Off	APO		V		*'A' 'P' 'O' CR	#'A' 'P' 'O' '=' PARAM : 0 to 4 CR
Off = 0					*'A' 'P' 'O' '=' '0' CR	#'A' 'P' 'O' '=' '0' CR
On(30min) = 1					*'A' 'P' 'O' '=' '1' CR	#'A' 'P' 'O' '=' '1' CR
On(20min) = 2					*'A' 'P' 'O' '=' '2' CR	#'A' 'P' 'O' '=' '2' CR
On(10min) = 3					*'A' 'P' 'O' '=' '3' CR	#'A' 'P' 'O' '=' '3' CR
On(5min) = 4					*'A' 'P' 'O' '=' '4' CR	#'A' 'P' 'O' '=' '4' CR
Auto Source Detection	ASD		V		*'A' 'S' 'D' CR	#'A' 'S' 'D' '=' PARAM : 0 to 1 CR
Off = 0					*'A' 'S' 'D' '=' '0' CR	#'A' 'S' 'D' '=' '0' CR
On = 1					*'A' 'S' 'D' '=' '1' CR	#'A' 'S' 'D' '=' '1' CR
Power On	PWR		V		*'P' 'W' 'R' CR	#'P' 'W' 'R' '=' PARAM : 0 to 1 CR
Manual = 0					*'P' 'W' 'R' '=' '0' CR	#'P' 'W' 'R' '=' '0' CR
Auto. = 1					*'P' 'W' 'R' '=' '1' CR	#'P' 'W' 'R' '=' '1' CR
Laser Power	LSR		V		*'L' 'S' 'R' CR	#'L' 'S' 'R' '=' PARAM : 0 to 1 CR
Low = 0					*'L' 'S' 'R' '=' '0' CR	#'L' 'S' 'R' '=' '0' CR
Standard = 1					*'L' 'S' 'R' '=' '1' CR	#'L' 'S' 'R' '=' '1' CR
Load Lens Memory	LEN				*'L' 'E' 'N' CR	#'L' 'E' 'N' '=' PARAM : 0 to 5 CR
Load Memry 1 = 0					*'L' 'E' 'N' '=' '0' CR	#'L' 'E' 'N' '=' '0' CR
Load Memry 2 = 1					*'L' 'E' 'N' '=' '1' CR	#'L' 'E' 'N' '=' '1' CR
Load Memry 3 = 2					*'L' 'E' 'N' '=' '2' CR	#'L' 'E' 'N' '=' '2' CR
Load Memry 4 = 3					*'L' 'E' 'N' '=' '3' CR	#'L' 'E' 'N' '=' '3' CR
Load Memry 5 = 4					*'L' 'E' 'N' '=' '4' CR	#'L' 'E' 'N' '=' '4' CR
Load Memry 6 = 5					*'L' 'E' 'N' '=' '5' CR	#'L' 'E' 'N' '=' '5' CR
Signal Power On	SPO		V		*'S' 'P' 'O' CR	#'S' 'P' 'O' '=' PARAM : 0 to 1 CR
Off = 0					*'S' 'P' 'O' '=' '0' CR	#'S' 'P' 'O' '=' '0' CR
On = 1					*'S' 'P' 'O' '=' '1' CR	#'S' 'P' 'O' '=' '1' CR
<b>Execution Group (Following State is Each Execution State)</b>						
Turn On Standby > ON	PWO	V	V		*'P' 'W' 'O' CR	#'P' 'W' 'O' '=' 'O' 'K' CR
Turn Off ON > Standby	PWF		V		*'P' 'W' 'F' CR	#'P' 'W' 'F' '=' 'S' 'C' 'O' CR
<b>Toggle Function Group (Following State is Each Execution State)</b>						
Mute	MUT		V		*'M' 'U' 'T' CR	#'M' 'U' 'T' '=' PARAM : 0 to 1 CR
Mute On = 1					*'M' 'U' 'T' '=' '1' CR	#'M' 'U' 'T' '=' '1' CR
Mute Off = 0					*'M' 'U' 'T' '=' '0' CR	#'M' 'U' 'T' '=' '0' CR
HSG	HSG		V		*'H' 'S' 'G' CR	#'H' 'S' 'G' '=' PARAM : 0 to 1 CR
HSG On = 1					*'H' 'S' 'G' '=' '1' CR	#'H' 'S' 'G' '=' '1' CR
HSG Off = 0					*'H' 'S' 'G' '=' '0' CR	#'H' 'S' 'G' '=' '0' CR
<b>Special Group (Following State is "Input Channel")</b>						
Input Source	INP		V		*'I' 'N' 'P' CR	#'I' 'N' 'P' '=' PARAM : 0 to 8 CR
Computer 1= 0					*'I' 'N' 'P' '=' '0' CR	#'I' 'N' 'P' '=' '0' CR
Computer 2 (BNC) = 1					*'I' 'N' 'P' '=' '1' CR	#'I' 'N' 'P' '=' '1' CR
HDMI 1 / MHL = 2					*'I' 'N' 'P' '=' '2' CR	#'I' 'N' 'P' '=' '2' CR
DVI-D = 3					*'I' 'N' 'P' '=' '3' CR	#'I' 'N' 'P' '=' '3' CR
Video = 4					*'I' 'N' 'P' '=' '4' CR	#'I' 'N' 'P' '=' '4' CR
S-Video = 5					*'I' 'N' 'P' '=' '5' CR	#'I' 'N' 'P' '=' '5' CR
HDBaseT = 6					*'I' 'N' 'P' '=' '6' CR	#'I' 'N' 'P' '=' '6' CR
HDMI 2 / W&B = 7					*'I' 'N' 'P' '=' '7' CR	#'I' 'N' 'P' '=' '7' CR
3G-SDI = 8					*'I' 'N' 'P' '=' '8' CR	#'I' 'N' 'P' '=' '8' CR
<b>Projector Status Group</b>						
Projector Power State	PPS	V	V		*'P' 'P' 'S' CR	#'P' 'P' 'S' '=' *Note U1 CR
Input Source Information	INQ		V		*'I' 'N' 'Q' CR	#'I' 'N' 'Q' '=' *Note U2 CR
Detected Error Type	DER		V		*'D' 'E' 'R' CR	#'D' 'E' 'R' '=' *Note U3 CR
Total Time	LTT		V		*'L' 'T' 'T' CR	#'L' 'T' 'T' '=' PARAM : xxHxxM CR
Temperature 1 (Degree C)	TMP		V		*'T' 'M' 'P' CR	#'T' 'M' 'P' '=' PARAM : -128 to 127 CR
Software Version	SFT		V		*'S' 'F' 'T' CR	#'S' 'F' 'T' '=' *Note U4 CR

Note : Invalid Command Response

#'E' 'R' 'O' CR

Note : Execution Failure Response

#' Command '=' 'E' 'R' 'O' CR

Note U1 : Projector State

Data  
0 Standby  
1 Turn On - Start  
5 Normal (Displaying Image)  
7 Cooling  
9 Shutdown by Error

Note U2 : Input Source Information

Data1  
0 Computer 1  
1 Computer 2  
2 HDMI/MHL  
3 DVI-D  
4 Video  
5 S-Video  
6 HDBaseT  
8 3G-SDI  
S Serching  
E Others (Example: at power on, Coolong, etc)

Note U3 : Error Type

Character Error Type Returns a string using "E", "W" or "O"characters.  
1st Laser Error  
2nd Temperature Error  
3rd Color Wheel  
4th Phosphor Wheel 1  
5th Phosphor Wheel 2  
6th Liquid Pump 1  
7th Liquid Pump 2  
8th Fan 1 Error  
9th ~ 18th Fan 2 Error ~ Fan 18 Error  
19th Fan 14 Error

Note U4 :

E: Error W:Warning O:Ok  
No Error: OOOOOOOOOOOOOOOOOO  
Fan 1 error: OOOOOOOE OOOOOOOOOOOO  
Returns software versions in one line.  
If there are 3kinds firmware inside (DDP, MCU, LAN).  
1.45-1.22-4.52  
(DDP:1.45 MCU:1.22 LAN:4.52)