



RS232 Protocol Function List

Baud Rate : 19200
 Data Bits: 8
 Parity: None
 Stop Bits: 1
 Flow Control : None
 UART16550 FIFO: Disable

Note: It supports data rates from 9600 to 115200 bps. The default is 19200 bps. Depending on the equipment, a lower baud rate may be recommended for long cable runs.

Write Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (00: All projectors)		000~999				0~9999	suffix

Response Format

Pass: Fail:

Read Command

~	X	X	X	X	X		n	CR
Lead Code	Projector ID		Command			space	variable	carriage return
Prefix	00~99 (00: All projectors)		000~999				0~9999	suffix

Response Format

Pass: Fail:

System Automatically Send

I	N	F	O	n
				variable

Note: There is a <CR> after all ASCII commands. 0D is the HEX code for <CR> in ASCII code.

Character to HEX table

Character	HEX
~	7E
0	30
1	31
2	32
3	33
4	34
5	35
6	36
7	37
8	38
9	39
Space	20
CR (Enter)	0D

e.g.

ASCII to HEX

RS232 Command	~	0	0	1	9	5		1	CR
HEX	7E	30	30	31	39	35	20	31	0D

Note:

- The keyword "VAL" in a command means the setting value related to OSD.
- The range of value following the definition of OSD, for example, <lamppwr 9> reaches the upper bound of 0 ~ 9.

						Write				Read													
Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Command	Value	Command				Set Parameter	Command				Get Parameter	Response							
PICTURE	Color Mode	Presentation		<clrmd 0>							1							1					
		Bright		<clrmd 1>		~	X	X	2	0		2	~	X	X	1	2	3	1	O	k	2	
		Movie		<clrmd 2>								3							3			3	
		User		<clrmd 3>								5							5			5	
		Read		<clrmd ?>																			
	Wall Color	White		<wclcr 0>								0 & 2											
		Light Yellow		<wclcr 1>								7											
		Light Blue		<wclcr 2>		~	X	X	5	0	6	4											
		Pink		<wclcr 3>								5											
		Dark Green		<wclcr 4>								3											
	Brightness	-		<brt 0>		0 ~ 100	~	X	X	4	6	1											
		+		<brt 1>				~	X	X	4	6	2										
		Read		<brt ?>																			
	Contrast	-		<ctrst 0>		0 ~ 100	~	X	X	4	7	1											
+			<ctrst 1>				~	X	X	4	7	2											
Read			<ctrst ?>																				
SCREEN	Aspect	4:3		<asp 0>																			
		16:10		<asp 1>		~	X	X	6	0	3												
		Native		<asp 2>								6	~	X	X	1	2	7	1	O	k	6	
		Auto		<asp 3>								7										7	
	Zoom	-		<diszoom 0>		-20 ~ +50	~	X	X	0	6	1											
		+		<diszoom 1>				~	X	X	0	5	1										
		Read		<diszoom ?>																			
	Overscan	0		<oscan 0>																			
		0.02		<oscan 1>																			
		0.04		<oscan 2>																			
		0.06		<oscan 3>																			
		0.08		<oscan 4>																			
0.1			<oscan 5>																				

Note:						Write					Read														
<ul style="list-style-type: none"> The keyword "VAL" in a command means the setting value related to OSD. The range of value following the definition of OSD, for example, <lamppwr 9> reaches the upper bound of 0 ~ 9. 																									
Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Command	Value	Command					Set Parameter	Command					Get Parameter	Response							
SCREEN	H Image Shift	-		<hsft 0>	0 ~ 100	~	X	X	5	4	0	1													
		+		<hsft 1>		2																			
		Read		<hsft ?>									~	X	X	5	4	3	1	O	k	%			
	V Image Shift	-		<vsft 0>	0 ~ 100	~	X	X	5	4	1	1													
		+		<vsft 1>		2																			
		Read		<vsft ?>									~	X	X	5	4	3	2	O	k	%			
	V Keystone	-		<kstn 0>	-40~+40 step	~	X	X	1	4	0	16													
		+		<kstn 1>		15																			
		Read		<kstn ?>									~	X	X	5	4	3	3	O	k	%			
SETTING	Language	English		<lang 0>								1													
		German		<lang 1>									2												
		French		<lang 2>										3											
		Spanish		<lang 3>										5											
		Italian		<lang 4>										4											
		Russian		<lang 5>										17											
		Portuguese		<lang 6>										6											
		Swedish		<lang 7>										9											
		Simplified Chinese		<lang 8>		~	X	X	7	0					14										
		Korean		<lang 9>											16										
		Traditional Chinese		<lang 10>											13										
		Turkish		<lang 11>											22										
		Polish		<lang 12>											7										
		Japanese		<lang 13>											15										
	Norwegian		<lang 14>											10											
	Projection	Front-Desktop		<proj 0>									1												
		Rear-Desktop		<proj 1>										2											
		Front-Ceiling		<proj 2>		~	X	X	7	1					3	~	X	X	1	2	9	1	O	k	2
		Rear-Ceiling		<proj 3>										4										3	
Read			<proj ?>																						

Note:

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						Write				Read											
Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Command	Value	Command				Set Parameter	Command			Get Parameter	Response						
SETTING	Menu Location	Top Left		<menu 0>						1											
		Top Right		<menu 1>						2											
		Center		<menu 2>		~	X	X	7	2	3										
		Bottom Left		<menu 3>						4											
		Bottom Right		<menu 4>						5											
		Read		<menu ?>																	
	Lens Function	Zoom	Lock		<zoomctl 0>		~	X	X	8	5	3									
			Unlock		<zoomctl 1>						4										
			Read		<zoomctl ?>							~	X	X	5	4	5	1	O	k	%
			-		<zoom 0>		~	X	X	3	0	7	2								
			+		<zoom 1>						1										
		Focus	Lock		<fcsctl 0>		~	X	X	8	5	5									
			Unlock		<fcsctl 1>						6										
			Read		<fcsctl ?>							~	X	X	5	4	5	2	O	k	%
			-		<fcs 0>		~	X	X	3	0	8	2								
			+		<fcs 1>						1										
		Lens Shift	Lock		<lensftctl 0>		~	X	X	8	4	1									
			Unlock		<lensftctl 1>						2										
			Read		<lensftctl ?>							~	X	X	5	4	5	3	O	k	%
			UP		<lensft 0>		~	X	X	8	4	3									
			Down		<lensft 1>						4										
			Left		<lensft 2>						5										
			Right		<lensft 3>						6										
		Lens Calibration	No																		
	Yes			<lencal 1>		~	X	X	5	2	5	1									
	Security	Security Timer	Month		<secm VAL>		~	X	X	5	3	7	00-12								
			Read		<secm ?>							~	X	X	5	4	4	1	O	k	%
			Day		<secd VAL>		~	X	X	5	3	8	00-30								
			Read		<secd ?>							~	X	X	5	4	4	2	O	k	%
			Hour		<sech VAL>		~	X	X	5	3	9	00-24								
Read				<sech ?>							~	X	X	5	4	4	3	O	k	%	

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Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Command	Value	Command				Set Parameter	Command				Get Parameter	Response						
SETTING	Security	Security	Off	<sec 0>		~	X	X	7	8	0											
			On	<sec 1>							1											
			Read	<sec ?>																		
	Source select		HDMI		<SrcCtrl 0>							1						7				
			DVI		<SrcCtrl 1>							2						1				
			Computer		<SrcCtrl 2>		~	X	X	3	9	5	~	X	X	1	2	1	1	O k	2	
			BNC		<SrcCtrl 3>							4							6			
			Video		<SrcCtrl 4>							10							5			
			read		<SrcCtrl ?>																	
	3D	Mode	ON		<en3d 1>		~	X	X	2	3	0	1	~	X	X	5	0	3	1	O k	1
			OFF		<en3d 0>							0/2										0
			Read		<en3d ?>																	
Invert		ON		<3dinv 1>		~	X	X	2	3	1	0										
		OFF		<3dinv 0>							1											
		Read		<3dinv ?>																		
OPTIONS	Auto Source	ON		<autosrc 1>		~	X	X	1	0	0	0 / 2										
		OFF		<autosrc 0>							1											
		Read		<autosrc ?>																		
	Keypad Lock	Lock		<keypadlk 1>		~	X	X	1	0	3	1										
		Unlock		<keypadlk 0>							0											
		Read		<keypadlk ?>																		
	Test Pattern	None		<tp 0>		~	X	X	1	9	5	0										
		Grid		<tp 1>							1											
		White		<tp 2>							2											
	Background Color	Blue		<bgclr 0>		~	X	X	1	0	4	1										
		Black		<bgclr 1>							2											
		Red		<bgclr 2>							3											
		Green		<bgclr 3>							4											
		White		<bgclr 4>							5											
	Lamp Settings	Lamp Hour	Read		<lamphr ?>								~	X	X	1	0	8	1	O k	%	

Note:						Write				Read														
<ul style="list-style-type: none"> The keyword "VAL" in a command means the setting value related to OSD. The range of value following the definition of OSD, for example, <lamppwr 9> reaches the upper bound of 0 ~ 9. 																								
Main Menu	Sub Menu	Sub Menu 2	Sub Menu 3	Command	Value	Command				Set Parameter	Command				Get Parameter	Response								
OPTIONS	Lamp Settings	Lamp Reminder	ON	<lampcmdr 1>		~	X	X	1	0	9	1												
			OFF	<lampcmdr 0>									0 / 2											
			Read	<lampcmdr ?>																				
		Lamp Mode	Normal	<lampcmd 0>										1										
			ECO	<lampcmd 1>		~	X	X	1	1	0			2										
			Advanced	<lampcmd 2>										5										
			Power value (0~9)	<lamppwr VAL>		~	X	X	3	2	6			0~9										
			Read Lamp Mode status	<lampcmd ?>																				
			Read Power value	<lamppwr ?>												~	X	X	3	5	8	1	O	k
		Lamp Reset	<lamprst 1>		~	X	X	1	1	1			1											
	Remote Settings	Top IR Function	ON	<irt 1>									7											
			OFF	<irt 0>		~	X	X	1	1			6											
			Read	<irt ?>											~	X	X	5	4	2	1	O	k	%
		Front IR Function	ON	<irf 1>										5										
			OFF	<irf 0>		~	X	X	1	1			4											
			Read	<irf ?>											~	X	X	5	4	2	2	O	k	%
		Remote Code	-	<rmcode 0>		~	X	X	4	8			1											
					00~99																			
			+	<rmcode 1>		~	X	X	4	8			2											
			Read	<rmcode ?>																				
	12V Trigger	ON	<12tri 1>										1											
		OFF	<12tri 0>		~	X	X	1	9	2		0												
		Read	<12tri ?>																					
Information	Show	<info ?>											~	X	X	1	5	0	1	O	k	#		
Reset	Yes	<rst 1>		~	X	X	1	1	2		1													
	Turn On		<pwr 1>									1										1		
	Turn Off		<pwr 0>									0 / 2		~	X	X	1	2	4	1	O	k	0	
	Force Reset		<forcereset 1>									1												

