

## HOW TO PROGRAM BY RS232

Baud Rate	9600
Data Bits	8
Parity Check	None
Stop Bits	1
Flow Control	None

### *Control Command Structure*

The command is structured by the Header code, command code, data code and end code. Most of the commands are structured except some for the compatibility issue with other projectors.

<b>Control Command Structure</b>				
	Header code	Command code	Data code	End code
HEX	7Eh	Command	Data	0Dh
ASCII	'~'	Command	Data	CR

### Control Sequence

The projector may send a return code after it received a command. If the command isn't received correctly, the projector will not send the return code

## Operation Command

The operation commands execute the basic operation setting of this projector.

Operation	ASCII	HEX
Power On ※	~ P N CR ※	7Eh 50h 4Eh 0Dh
Power Off	~ P F CR	7Eh 50h 46h 0Dh
Auto Image	~ A I CR	7Eh 41h 49h 0Dh
Lamp Hour Reset	~ R L CR	7Eh 52h 4Ch 0Dh
Input Select RGB	~ S R CR	7Eh 53h 52h 0Dh
Input Select RGB2	~ S G CR	7Eh 53h 47h 0Dh
Input Select DVI	~ S V CR	7Eh 53h 44h 0Dh
Input Select Video	~ S V CR	7Eh 53h 56h 0Dh
Input Select S-Video	~ S S CR	7Eh 53h 53h 0Dh
Input Select Component	~ S Y CR	7Eh 53h 59h 0Dh
Input Select HDMI	~ S H CR	7Eh 53h 48h 0Dh
Input Select Wireless	~ S W CR	7Eh 53h 57h 0Dh

※ Power On command will only work at system standby.

※ CR : Carriage Return.

※ Remote Command

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※ The remote commands simulate the code send from IR remote handset.

Button's name	ASCII	HEX
UP arrow	~ r U CR	7Eh 72h 55h 0Dh
DOWN arrow	~ r D CR	7Eh 72h 44h 0Dh
LEFT arrow	~ r L CR	7Eh 72h 4Ch 0Dh
RIGHT arrow	~ r R CR	7Eh 72h 52h 0Dh
POWER	~ r P CR	7Eh 72h 50h 0Dh
EXIT	~ I CR	7Eh 72h 45h 0Dh
INPUT	~ r I CR	7Eh 72h 49h 0Dh
AUTO	~ r A CR	7Eh 72h 41h 0Dh
KEYSTONE+	~ r K CR	7Eh 72h 4Bh 0Dh
KEYSTONE-	~ r J CR	7Eh 72h 4Ah 0Dh
MENU	~ r M CR	7Eh 72h 4Dh 0Dh
STATUS	~ r S CR	7Eh 72h 53h 0Dh
MUTE	~ r T CR	7Eh 72h 54h 0Dh

ZOOM+	~ r Z CR	7Eh 72h 5Ah 0Dh
ZOOM-	~ r Y CR	7Eh 72h 59h 0Dh
BLANK	~ r B CR	7Eh 72h 42h 0Dh
FREEZE	~ r F CR	7Eh 72h 46h 0Dh
VOLUME+	~ r V CR	7Eh 72h 56h 0Dh
VOLUME-	~ r W CR	7Eh 72h 57h 0Dh
Enter	~ r N CR	7Eh 72h 4Eh 0Dh

Set Value Command

ITEM	ASCII	HEX
Brightness	~ s B ? CR *	7Eh 73h 42h ?h 0Dh
Contrast	~ s C ? CR	7Eh 73h 43h ?h 0Dh
Color	~ s R ? CR	7Eh 73h 52h ?h 0Dh
Tint	~ s N ? CR	7Eh 73h 4Eh ?h 0Dh
Scaling	~ s A ? CR	7Eh 73h 41h ?h 0Dh
Color Temperature	~ s T ? CR	7Eh 73h 54h ?h 0Dh
Projection Mode	~ s J ? CR	7Eh 73h 4Ah ?h 0Dh
Sharpness	~ s H ? CR	7Eh 73h 48h ?h 0Dh

\*?: ASCII Data

Data Range

ITEM	Set Data Range	Source
Brightness	0 ~ 100	ALL
Contrast	0 ~ 100	ALL
Color	0 ~ 100	Video/S-Video /Component
Tint	0 ~ 100	Video/S-Video /Component
Scaling	0: Fill 1: 4:3 2: 16:9 3: Letter Box 4: Native	ALL
Color Temperature	0: Native 1: Warm 2: Normal 3: Cold	ALL
Projection Mode	0: Front 1: Rear 2: Rear+Ceiling 3: Ceiling	ALL
Sharpness	0~31	ALL

**Attention: Data range may be different for different models**

**Example 1. Adjust Brightness value to 100**

**Send Command : ~sB100**CR

**Example 2. Adjust Color Temperature to Warm**

**Send Command : ~sT2**CR

Query Command

ITEM	ASCII	HEX
Software Version	~qV	7Eh 71h 56h 0Dh
Power State	~qP	7Eh 71h 50h 0Dh
Input Select	~qS	7Eh 71h 53h 0Dh
Lamp Hours	~qL	7Eh 71h 4Ch 0Dh
Brightness	~qB	7Eh 71h 42h 0Dh
Contrast	~qC	7Eh 71h 43h 0Dh
Color (Video)	~qR	7Eh 71h 52h 0Dh
Tint (Video)	~qN	7Eh 71h 4Eh 0Dh
Scaling	~qA	7Eh 71h 41h 0Dh
Color Temperature	~qT	7Eh 71h 54h 0Dh
Projection Mode	~qJ	7Eh 71h 4Ah 0Dh
Sharpness	~qH	7Eh 71h 48h 0Dh
Volume	~qM	7Eh 71h 4Dh 0Dh
Freeze Status	~qZ	7Eh 71h 5Ah 0Dh
Mute Status	~qU	7Eh 71h 55h 0Dh
Blank Status	~qK	7Eh 71h 4Bh 0Dh