



W5800

Projector RS232 Command Control Installation Guide

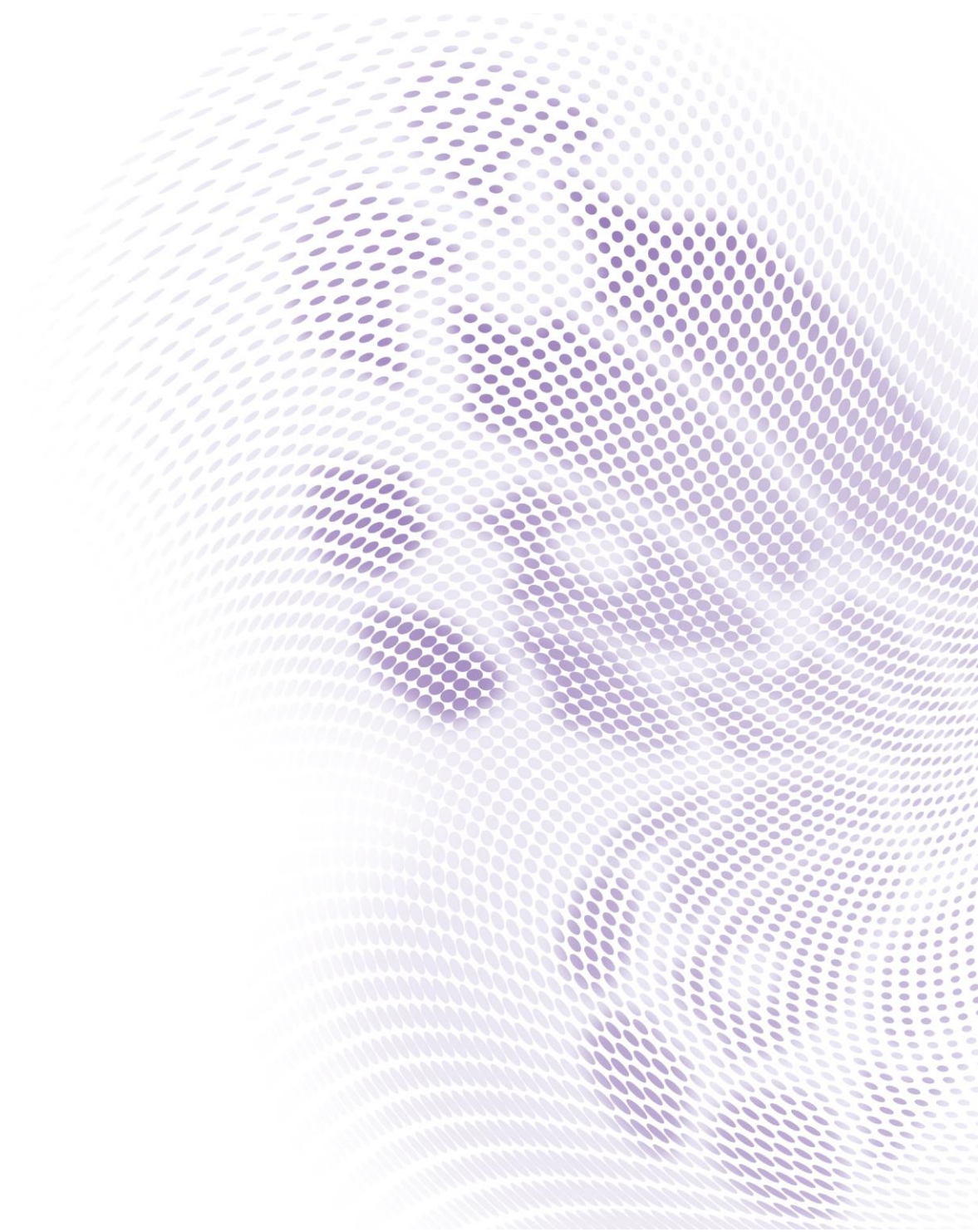


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Introduction

The document describes how to control your BenQ projector via RS232 from a computer. Follow the procedures to complete the connection and settings first, and refer to the command table for RS232 commands.



Available functions and commands vary by model. Check the specifications and user manual of the purchased projector for product functions.

Wire arrangement

Wire Arrangement		
P1	Color	P2
1	Black	1
2	Brown	3
3	Red	2
4	Orange	4
5	Yellow	5
6	Green	6
7	Blue	7
8	Purple	8
9	Gray	9
Case	Drain wire	Case

RS232 pin assignment

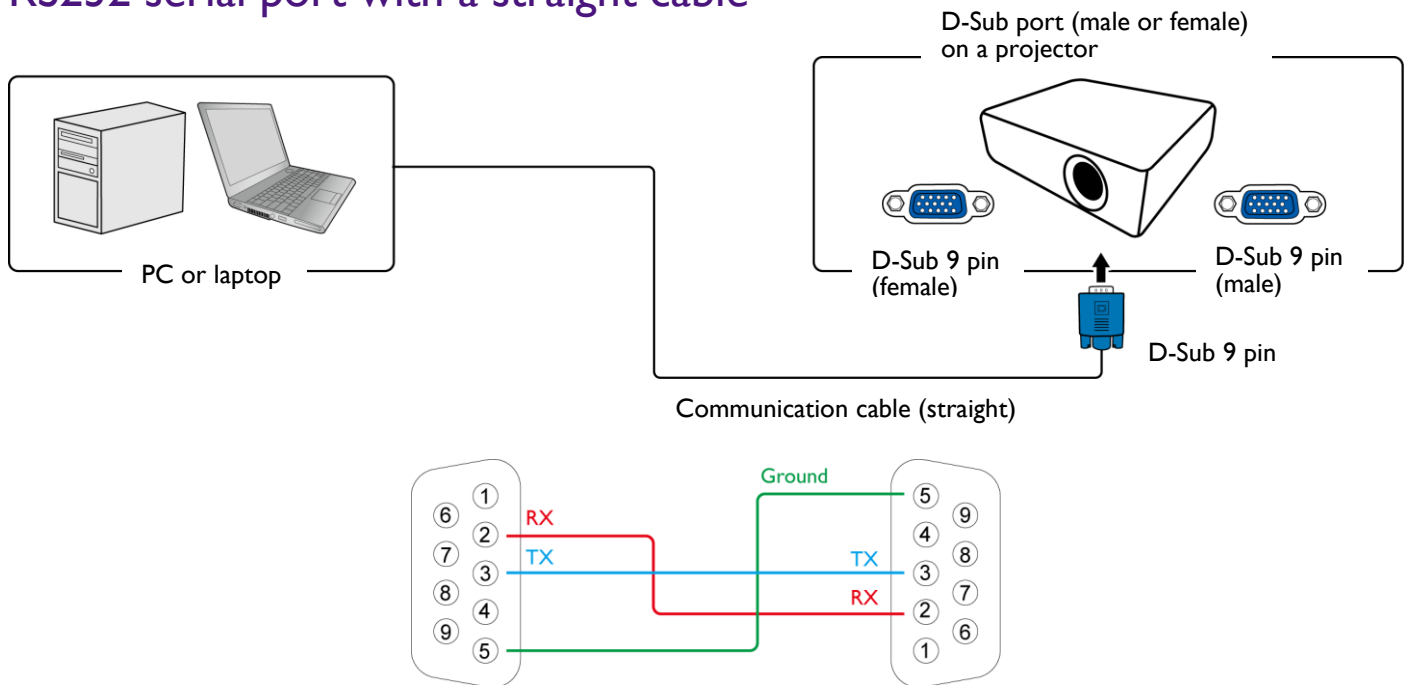


Pin	Description	Pin	Description
1	NC	2	RXD
3	TXD	4	NC
5	GND	6	NC
7	RTS	8	CTS
9	NC		

Connections and communication settings

Choose one of the connections and set up properly before RS232 control.

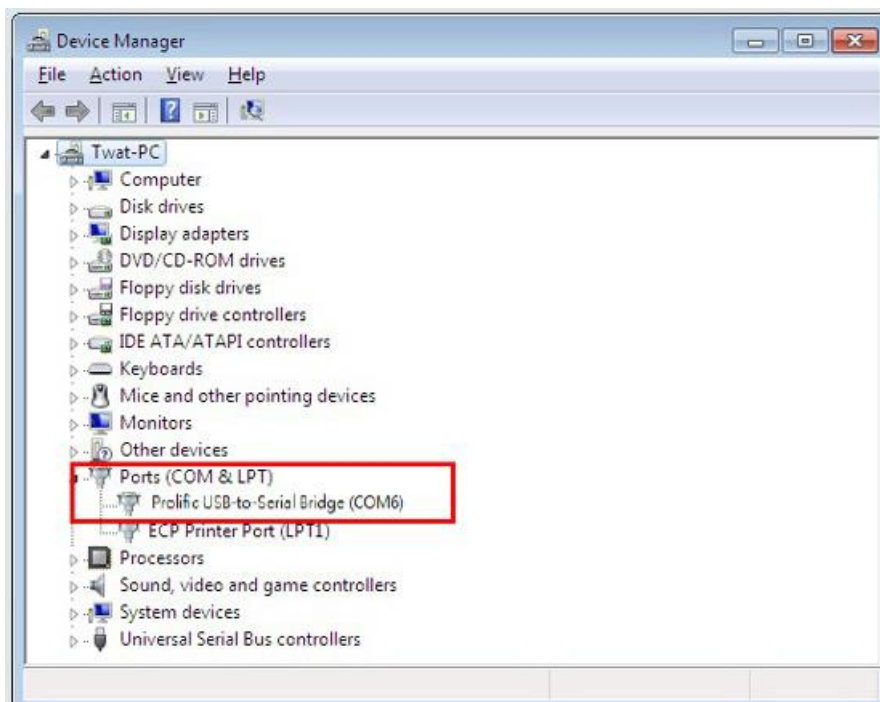
RS232 serial port with a straight cable



Settings

On-screen images in this document are for reference only. The screens may vary depending on your Operating System, I/O ports used for connection, and the specifications of the connected projector.

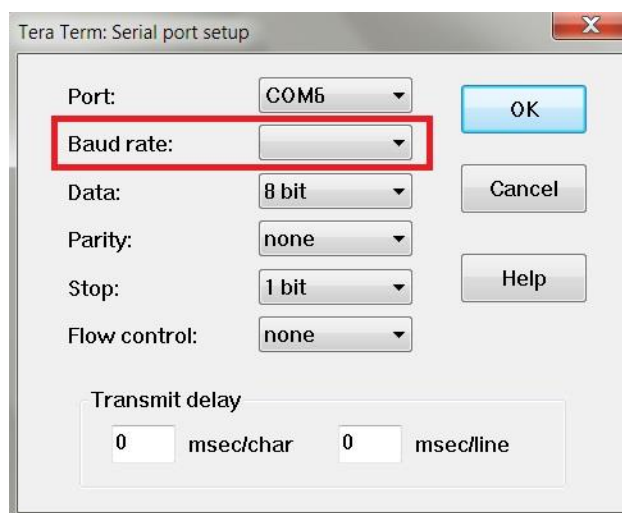
- I. Determine the COM Port name used for the RS232 communications in **Device Manager**.



- Choose **Serial** and the corresponding COM port as the communication port. In this given example, COM6 is selected.

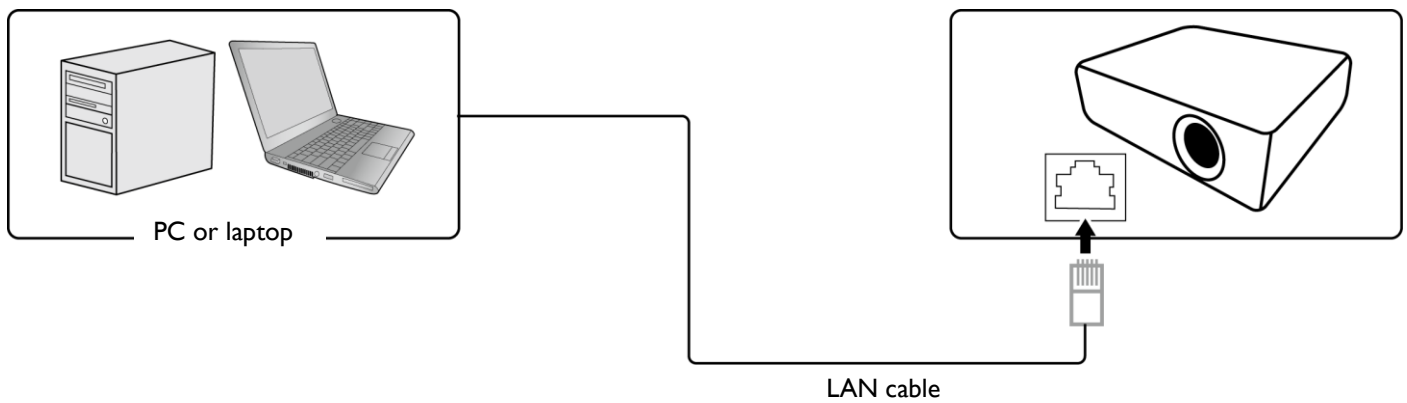


- Finish **Serial** port setup.



Baud rate	9600 / 14400 / 19200 / 38400 / 57600 / 115200 bps  Check the baud rate of the connected projector from its OSD menu.
Data length	8 bit
Parity check	None
Stop bit	1 bit
Flow control	None

RS232 via LAN

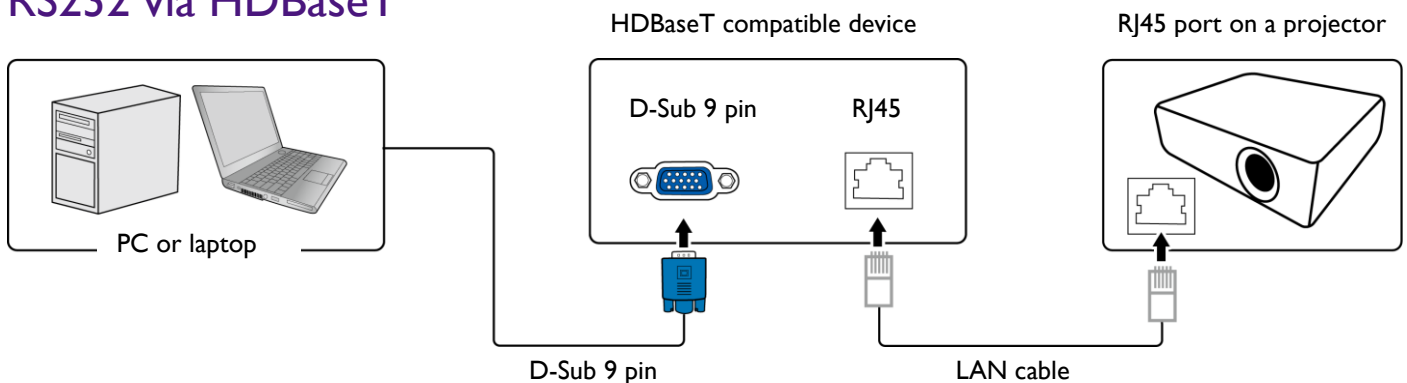


Settings

1. Find the Wired LAN IP address of the connected projector from the OSD menu and make sure the projector and the computer are within the same network.
2. Input **8000** in the **TCP port #** field.



RS232 via HDBaseT

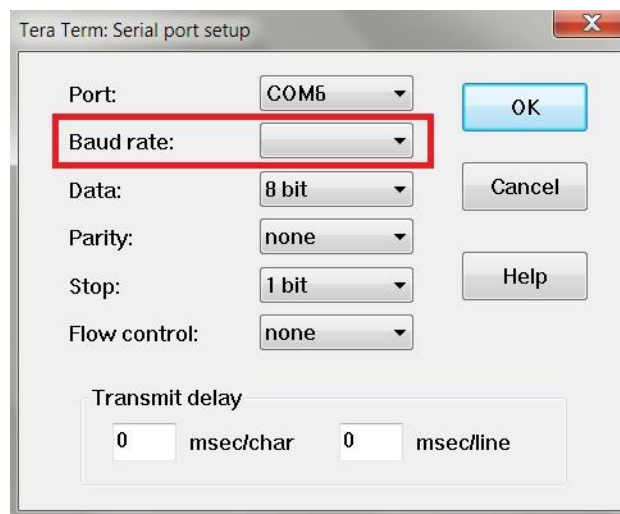


Settings

1. Determine the COM Port name used for the RS232 communications in **Device Manager**.
2. Choose **Serial** and the corresponding COM port as the communication port. In this given example, COM6 is selected.



3. Finish **Serial** port setup.



Baud rate	9600 / 14400 / 19200 / 38400 / 57600 / 115200 bps  Check the baud rate of the connected projector from its OSD menu.
Data length	8 bit
Parity check	None
Stop bit	1 bit
Flow control	None

Command table



- Available features differ by projector specification, input sources, settings, etc..
- Commands are working if the standby power is 0.5W or a supported baud rate of the projector is set.
- Uppercase, lowercase, and a mixture of both types of characters are accepted for a command.
- If a command format is illegal, it will echo **Illegal format**.
- If a command with correct format is not valid for the projector model, it will echo **Unsupported item**.
- If a command with correct format cannot be executed under certain condition, it will echo **Block item**.
- If RS232 control is performed via LAN, a command works whether it starts and ends with **<CR>**. All the commands and behaviors are identical with the control through a serial port.

Function	Type	Operation	ASCII	Support
Power	Write	Power On	<CR>*pow=on#<CR>	Yes
	Write	Power Off	<CR>*pow=off#<CR>	Yes
	Read	Power Status	<CR>*pow=?#<CR>	Yes
	Write	HDMI1	<CR>*sour=hdmi#<CR>	Yes
	Write	HDMI 2	<CR>*sour=hdmi2#<CR>	Yes
	Write	USB Reader	<CR>*sour=usbreader#<CR>	Yes
	Read	Current source	<CR>*sour=?#<CR>	Yes
Picture Mode	Write	Bright	<CR>*appmod=bright#<CR>	Yes
	Write	Bright Cinema	<CR>*appmod=brightcine#<CR>	Yes
	Write	FILMMAKER MODE	<CR>*appmod=filmmaker#<CR>	Yes
	Write	Cinema(Rec.709)	<CR>*appmod=cine#<CR>	Yes
	Write	User	<CR>*appmod=user#<CR>	Yes
	Write	ISF Day	<CR>*appmod=isfday#<CR>	Yes
	Write	ISF Night	<CR>*appmod=isfnight#<CR>	Yes
	Write	3D	<CR>*appmod=threed#<CR>	Yes
	Write	HDR10	<CR>*appmod=hdr#<CR>	Yes
	Write	HDR10+	<CR>*appmod=hdr+#<CR>	Yes
	Write	HLG	<CR>*appmod=hlg#<CR>	Yes
	Read	Picture Mode	<CR>*appmod=?#<CR>	Yes
Picture Setting	Write	Contrast +	<CR>*con=+#<CR>	Yes
	Write	Contrast -	<CR>*con=-#<CR>	Yes
	Write	Set Contrast value	<CR>*con=value#<CR>	Yes
	Read	Contrast value	<CR>*con=?#<CR>	Yes
	Write	Brightness +	<CR>*bri=+#<CR>	Yes
	Write	Brightness -	<CR>*bri=-#<CR>	Yes
	Write	Set Brightness value	<CR>*bri=value#<CR>	Yes
	Read	Brightness value	<CR>*bri=?#<CR>	Yes

	Write	Color +	<CR>*color=+#<CR>	Yes
	Write	Color -	<CR>*color=-#<CR>	Yes
	Write	Set Color value	<CR>*color=value#<CR>	Yes
	Read	Color value	<CR>*color=?#<CR>	Yes
	Write	Sharpness +	<CR>*sharp=+#<CR>	Yes
	Write	Sharpness -	<CR>*sharp=-#<CR>	Yes
	Write	Set Sharpness value	<CR>*sharp=value#<CR>	Yes
	Read	Sharpness value	<CR>*sharp=?#<CR>	Yes
	Write	Flesh Tone +	<CR>*fleshtone=+#<CR>	Yes
	Write	Flesh Tone -	<CR>*fleshtone=-#<CR>	Yes
	Write	Set Flesh Tone value	<CR>*fleshtone=value#<CR>	Yes
	Read	Flesh Tone value	<CR>*fleshtone=?#<CR>	Yes
	Write	Color Temperature-Warm	<CR>*ct=warm#<CR>	Yes
	Write	Color Temperature-Normal	<CR>*ct=normal#<CR>	Yes
	Write	Color Temperature-Cool	<CR>*ct=cool#<CR>	Yes
	Write	Color Temperature-lamp native	<CR>*ct=native#<CR>	Yes
	Read	Color Temperature Status	<CR>*ct=?#<CR>	Yes
	Write	Aspect 4:3	<CR>*asp=4:3#<CR>	Yes
	Write	Aspect 16:9	<CR>*asp=16:9#<CR>	Yes
	Write	Aspect 2.35:1	<CR>*asp=2.35#<CR>	Yes
	Write	Aspect Auto	<CR>*asp=AUTO#<CR>	Yes
	Read	Aspect Status	<CR>*asp=?#<CR>	Yes
	Write	Vertical Keystone +	<CR>*vkeystone=+#<CR>	Yes
	Write	Vertical Keystone -	<CR>*vkeystone=-#<CR>	Yes
	Read	Vertical Keystone value	<CR>*vkeystone=?#<CR>	Yes
	Write	Horizontal Keystone +	<CR>*hkeystone=+#<CR>	Yes
	Write	Horizontal Keystone -	<CR>*hkeystone=-#<CR>	Yes
	Read	Horizontal Keystone value	<CR>*hkeystone=?#<CR>	Yes
	Write	Reset current picture settings	<CR>*rstcurpicsetting#<CR>	Yes
	Write	Reset all picture settings	<CR>*rstallpicsetting#<CR>	Yes
Operation Settings	Write	Projector Position-Front Table	<CR>*pp=FT#<CR>	Yes
	Write	Projector Position-Rear Table	<CR>*pp=RE#<CR>	Yes
	Write	Projector Position-Rear Ceiling	<CR>*pp=RC#<CR>	Yes
	Write	Projector Position-Front Ceiling	<CR>*pp=FC#<CR>	Yes
	Read	Projector Position Status	<CR>*pp=?#<CR>	Yes
	Read	Quick auto search status	<CR>*QAS=?#<CR>	Yes
	Write	Menu Position - Center	<CR>*menuposition=center#<CR>	Yes

	Write	Menu Position - Top-Left	<CR>*menuposition=tl#<CR>	Yes
	Write	Menu Position - Top-Right	<CR>*menuposition=tr#<CR>	Yes
	Write	Menu Position - Bottom-Right	<CR>*menuposition=br#<CR>	Yes
	Write	Menu Position - Bottom-Left	<CR>*menuposition=bl#<CR>	Yes
	Read	Menu Position Status	<CR>*menuposition=?#<CR>	Yes
	Write	Direct Power On-on	<CR>*directpower=on#<CR>	Yes
	Write	Direct Power On-off	<CR>*directpower=off#<CR>	Yes
	Read	Direct Power On-Status	<CR>*directpower=?#<CR>	Yes
	Write	Standby Settings-Network on	<CR>*standbynet=on#<CR>	Yes
	Write	Standby Settings-Network off	<CR>*standbynet=off#<CR>	Yes
	Read	Standby Settings-Network Status	<CR>*standbynet=?#<CR>	Yes
Baud Rate	Write	9600	<CR>*baud=9600#<CR>	Yes
	Write	19200	<CR>*baud=19200#<CR>	Yes
	Write	38400	<CR>*baud=38400#<CR>	Yes
	Write	57600	<CR>*baud=57600#<CR>	Yes
	Write	115200	<CR>*baud=115200#<CR>	Yes
	Read	Current Baud Rate	<CR>*baud=?#<CR>	Yes
Lamp Control	Read	Lamp	<CR>*ltim=?#<CR>	Yes
	Write	Normal mode	<CR>*lampm=lnor#<CR>	Yes
	Write	Eco mode	<CR>*lampm=eco#<CR>	Yes
	Write	Dynamic Black	<CR>*appmod=dynamic#<CR>	Yes
	Write	Custom mode	<CR>*lampm=custom#<CR>	Yes
	Write	Light level for custom mode	<CR>*lampcustom=value#<CR>	Yes
	Read	Light level status for custom mode	<CR>*lampcustom=?#<CR>	Yes
	Read	Lamp Mode Status	<CR>*lampm=?#<CR>	Yes
Miscellaneous	Read	Model Name	<CR>*modelname=?#<CR>	Yes
	Read	System F/W Version	<CR>*sysfwversion=?#<CR>	Yes
	Read	Scaler F/W Version	<CR>*scalerfwversion=?#<CR>	Yes
	Read	Lan F/W Version	<CR>*lanfwversion=?#<CR>	Yes
	Read	MCU F/W Version	<CR>*mcufwversion=?#<CR>	Yes
	Write	Blank On	<CR>*blank=on#<CR>	Yes
	Write	Blank Off	<CR>*blank=off#<CR>	Yes
	Read	Blank Status	<CR>*blank=?#<CR>	Yes
	Write	Menu On	<CR>*menu=on#<CR>	Yes
	Write	Menu Off	<CR>*menu=off#<CR>	Yes
	Read	Menu Status	<CR>*menu=?#<CR>	Yes
	Write	Up	<CR>*up#<CR>	Yes

	Write	Down	<CR>*down#<CR>	Yes
	Write	Right	<CR>*right#<CR>	Yes
	Write	Left	<CR>*left#<CR>	Yes
	Write	Enter	<CR>*enter#<CR>	Yes
	Write	Back	<CR>*back#<CR>	Yes
	Write	Source Menu On	<CR>*sourmenu=on#<CR>	Yes
	Write	Source Menu Off	<CR>*sourmenu=off#<CR>	Yes
	Read	Source Menu Status	<CR>*sourmenu=?#<CR>	Yes
	Write	3D Sync Off	<CR>*3d=off#<CR>	Yes
	Write	3D Sync On	<CR>*3d=on#<CR>	Yes
	Write	3D Auto	<CR>*3d=auto#<CR>	Yes
	Write	3D Sync Top Bottom	<CR>*3d=tb#<CR>	Yes
	Write	3D Sync Frame Sequential	<CR>*3d=fs#<CR>	Yes
	Write	3D Frame packing	<CR>*3d=fp#<CR>	Yes
	Write	3D Side by side	<CR>*3d=sbs#<CR>	Yes
	Write	3D inverter disable	<CR>*3d=da#<CR>	Yes
	Write	3D mode Off	<CR>*3dmode=off#<CR>	Yes
	Write	3D inverter	<CR>*3d=iv#<CR>	Yes
	Read	3D Sync Status	<CR>*3d=?#<CR>	Yes
	Read	Mac Address	<CR>*macaddr=?#<CR>	Yes
	Write	High Altitude mode on	<CR>*Highaltitude=on#<CR>	Yes
	Write	High Altitude mode off	<CR>*Highaltitude=off#<CR>	Yes
	Read	High Altitude mode status	<CR>*Highaltitude=?#<CR>	Yes

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