APPENDIX I

OP Command

The RS-232 Commands use only ASCII characters which can be entered using a typical terminal emulator like Windows HyperTerminal with the following setting:

RS232 Setting	
Baud rate:	9600
Parity check:	None
Data bit:	8
Stop bit:	1
Flow Control	None

Note： that each input character will be echoed on the terminal by system and there is no need to set the local echo "ON" with the terminal setting.

Note： that "Unknown Command" is echoed on the terminal by system when system state is stand by and low power mode is "ON" if the input command is other than "op power.on [CR]"/ "op status [CR]".

System Operation commands.

The Operation commands tell the projector what to do. All commands start with 2 letters: "op" for operations commands, and a space [SP] then following a control command then finally the value wants to read, set, increase or decrease. All commands must end with a carriage return (ASCII hex 0D), shown as [CR] below. The syntax for operations commands is as follows:

op[SP]<operation command>[SP]<Setting Value>[CR]

For all but Execute functions the response from the projector will be the command and "= <value>" where <value> is the current value or "NA" if the value is not available. For Execute functions the response will be the same command. All responses will be in CAPS. Please refer to the following table for command list and examples:

System Operation command:

Operation	Commands	Values
Set	= <value>	Makes the unit take that value.
Get	?	Asks what the current value is.
Execute	(none)	Performs an action such as a reset.

Get operations command example:

Input: **op brightness ? [CR]**

System Response: **OP BRIGHTNESS = 50**

Set operations command example:

Input: **op brightness = 100 [CR]**

System Response: **OP BRIGHTNESS = 100**

Execute command example:

Input: **op pict.reset [CR]**

System Response: **OP PICT.RESET**

Operation	Commands	Values	Notes
source	= ?	0 = HDMI1 1 = HDMI2 2 = HDMI3	
pict.mode	= ?	0 = Movie 1 = Presentation 2 = Day 3 = Night 4 = User	Not support when no input source.
sp.on	= ?	0 = Off 1 = On	Not support when no input source.
brightness	= ?	0 - 100	Not support when no input source.
contrast	= ?	0 - 100	Not support when no input source.
gamma	= ?	0 = 1.8 1 = 2.0 2 = 2.2 3 = 2.4 4 = S-curve 5 = HDR	Not support when no input source.
saturation	= ?	0 - 100	Not support when no input source.
hue	= ?	0 - 100	Not support when no input source.
sharpness	= ?	0 - 10	Not support when no input source.
freeze	= ?	0 = Off 1 = On	Not support when no input source.
pict.reset	(execute)		Not support when no input source. Reset current picture mode parameters.
color.temp	= ?	0 = Warm 1 = Normal 2 = Cold	Not support when no input source.
hsg.hue.r	= ?	0 - 199	Not support when no input source.
hsg.hue.g	= ?	0 - 199	Not support when no input source.
hsg.hue.b	= ?	0 - 199	Not support when no input source.
hsg.hue.c	= ?	0 - 199	Not support when no input source.
hsg.hue.m	= ?	0 - 199	Not support when no input source.
hsg.hue.y	= ?	0 - 199	Not support when no input source.
hsg.sat.r	= ?	0 - 199	Not support when no input source.
hsg.sat.g	= ?	0 - 199	Not support when no input source.
hsg.sat.b	= ?	0 - 199	Not support when no input source.
hsg.sat.c	= ?	0 - 199	Not support when no input source.
hsg.sat.m	= ?	0 - 199	Not support when no input source.
hsg.sat.y	= ?	0 - 199	Not support when no input source.
hsg.gain.r	= ?	0 - 199	Not support when no input source.
hsg.gain.g	= ?	0 - 199	Not support when no input source.
hsg.gain.b	= ?	0 - 199	Not support when no input source.
hsg.gain.c	= ?	0 - 199	Not support when no input source.
hsg.gain.m	= ?	0 - 199	Not support when no input source.
hsg.gain.y	= ?	0 - 199	Not support when no input source.
hsg.white.r	= ?	0 - 199	Not support when no input source.
hsg.white.g	= ?	0 - 199	Not support when no input source.
hsg.white.b	= ?	0 - 199	Not support when no input source.
hsg.reset	(execute)		Not support when no input source.
lamp.mode	= ?	0 = Boost 1 = Default	Not support in 3 min after system power on.
lamp.hour.reset	(execute)		Clear User Lamp Hours.(Not includes System Total Hours).

Operation	Commands	Values	Notes
aspect.ratio	= ?	0 = Fill 1 = 4:3 2 = 16:9 3 = 16:10 4 = Native 5 = 2.35:1	Not support when no input source.
high.altitude	= ?	1 = On 0 = Off	
orientation	= ?	0 = Front Table 1 = Front Ceiling 2 = Rear Table 3 = Rear Ceiling	
auto.poweroff	= ?	0 = Off 1 = On	System will power off after 30mins when no input source.
auto.poweron	= ?	0 = Off 1 = On	
auto.source	= ?	0 = Off 1 = On	
startup.logo	= ?	0 = Off 1 = On	
blank.screen	= ?	0 = Black 1 = Purple 2 = Blue 3 = White	Not support when input source is locked and image presents.
menu.settings.lang	= ?	0 = English 1 = French 2 = Spanish 3 = German 4 = Portuguese 5 = Chinese Simplified 6 = Chinese Traditional 7 = Japanese 8 = Korean	
menu.settings.menupos	= ?	0 = Top Left 1 = Top Right 2 = Bottom Left 3 = Bottom Right 4 = Center	
menu.settings.timer	= ?	0 = Always On 1 = 10 Seconds 2 = 30 Seconds 3 = 60 Seconds	
model.name	?	<string>	
sw.version1	?	<string>	
sw.version2	?	<string>	
sw.version3	?	<string>	
act.source	?		
signal	?	<string>	Not support when no input source.
lamp.hours	?	<number>	
reset.all	(execute)		
power.on	(execute)		Not support when system has already powered on.
power.off	(execute)		
power	= ?	0 = Off 1 = On	