vivitek® User's Manual
Vivid Color. Vivid Life
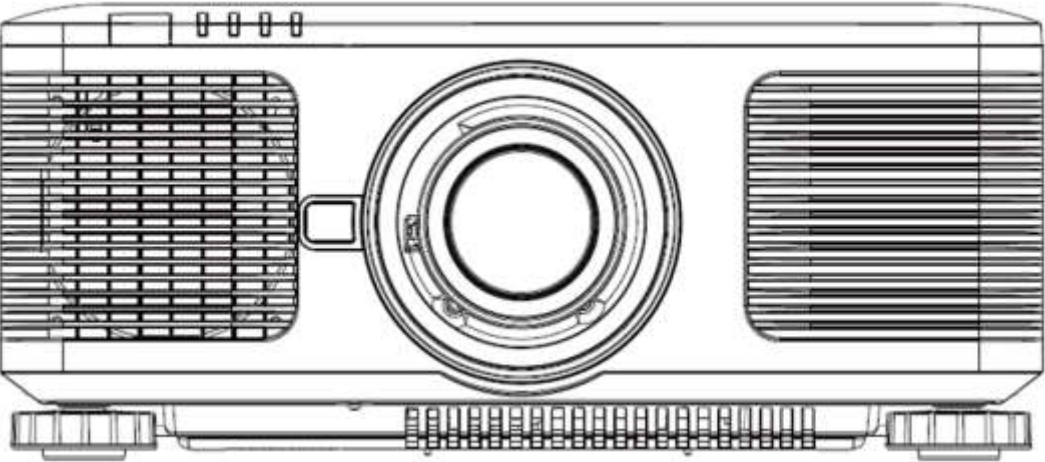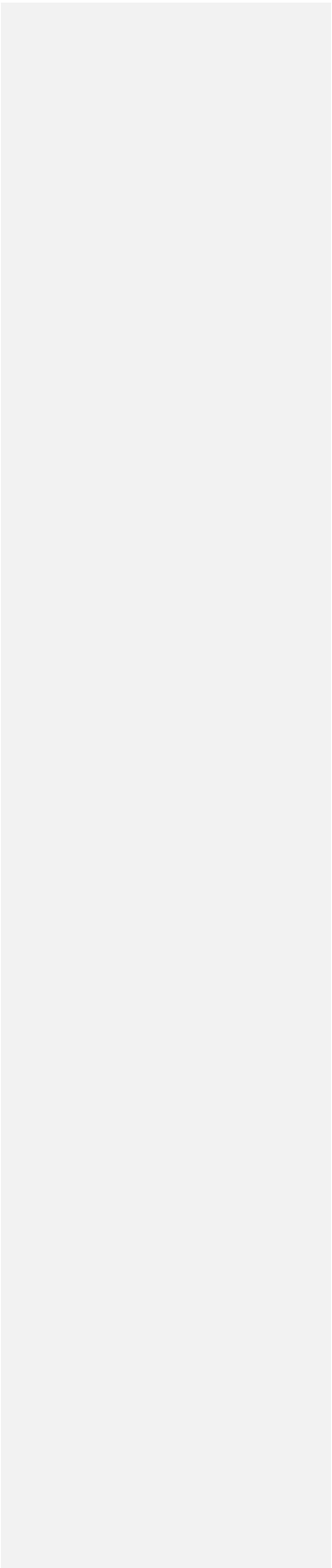
DU8090Z DLP Projector Communication Manual

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The Serial Interface RS-232 Command

This controller supports projectors with a RS-232 serial terminal, there exist two types of serial commands:
- Operation command: Available menu options are INPUT, PICTURE, ALIGNMENT, CONTROL, SERVICE.
- Simulated IR remote controller commands: Controls projector via RS-232 command, the commands simulate IR remote controller and its control keys.

Communication parameter setup

You can use the serial control command to input commands for projector control or retrieve its operational data through Windows client terminal software, e.g. Hyper Terminal, with ASCII characters. You need to set up the following communication parameters in advance:

Item	Parameter:
Bit per Second	9600 bps
Data Bit	8-bit
Parity	None
Stop Bit	1
Flow Control	None
Port	7000

Note:
- The terminal software does not return every command input character
- The transmission performance varies with the length of RS-232 cable

Operation commands

Operation command syntax

An operation command is prefixed by character "op", followed by control commands and settings separated by space blank [SP], and ended by carriage return pair "CR" and "ASCII hex 0D".Syntax of serial control commands:

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

op	:	A constant indicating this is an operation command.
[SP]	:	Indicate one blank space.
[CR]	:	Indicate the command ending carriage return pair "CR" and "ASCII hex 0D".
Setting value	:	Settings of operation command

Types of setup strings	Characters of settings	Description
Query current setup	?	Question mark "?" indicates querying current setup
Setup	= <settings>	Syntax: Symbol "=" suffixed with setup values
Increase setup order of adjustment items	+	Some settings are changed in steps. Symbol "+" indicates changing one step up
Decrease setup order of adjustment items	-	Some settings are changed in steps. Symbol "-" indicates changing one step down
Execute operation command	None	Certain operation commands execute after input without further setting or regulators.

Examples:

Control items	Input command row	Projector return message
Query current brightness	op bright ? [CR]	OP BRIGHT = 101
Set up brightness	op bright = 127 [CR]	OP BRIGHT = 127
Set up input signal source to HDMI	op input.sel = 0 [CR]	OP INPUT.SEL = 0
Reset camera to center position	lens.center	

Note:

When sending the multiple commands, make sure the return message of the last command is received before sending out the next one.

List of operation commands

INPUT

OSD Function	Operation command	Settings/Return Values		Note
Input Select	input.sel	? =	0 = HDMI 1 1 = HDMI 2 2 = VGA 3 = Component / BNC 4 = DVI 5 = 3G-SDI 6 = HDBaseT	Not applicable when the project is at below status. ◦ Standby mode ◦ When the blank function is activated
PIP/PIP Option	pip.mode	? =	0 = Off 1 = On	Not applicable when the project is at below status. ◦ Standby mode ◦ When PIP is off
PIP/PIP Input	pip.input	? =	0 = HDMI 1 1 = HDMI 2 2 = VGA 3 = Component / BNC 4 = DVI 5 = 3G-SDI 6 = HDBaseT	Not applicable when the project is at below status. ◦ Standby mode ◦ When PIP is off
PIP/ Position	pip.position		0 = Top Left 1 = Top Right 2 = Bottom Left 3 = Bottom Right 4 = PBP	Not applicable when the project is at below status. ◦ Standby mode ◦ When PIP is off
Auto Source	auto.src	? =	0 = Off 1 = On	Not applicable when the projector is in standby mode.
Color Space	color.space	? =	0 = Auto 1 = YPbPr (Rec. 709) 2 = YcbCr (Rec. 601) 3 = RGB-PC (0-255) 4 = RGB-Video (16-235)	Not applicable when the project is in standby mode or the input signal is not yet locked.
Aspect Ratio	aspect	? =	0 = 5:4 1 = 4:3 2 = 16:10 3 = 16:9 4 = 1.88 5 = 2.35 6 = LetterBox 7 = Source 8 = Native	◦ Not applicable when the project is in standby mode or the input signal is not locked yet. ◦ When the Zoom function is set to Zoom in, the Unscaled function is disabled.
Overscan	zoom	? =	0 = Off 1 = Crop 2 = Zoom	◦ Not applicable when the project is in standby mode or the input signal is not locked yet. ◦ When the Zoom function is set to Zoom in, the Unscaled function is

VGA Setup/H Total	h.total	? = + -	0-200	• Not applicable when the project is in standby mode or the input signal is not locked yet. • Apply for VGA and Component signal input.
VGA Setup/H Start	h.pos	? = + -	0-200	• Not applicable when the project is in standby mode or the input signal is not locked yet. • Apply for VGA and Component signal input.
VGA Setup/H Phase	h.phase	? = + -	0-200	• Not applicable when the project is in standby mode or the input signal is not locked yet. • Apply for VGA and Component signal input.
VGA Setup/V Start	v.pos	? = + -	0-200	• Not applicable when the project is in standby mode or the input signal is not locked yet. • Apply for VGA and Component signal input.
Test Pattern	pattern	? =	0 = Off 1 = White 2 = Black 3 = Red 4 = Green 5 = Blue 6 = Checkboard 7 = CrossHatch 8 = V Burst 9 = H Burst 10 = Color Bar	Not applicable when the project is in standby mode.
3D/3D Format	3d.format	= ?	0 = Off 1 = Auto 2 = Side-By-Side (Half) 3 = Top-And-Bottom 4 = Frame Sequential	Not applicable when the project is at below status. • Standby mode
3D/Eye Swap	3d.swap	= ?	0 = Normal 1 = Reverse	Not applicable when the project is at below status. • Standby mode
3D/DLP Link	3d.dlplink	= ?	0 = Off 1 = On	Not applicable when the project is at below status. • Standby mode
3D/Dark Time	3d.darktime	= ?	0 = 0.65 ms 1 = 1.3 ms 2 = 1.95 ms	Not applicable when the project is at below status. • Standby mode

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3D/sync delay	3d.syncdelay	= ?	1 – 60	Not applicable when the project is at below status. • Standby mode
3D/Sync Reference	3d.syncref	= ?	0 = External 1 = Internal 2 = Auto	Not applicable when the project is at below status. • Standby mode

PICTURE

OSD Function	Operation command	Settings/Return Values		Note
Picture Mode	pic.mode	? =	0 = High Bright 1 = Presentation 2 = Video	Not applicable when the project is in standby mode.
Brightness	bright	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
Contrast	contrast	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
Saturation	saturat	? = + --	0-200	a. Apply for YUV signal input b. Not applicable when the project is in standby mode or the input signal is not locked yet.
Hue	tint	? = + -	0-200	a. Apply for YUV signal input b. Not applicable when the project is in standby mode or the input signal is not locked yet.
Sharpness	sharp	? = + -	0-15	Not applicable when the project is in standby mode or the input signal is not locked yet.
Color Temperature	color.temp	? =	0 = 5400K 1 = 6500K 2 = 7500K 3 = 9300K 4 = Native	Not applicable when the project is in standby mode or the input signal is not locked yet.
Gamma	gamma	? =	0 = 1.0 1 = 1.8 2 = 2.0 3 = 2.2 4 = 2.35 5 = 2.5 6 = S-Curve	Not applicable when the project is in standby mode or the input signal is not locked yet.
Input Balance /Red Offset	red.offset	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.

Input Balance /Green Offset	green.offset	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
Input Balance /Blue Offset	blue.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.

OSD Function	Operation command	Settings/Return Values		Note
Input Balance /Red Gain	red.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
Input Balance /Green Gain	green.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
Input Balance /Blue Gain	blue.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Red Gain	hsg.r.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Green Gain	hsg.g.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Blue Gain	Hsg.b.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Cyan Gain	hsg.c.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Magenta Gain	hsg.m.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Yellow Gain	Hsg.y.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Red/Saturation	hsg.r.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Green/Saturation	hsg.g.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Blue/Saturation	Hsg.b.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Cyan/Saturation	hsg.c.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Magenta/Saturation	hsg.m.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.

OSD Function	Operation command	Settings/Return Values		Note
HSG/Yellow/Saturation	Hsg.y.sat	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Red/Hue	hsg.r.hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Green/Hue	hsg.g.hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Blue/Hue	Hsg.b. hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Cyan/Hue	hsg.c. hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Magenta/Hue	hsg.m. hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/Yellow/Hue	Hsg.y. hue	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/White/Red Gain	hsg.wr.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/White/Green Gain	hsg.wg.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG/White/Blue Gain	Hsg.wb.gain	? = + -	0-200	Not applicable when the project is in standby mode or the input signal is not locked yet.
HSG Reset	hsg.reset		(execute)	Not applicable when the project is in standby mode or the input signal is not locked yet.
Noise Reduction	nr	? = + -	0-3 (Noise Reduction)	Not applicable when the project is in standby mode or the input signal is not locked yet.
Dynamic Black	dblack	? =	0 = Off 1 = On	Not applicable when the projector is in standby mode.

Alignment

OSD Function	Operation command	Settings/Return Value		Note
Lens control	zoom.in		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	zoom.out		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	focus.near		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	focus.far		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	lens.up		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	lens.down		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	lens.left		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens control	lens.right		(execute)	The Lens control command does not apply when the projector is in standby mode.
Lens Type	lens.type	? =	0 = non-UST 1 = UST lens	Not applicable when the project is at below status. • Standby mode
Lens Memory/ Load Memory	lens.load	? =	1-10 set of lens memory (Load)	Not applicable when the project is at below status. • Standby mode
Lens Memory/ Save Memory	lens.save	? =	1-10 set of lens memory (Save)	Not applicable when the project is at below status. • Standby mode
Lens Memory/ Clear Memory	lens.clear	? =	1-10 set of lens memory (Save)	Not applicable when the project is at below status. • Standby mode
Center Lens	lens.center		(execute)	The Lens control command does not apply when the projector is in standby mode.
Digital Zoom/Digital Zoom	digi.zoom	= ?	0 - 100	Not applicable when the project is in standby mode or the input signal is not locked yet.
Digital Zoom/Digital Pan	digi.pan	= ?	-320 - 320 (depend on input timg; use "op digi.pan.bound ?" To know)	Not applicable when the project is in standby mode or the input signal is not locked yet.

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Digital Zoom/Digital Scan	digi.scan	= ?	-200 - 200 (depend on input timg; use "op digi.scan.bound ?" To know)	Not applicable when the project is in standby mode or the input signal is not locked yet.
Digital Zoom/Reset	digi.zoom.rst	(execute)		Not applicable when the project is in standby mode or the input signal is not locked yet.
Warp/Keystone H	h.keystone	= ?	Horizontal -600 ~ + 600	Not applicable when the project is at below status. • Standby mode
Warp/Keystone V	v.keystone	= ?	Vertical -400 ~ + 400	Not applicable when the project is at below status. • Standby mode
Warp/Rotation	rotation	= ?	-100 ~ +100	Not applicable when the project is at below status. • Standby mode
Warp/H Pin/Barrel	h.pin.barrel	= ?	-150 ~ + 300	Not applicable when the project is at below status. • Standby mode
Warp/V Pin/Barrel	v.pin.barrel	= ?	-150 ~ + 300	Not applicable when the project is at below status. • Standby mode
Warp/ Top Left Corner/Horizontal	4corner.ulx	= ?	-192 ~+192	Not applicable when the project is at below status. • Standby mode
Warp/ Top Left Corner/Vertical	4corner.uly	= ?	-120 ~+120	Not applicable when the project is at below status. • Standby mode
Warp/ Top Right Corner/ Horizontal	4corner.urx	= ?	-192 ~+192	Not applicable when the project is at below status. • Standby mode
Warp/ Top Right Corner/ Vertical	4corner.ury	= ?	-120 ~+120	Not applicable when the project is at below status. • Standby mode
Warp/Bottom left Corner/ Horizontal	4corner.llx	= ?	-192 ~+192	Not applicable when the project is at below status. • Standby mode
Warp/Bottom left Corner/ Vertical	4corner.lly	= ?	-120 ~+120	Not applicable when the project is at below status. • Standby mode
Warp/Bottom Right Corner/Horizontal	4corner.lrx	= ?	-192 ~+192	Not applicable when the project is at below status. • Standby mode
Warp/Bottom Right Corner/Vertical	4corner.lry	= ?	-120 ~+120	Not applicable when the project is at below status. • Standby mode

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Blanking/Top	blanking.top	= ?	0 ~ 360	Not applicable when the project is at below status. • Standby mode
Blanking/Bottom	blanking.bottom	= ?	0 ~ 360	Not applicable when the project is at below status. • Standby mode
Blanking/left	blanking.left	= ?	0 ~ 534	Not applicable when the project is at below status. • Standby mode
Blanking/Right	blanking.right	= ?	0 ~ 534	Not applicable when the project is at below status. • Standby mode
Blanking/Reset	blanking.reset	(execute)		Not applicable when the project is at below status. • Standby mode
Edge Blend	eb.stat	= ?	0 = Off 1 = On	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Align Pattern	eb.adl	= ?	0 = Off 1 = On	Not applicable when the project is at below status. • Standby mode
Edge Blend/ White Level	eb.top	= ?	0 100~500	Not applicable when the project is at below status. • Standby mode
Edge Blend/ White Level	eb.bottom	= ?	0 100~500	Not applicable when the project is at below status. • Standby mode
Edge Blend/ White Level	eb.left	= ?	0 100~500	Not applicable when the project is at below status. • Standby mode
Edge Blend/ White Level	eb.right	= ?	0 100~500	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.blu.top	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.blu.bottom	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.blu.left	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.blu.right	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode

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Edge Blend/ Black Level	eb.all	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.red	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.green	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Black Level	eb.blue	= ?	0 ~ 32	Not applicable when the project is at below status. • Standby mode
Edge Blend/ Reset	eb.reset	(execute)		Not applicable when the project is at below status. • Standby mode

CONTROL

OSD Function	Operation command	Settings/Return Values		Note
Language	lang	? =	0 = English 1 = French 2 = Spanish 3 = German 4 = Portuguese 5 = Chinese Simplified 6 = Chinese Traditional 7 = Japanese 8 = Korean	Not applicable when the project is at below status. • Standby mode
Projection mode	orientation	= ?	0 = Front 1 = Ceiling + Front 2 = Rear 3 = Ceiling + Rear 4 = Auto	Not applicable when the project is in standby mode
Cooling Condition	cooling.condition	= ?	0 = Front 1 = Ceiling + Front 2 = Freetilt 3 = Auto	Not applicable when the project is in standby mode
Altitude	altitude	? =	1 = On 2 = Auto	Not applicable when the project is in standby mode
Auto Power Off	auto.powoff	? =	0 = Off 1 = On	Not applicable when the project is in standby mode
Auto Power On	auto.powon	? =	0 = Off 1 = On	Not applicable when the project is in standby mode
Network/ Standby Power	net.power	= ?	0 = Off 1 = On	Not applicable when the project is in standby mode

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Network/DHCP	net.dhcp	? =	0 = Off 1 = On		Not applicable when the project is in standby mode
Network/IP Adress	net.ipaddr	? =	<string>		Not applicable when the project is in standby mode
Network/Subnet Mask	net.subnet	? =	<string>		Not applicable when the project is in standby mode
Network/Gateway	net.gateway	? =	<string>		Not applicable when the project is in standby mode
Network/DNS	net.dns	= ?	<string>		Not applicable when the project is in standby mode
Light Power	laser.mode	? =	0 = Eco mode 1 = Normal mode 2 =custom power mode		• Not applicable when the project is in standby mode • Not applicable when the project is in cooling or lighting up status. Please send control command after the said commands are completed.
Customer Power Level	laser.power	? =	20-100 (20%-100% power level; only available when laser.mode=2)		Not applicable when the project is in standby mode
Background	no.signal	? =	0 = Logo 1 = Black 2 = Blue 3 = White		Not applicable when the project is in standby mode
Startup Logo	startup.logo	? =	0 = Off 1 = On		Not applicable when the project is in standby mode
Remote Sensor	ir.enable	= ?	0 = Off (Disable) 1 = On (Enable)		Not applicable when the project is in standby mode

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Trigger	trig.1	? =	0 = Off 1 = Screen 2 = 5:4 3 = 4:3 4 = 16:10 5 = 16:9 6 = 1.88 7 = 2.35 8 = Theaterscope 9 = Source 10 = Unscalled 11 = RS232 12 = RS232 on 13 = RS232 off	Not applicable when the projector is in standby mode.
OSD Settings/ Menu Position	osd.menupos	= ?	0 = Top Left 1 = Top Right 2 = Bottom Left 3 = Bottom Right 4 = Center	Not applicable when the project is in standby mode
OSD Settings/ Menu Transparency	osd.trans	= ?	0 = 0% 1 = 25% 2 = 50% 3 = 75%	Not applicable when the project is in standby mode
OSD Settings/ Time Out	osd.timer	= ?	0 = Always On 1 = 10 Seconds 2 = 30 Seconds 3 = 60 Seconds	Not applicable when the project is in standby mode
OSD Settings/ Message Box	osd.msgbox	= ?	0 = Off 1 = On	Not applicable when the project is in standby mode

SERVICE

OSD Function	Operation command	Settings/Return Values		Note
Model	model	?	<String>	Not applicable when the project is in standby mode standby mode
Serial Number	ser.no	?	<String>	Not applicable when the project is in standby mode
Software Version	sw.ver	?	<String>	Not applicable when the project is in standby mode
Active Source	act.source	?		Not applicable when the project is in standby mode
Signal format	signal	?	<string>	Not applicable when the project is in standby mode
H Refresh Rate	h.refresh	?	<number>	Not applicable when the project is in standby mode or the input signal is not locked yet.
V Refresh Rate	v.refresh	?	<number>	Not applicable when the project is in standby mode or the input signal is not locked yet.
Pixel Clock	pixel.clock	?	<number>	• In unit of MHz
Light Time	laser.hours	?	<number>	Not applicable when the project is in
Factory Reset	fact.reset		(execute)	

Others

OSD Function	Operation command	Settings/Return Values		Note
Power On	power.on	(execute)		Not applicable in standby mode
Power Off	power.off	(execute)		Not applicable in standby mode
Projector Status	status	?	0 = Standby 1 = Warm Up 2 = Imaging 3 = Cooling 4 = Error	Not applicable when the project is in standby mode

Note: The projector returns string "NA" when the input command does not apply to current projector status or setup.

Simulated IR remote controller commands

This control command simulates the IR remote controller and its control keys. It shares the same syntax of operation command. It begins with characters "ky", followed by control commands and settings separated by space blank [SP], and ended by carriage return pair "CR" and "ASCII hex 0D".Control command syntax:

ky[SP]<operation command>[CR]

Examples:

Power On	ky power.on [CR]
Power Off	ky power.off [CR]

List of simulated IR remote controller commands

Item	Function	Operation command	Description
1	Power On	power.on	Power On
2	Power Off	power.off	Power Off
3	Menu	menu	Display OSD menu
4	Exit	exit	Exit
5	Enter	enter	ENTER key
6	Up	up	Move cursor upward or change upward
7	Down	down	Move cursor downward or change downward
8	Left	left	Move cursor to the left or change to the left
9	Right	right	Move cursor to the right or change to the right

Control the Projector through a Network

This machine supports the following methods in remotely controlling the projector through a network:
*   Control projector through web browser.
*   Control projector with RS-232 control or simulated IR commands via TCP/IP communication protocol.
*   Control projector with PJLink standard commands.

Cable connection

You may connect the projector to a PC or to an external integrated video and control signal transmission box through LAN for remote control.

Connect the projector to a PC
See figure below for connecting the projector to a PC in RJ-45 cable for control. For connection through LAN, connect the hub through to the projector's HDBaseT / Lan port.
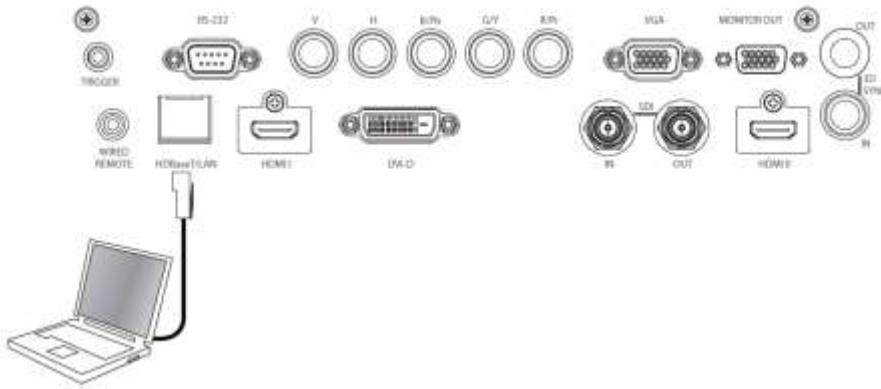
Connect with an external integrated video and control signal transmission box
You may connect the projector to an external integrated video and control signal transmission box with RJ-45 cable for concurrent video and networking control signal transmission. Please connect the PC to the input end of the transmission box with one RJ-45 cable and the output end of the transmission box to the HDBaseT / LAN input end of the projector with another RJ-45 cable.

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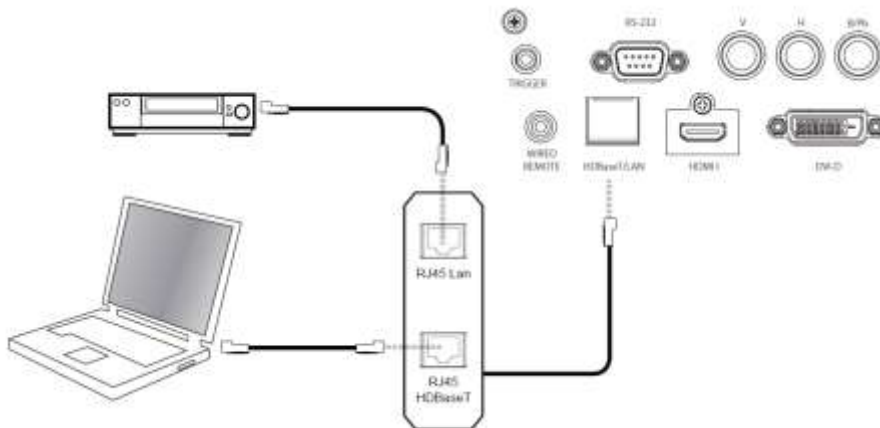
Set up the projector for networking

In case the remote network control is not connected to LAN or DHCP or the LAN is not activated, connect as illustrated below:

Caution:

In case the remote network control is not connected to LAN or DHCP or the LAN is not activated, set DHCP option to Off, and then select Apply. The DHCP service assigns IP address and settings to devices automatically and prevents IP Address, Subnet, and Gateway options from being edited. In case the DHCP service of the LAN is not activated, set up the network manually.

Comment [A1]: 這次有 apply 這個功能嗎?

Use ▲▼ and the Enter button to select Network and network settings:

Standby Power: If Standby Power is turned to On, the projector will enter network standby mode. You can turn on projector through power key on remote controller or on keypad or through Internet control.
DHCP: Set DHCP to ON/OFF. When DHCP is set to ON, the DHCP server of the domain will assign an IP address to the projector. The IP address will appear on the IP address window without need to make any input. If the domain cannot assign any IP address, 0.0.0.0 will be shown on the IP address window.
IP Address: To set an IP address, press the Enter button to input IP address. Use the ◄► button to select the number in the address to change. Use the ▲▼ button to increase or decrease the number in the IP address. Network IP Address 172. xxx. xxx. xxx. (DHCP 要OFF 才可以調整IP)
Subnet Mask: Set the submask. The input method is the same as the setting for IP address.
Gateway: Set the gateway. The input method is the same as the setting for IP address.
DNS: Set the DNS. The input method is the same as the setting for IP address.
MAC Address: Show projector's MAC Address.
Apply: Select this button and press Enter. It takes the projector several seconds to execute the change of the network setting till the following message disappears.

Setting network configuration, please wait.

Comment [A2]: 不是很清楚在上份檔案中，這邊要表達的意思是?

Please contact your network administrator if the network remains disconnected.

Control the projector through a network

Control the projector through a web browser

Open the web browser of your control PC, type the projector's IP address, the projector's web server homepage displays with the following four options:

Projector Status: Current projector settings.
Projector Control: Projector function control.
Crestron RoomView: Crestron compatible web browser control pages
Network Setup: Setting for projector link.
Alert Mail Setup: Settings for projector abnormality email reminders. In case of any abnormality the project sends emails to preset users.

Projector Status
Illustration below goes with projector at IP address "192.168.0.100"

Model	DU8090Z
Serial Number	
Software Version	MD08-SD06-FD07-LD03-22-RE01-3092
Power Status	Power On
Input	HDMI1
Laser Status	Power : On Runtime : 12 H
Projection Mode	Front
High Altitude	Off
Intake Temperature	24 / 30 °C
DMD Temperature	33 °C
Laser Temperature	45 / 38 °C
Diagnostic Status	(No Error)
LAN Information	
LAN Software Ver.	RE01
MAC address	00:18:23:00:00:00

Model   :   Projector model name.
Software Version :   The version of the software installed in the projector
Power Status   :   Current projector startup status
Input   :   Display the current source.
Laser status   :   Display the usage hours of Light source.
Diagnostic Status :   Indicate projector diagnosis message

Network control setup message (RJ-45 Version)
LAN Version   :   Network control software version number
MAC address   :   Projector MAC address setup

Projector Control

Power   : Projector power on/off control.
Blank   : Show or mute projection image.
Input Selection   : Select projection source.
Lens Control   : Zoom/Focus/Lens shift control
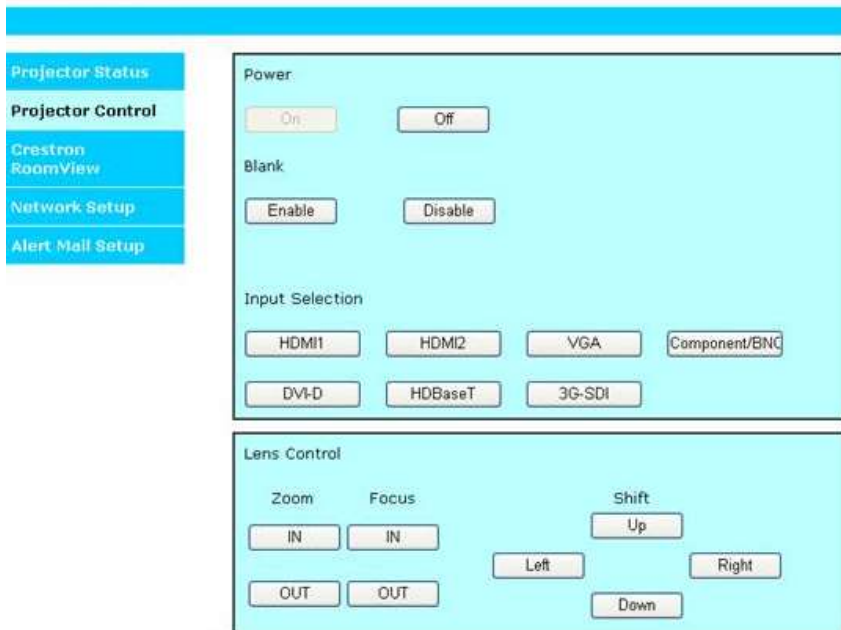
Crestron RoomView

Click the Crestron option in your project's web server homepage, the Crestron control page displays in new tab.

Power: Press this button to power on or off the projector
Source List: Switch projector input signal sources. Press the ▲ or ▼ arrow key to scroll through the dropdown list of available signal sources

Image adjust options
Press the ◄ or ► arrow key to scroll through available adjustment options.
Freeze: Freeze current projection screen.The projection screen prompts the "Still open" message after the freeze function enabled.Press the Freeze button again to unfreeze the screen.
Contrast: Click this button and the adjustment window displays. Click the ◄► arrow keys to adjust contrast.

Brightness: Click this button and the adjustment window displays. Click the ◄► arrow keys to adjust brightness.
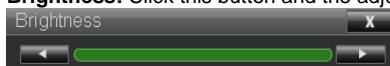
Sharpness: Click this button and the adjustment window displays. Click the ◄► arrow key to adjust sharpness.

Zoom: Zoom the projection image.Click the "+" key to zoom in and "-" to zoom out.You may click the four arrow keys in the window to move the zoomed projection image.
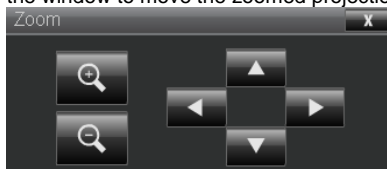
Control key window
This window simulates keys on the remote controller and control panel.

Enter: Confirm and select function options
Menu: Press to display OSD menu. Press again to exit it.
Auto: Run the auto image adjustment function.
Blank: Pause the image projection, i.e. the projection image is masked.Press again to resume the projection.
Source: The signal source menu displays.Press to display signal source in the projection screen.

Tools: Check Crestron equipment for its setup
Info: Display current projector status and Crestron setup.

Network Setup

IP address	:	Projector IP address setup
Subnet mask	:	Projector subnet address setup
Gateway	:	Projector gateway setup
DNS server	:	Projector DNS server setup

Alert Mail Setup

This projector can send emails with projector abnormality messages to preset users. Set up the projector before enabling this function:

SMTP Server   :   Set up SMTP server name as the projector sends email via a SMTP server.
Port   :   Set up transmission port
User Name   :   Input target user name for the projector to send the reminder email to, through a SMTP server.
Password   :   Input user password.
E-mail Alert   :   Enable or Disable reminder email.
From   :   Set up email address of the email sender.
To   :   Set up email address of the email recipient.
CC   :   Set up email address of the email CC recipient.
Projector Name   :   Set up projector name or ID.
Location   :   Set up projector installation location.
Apply   :   Confirm your settings.Press this button to save changes you have made.
Send Test Mail   :   Send test email.The reminder email is sent only in the event of a projector error. Press this button to validate email settings after setup is completed.

Control projector with TCP/IP communication protocol

This projector supports TCP/IP communication protocol which enables you to send RS-232 operation commands or simulated IR commands to control projectors connected with RJ45 cable via terminal connection application software, e.g. Tera Term.Please set up IP address and port number with the terminal connection application software before controlling your projector with TCP/IP communication protocol:

IP Address: IP address of projector
Port: Please set transmission port number to 7000

See the section on serial interface RS-232 control commands for details on RS-232 operation commands or simulated IR commands.

About the Vivitek support

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