SONY

DATA PROJECTOR

PROTOCOL MANUAL
(SUPPORTED COMMAND LIST)
1st Edition

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

VPL-FHZ60/FH60 Series
VPL-FHZ65
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Related manuals

The following manual is provided for this unit in addition to this “Protocol Manual (SUPPORTED COMMAND LIST) ”.

- **“Protocol Manual” (COMMON) (available on request)**
  This manual describes the basic configuration and operation to write the various commands to be used in the serial communication (RS-232C) and network communication for this unit.

1. Overview

This manual is a command correspondence list of ADCP protocols in each projector model.
For details of the ADCP protocols, refer to REMOTE CONTROL PROTOCOL MANUAL (COMMON).

System command

A system command can acquire the projector power operation and the power, error, or warning status.
The type of a command is classified as follows:

- sys_sel command type: Sets the selected value for turning on and off the power.
- sys_stat command type: Acquires the status.
- sys_var command type: Sets the network address.

Command type: sys_sel

By optional designation, the command of a sys_sel command type can set values and acquire values, settable choices, and command information.

Command name `command`
Value to be set `txt_param1`
Settable choice `txt_param1, txt_param2`

In the case described above, commands conform to the formats below, respectively.

Setting of value

Transmitting example: `command "txt_param1"` ↵ — Sets the selected value using a command. The selected value is enclosed with double quotation marks (" ").

Returning example: `ok` ↵

Inquiry of value:

Transmitting example: `command ?` ↵ — Acquires the selected value of the set parameter.

Returning example: `"txt_param1"` ↵ — The selected value that has been set is returned with the value being enclosed in double quotation marks (" ").

Inquiry of value range:

Transmitting example: `command ? --range` ↵ — Acquires a list of parameter-selected values that can be set.

Returning example: `["txt_param1","txt_param2"]` ↵

Inquiry of command information:

Transmitting example: `command ? --info` ↵ — Acquires the command information.

Returning example: `{"type":"sys_sel","version":"1.0","range":["txt_param1","txt_param2"]}` ↵

A command type, command version, and a list of selected values that can be set using a command are returned as command information.

Command list

Function	Command	Parameter/response	Remarks	VPL-	
				FHZ60 series	FH60 series
Power on/off operation	power*1	"on"	Power on operation	○	○
		"off"	Power off operation	○	○
IPv4 network setting	ipv4_network_setting*2	"start"	Setting start	○	○
		"apply"	Setting reflection	○	○
IPv4 address setting method Setting/acquisition	ipv4_set_method ipv4_set_method ?	"auto"	Auto	○	○
		"manual"	Manual*3	○	○
IPv4 DNS address setting method Setting/acquisition	ipv4_dns_set_method ipv4_dns_set_method ?	"auto"	Auto	○	○
		"manual"	Manual*3	○	○

*1: A value cannot be acquired. Use the power_status ? command of a sys_stat command type when acquiring the power state.

Command example

```
power "on"↵
ok↵
```

*2: During network setting, set an address after sending “start”. Then, send “apply” and reflect the setting.

Example

```
ipv4_network_setting "start"↵
ipv4_set_method "auto"↵
ipv4_dns_set_method "auto"↵
ipv4_network_setting "apply"↵
```

*3: Set each address using the network setting command of a sys_var command category when selecting “manual”. Then, send “apply” and reflect the setting.

Example

```
ipv4_network_setting "start"↵
ipv4_set_method "manual"↵
ipv4_ip_address "XXX.XXX.XXX.XXX"↵
ipv4_sub_net_mask "XXX.XXX.XXX.XXX"↵
ipv4_default_gateway "XXX.XXX.XXX.XXX"↵
ipv4_dns_set_method "manual"↵
ipv4_dns_server1 "XXX.XXX.XXX.XXX"↵
ipv4_dns_server2 "XXX.XXX.XXX.XXX"↵
ipv4_network_setting "apply"↵
```

Command type: sys_stat

By optional designation, the command of a sys_stat command type can acquire values and command information.
Command name: In the case of "command", the following format is used.

Acquisition of value:

Transmitting example: command: command ? ↵ — The system status information is inquired.

Returning example: "txt_param" ↵ — When the information of single system status is returned

["txt_param1","txt_param2"] ↵ — When using the command that handles multiple items in response, it is returned in the JSON array format.

[{"val1":100},{"val2":200}] ↵ — In the timer and version information, the name of each value and the JSON associative array of the value are returned in the array format.

Acquisition of command information:

Transmitting example: command ? --info ↵ — The command information is inquired.

Returning example: {"type":"sys_stat","version":"1.0"} ↵

Command list

Function	Command	Response	Remarks	VPL-	
				FHZ60 series	FH60 series
Power status acquisition	power_status ?	"standby"	Standby	○	○
		"startup"	Start up in progress	○	○
		"on"	Power on	○	○
		"cooling1"	Cooling 1	○	○
		"cooling2"	Cooling 2	○	○
		"saving_cooling1"	Power saving cooling 1	○	○
		"saving_cooling2"	Power saving cooling 2	○	○
		"saving_standby"	Power saving standby	○	○
Error status acquisition	error ?	Example) ["err_power","err_fan"]	The JSON array data of a factor is as follows:		
		"no_err"	No error	○	○
		"err_power"	Power supply error	○	○
		"err_power2"	Power supply (D5V) error	○	○
		"err_system2"	System error 2	○	○
		"err_cover"	Cover error	○	○
		"err_light_src"	Light-source error	○	○
		"err_lens_cover"	Lens cover error	–	–
		"err_shock"	Shock error	○	–
		"err_nolens"	Lens not attached error	○	○
		"err_attitude"	Installation angle error	○	○
		"err_temp"	Temperature error	○	○
		"err_fan"	Fan error	○	○
		"err_wheel"	Wheel rotation error	○	–
		"err_light_over"	Luminance error	○	–
		"err_assy"	Assembling error	○	○
		"err_lens_shift"	Lens shift error	○	○

Function	Command	Response	Remarks	VPL-	
				FHZ60 series	FH60 series
Warning status acquisition	warning ?	Example) ["warn_temp","warn_signal_sel"]	The JSON array data of a factor is as follows:		
		"no_warn"	No warning	○	○
		"warn_light_src_life"	Light- source life warning	–	○
		"warn_highland"	Heights mode warning	○	○
		"warn_temp"	Temperature warning	○	○
		"warn_signal_freq"	Signal frequency warning	○	○
		"warn_signal_sel"	Signal type warning	○	○
Timer acquisition	timer ?	Example) [{"operation":3400}, {"light_src":2300}, {"prev_light_src":3000}]	JSON object array of each timer value	○	○
Filter status acquisition	filter_status ?	"normal"	Maintenance is not required.	○	○
		"clean"	Filter cleaning is required.	–	–
		"replace"	Filter replacement is required.	–	–
		"cleanup_step1"	Filter auto-cleaning is required. 1	○	○
		"cleanup_step2"	Filter auto-cleaning is required. 2	○	○
Model name acquisition	modelname ?	Example) "VPL-FHZ65"	Model name	○	○
Serial number acquisition	serialnum ?	Example) "012345678"	Serial number	○	○
Input signal status acquisition	signal ?	"Video60"	60-Hz video signal	○	○
		"Video50"	50-Hz video signal	○	○
		"480_60i"	480/60i	○	○
		"576/50i"	576/50i	○	○
		"480/60p"	480/60p	○	○
		"576/50p"	576/50p	○	○
		"1080/60i"	1080/60i	○	○
		"1080/50i"	1080/50i	○	○
		"1080/24psF"	1080/24psF	○	○
		"720/60p"	720/60p	○	○
		"720/50P"	720/50P	○	○
		"1080/60p"	1080/60p	○	○
		"1080/50p"	1080/50p	○	○
		"1080/24p"	1080/24p	○	○
		"1080/30p"	1080/30p	–	–
		"640x350"	640x350	○	○
		"640x400"	640x400	○	○
		"640x480"	640x480	○	○
		"800x600"	800x600	○	○
		"832x624"	832x624	○	○
		"1024x768"	1024x768	○	○
		"1152x864"	1152x864	○	○
		"1152x900"	1152x900	○	○

Function	Command	Response	Remarks	VPL-	
				FHZ60 series	FH60 series
Input signal status acquisition	signal ?	"1280x960"	1280x960	○	○
		"1280x1024"	1280x1024	○	○
		"1400x1050"	1400x1050	○	○
		"1600x1200"	1600x1200	○	○
		"1280x768"	1280x768	○	○
		"1280x720"	1280x720	○	○
		"1920x1080"	1920x1080	○	○
		"1920x1200"	1920x1200	○	○
		"1360x768"	1360x768	○	○
		"1440x900"	1440x900	○	○
		"1680x1050"	1680x1050	○	○
		"1280x800"	1280x800	○	○
		"1600x900"	1600x900	○	○
		"2048x1080/24p"	2048x1080/24p	–	–
		"2048x1080/24psF"	2048x1080/24psF	–	–
		"Invalid"	Unknown status	○	○
		"<H resolution> x <V resolution?"	Custom resolution	○	○
Firmware version acquisition	version ?	Example) [{"main":"1.10.0a"}, {"main_data":"01/01.01"}, {"sub":"1.01.0a"} {"ext":"1.03.0a"}]	Object array of each software version	○	○
MAC address acquisition	mac_address ?	Example) "08-12-34-ab-cd-ef"	MAC address character string	○	○
IPv6 address setting method acquisition	ipv6_set_method ?	"auto"	Auto	○	○
		"manual"	Manual	○	○
IPv6 DNS address setting method acquisition	ipv6_dns_set_method ?	"auto"	Auto	○	○
		"manual"	Manual	○	○
(IPv6) IP address acquisition	ipv6_ip_address ?	IPv6 address character string Example) "2001:db8::1:0:0:1" ∗ For details of the notation, refer to RFC5952 "A Recommendation for IPv6 Address Representation".		○	○
(IPv6) default gateway address acquisition	ipv6_default_gateway ?			○	○
(IPv6) DNS1 address acquisition	ipv6_dns_server1 ?			○	○
(IPv6) DNS2 address acquisition	ipv6_dns_server2 ?			○	○
(IPv6) IP address prefix acquisition	ipv6_prefix ?	IPv6 prefix length Example) 64		○	○

Command example

power_status ? ↵
"standby" ↵

Command type: sys_var

You can set and obtain the items of special value representation with the command of the “sys_var” command type.
Command name: In the case of "command", the following format is used.
Setting of value:
Transmitting example: command "192.168.0.1" ↵
Returning example: ok ↵

Inquiry of value:
Transmitting example: command ? ↵
Returning example: "192.168.0.1" ↵

Inquiry of settable value range:
Transmitting example: command ? --range ↵
Returning example: {"min":"0.0.0.0","max":"255.255.255.255"} ↵

System numeric command

Function	Command	Parameter/response	VPL-	
			FHZ60 series	FH60 series
(IPv4) IP address setting/acquisition	ipv4_ip_address ipv4_ip_address ?	IPv4 address character string Example) "192.168.0.1"	○	○
(IPv4) subnet mask setting/acquisition	ipv4_sub_net_mask ipv4_sub_net_mask ?		○	○
(IPv4) default gateway address setting/ acquisition	ipv4_default_gateway ipv4_default_gateway ?		○	○
(IPv4) DNS1 address setting/acquisition	ipv4_dns_server1 ipv4_dns_server1 ?		○	○
(IPv4) DNS2 address setting/acquisition	ipv4_dns_server2 ipv4_dns_server2 ?		○	○

Command example

ipv4_ip_address ? ↵
"192.168.0.1" ↵

Menu command

Command type: menu_sel/menu_val/menu_exec

By optional designation, the command of a menu_sel/menu_val/menu_exec command type can set and acquire menu values, and acquire command information.
Command name: In the case of "cmd", the following format is used.

Command Type		Set		Reset	Query
		Direct	Relative		Value
menu_sel	Transmitting example	cmd "item"↵		cmd --reset↵	cmd ?↵
	Returning example	ok↵		ok↵	"item"↵
menu_num	Transmitting example	cmd 10↵	cmd --rel -1↵	cmd --reset↵	cmd ?↵
	Returning example	ok↵	ok↵	ok↵	10↵
menu_exec	Transmitting example	cmd↵	–	–	–
	Returning example	ok↵			

Command Type		Query	
		Range	Command info
menu_sel	Transmitting example	cmd --range↵	cmd --info↵
	Returning example	"item"↵	{"type":"menu_sel","version":"1.0","range":["item","item2"]}↵
menu_num	Transmitting example	cmd --range↵	cmd --info↵
	Returning example	{"min":0,"max":10}↵	{"type":"menu_num","version":"1.0","range":{"min":0,"max":10}}↵
menu_exec	Transmitting example	–	cmd --info↵
	Returning example		{"type":"menu_exec","version":"1.0"}↵

Command list

Remote control function command

Function	Command	Selected value/ numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Input terminal selection command	input	The following terminal names are used in all models.				menu_sel
		"video1"	Video terminal 1	○ (Video)	○ (Video)	
		"svideo1"	S video terminal 1	–	–	
		"rgb1"	RGB terminal 1	○ (Input A)	○ (Input A)	
		"dvi1"	DVI terminal 1	○ (Input B)	○ (Input B)	
		"hdmi1"	HDMI terminal 1	○ (Input C)	○ (Input C)	
		"hdbaset1"	HDBaseT terminal 1	○ (Input D)	○ (Input D)	
Video muting command	blank	"on"	ON	○	○	
		"off"	OFF	○	○	
Audio muting command	muting	"on"	ON	○	○	
		"off"	OFF	○	○	
Freeze (pausing of screen) function selection command	freeze	"on"	ON	○	○	
		"off"	OFF	○	○	
Dual-screen mode function selection command	multi_ screen	"on"	ON	○	○	
		"off"	OFF	○	○	

Image quality setting function

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of image quality mode	picture_mode	"dynamic"	Dynamic	○	○	menu_sel
		"standard"	Standard	○	○	
		"brt_priority"	Brightness priority	○	○	
		"multi_screen"	Multi-screen	○	○	
Resetting of image quality mode adjustment being selected			Execution of reset	○	○	menu_exec
Adjustment of contrast		<val>		○	○	menu_num
Adjustment of brightness		<val>		○	○	
Adjustment of color depth	color	<val>		○	○	
Adjustment of hue	hue	<val>		○	○	
Adjustment of sharpness	sharpness	<val>		○	○	
Selection of color temperature	color_temp	"9300K"	9300K	○	○	menu_sel
		"7500K"	7500K	○	○	
		"6500K"	6500K	○	○	
		"brt_priority"	Brightness priority	○	○	
		"custom1"	Custom 1	○	○	
		"custom2"	Custom 2	○	○	
		"custom3"	Custom 3	○	○	
		"custom4"	Custom 4	○	○	
Fine adjustment of custom color temperature Gain R		<val>		○	○	menu_num
Fine adjustment of custom color temperature Gain G		<val>		○	○	
Fine adjustment of custom color temperature Gain B		<val>		○	○	
Fine adjustment of custom color temperature Bias R		<val>		○	○	
Fine adjustment of custom color temperature Bias G		<val>		○	○	
Fine adjustment of custom color temperature Bias B		<val>		○	○	
Selection of light source (light/lamp) mode		"high"	High	○	○	menu_sel
		"mid"	Standard	○	○	
		"custom"	Custom	○	○	
		"extended"	Long	○	–	
Adjustment of custom output in light source (light/lamp) mode	light_output_val	<val>	Light output	○	○	menu_num
Selection of brightness constant mode	constant_brt	"on"	ON	○	–	menu_sel
		"off"	OFF	○	–	

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of light source dynamic mode	light_output_dyn	"on"	ON	○	–	menu_sel
		"off"	OFF	○	–	
Selection of color space	color_space	"custom1"	Custom 1	○	○	
		"custom2"	Custom 2	○	○	
		"custom3"	Custom 3	○	○	
		"custom4"	Custom 4	○	○	
Adjustment of chromaticity X axis (Cyan-Red) in color space	col_space_x	<val>	Specify the adjustment color from r/g/b with Suffix. Example) col_space_x --r 20↵ The chromaticity X axis of R (red) in color space is set to 20.	○	○	menu_num
Adjustment of chromaticity Y axis (Magenta-Green) in color space	col_space_y	<val>		○	○	
Selection of gamma mode	gamma_correction	"2.2"	2.2	○	○	menu_sel
		"2.4"	2.4	○	○	
		"gamma3"	Gamma 3	○	○	
		"gamma4"	Gamma 4	○	○	
		"dicom_sim"	DICOM GSDF Sim.	○	○	
Selection of film mode	film_mode	"auto"	Auto	○	○	
		"off"	OFF	○	○	
Selection command of reality creation	real_cre	"on"	ON	○	○	
		"off"	OFF	○	○	
Adjustment command of resolution of reality creation	real_cre_reso	<val>	Resolution	○	○	menu_num
Adjustment command of noise reduction of reality creation	real_cre_noise	<val>	Noise Filtering	○	○	
Selection command of contrast enhancer effect	contrast_enh	"high"	High	○	○	menu_sel
		"mid"	Middle	○	○	
		"low"	Low	○	○	
		"off"	OFF	○	○	
Selection command of color correction	col_correction	"on"	ON	○	○	
		"off"	OFF	○	○	
Adjustment command of hue of color correction	col_corr_hue	<val>	Select the adjustment color from six colors (r/g/b/c/y/m) with Suffix. Example) col_corr_hue --r 20↵ Red is adjusted to 20.	○	○	menu_num
Adjustment command of Color depth of color correction	col_corr_color	<val>		○	○	
Adjustment command of color brightness of color correction	col_corr_brt	<val>		○	○	

Screen setting function

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of video display aspect ratio	aspect	"4_3"	4:3	○	○	menu_sel
		"16_9"	16:9	○	○	
		"full1"	Full 1	○	○	
		"full2"	Full 2	○	○	
		"normal"	Normal	○	○	
		"full"	Full	○	○	
		"zoom"	Zoom	○	○	
Adjustment of V center	v_center	<val>	Screen position up and down	○	○	menu_num
Adjustment of V size	v_size	<val>	Vertical Size	○	○	
Selection of overscan	overscan	"on"	ON	○	○	menu_sel
		"off"	OFF	○	○	
Execution of APA	apa_exec	–		○	○	menu_exec
Adjustment of video phase	pic_phase	<val>		○	○	menu_num
Adjustment of video pitch	pic_pitch	<val>		○	○	
Adjustment of video shift (H)	pic_shift_h	<val>		○	○	
Adjustment of video shift (V)	pic_shift_v	<val>		○	○	

Function setting function

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Adjustment of volume	volume	<val>	Volume	○	○	menu_num
Selection of smart APA	smart_apa	"on"	ON	○	○	menu_sel
		"off"	OFF	○	○	
Selection of CC display	cc_display	"off"	OFF	○	○	
		"cc1"	CC1	○	○	
		"cc2"	CC2	○	○	
		"cc3"	CC3	○	○	
		"cc4"	CC4	○	○	
		"text1"	Text1	○	○	
		"text2"	Text2	○	○	
		"text3"	Text3	○	○	
		"text4"	Text4	○	○	
Selection of background	background	"blue"	Blue	○	○	
		"black"	Black	○	○	
		"image"	Image	○	○	
Selection of startup screen	startup_image	"on"	ON	○	○	
		"off"	OFF	○	○	

Operation setting function

Function	Command	Selected value/ numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of display language	language	"english"	English	○	○	menu_sel
		"dutch"	Dutch	○	○	
		"french"	French	○	○	
		"italian"	Italian	○	○	
		"german"	German	○	○	
		"spanish"	Spanish	○	○	
		"portuguese"	Portuguese	○	○	
		"greek"	Greek	○	○	
		"turkish"	Turkish	○	○	
		"polish"	Polish	○	○	
		"hungarian"	Hungarian	○	○	
		"russian"	Russian	○	○	
		"finnish"	Finnish	○	○	
		"swedish"	Swedish	○	○	
		"norwegian"	Norwegian	○	○	
		"japanese"	Japanese	○	○	
		"chinese_s"	Simplified Chinese	○	○	
		"chinese_t"	Traditional Chinese	○	○	
		"korean"	Korean	○	○	
		"thai"	Thai	○	○	
		"vietnamese"	Vietnamese	○	○	
		"indonesian"	Indonesian	○	○	
		"arabic"	Arabic	○	○	
		"persian"	Persian	○	○	
Selection of menu display position	menu_pos	"bottom_left"	Bottom left	○	○	
		"center"	Center	○	○	
Selection of screen display	status_disp	"on"	ON	○	○	
		"off"	OFF	○	○	
		"all_off"	All OFF	○	○	
Selection of remote control light receiving portion	ir_receiver	"front_rear"	Front and rear	○	○	
		"front"	Front	○	○	
		"rear"	Rear	○	○	
Selection of remote control ID	remote_id	"all"	All	○	○	
		"1"	1	○	○	
		"2"	2	○	○	
		"3"	3	○	○	
		"4"	4	○	○	
Selection of control key lock	controlkey_lock	"on"	ON	○	○	
		"off"	OFF	○	○	
Selection of lens control lock	lens_lock	"on"	ON	○	○	
		"off"	OFF	○	○	

Connection/power setting function

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of LAN setting of HDBT setting	hdbt_lan_term	"via_hdbt"	via HDBaseT	○	○	menu_sel
		"lan"	LAN terminal	○	○	
Selection of HDBT/232C setting	hdbt_232c_term	"via_hdbt"	Via HDBaseT	○	○	
		"232c"	RS-232C	○	○	
Selection of signal type	signal_sel	"auto"	Auto	○	○	
		"computer"	Computer	○	○	
		"video_gbr"	Video GBR	○	○	
		"component"	Component	○	○	
		Select the input terminal with Suffix. Example) signal_sel --rgb1 "computer" ↵ Set Input-A terminal to "computer".		Only –rgb 1" can be specified.		
Selection of color system	color_sys	"auto"	Auto	○	○	
		"ntsc358"	NTSC3.58	○	○	
		"pal"	PAL	○	○	
		"secam"	SECAM	○	○	
		"ntsc443"	NTSC4.43	○	○	
		"pal_m"	PAL-M	○	○	
		"pal_n"	PAL-N	○	○	
Selection of auto power saving (no signal)	powsave_no-sig	"lampoff"	Lamp Cutoff	○	○	
		"standby"	Standby	○	○	
		"off"	OFF	○	○	
Selection of auto power saving (invariable signal)	powsave_statsig	"dimming"	Dimming	○	–	
		"off"	OFF	○	–	
Selection of auto power saving (invariable) dimming time	powsave_dim_time	"5min"	5 min	○	–	
		"10min"	10 min	○	–	
		"15min"	15 min	○	–	
		"20min"	20 min	○	–	
		"demo"	Demo	○	–	
Selection of standby mode	standby_mode	"standard"	Standard	○	○	
		"low"	Low	○	○	
Selection of instant-on setting	instant_on	"off"	OFF	○	○	
		"10min"	10 min	○	○	
		"30min"	30 min	○	○	
Selection of direct power on	direct_powon	"on"	ON	○	○	
		"off"	OFF	○	○	
Selection of digital input dynamic range	dynamic_range	"auto"	Auto	○	○	
		"limited"	Limited	○	○	
		"full"	Full	○	○	
		Select the input terminal with Suffix. Example) dynamic_range -- dvil "full" ↵ Set DVI terminal to "full".		--dvi1 --hdmi1 --hdbaset 1 can be specified.		
Selection of digital long cable setting	digital_cable	"normal"	Normal	○	○	
		"long"	Long	○	○	
		Select the input terminal with Suffix. Example) digital_cable –hdmi 1 "long" ↵ Set HDMI terminal to "long".		Only –hdmi 1 can be specified.		

Installation setting function

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Selection of image split	image_split	"off"	OFF	○	○	menu_sel
		"left"	Left side	○	○	
		"right"	Right side	○	○	
Selection of image flip	image_flip	"hv"	HV	○	○	
		"h"	H	○	○	
		"v"	V	○	○	
		"off"	OFF	○	○	
		"auto"	Auto	○	○	
Selection of screen aspect	screen_aspect	"16_10"	16:10	○	○	
		"16_9"	16:9	○	○	
		"4_3"	4:3	○	○	
Adjustment of blanking	blanking	<val>	Blanking Select the adjustment position from top/bottom/left/right with Suffix. Example) blanking --top 10 ↵ The blanking top is set to 10.	○	○	menu_num
Adjustment of color matching (brightness)	color_matching_brt	<val>	Specify the adjustment level with Suffix. --lev1 (level 1) to --lev6 (level 6) Example) color_matching_brt --lev1 10 ↵ The brightness of color matching level 1 is set to 10.	○	○	
Adjustment of color matching (color) R	color_matching_r	<val>		○	○	
Adjustment of color matching (color) B	color_matching_b	<val>		○	○	
Execution of reset for overall color matching adjustment	color_matching_reset		Color matching reset	○	○	menu_exec
Adjustment of panel alignment (shift) R	panel_align_shift_adj_r	<val>	Select the shift direction from h (horizontal)/v (vertical) with Suffix. Example) panel_align_shift_adj_r --h 10 ↵ The panel alignment (shift) R is adjusted by 10 in the horizontal direction.	○	○	menu_num
Adjustment of panel alignment (shift) B	panel_align_shift_adj_b	<val>		○	○	
Selection of pattern color during the adjustment of panel alignment menu	panel_align_pattern	"rgb"	R/G/B	○	○	menu_sel
		"rg"	R/G	○	○	
		"bg"	B/G	○	○	
		"off"	OFF	○	○	
Selection of ON/OFF of panel alignment adjustment	panel_alignment	"on"	Panel alignment ON	○	○	
		"off"	Panel alignment OFF	○	○	

Function	Command	Selected value/numeric value	Remarks	VPL-		Type
				FHZ60 series	FH60 series	
Execution of reset for overall panel alignment adjustment	`panel_align_reset`		Execute the reset of panel alignment.	○	○	menu_exec
Selection of ON/OFF of Blending adjustment	`blend_sw`	`"on"`	ON	○	○	menu_sel
		`"off"`	OFF	○	○	
		Select the adjustment position from top/bottom/left/right with Suffix. Example) `blend_sw --top "on"` ↵ The blending adjustment of top is set to ON.				
Adjustment of blending start position	`blend_start`	<val>	Blending start position Select the adjustment position from top/bottom/left/right with Suffix. Example) `blend_start --top 10` ↵ The blending start position (top) is adjusted to 10.	○	○	menu_num
Adjustment of blending adjustment width	`blend_width`	<val>		○	○	
Adjustment of blending black level R offset	`blend_bk_level_r`	<val>	Specify the adjustment position from pos1 to pos9 with Suffix. Example) `blend_bk_level_r --pos3 10` ↵ The blending black level R offset adjustment position 3 is set to 10.	○	○	menu_sel
Adjustment of blending black level G offset	`blend_bk_level_g`	<val>		○	○	
Adjustment of blending black level B offset	`blend_bk_level_b`	<val>		○	○	
Adjustment of blending black level Execution of reset	`blend_bk_level_reset`			○	○	menu_exec
Execution of reset for blending adjustment	`blend_reset`			○	○	menu_exec
Selection of pattern (marker) display during the blending adjustment	`blend_cursor`	`"on"`	ON	○	○	menu_sel
		`"off"`	OFF	○	○	
Selection of cursor display during the blending adjustment	`blend_cursor_color`	`"r"`	Red	○	○	
		`"g"`	Green	○	○	
		`"b"`	Blue	○	○	
		`"c"`	Cyan	○	○	
		`"m"`	Magenta	○	○	
		`"y"`	Yellow	○	○	
		Select the marker portion with Suffix. Example) `blend_cursor_color --start "r"` ↵ The color of blending cursor (start position) is set to Red.				
Selection of high altitude mode	`high_alt_mode`	`"on"`	ON	○	○	
		`"off"`	OFF	○	○	
Execution of filter cleaning (with the power turned off)	`filter_cleaning`			○	○	menu_exec

Command example

(Classification is specified using menu_sel command Suffix.)

Setting of value

Transmitting example: `command --suffix "txt_param1"` ↵ Sets the selected value of a parameter.

Returning example: `ok` ↵

Inquiry of value:

Transmitting example: `command --suffix ?` ↵ Acquires the selected value of a parameter that has been set.

Returning example: `"txt_param1"` ↵

Inquiry of value range:

Transmitting example: `command --suffix ? --range` ↵ Acquires a list of parameter-selected values that can be set.

Returning example: `["txt_param1","txt_param2"]` ↵

Inquiry of command information:

Transmitting example: `command ? --suffix --info` ↵ Acquires the command information.

Returning example: `{"type":"sys_sel","version":"1.0","range":["txt_param1","txt_param2"]}` ↵

A command category, command version and a list of parameter-selected values that can be set using a command are returned as command information.

Remote controller key command

Command type: key

Command list

Function	Command	Parameter	Remarks
Pressing of remote control key	key	Refer to next page in a key code list.	Standby

Command example

`key "menu"` ↵ Description: Press the MENU key.

`ok` ↵

Key code list

Key code	Function	VPL-	
		FHZ60 series	FH60 series
"power_on"	Power ON	○	○
"power_off"	Power OFF	○	○
"power"	Power toggle	○	○
"video"	Video	○	○
"s_video"	S video	–	–
"input_a"	Input A	○	○
"input_b"	Input B	○	○
"input_c"	Input C	○	○
"input_d"	Input D	○	○
"input_e"	Input E	–	–
"input"	Input toggle	○	○
"blank"	Video muting	○	○
"muting"	Audio muting	○	○
"vol+"	Volume +	○	○
"vol–"	Volume –	○	○
"menu"	Menu	○	○
"right"	Cursor [→]	○	○
"left"	Cursor [←]	○	○
"up"	Cursor [↑]	○	○
"down"	Cursor [↓]	○	○
"enter"	ENTER	○	○
"reset"	Reset	○	○
"return"	Return	○	○
"picmode1"	Picture quality mode Dynamic	○	○
"picmode2"	Picture quality mode Standard	○	○
"picmode3"	Picture quality mode Luminance priority	○	○
"picmode4"	Picture quality mode Multi-screen	○	○
"picmode"	Picture quality mode toggle	○	○
"picture+"	Contrast +	○	○
"picture–"	Contrast –	○	○
"color+"	Color depth +	○	○
"color–"	Color depth –	○	○
"bright+"	Brightness +	○	○
"bright–"	Brightness –	○	○
"hue+"	Hue +	○	○
"hue–"	Hue –	○	○
"sharpness+"	Sharpness +	○	○
"sharpness–"	Sharpness –	○	○
"picture_adj"	Picture quality adjustment toggle	○	○
"color_temp"	Color temperature toggle	○	○
"color_mode"	Color space toggle	○	○
"black_level"	Contrast enhancer toggle	○	○
"aspect"	ASPECT	○	○
"apa"	APA	○	○
"phase"	Phase	○	○

Key code	Function	VPL-	
		FHZ60 series	FH60 series
"video_size"	Pitch	○	○
"video_shift"	Shift	○	○
"status_on"	Screen display ON	○	○
"status_off"	Screen display OFF	○	○
"lens_control"	Lens toggle	○	○
"lens_focus"	Lens focus	○	○
"lens_focus_far"	Lens focus far	○	○
"lens_focus_near"	Lens focus near	○	○
"lens_zoom"	Lens zoom	○	○
"lens_zoom_up"	Lens zoom +	○	○
"lens_zoom_down"	Lens zoom –	○	○
"lens_shift"	Lens shift	○	○
"lens_shift_up"	Lens shift up	○	○
"lens_shift_down"	Lens shift down	○	○
"lens_shift_left"	Lens shift left	○	○
"lens_shift_right"	Lens shift right	○	○
"twin"	TWIN	○	○
"freeze"	Freeze	○	○
"d_zoom+"	Digital zoom +	○	○
"d_zoom–"	Digital zoom –	○	○
"keystone"	Keystone	○	○
"keystone+"	V Keystone +	○	○
"keystone–"	V Keystone –	○	○
"pattern"	Test pattern	○	○
"eco"	ECO mode	○	○

2. Network Communication

The ports used in the unit are as shown below.

VPL-FHZ60/FH60 series

Protocol/function	Port No.	Service state at the factory	Setting change enabled/disabled	
			Service ON/OFF	Port No.
SDAP	UDP:53482	ON	Enabled	Enabled
ADCP	TCP:53595	ON	Enabled	Enabled
SMTP	TCP:25	OFF	Enabled by mail setting	Disabled
POP3	TCP:110	OFF	Enabled by mail setting	Disabled
SNMP	UDP:161	ON	Disabled	Disabled
DDDP	UDP:9131	ON	Disabled	Disabled
PJLink	TCP:4352	OFF	Enabled	Disabled
CIP	TCP:41794	ON	Disabled	Enabled

VPL-FH60 (SY)
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(SUPPORTED COMMAND LIST)

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