Projector IN5132/IN5132c/IN5142/IN5142c/ IN5134/IN5134c/IN5144/IN5144c/ IN5135/IN5135c/IN5145/IN5145c User's Manual (detailed) Operating Guide – Technical

Example of computer signal

Resolution (H x V)	H. frequency (kHz)	V. frequency (Hz)	Rating	Signal mode
720 x 400	37.9	85.0	VESA	TEXT
640 x 480	31.5	59.9	VESA	VGA (60Hz)
640 x 480	37.9	72.8	VESA	VGA (72Hz)
640 x 480	37.5	75.0	VESA	VGA (75Hz)
640 x 480	43.3	85.0	VESA	VGA (85Hz)
800 x 600	35.2	56.3	VESA	SVGA (56Hz)
800 x 600	37.9	60.3	VESA	SVGA (60Hz)
800 x 600	48.1	72.2	VESA	SVGA (72Hz)
800 x 600	46.9	75.0	VESA	SVGA (75Hz)
800 x 600	53.7	85.1	VESA	SVGA (85Hz)
832 x 624	49.7	74.5		Mac 16" mode
1024 x 768	48.4	60.0	VESA	XGA (60Hz)
1024 x 768	56.5	70.1	VESA	XGA (70Hz)
1024 x 768	60.0	75.0	VESA	XGA (75Hz)
1024 x 768	68.7	85.0	VESA	XGA (85Hz)
1152 x 864	67.5	75.0	VESA	1152 x 864 (75Hz)
1280 x 768	47.7	60.0	VESA	W-XGA (60Hz)
1280 x 800	49.7	60.0	VESA	1280 x 800 (60Hz)
1280 x 960	60.0	60.0	VESA	1280 x 960 (60Hz)
1280 x 1024	64.0	60.0	VESA	SXGA (60Hz)
1280 x 1024	80.0	75.0	VESA	SXGA (75Hz)
1440 x 900	55.9	59.9	VESA	WXGA+ (60Hz)

(continued on next page)

Resolution (H x V)	H. frequency (kHz)	V. frequency (Hz)	Rating	Signal mode
*1 1280 x 1024	91.1	85.0	VESA	SXGA (85Hz)
*2 1400 x 1050	65.2	60.0	VESA	SXGA+ (60Hz)
*3 1680 x 1050	65.3	60.0	VESA	WSXGA+ (60Hz)
*1 1600 x 1200	75.0	60.0	VESA	UXGA (60Hz)
*4 1920 x 1200	74.0	60.0	VESA	W-UXGA (60Hz) Reduced Blanking

*1) Supported except for HDMI[™] input.

*2) Only for IN5132 and IN5142.

*3) Only for IN5134, IN5144, IN5135 and IN5145.

*4) Only for IN5135 and IN5145, excluding the HDMI[™] input.

NOTE • Verify the connector type, signal level, timing and resolution before connecting this projector to a computer.

• Some computers may have multiple display screen modes. Some of these modes may not be compatible with this projector.

• Depending on the input signal, full-size display may not be possible in some cases. Refer to the number of display pixels above.

• Although the projector can display signals with resolutions up to UXGA (1600x1200) or up WUXGA (1920x1200) for **IN5135** and **IN5145**, the signal will be scaled to the projector's native resolution before being displayed. The best display performance occurs when the input signal and projector resolutions are identical.

• Automatic adjustment may not function correctly for all input signals.

• If the input sync signal is a composite sync or a sync on G signal, the image may not display correctly.

Initial set signals

The following signals are used initially, however the signal timing of some computer models may be different. When this occurs, adjust V POSITION and H POSITION in the IMAGE menu.

	Back po	orch (B)	Front porch (D)		Back porch (b)) Front	porch (d)
Data H. Sync	Sync	Active v		Data V. Syn	icAc	tive video (c)	*
Resc	olution	Horizonta	ll signal timing (µs)	Vertical s	signal timing (line	es) Signal	modo

								(Signal mode
(H x V)	(A)	(B)	(C)	(D)	(a)	(b)	(C)	(d)	
720 x 400	2.0	3.0	20.3	1.0	3	42	400	1	TEXT
640 x 480	3.8	1.9	25.4	0.6	2	33	480	10	VGA (60Hz)
640 x 480	1.3	4.1	20.3	0.8	3	28	480	9	VGA (72Hz)
640 x 480	2.0	3.8	20.3	0.5	3	16	480	1	VGA (75Hz)
640 x 480	1.6	2.2	17.8	1.6	3	25	480	1	VGA (85Hz)
800 x 600	2.0	3.6	22.2	0.7	2	22	600	1	SVGA (56Hz)
800 x 600	3.2	2.2	20.0	1.0	4	23	600	1	SVGA (60Hz)
800 x 600	2.4	1.3	16.0	1.1	6	23	600	37	SVGA (72Hz)
800 x 600	1.6	3.2	16.2	0.3	3	21	600	1	SVGA (75Hz)
800 x 600	1.1	2.7	14.2	0.6	3	27	600	1	SVGA (85Hz)
832 x 624	1.1	3.9	14.5	0.6	3	39	624	1	Mac 16" mode
1024 x 768	2.1	2.5	15.8	0.4	6	29	768	3	XGA (60Hz)
1024 x 768	1.8	1.9	13.7	0.3	6	29	768	3	XGA (70Hz)
1024 x 768	1.2	2.2	13.0	0.2	3	28	768	1	XGA (75Hz)
1024 x 768	1.0	2.2	10.8	0.5	3	36	768	1	XGA (85Hz)
1152 x 864	1.2	2.4	10.7	0.6	3	32	864	1	1152 x 864 (75Hz)
1280 x 768	1.7	2.5	16.0	0.8	3	23	768	1	W-XGA (60Hz)
1280 x 800	1.6	2.4	15.3	0.8	3	24	800	1	1280 x 800 (60Hz)
1280 x 960	1.0	2.9	11.9	0.9	3	36	960	1	1280 x 960 (60Hz)
1280 x 1024	1.0	2.3	11.9	0.4	3	38	1024	1	SXGA (60Hz)
1280 x 1024	1.1	1.8	9.5	0.1	3	38	1024	1	SXGA (75Hz)
1280 x 1024	1.0	1.4	8.1	0.4	3	44	1024	1	SXGA (85Hz)
1400 x 1050	1.2	2.0	11.4	0.7	3	33	1050	1	SXGA+ (60Hz)
1440 x 900	1.4	2.2	13.5	0.8	6	25	900	3	WXGA+ (60Hz)
1680 x 1050	1.2	1.9	11.5	0.7	6	30	1050	3	WSXGA+ (60Hz)
1600 x 1200	1.2	1.9	9.9	0.4	3	46	1200	1	UXGA (60Hz)
1920 x 1200	0.208	0.519	12.47	0.312	6	26	1200	3	W-UXGA (60Hz) Reduced Blanking

Connection to the ports

NOTICE ► Use cables with straight plugs, not L-shaped ones, as the input ports of the projector are recessed.

► Only the **COMPUTER IN1** or **IN2** signal inputs can be output from the **MONITOR OUT** port.



00000 60890 00346

(A)COMPUTER IN1, **(B)**MONITOR OUT

D-sub 15pin mini shrink jack

<Computer signal>

- Video signal: RGB separate, Analog, 0.7Vp-p, 75Ω terminated (positive)
- H/V. sync. signal: TTL level (positive/negative)
- · Composite sync. signal: TTL level

<Component video signal>

- Video signal: Y with composite sync, Analog, 1.0±0.1Vp-p, 75Ω terminated Cb/Pb, Analog, 0.7±0.1Vp-p, 75Ω terminated Cr/Pr, Analog, 0.7±0.1Vp-p 75Ω terminated
- System: 480i@60, 480p@60, 576i@50, 720p@50/60, 1080i@50/60, 1080p@50/60

Pin	Signal	Pin	Signal
1	Video Red, Cr/Pr	9	(No connection)
2	Video Green, Y	10	Ground
3	Video Blue, Cb/Pb	11	(No connection)
4	(No connection)	12	A: SDA (DDC data) B: (No connection)
5	Ground	13	H. sync / Composite sync.
6	Ground Red, Ground Cr/Pr	14	V. sync.
7	Ground Green, Ground Y	15	A: SCL (DDC clock) B: (No connection)
8	Ground Blue, Ground Cb/Pb		



COMPUTER IN2 CG/Y, DB/Cb/Pb, ER/Cr/Pr, FH, GV

BNC jack x5

<Computer signal>

- Video signal: RGB separate, Analog, 0.7Vp-p, 75Ω terminated (positive)
- H/V. sync. signal: TTL level (positive/negative)
- Composite sync. signal: TTL level

<Component video signal>

- Video signal: Y with composite sync, Analog, 1.0±0.1Vp-p, 75Ω terminated Cb/Pb, Analog, 0.7±0.1Vp-p, 75Ω terminated Cr/Pr, Analog, 0.7±0.1Vp-p 75Ω terminated
- System: 480i@60, 480p@60, 576i@50, 720p@50/60, 1080i@50/60, 1080p@50/60

(H)HDMI 1, (I)HDMI 2

HDMI[™] connector

• Audio signal: Linear PCM (Sampling rate; 32/44.1/48 kHz)

246802968
<u> </u>

Pin	Signal	Pin	Signal	Pin	Signal
1	T.M.D.S. Data2 +	8	T.M.D.S. Data0 Shield	15	SCL
2	T.M.D.S. Data2 Shield	9	T.M.D.S. Data0 -	16	SDA
3	T.M.D.S. Data2 -	10	T.M.D.S. Clock +	17	DDC/CEC Ground
4	T.M.D.S. Data1 +	11	T.M.D.S. Clock Shield	18	+5V Power
5	T.M.D.S. Data1 Shield	12	T.M.D.S. Clock -	19	Hot Plug Detect
6	T.M.D.S. Data1 -	13	CEC		
7	T.M.D.S. Data0 +	14	Reserved (N.C. on device)		



COMPONENT (JY, (Cb/Pb, (Cr/Pr

RCA jack x3

- Component video signal, Analog:
 -Y with composite sync, 1.0±0.1Vp-p, 75Ω terminated
 -Cb/Pb, 0.7±0.1Vp-p, 75Ω terminated
 -Cr/Pr, 0.7±0.1Vp-p 75Ω terminated
- System: 480i@60, 480p@60, 576i@50, 720p@50/60, 1080i@50/60, 1080p@50/60

MS-VIDEO



Mini DIN 4pin jack • S-video signal, Analog:

-Brightness signal with composite sync, 1.0±0.1Vp-p, 75Ω terminated -Color signal, 0.286Vp-p (NTSC, burst), 75Ω terminated

0.300Vp-p (PAL/SECAM, burst) 75Ω terminated

• System: NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43, PAL(60Hz)

Pin	Signal
1	C (color signal)
2	Y (brightness signal)
3	Ground
4	Ground

NVIDEO

RCA jack

- Composite video signal, Analog, 1.0±0.1Vp-p, 75 Ω terminator
- System: NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43, PAL(60Hz)



OAUDIO IN1, **P**AUDIO IN2

Ø3.5 stereo mini jack

• Analog, 500 mVrms, 47kΩ input impedance

AUDIO IN3 QL, RR

RCA jack x2Analog, 500 mVrms, 47kΩ input impedance

UCONTROL

D-sub 9pin plug

* Refer to the next section for RS-232 communication details.

AUDIO OUT (S)L, (T)R

RCA jack x2

• Analog, 500 mVrms, $1k\Omega$ output impedance



Pin	Signal	Pin	Signal	Pin	Signal
1	(No connection)	4	(No connection)	7	RTS
2	RD	5	Ground	8	CTS
3	TD	6	(No connection)	9	(No connection)

Connection to the ports (continued)



VLAN

RJ-45 jack

* Refer to the Network Guide for more details.



Pin	Signal	Pin	Signal	Pin	Signal
1	TX+	4	-	7	-
2	TX-	5	-	8	-
3	RX+	6	RX-		

WUSB TYPE A

USB A type jack x2

Pin	Signal
1	+5V
2	- Data
3	+ Data
4	Ground



WUSD ITED

USB B type jack





REMOTE CONTROL ()IN, OUT

Ø3.5 stereo mini jack



To input a SCART RGB signal:

To input a SCART RGB signal to the projector, use a SCART to RCA cable. Connect the cables as per the above example. For more information, please consult your dealer.

RS-232 Communication

When the projector is connected to a computer using RS-232 communication, the projector can be controlled from the computer using RS-232 commands. For RS-232 command details, refer to the RS-232 Communication / Network command table (^{[[]}17).

Connection

Turn off the projector and the computer.

2. Connect the projector's **CONTROL** port and the computer's RS-232 port with a RS-232 null modem cable. Use the cable that fulfills the specification shown below.

3. Turn the computer on, and after the computer has started up, turn the projector on.

A Set the COMMUNICATION TYPE to OFF in the COMMUNICATION menu of the

4. OPTION - SERVICE menu.



RS-232 Commands

IMPORTANT: When formatting commands sent from a control system or computer, enclose commands in parentheses "(" and ")".

Communication Configuration

Visit our website for additional RS-232 settings and information.

To control this projector via RS-232, connect a null modem cable and set the control system serial port settings to match the following communication configuration:

RS-232 Port Settings						
Setting	Value					
Bits per second	19,200					
Data bits	8					
Parity	None					
Stop bits	1					
Flow control	None					
Emulation	VT100					

Command Format

All commands consist of 3 alpha characters followed by a request, all enclosed in parentheses. The request can be a read request (indicated by a "?") or a write request (indicated by 1 to 4 ASCII digits).

A read request example:

(AAA?) where
(starts the command
AAA denotes the command
? denotes the read request
) ends the command
A read command returns the range and the current setting, for example:

Read Command Examples							
Function	Command	Response					
Brightness	(BRT?)	(96-160, 128)					
Volume	(VOL?)	(0-32, 0)					
Lamp Hours	(LMP?)	(0-32766, 42)					

A write request example:

(AAA####) where (starts the command AAA denotes the command ##### denotes the value to be written (leading zeros not necessary)) ends the command

Some commands have ranges, while others are absolute. If a number greater than the maximum range is received, it is automatically set to the maximum number for that function. If a command is received that is not understood, a "?" is returned. With absolute settings, "0" is off, 1-9999 is on. The one exception is the Power command, where 0 is off and 1 is on.

To change the value, add "+" before the value to be written to increase the value or "-" before the value to decrease the value.

Write Command Examples						
Function	Command	Response				
Brightness	(BRT140)	Sets the brightness to 140				
Power	(PWR0)	Turns power off				
Power	(PWR1)	Turns power on				

To assure the projector can process a command, wait 3 seconds before entering the next command.

Error Conditions

Not all commands are supported for all projectors. If an unsupported command is issued, the command will be ignored. If a command is received that is not understood, a '?' character will be returned indicating the command was not understood.

Limitations

The projector cannot respond to commands coming in at a high-rate. Therefore, a delay must occur between commands to ensure that the command gets properly executed. To assure the projector can process a command, wait 3 seconds before entering the next command.

The Step column refers to increasing or decreasing the menu bar position since the On-screen Display is not an exact match of values. For example, Step 2 changes the data by 2 through the CLI (Command Line Interface). The menu bar is up (or down) by 1.

Command Control via the Network

When the projector is connected to the network, the projector can be controlled with RS-232 commands from the computer's web browser.

For RS-232 command details, refer to the RS-232 Communication / Network command table (117).

NOTE • If data is transferred via wireless and wired LAN at the same time, the projector may not be able to process the data correctly.

Connection

1 Turn off the projector and the computer.

Ί.

2. If you are using a wired LAN, connect the projector's LAN port to the computer's LAN port with a LAN cable. Use the cable that fulfills the specification shown below. If you are using a wireless LAN, insert the USB wireless adapter into one of the USB TYPE A ports of the projector.

 $\textbf{3.} \ \ \text{Turn the computer on, and after the computer has started up, turn the projector on.}$



LAN cable (CAT-5 or greater)

Communication Port

Port no. 23 (TCP #23) is assigned for command control.

Command Format

Use the same command format as is used for RS-232 commands (411).

Automatic Connection Break

The TCP connection will automatically disconnect after 30 seconds of inactivity.

Network Bridge Communication

This projector is equipped with the NETWORK BRIDGE function. When the projector is connected to a computer using wired or wireless LAN communicaton, an external device connected to this projector by RS-232 communication can be controlled from the computer as a network terminal. For details, review the 6. Network Bridge function in the Network Guide.

NOTE • The projector may not be able to process the data correctly when data is simultaneously transferred via both wireless and wired LAN.

Connection

- If you are using a wired LAN, connect the computer's LAN port and the
- 1. projector's LAN port with a LAN cable. Use a cable per the specifications shown below. If you are using a wireless LAN, insert a USB wireless adapter into the projector's LAN port.
- Connect an RS-232 cable between the projector's CONTROL port and the 2. RS-232 port of the device.
- Turn the computer on, and after the computer has started up, turn the
- 3. projector on.
- Set the COMMUNICATION TYPE to NETWORK BRIDGE in the
- 4. COMMUNICATION menu of the OPTION SERVICE menu.



Communication settings

To use communication settings, use the COMMUNICATION menu in the OPTION - SERVICE menu

Item	Condition
BAUD RATE	4800bps / 9600bps / 19200bps / 38400bps
Data bits	8 (fixed)
PARITY	NONE/ODD/EVEN
Start bit	1 (fixed)
Stop bit	1 (fixed)
Transmission method	HALF-DUPLEX/FULL-DUPLEX

NOTE • When connecting the projector to your devices, please read the manual for each device, and connect them correctly with suitable cables. • Turn off the power and unplug both the projector and other devices before connecting them.

• For Transmission method details, refer to **6.4 Transmission methods** in the **Network Guide**.

RS-232 Communication / Network command table

Function	Command	RW	Min	Max	Default	Step
	EA	SY MEN	U			
Aspect Ratio 0: Normal 1: Native ([WX], [WU] only) 2: 4:3 3: 16:9 6: 16:10 9:14:9	ARZ	RW	0	9	0	
Auto Keystone (Execute) 1: Execute	AVK	w	0	1	n/a	
Horizontal Keystone	ркн	RW	[X], [WX]: 38 [WU]: 88	[X], [WX]: 218 [WU]: 168	128	1
Vertical Keystone	DKV	RW	[X], [WX]: 38 [WU]: 48	[X], [WX]: 218 [WU]: 208	128	1
Perfect Fit On 0: Off 1: On	CNE	RW	0	1	0	
Perfect Fit Top Left corner -H	CN1	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Top Left corner -V	CN2	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit Top Right corner -H	CN3	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Top Right corner -V	CN4	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit Bottom Left corner - H	CN5	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Bottom Left corner - V	CN6	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit Bottom Right corner - H	CN7	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1

Function	Command	RW	Min	Max	Default	Step
Perfect Fit Bottom Right corner - V	CN8	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit All Corners reset 1: Execute	CNR	W	0	1	n/a	
Perfect Fit Left Side Distortion ([X], [WX] only)	SC1	RW	98	158	128	1
Perfect Fit Right Side Distortion ([X], [WX] only)	SC2	RW	98	158	128	1
Perfect Fit Distortion V Position ([X], [WX] only)	SC3	RW	0	[X]: 768 [WX]: 800	[X]: 384 [WX]: 400	1
Perfect Fit Top Side Distortion ([X], [WX] only)	SC4	RW	98	158	128	1
Perfect Fit Bottom Side Distortion ([X], [WX] only)	SC5	RW	98	158	128	1
Perfect Fit Distortion H Position ([X], [WX] only)	SC6	RW	0	[X]: 1024 [WX]: 1280	[X]: 512 [WX]: 640	1
Perfect Fit All Sides Reset 1: Execute	SCR	w	0	1	n/a	
Perfect Fit Memory 1 0: Load 1: Save	CS1	w	0	1	n/a	
Perfect Fit Memory 2 0: Load 1: Save	CS2	w	0	1	n/a	
Perfect Fit Memory 3 0: Load 1: Save	CS3	w	0	1	n/a	
Picture Mode 1: Custom (read only) 5: Normal 7: Cinema 10: Daytime 11: Whiteboard 12: Blackboard 13: Greenboard 15: Dynamic 16: Dicom Sim.	PST	RW	1	16	5	
Eco Mode 0: Normal 1: Eco	LPE	RW	0	1	0	
Installation 0: Front/Desktop 1: Rear/Desktop 2: Rear/Ceiling 3: Front/Ceiling	IST	RW	0	3	0	

[X]: supported by IN5132 and IN5142.

[WX]: supported by IN5134 and IN5144.

[WU]: supported by IN5135 and IN5145.

Function	Command	RW	Min	Max	Default	Step
Easy Menu Reset 1: Execute	MRT	W	0	1	n/a	
Filter Time	FLT	R	0	999999	n/a	
Filter Time Reset 1: Reset	FRT	w	0	1	n/a	
Language 0: English 1: French 2: German 3: Italian 5: Korean 6: Norwegian 7: Portuguese 8: Russian 9: Simplified Chinese 10: Spanish 11: Traditional Chinese 12: Swedish 13: Dutch 14: Polish 15: Turkish 17: Finnish 18: Japanese	LAN	RW	0	18	0	
	ADVANCED	MENU:	PICTUR	E		
Brightness	BRT	RW	96	160	128	1
Contrast	CON	RW	96	160	128	1
Gamma 32: 1 Default 16: 1 Custom 33: 2 Default 17: 2 Custom 34: 3 Default 18: 3 Custom 35: 4 Default 19: 4 Custom 36: 5 Default 20: 5 Custom 37: 6 Default 21: 6 Custom 38: 7 Default 22: 7 Custom	GTB	RW	16	38	32	
Gamma Pattern 0: Off 1: 9 steps gray scale 2: 15 steps gray scale 3: Ramp	GTP	RW	0	3	0	
Gamma Point 1	GP1	RW	112	144	128	1
Gamma Point 2	GP2	RW	112	144	128	1
Gamma Point 3	GP3	RW	112	144	128	1
Gamma Point 4	GP4	RW	112	144	128	1

	1					
Function	Command	RW	Min	Max	Default	Step
Gamma Point 5	GP5	RW	112	144	128	1
Gamma Point 6	GP6	RW	112	144	128	1
Gamma Point 7	GP7	RW	112	144	128	1
Gamma Point 8	GP8	RW	112	144	128	1
Color Temperature 0: 1 High 1: 1 Custom 2: 2 Mid 3: 2 Custom 4: 3 Low 5: 3 Custom 6: 4 Hi-Bright-1 7: 4 Custom 8: 5 Hi-Bright-2	TMP	RW	0	11	2	
9: 5 Custom						
10: 6 HI-Bright-3						
Color Temperature - Red Cain	CGR	D\//	96	160	128	1
Color Temperature - Red Gain	CGR		06	160	120	1
Color Temperature - Green Gain			90	160	120	1
Color Temperature - Bide Gain	CGB	RW	90	160	120	1
Color Temperature - Red Offset	CFR	RVV	96	160	128	
Color Temperature - Green Offset	CFG	RW	96	160	128	1
Color Temperature - Blue Offset	CFB	RW	96	160	128	1
Color	CLR	RW	96	160	128	1
Tint	TNT	RW	96	160	128	1
Sharpness	SHP	RW	125	131	128	1
Active Iris 0: Off 1: Presentation 2: Theater	IRI	RW	0	2	1	
My Memory 1 0: Load 1: Save	US1	w	0	1	n/a	
My Memory 2 0: Load 1: Save	US2	w	0	1	n/a	
My Memory 3 0: Load 1: Save	US3	w	0	1	n/a	
My Memory 4 0: Load 1: Save	US4	w	0	1	n/a	
	ADVANCE	D MENU	: IMAGE			
Aspect Ratio 0: Normal 1: Native ([WX], [WU] only) 2: 4:3 3: 16:9 6: 16:10 9: 14:9	ARZ	RW	0	9	0	

	1	1			1	
Function	Command	RW	Min	Max	Default	Step
Overscan	OVS	RW	90	100	95	1
Vertical Position	VPS	RW	ifdef<128: 0 else: def -128	def +128	auto	1
Horizontal Position	HPS	RW	fdef<128: 0 else: def -128	def+128	auto	1
H Phase	MSS	RW	0	63	0	1
H Size	MTS	RW	def-384	def+128	auto	1
Auto Adjust Execute	AIM	w	0	1	n/a	
	ADVANCE		: INPUT	•	1	
Progressive 0: Off 1: TV 2: Film	тто	RW	0	2	1	
Video Noise Reduction 1: Low 2: Mid 3: High	NRL	RW	1	3	2	
Color Space 0: RGB 1: REC709 2: REC601 4: Auto 5: SMPTE240	CSM	RW	0	5	4	
Video Format (Video) 0: Auto 1: NTSC 2: PAL 3: SECAM 4: NTSC4.43 5: M-PAL 6: N-PAL	VSU	RW	0	6	0	
Video Format (S-video) 0: Auto 1: NTSC 2: PAL 3: SECAM 4: NTSC4.43 5: M-PAL 6: N-PAL	VSS	RW	0	6	0	
HDMI 1 Format 0: Auto 1: Video 2: Computer	HF1	RW	0	2	0	
HDMI 2 Format 0: Auto 1: Video 2: Computer	HF2	RW	0	2	0	

Function	Command	RW	Min	Max	Default	Step
HDMI 1 Range 0: Normal 1: Enhanced 16: Auto	HR1	RW	0	16	16	
HDMI 2 Range 0: Normal 1: Enhanced 16: Auto	HR2	RW	0	16	16	
Component 0: Component 1: Scart RGB	SCT	RW	0	1	0	
Computer in 1 0: SOG off 1: Auto 2: Video (only for Stack)	SG1	RW	0	2	1	
Computer in 2 0: SOG off 1: Auto 2: Video (only for Stack)	SG2	RW	0	2	1	
Frame Lock (Computer In 1) 0: Off 1: On	SF1	RW	0	1	1	
Frame Lock (Computer In 2) 0: Off 1: On	SF2	RW	0	1	1	
Frame Lock (HDMI 1) 0: Off 1: On	SF3	RW	0	1	1	
Frame Lock (HDMI 2) 0: Off 1: On	SF4	RW	0	1	1	
	ADVANCE	D MENU	: SETUF)		
Auto Keystone Execute 1: Execute	AVK	W	0	1	n/a	
Horizontal Keystone	ркн	RW	[X], [VVX]: 38 [VVU]: 88	[X], [WX]: 218 [WU]: 168	128	1
Vertical Keystone	DKV	RW	[X], [VVX]: 38 [VVU]: 48	[X], [WX]: 218 [WU]: 208	128	1
Perfect Fit On 0: Off 1: On	CNE	RW	0	1	0	
Perfect Fit Top Left corner -H	CN1	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Top Left corner -V	CN2	RW	0	[X], [WX]: 550 [WU]: 570	0	1

Function	Command	RW	Min	Max	Default	Step
Perfect Fit Top Right corner -H	CN3	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Top Right corner -V	CN4	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit Bottom Left corner -H	CN5	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Bottom Left corner -V	CN6	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit Bottom Right corner -H	CN7	RW	0	[X]: 511 [WX]: 639 [WU]: 959	0	1
Perfect Fit Bottom Right corner -V	CN8	RW	0	[X], [WX]: 550 [WU]: 570	0	1
Perfect Fit All Corners Reset 1: Execute	CNR	W	0	1	n/a	
Perfect Fit Left Side Distortion	SC1	RW	98	158	128	1
Perfect Fit Right Side Distortion	SC2	RW	98	158	128	1
Perfect Fit Distortion V Position	SC3	RW	0	[X]: 768 [WX]: 800	[WX]: 384 [WX]: 400	1
Perfect Fit Top Side Distortion	SC4	RW	98	158	128	1
Perfect Fit Bottom Side Distortion	SC5	RW	98	158	128	1
Perfect Fit H Distortion Position	SC6	RW	0	[X]: 1024 [WX]: 1280	[WX]: 512 [WX]: 640	1
Perfect Fit All Reset 1: Execute	SCR	W	0	1	n/a	
Perfect Fit Memory 1 0: Load 1: Save	CS1	w	0	1	n/a	
Perfect Fit Memory 2 0: Load 1: Save	CS2	w	0	1	n/a	
Perfect Fit Memory 3 0: Load 1: Save	CS3	w	0	1	n/a	
Auto Eco Mode 0: Off 1: On	AEM	RW	0	1	0	
Eco Mode 0: Normal 1: Eco	LPE	RW	0	1	0	
Installation 0: Front/Desktop 1: Rear/Desktop 2: Rear/Ceiling 3: Front/Ceiling	IST	RW	0	3	0	

Function	Command	RW	Min	Max	Default	Step
Standby Mode 0: Normal 1: Saving	SPS	RW	0	1	0	
Monitor Out (Computer in 1) 1: Computer In 1 2: Computer In 2 ([WU] only) 255: Off	SM0	RW	1	255	1	
Monitor Out (Computer in 2) 1: Computer In 1 ([WU] only) 2: Computer in 2 255: Off	SM1	RW	[X], [WX]: 2 [WU]: 1	255	2	
Monitor Out (LAN) 1: Computer in 1 2: Computer in 2 255: Off	SM2	RW	1	255	1	
Monitor Out (USB Type A) 1: Computer in 1 2: Computer in 2 255: Off	SM3	RW	1	255	1	
Monitor Out (USB Type B) 1: Computer in 1 2: Computer in 2 255: Off	SM4	RW	1	255	1	
Monitor Out (HDMI 1) 1: Computer in 1 2: Computer in 2 255: Off	SM5	RW	1	255	1	
Monitor Out (HDMI 2) 1: Computer in 1 2: Computer in 2 255: Off	SM9	RW	1	255	1	
Monitor Out (Component) 1: Computer in 1 2: Computer in 2 255: Off	SM6	RW	1	255	1	
Monitor Out (S-Video) 1: Computer in 1 2: Computer in 2 255: Off	SM7	RW	1	255	1	
Monitor Out (Video) 1: Computer in 1 2: Computer in 2 255: Off	SM8	RW	1	255	1	
Monitor Out for Standby 1: Computer in 1 2: Computer in 2 255: Off	SMS	RW	1	255	1	

Function	Command	RW	Min	Max	Default	Step
ADVANCED MENU: AUDIO						
Volume (Computer in 1)	VL0	RW	0	48	32	1
Volume (Computer in 2)	VL1	RW	0	48	32	1
Volume (LAN)	VL2	RW	0	48	32	1
Volume (USB Type A)	VL3	RW	0	48	32	1
Volume (USB Type B)	VL4	RW	0	48	32	1
Volume (HDMI 1)	VL5	RW	0	48	32	1
Volume (HDMI 2)	VL9	RW	0	48	32	1
Volume (Component)	VL6	RW	0	48	32	1
Volume (S-Video)	VL7	RW	0	48	32	1
Volume (Video)	VL8	RW	0	48	32	1
Volume (Audio Out Standby)	VLS	RW	0	48	32	1
Volume All	VOL	RW	0	48	32	1
Speaker 0: Off	INT	RW	0	1	1	
1: On						
Audio Source (Computer in 1) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SA0	RW	0	5	0	
Audio Source (Computer in 2) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SA1	RW	0	5	1	
Audio Source (LAN) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off 7: Audio LAN	SA2	RW	0	7	7	
Audio Source (USB Type A) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off 8: Audio USB Type A	SA3	RW	0	8	8	
Audio Source (USB Type B) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off 9: Audio USB Type B	SA4	RW	0	9	9	
Audio Source (HDMI 1) 0: Audio In 1 1: Audio In 2 2: Audio In 3 4: Audio HDMI 1 5: Off	SA5	RW	0	5	4	

Function	Command	RW	Min	Max	Default	Step
Audio Source (HDMI 2) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off 6: Audio HDMI 2	SA9	RW	0	6	6	
Audio Source (Component) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SA6	RW	0	5	2	
Audio Source (S-Video) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SA7	RW	0	5	2	
Audio Source (Video) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SA8	RW	0	5	2	
Audio Source (Standby) 0: Audio In 1 1: Audio In 2 2: Audio In 3 5: Off	SAS	RW	0	5	5	
HDMI 1 Audio 1: 1 (On) 0: 2 (Off)	HNC	RW	0	1	1	
HDMI 2 Audio 1: 1 (On) 0: 2 (Off)	HN2	RW	0	1	1	
	ADVANCED	MENU:	SCREE	N		
Language 0: English 1: French 2: German 3: Italian 5: Korean 6: Norwegian 7: Portuguese 8: Russian 9: Simplified Chinese 10: Spanish 11: Traditional Chinese 12: Swedish 13: Dutch 14: Polish 15: Turkish 17: Finnish 18: Japanese	LAN	RW	0	18	0	

RS-232C Communication /	Network command	table (continued)

Function	Command	RW	Min	Max	Default	Step
Menu Positon H	OFH	RW	0	10	10 (right)	1
Menu Positon V	OFV	RW	0	10	0 (bottom)	1
Blank Screen 0: Blue 3: Black 4: White 5: Original 6: MyScreen	BSS	RW	0	6	3	
Startup 0: Original 1: MyScreen 2: Off	DSU	RW	0	2	0	
MyScreen Lock 0: Off 1: On	DCP	RW	0	1	0	
Messages 0: Off 1: On	DMG	RW	0	1	1	
Template 0: Dot-Line1 1: Dot-Line2 2: Dot-Line3 3: Dot-Line4 4: Circle 1 5: Circle 2 6: Map 1 7: Map 2 8: Stack 9: Test Pattern	CRM	RW	0	9	9	
C.C. Display 0: Off 1: On 2: Auto	CCD	RW	0	2	0	
C.C. Mode 0: Captions 1: Text	ССМ	RW	0	1	0	
C.C. Channel 1: 1 2: 2 3: 3 4: 4	ссс	RW	1	4	1	
	ADVANCE	MENU:	OPTIO	N		
Source Skip Computer In 1 1: Skip 0: Normal	SS0	RW	0	1	0	
Source Skip Computer In 2 1: Skip 0: Normal	SS1	RW	0	1	0	
Source Skip LAN 1: Skip 0: Normal	SS2	RW	0	1	0	

Function	Command	RW	Min	Max	Default	Step
Source Skip USB Type A 1: Skip 0: Normal	SS3	RW	0	1	0	
Source Skip USB Type B 1: Skip 0: Normal	SS4	RW	0	1	0	
Source Skip HDMI 1 1: Skip 0: Normal	SS5	RW	0	1	0	
Source Skip HDMI 2 1: Skip 0: Normal	SS9	RW	0	1	0	
Source Skip Component 1: Skip 0: Normal	SS6	RW	0	1	0	
Source Skip S-video 1: Skip 0: Normal	SS7	RW	0	1	0	
Source Skip Video 1: Skip 0: Normal	SS8	RW	0	1	0	
Auto Search 0: Off 1: On	ASC	RW	0	1	0	
Auto Keystone 0: Off 1: On	AVE	RW	0	1	0	
Direct Power On 0: Off 1: On	АРО	RW	0	1	0	
Auto Power Off (0-99 minutes)	AOT	RW	0	99	0	1
Shutter Timer 1: 1 hr 3: 3 hr 6: 6 hr	SHT	RW	1	6	1	
USB Type B 0: Mouse 1: USB Display	USB	RW	0	1	1	
Lamp Time	LMP	R	0	999999	n/a	
Lamp Time Reset 1: Reset	LRT	w	0	1	n/a	
Filter Time	FLT	R	0	999999	n/a	
Filter Time Reset 1: Reset	FRT	w	0	1	n/a	

Function	Command	RW	Min	Max	Default	Step
My Button -1 1: Mute 7: Information 18: Template 19: Slideshow 20: My Image 21: Messenger 22: Auto Keystone V 23: Active Iris 24: Filter Reset 25: Resolution 27: Eco Mode 28: Shutter 29: My Memory 30: Picture Mode 31: PbyP Swap ([WU] only)	EFK	RW	1	[X], [WX]: 30 [WU]: 31	7	
My Button -2 1: Mute 7: Information 18: Template 19: Slideshow 20: My Image 21: Messenger 22: Auto Keystone V 23: Active Iris 24: Filter Reset 25: Resolution 27: Eco Mode 28: Shutter 29: My Memory 30: Picture Mode 31: PbyP Swap ([WU] only)	EF2	RW	1	[X], [WX]: 30 [WU]: 31	18	
My Button -3 1: Mute 7: Information 18: Template 19: Slideshow 20: My Image 21: Messenger 22: Auto Keystone V 23: Active Iris 24: Filter Reset 25: Resolution 27: Eco Mode 28: Shutter 29: My Memory 30: Picture Mode 21: DyuP Swap (IW/U poly)	EF3	RW	1	[X], [WX]: 30 [WU]: 31	30	

	Joiep
My Button -4	
1: Mute	
7: Information	
18: Template	
19: Slideshow	
20: My Image	
21: Messenger	
22: Auto Keystone V	
23: Active Iris	
24: Filter Reset	
25: Resolution	
27: Eco Mode	
28: Shutter	
29: My Memory	
30: Picture Mode	
31: PbyP Swap ([WU] only)	
ADVANCED MENU: OPTION (SERVICE)	
Altitude	
0: Normal	
1: High-1 ALT RW 0 3 3	
2: High-2	
3: Auto	
Auto Adjust	
0: Off SAL RW 0 2 1	
1: Fast	
2: Fine	
Ghost Red GSR RW 118 138 128	1
Ghost Green GSG RW 118 138 128	1
Ghost Blue GSB RW 118 138 128	1
Lens Lock	
0: Off LLK RW 0 1 0	
1: On	
Key Lock - Control Panel	
0: Off KPE RW 0 1 0	
1: On	
Key Lock - Remote Control	
0: Off KRE RW 0 1 0	
1: On	
Remote Receiver Front	
0: Off IRF RW 0 1 1	
1: On	
Remote Receiver Rear	
0: Off IRR RW 0 1 1	
1: On	
Remote Freq. Normal	
0: Off RFN RW 0 1 1	
1: On	
Remote Freq. High	
0: Off RFH RW 0 1 1	
1: On	

Function	Command	RW	Min	Max	Default	Step
Remote ID	İ	1			1	
0: All						
1: 1	RID	RW	0	4	0	
2:2			Ŭ	-	U U	
3:3						
4.4						
	EC1		0	1	0	
1: On	LUI		0	1	0	
Information						
1: Execute	ABT	W	0	1	n/a	
Factory Reset						
1: Execute	RSI	VV	0	1	n/a	
A	DVANCED	MENU: N	NETWO	RK		
Wireless IP Address (1st octet)	WP1	R	0	255	192	
Wireless IP Address (2nd octet)	WP2	R	0	255	168	
Wireless IP Address (3rd octet)	WP3	R	0	255	10	
Wireless IP Address (4th octet)	WP4	R	0	255	254	
Wireless Subnet Mask (1st octet)	WS1	R	0	255	255	1
Wireless Subnet Mask (2nd octet)	WS2	R	0	255	255	
Wireless Subnet Mask (3rd octet)	WS3	R	0	255	255	
Wireless Subnet Mask (4th octet)	WS4	R	0	255	0	
Wireless Default Gateway (1st	104			200	0	
octet)	WG1	R	0	255	0	
Wireless Default Gateway (2nd		_				
octet)	WG2	R	0	255	0	
Wireless Default Gateway (3rd	MOD	_	0	055	0	
octet)	WG3	ĸ	0	255	0	
Wireless Default Gateway (4th	WGA	D	0	255	0	
octet)	VVG4	R.	0	200	0	
Wired IP Address (1st octet)	IP1	R	0	255	192	
Wired IP Address (2nd octet)	IP2	R	0	255	168	
Wired IP Address (3rd octet)	IP3	R	0	255	1	
Wired IP Address (4th octet)	IP4	R	0	255	254	
Wired Subnet Mask (1st octet)	NS1	R	0	255	255	
Wired Subnet Mask (2nd octet)	NS2	R	0	255	255	
Wired Subnet Mask (3rd octet)	NS3	R	0	255	255	
Wired Subnet Mask (4th octet)	NS4	R	0	255	0	
Wired Default Gateway (1st octet)	NG1	R	0	255	0	
Wired Default Gateway (2nd octet)	NG2	R	0	255	0	
Wired Default Gateway (3rd octet)	NG3	R	0	255	0	
Wired Default Gateway (4th octet)	NG4	R	0	255	0	
My Image Display	-		-			
0: Off						
1: Image-1	MIF	RW	0	4	0	
2: Image-2				T		
3: Image-3						
4. IIIaye-4			-			
1: Execute	MD1	W	0	1	n/a	

(continued on next page)

Function	Command	RW	Min	Max	Default	Step
My Image-2 Delete 1: Execute	MD2	w	0	1	n/a	
My Image-3 Delete 1: Execute	MD3	W	0	1	n/a	
My Image-4 Delete 1: Execute	MD4	W	0	1	n/a	
AMX D.D. 0: Off 1: On	AMX	RW	0	1	0	
Network Restart 1: Restart	NTR	w	0	1	n/a	
	ADVANCE	D MENU:	OTHEF	2		
Blank Off/On 0: Off 1: On	BLK	RW	0	1	0	
Magnify	MAG	RW	0	48	8	1
Magnify On 0: Off 1: On	MGE	RW	0	1	0	
Magnify Position Horizontal	MPH	RW	0	6	0	1
Magnify Position Vertical	MPV	RW	0	6	0	1
Mute 0: Off 1: On	MTE	RW	0	1	0	
Power 0: Off 1: On	PWR	RW	0	1	0	
Error Status 0: Normal 3: Lamp Error 4: Fan Error 5: Temp Error 7: Cover Error 8: Air Flow Error 10: Cold Error 11: Filter Error 12: Other Error	ERR	R	0	12	0	
Input Source 0: Computer in 1 1: Computer in 2 2: LAN 3: USB Type A 4: USB Type B 5: HDMI 1 6: Component 7: S-Video 8: Video 9: HDMI 2	SRC	RW	0	9	0	

Function	Command	RW	Min	Max	Default	Step
Template Off/On 0: Off 1: On	RLE	RW	0	1	0	
Freeze Off/On 0: Off 1: On	FRZ	RW	0	1	0	
LAN Sound On 0: Off 1: On	SEL	RW	0	1	1	
USB Type A Sound On 0: Off 1: On	SEA	RW	0	1	1	
USB Type B Sound On 0: Off 1: On	SEB	RW	0	1	1	
Shutter Off/On 0: Off (Open) 1: On (Closed)	SHU	RW	0	1	0	
Focus 1: Inc/Dec	MFC	W	0	1	n/a	1
Zoom 1: Inc/Dec	MZM	W	0	1	n/a	1
Lens Shift - V	LSV	RW	256	767	512	1
Lens Shift - H	LSH	RW	256	767	512	1
Lens Shift Centering 1: Execute	LSC	W	0	1	n/a	
Lens Memory Index 1: 1 2: 2 3: 3	MLI	RW	1	3	1	
Lens Memory Load 1: Execute	MLL	W	0	1	n/a	
Lens Memory Save 1: Execute	MLS	W	0	1	n/a	
Lens Memory Clear 1: Execute	MLC	w	0	1	n/a	
Lens Memory - Lens Shift V	MLV	R	256	767	512	
Lens Memory - Lens Shift H	MLH	R	256	767	512	
Lens Memory - Lens Type	MLT	R	1	5	1	
PbyP ([WU] only) 0: Off 1: On	SSC	RW	0	1	0	
PbyP Main Area ([WU] only) 0: Left 1: Right	SSM	RW	0	1	0	

PbyP Right Source ([WU] only) 0: Computer In 1 1: Computer In 2 5: HDMI 1 6: Component 7: S-Video 8: Video 9: HDMI 2	SSR	RW	0	9	0	
PbyP Left Source ([WU] only) 0: Computer In 1 1: Computer In 2 5: HDMI 1 6: Component 7: S-Video 8: Video 9: HDMI 2	SSL	RW	0	9	0	
PbyP Swap ([WU] only) 1: Execute	SSS	W	0	1	n/a	
Lamp Lit 0: Not lit 1: Lit	LML	R	0	1	0	
Number of Lamp Resets	LMR	R	0	32766	0	
Lamp Total On Time (All Bulbs)	LMT	R	0	2147483646	0	
Time In Hours Last Bulb1 Lasted	LB1	R	0	32766	0	
Time In Hours Last Bulb2 Lasted	LB2	R	0	32766	0	
Time In Hours Last Bulb3 Lasted	LB3	R	0	32766	0	
Unit Total Time On	ONL	R	0	2147483646	0	

[WU]: supported by IN5135 and IN5145.

PJLink command

Commands	Control Description	Parameter or Response
	Davisa Osistaal	0 = Standby
POWR	Power Control	1 = Power On
		0 = Standby
POWR ?	Power Status inquiry	1 = Power On
		2 = Cool Down
		11 = COMPUTER IN 1
		12 = COMPUTER IN 2
		21 = COMPONENT
		22 = S-VIDEO
	Input Source coloction	23 = VIDEO
IINF I	Input Source selection	31 = HDMI 1
		33 = HDMI 2
		41 = USB TYPE A
		51 = LAN
		52 = USB TYPE B
	Input Course inquiry	11 = COMPUTER IN 1
		12 = COMPUTER IN 2
		21 = COMPONENT
		22 = S-VIDEO
		23 = VIDEO
IINFI ?	input Source inquiry	31 = HDMI 1
		33 = HDMI 2
		41 = USB TYPE A
		51 = LAN
		52 = USB TYPE B
		10 = BLANK off
		11 = BLANK on
		20 = Mute off
	AV Mulle	21 = Mute on
		30 = AV Mute off
		31 = AV Mute on
		10 = BLANK off
		11 = BLANK on
	AV/ Muto inquin/	20 = Mute off
		21 = Mute on
		30 = AV Mute off
		31 = AV Mute on

(continued on next page)

Commands	Control Description	Parameter or Response
ERST ?	Error Status inquiry	 1st byte: Refers to Fan error; one of 0 to 2 2nd byte: Refers to Lamp error; one of 0 to 2 3rd byte: Refers to Temperature error; one of 0 to 2 4th byte: Refers to Cover error; one of 0 to 2 5th byte: Refers to Filter error; one of 0 to 2 6th byte: Refers to Other error; one of 0 to 2 The mearning of 0 to 2 is as given below 0 = Error is not detected; 1 = Warning; 2 = Error
LAMP ?	Lamp Status inquiry	1st number (digits 1 to 5): Lamp Time 2nd number : 0 = Lamp off, 1 = Lamp on
INST ?	Input Source List inquiry	11 12 21 22 23 31 33 41 51 52
NAME ?	Projector Name inquiry	Responds with the name set in the item PROJECTOR NAME of the NETWORK menu
INF1?	Manufucturer's Name inquiry	INFOCUS
INF2 ?	Model Name inquiry	IN5132 IN5142 IN5134 IN5144 IN5135 IN5145
INFO ?	Other Information inquiry	Responds with the factory information and so on
CLSS ?	Class Information inquiry	1

NOTE • The password used in PJLink[™] is the same as the password set in the Web Control. To use PJLink[™] without authentication, do not set any password in Web Browser Control.

• For specifications of PJLink[™], see the web site of the Japan Business Machine and Information System Industries Association.

URL: http://pjlink.jbmia.or.jp/ (as of May 2012)